


FARM FINANCIAL
RECORD STUDIES

1926

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ANNUAL FARM BUSINESS REPORTS PREPARED FROM RECORDS KEPT IN
THE ILLINOIS FARM FINANCIAL RECORD BOOK FOR 28 AREAS FOR 1926,
ARRANGED GEOGRAPHICALLY FROM NORTH TO SOUTH.

Prepared by the Department of Farm Organiza-
tion and Management of the University of
Illinois.

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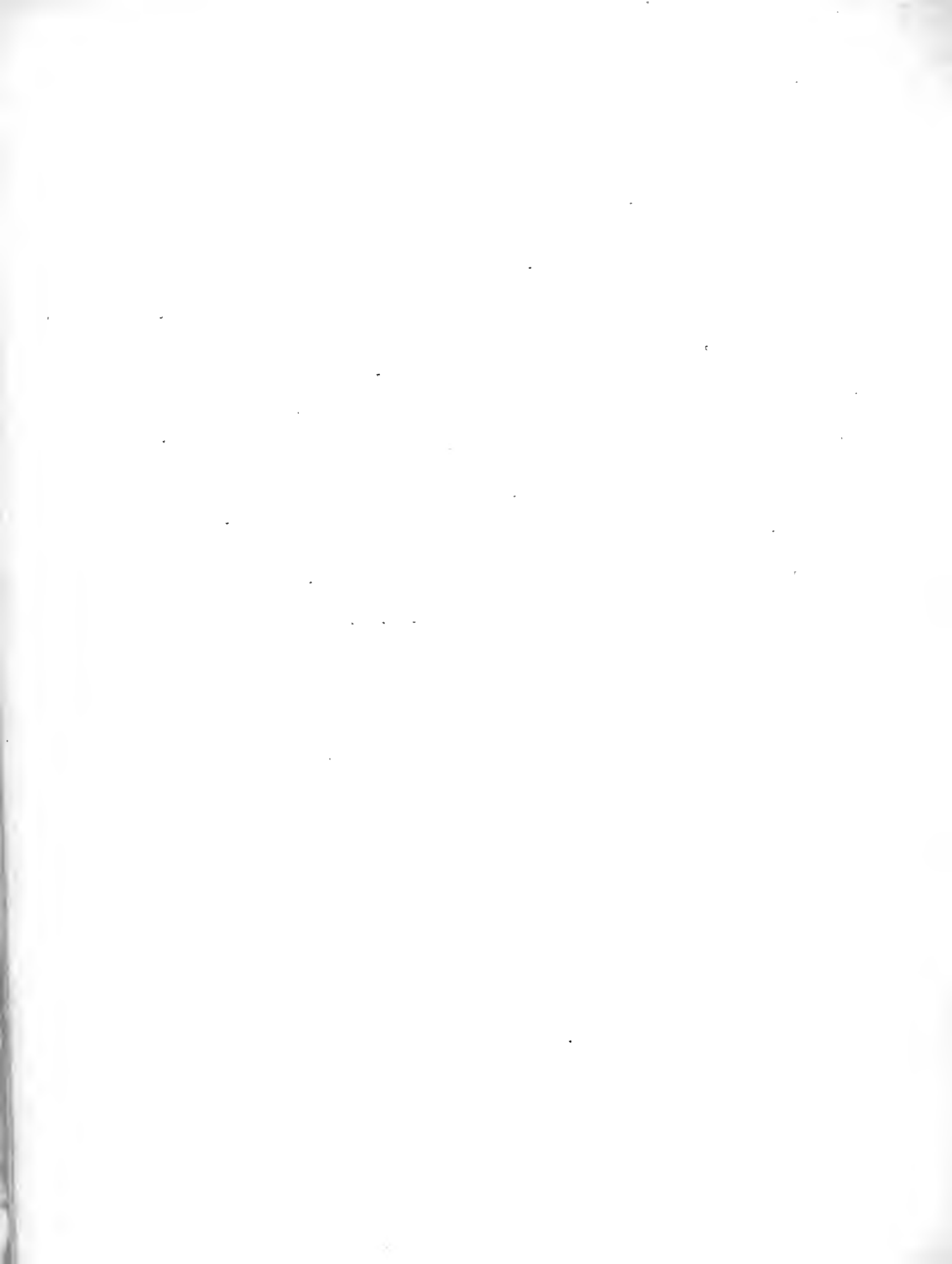
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STATEMENT CONCERNING ENCLOSED DATA

In the year 1926, a larger number of financial records were completed throughout the state than in any other year despite the most discouraging winter period for doing work with farmers that has been experienced for many years. A considerable number of records were completed throughout the state which were not closed and turned into the department to be included in the local area reports. A total of 27 reports, including the farm bureau-farm management service report, were completed for the state covering practically every important farming type area of the state.

The growing interest of farmer cooperators is apparent by the fact that an increased number of records is being secured each year. Approximately 80 counties have cooperated in the accounting work during the year 1926, including in that number those who will take up the project for the first time, giving the prospect for the completion of a larger number of records for the ensuing year. In addition, included in this report is the survey record put on in Bond County to secure a cross section picture of farming in this region, and the summary of all farm financial records.

H. C. M. Case



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UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE
Department of Farm Organization and Management
and
JODAVIESS AND STEPHENSON COUNTY FARM BUREAUS
Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-seven Farms

for

1926

Farm account keepers say:
"Farm accounts are more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

M60

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ANNUAL FARM BUSINESS REPORT

JO DAVIESS AND STEPHENSON COUNTIES, ILLINOIS 1926

Prepared by R. R. Hudelson, P. E. Johnston, K. T. Wright, H. C. M. Case*

The 37 farmers in JoDavieess and Stephenson counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$829 to pay for their labor, management and risk after paying expenses and allowing 5% on their average investment of \$188 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,665 while the one-third who were least successful had an average labor and management wage of \$35. There was, therefore, an average difference of about \$1,630 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 37 farmers earned 5.6 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 8.2 percent and the least successful third 3.2 percent. The average investment on the 37 farms was \$34,222 which amounts to \$188 an acre. The higher profit third had an average investment of \$180 and the lower profit third \$204 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$118 an acre as an average for all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

Farms of the higher profit group averaged 9 acres larger than those of the lower profit group but had a smaller percentage of tillable land. It seems evident that size of farm had little effect on the relative earnings of the two groups. There was not much difference between groups in the relative acreage of the chief grain crops.

Corn yields averaged 8 bushels larger on the more profitable farms, but there was less than one bushel difference in oat yields. Wheat yields were of little significance because there were only 2.8 acres of wheat on the average farm covered by this report. These differences in yield are smaller than have usually been found between the high and low profit groups in similar studies. Higher yields are usually one of the most important factors in higher profits. This is to be expected in view of the fact that

* V. J. Banter and W. A. Herrington, farm advisers in JoDavieess and Stephenson counties respectively cooperated in supervising and collecting the records used in this report.

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the cost of operating an acre of land usually does not increase in proportion to the increase in yield.

One of the greatest advantages of operators of the 12 most profitable farms was in their greater efficiency with livestock. The least profitable farms had about five dollars an acre more livestock investment but they realized about five dollars an acre less livestock income. The more profitable farms had a livestock income of \$154 for every \$100 of livestock investment compared with a corresponding income of \$100 for each \$100 of livestock investment on the less profitable farms. The livestock feeding efficiency on the more successful farms is further indicated by the fact that while the two groups of farms averaged about the same size and bought about the same amount of feed per farm, yet the more successful operators realized \$1,139 per farm more livestock income than their less successful neighbors. Hogs were the largest group followed in order of importance by dairy products and beef cattle. The two groups had exactly the same average investment in hogs per farm but the more successful operators realized an average of \$746 more income from hogs. Better sanitation and better feeding seem to be the chief causes of the greater efficiency with hogs on the more profitable farms.

Dairy sales made up more than one-fourth of the income from livestock. The 12 most successful farmers kept an average of 17 cows from which were sold dairy products amounting to \$102 per cow. Eleven of the less successful group had 15 cows per farm and the income from dairy products amounted to only \$54 per cow. There was a difference of \$48 per cow, which makes a difference of \$721 per farm in dairy sales of the two groups. The net increase in cattle of the high profit group was only \$27 per cow, while the low profit group had an increase of \$58 or \$31 more per cow. The net difference of the dairy sales and increase in cattle between the two groups is \$17 more per cow valued at an average of \$76, compared with \$87 on the less successful farms. There were more dairy cows on the high profit farms and more beef cows on the low profit farms.

Total operating costs per acre were \$2.34 lower on the more successful farms than on the less successful farms. This advantage coupled with a gross income per acre \$5.87 larger on the more successful farms gave them an advantage of \$8.21 in net income per acre. It is the net income that is left to pay interest and profits.

If we make allowance for changes in territory covered we may make some interesting comparisons of farm earnings for different years in the territory covered by this report. The following table gives such a comparison for the past five years. It is of interest to note that 1925 was the most favorable year for the farms reporting and that average earnings for 1926 were about 2 percent lower than in 1925. For the grain selling sections of the state 1924 was the most favorable year in the last five. There appears to be some increase in the average size of the dairy and hog enterprises in this area but part of the apparent increase may be due to changes in the farms reporting. Operating costs appear to be increasing somewhat over the period studied.

Comparative Earnings on Farms in the Area Represented by
JoDaviess and Stephenson Counties

	1922 ¹	1923 ¹	1924 ²	1925 ³	1926 ⁴
Number of farms included	8	11	51	44	37
Average size of farms in acres	170	172	180	188	182
Average rate earned	5%	3.4%	3.7%	7.5%	5.6%
Average value of land per acre	141	100	120	112	118
Average investment per acre	177	145	157	170	188
Investment in livestock per farm	2,350	2,660	2,781	3,259	4,035
Investment in cattle per farm	1,189	1,414	1,451	1,815	2,238
Investment in hogs per farm	343	623	659	765	1,028
Investment in poultry per farm	139	149	155	141	172
Gross income per acre	19.67	14.32	18.05	24.15	24.70
Operative costs per acre	10.77	9.34	11.49	11.46	14.22
Grain sales less feed purchases	964	---	189	286	---
Miscellaneous income per farm	131	41	65	91	79
Livestock income per farm	2,283	2,298	2,995	4,162	4,425
Gross income per farm	3,345	2,327	3,251	4,539	4,504
Cattle income per farm	890*	363	422	715	712
Dairy sales per farm	*	799	798	957	1,156
Hog income per farm	1,047	864	1,444	2,127	2,195
Poultry income per farm	267	270	257	309	281

* Dairy sales combined with cattle income

1 Only records from JoDaviess County included 1922 and 1923

2 Records from JoDaviess, Stephenson and Ogle counties included 1924

3 Records from JoDaviess, Stephenson and Carroll counties included 1925

4 Records from JoDaviess and Stephenson counties included 1926

Some points of strength and some of weakness may be found in your own business by comparing the factors from your own record in the following tables with the same factors on the average farm as well as on farms of the high and low profit groups.

STATE OF TEXAS
COUNTY OF DALLAS

NAME	RESIDENCE	DATE	AMOUNT	REMARKS
J. M. Smith	123 Main St	1/15/24	100.00	Balance forward
A. B. Jones	456 Elm St	1/20/24	50.00	Interest on loan
C. D. Brown	789 Oak St	2/1/24	200.00	Principal payment
E. F. Green	101 Pine St	2/15/24	75.00	Interest on loan
G. H. White	202 Cedar St	2/20/24	150.00	Principal payment
I. J. Black	303 Birch St	3/1/24	100.00	Interest on loan
K. L. Gray	404 Spruce St	3/15/24	250.00	Principal payment
M. N. Hall	505 Willow St	3/20/24	125.00	Interest on loan
O. P. King	606 Ash St	4/1/24	300.00	Principal payment
Q. R. Lee	707 Hickory St	4/15/24	150.00	Interest on loan
S. T. Scott	808 Walnut St	4/20/24	400.00	Principal payment
U. V. Walker	909 Chestnut St	5/1/24	200.00	Interest on loan
W. X. Young	1010 Sycamore St	5/15/24	500.00	Principal payment
Y. Z. Adams	1111 Magnolia St	5/20/24	250.00	Interest on loan
AA. BB. Baker	1212 Dogwood St	6/1/24	600.00	Principal payment
CC. DD. Evans	1313 Redwood St	6/15/24	300.00	Interest on loan
EE. FF. Garcia	1414 Cypress St	6/20/24	700.00	Principal payment
GG. HH. Hernandez	1515 Juniper St	7/1/24	350.00	Interest on loan
II. JJ. King	1616 Fir St	7/15/24	800.00	Principal payment
KK. LL. Lopez	1717 Hemlock St	7/20/24	400.00	Interest on loan
MM. NN. Miller	1818 Spruce St	8/1/24	900.00	Principal payment
OO. PP. Wilson	1919 Cedar St	8/15/24	450.00	Interest on loan
QQ. RR. Young	2020 Pine St	8/20/24	1000.00	Principal payment
SS. TT. Adams	2121 Birch St	9/1/24	500.00	Interest on loan
UU. VV. Baker	2222 Spruce St	9/15/24	1100.00	Principal payment
WW. XX. Evans	2323 Cedar St	9/20/24	550.00	Interest on loan
YY. ZZ. Garcia	2424 Pine St	10/1/24	1200.00	Principal payment
AA. BB. Hernandez	2525 Birch St	10/15/24	600.00	Interest on loan
CC. DD. King	2626 Spruce St	10/20/24	1300.00	Principal payment
EE. FF. Lopez	2727 Cedar St	11/1/24	650.00	Interest on loan
GG. HH. Miller	2828 Pine St	11/15/24	1400.00	Principal payment
II. JJ. Wilson	2929 Birch St	11/20/24	700.00	Interest on loan
KK. LL. Young	3030 Spruce St	12/1/24	1500.00	Principal payment
MM. NN. Adams	3131 Cedar St	12/15/24	750.00	Interest on loan
OO. PP. Baker	3232 Pine St	12/20/24	1600.00	Principal payment
QQ. RR. Evans	3333 Birch St	1/1/25	800.00	Interest on loan
SS. TT. Garcia	3434 Spruce St	1/15/25	1700.00	Principal payment
UU. VV. Hernandez	3535 Cedar St	1/20/25	850.00	Interest on loan
WW. XX. King	3636 Pine St	2/1/25	1800.00	Principal payment
YY. ZZ. Lopez	3737 Birch St	2/15/25	900.00	Interest on loan
AA. BB. Miller	3838 Spruce St	2/20/25	1900.00	Principal payment
CC. DD. Wilson	3939 Cedar St	3/1/25	950.00	Interest on loan
EE. FF. Young	4040 Pine St	3/15/25	2000.00	Principal payment
GG. HH. Adams	4141 Birch St	3/20/25	1000.00	Interest on loan
II. JJ. Baker	4242 Spruce St	4/1/25	2100.00	Principal payment
KK. LL. Evans	4343 Cedar St	4/15/25	1050.00	Interest on loan
MM. NN. Garcia	4444 Pine St	4/20/25	2200.00	Principal payment
OO. PP. Hernandez	4545 Birch St	5/1/25	1100.00	Interest on loan
QQ. RR. King	4646 Spruce St	5/15/25	2300.00	Principal payment
SS. TT. Lopez	4747 Cedar St	5/20/25	1150.00	Interest on loan
UU. VV. Miller	4848 Pine St	6/1/25	2400.00	Principal payment
WW. XX. Wilson	4949 Birch St	6/15/25	1200.00	Interest on loan
YY. ZZ. Young	5050 Spruce St	6/20/25	2500.00	Principal payment
AA. BB. Adams	5151 Cedar St	7/1/25	1250.00	Interest on loan
CC. DD. Baker	5252 Pine St	7/15/25	2600.00	Principal payment
EE. FF. Evans	5353 Birch St	7/20/25	1300.00	Interest on loan
GG. HH. Garcia	5454 Spruce St	8/1/25	2700.00	Principal payment
II. JJ. Hernandez	5555 Cedar St	8/15/25	1350.00	Interest on loan
KK. LL. King	5656 Pine St	8/20/25	2800.00	Principal payment
MM. NN. Lopez	5757 Birch St	9/1/25	1400.00	Interest on loan
OO. PP. Miller	5858 Spruce St	9/15/25	2900.00	Principal payment
QQ. RR. Wilson	5959 Cedar St	9/20/25	1450.00	Interest on loan
SS. TT. Young	6060 Pine St	10/1/25	3000.00	Principal payment
UU. VV. Adams	6161 Birch St	10/15/25	1500.00	Interest on loan
WW. XX. Baker	6262 Spruce St	10/20/25	3100.00	Principal payment
YY. ZZ. Evans	6363 Cedar St	11/1/25	1550.00	Interest on loan
AA. BB. Garcia	6464 Pine St	11/15/25	3200.00	Principal payment
CC. DD. Hernandez	6565 Birch St	11/20/25	1600.00	Interest on loan
EE. FF. King	6666 Spruce St	12/1/25	3300.00	Principal payment
GG. HH. Lopez	6767 Cedar St	12/15/25	1650.00	Interest on loan
II. JJ. Miller	6868 Pine St	12/20/25	3400.00	Principal payment
KK. LL. Wilson	6969 Birch St	1/1/26	1700.00	Interest on loan
MM. NN. Young	7070 Spruce St	1/15/26	3500.00	Principal payment
OO. PP. Adams	7171 Cedar St	1/20/26	1750.00	Interest on loan
QQ. RR. Baker	7272 Pine St	2/1/26	3600.00	Principal payment
SS. TT. Evans	7373 Birch St	2/15/26	1800.00	Interest on loan
UU. VV. Garcia	7474 Spruce St	2/20/26	3700.00	Principal payment
WW. XX. Hernandez	7575 Cedar St	3/1/26	1850.00	Interest on loan
YY. ZZ. King	7676 Pine St	3/15/26	3800.00	Principal payment
AA. BB. Lopez	7777 Birch St	3/20/26	1900.00	Interest on loan
CC. DD. Miller	7878 Spruce St	4/1/26	3900.00	Principal payment
EE. FF. Wilson	7979 Cedar St	4/15/26	1950.00	Interest on loan
GG. HH. Young	8080 Pine St	4/20/26	4000.00	Principal payment
II. JJ. Adams	8181 Birch St	5/1/26	2000.00	Interest on loan
KK. LL. Baker	8282 Spruce St	5/15/26	4100.00	Principal payment
MM. NN. Evans	8383 Cedar St	5/20/26	2050.00	Interest on loan
OO. PP. Garcia	8484 Pine St	6/1/26	4200.00	Principal payment
QQ. RR. Hernandez	8585 Birch St	6/15/26	2100.00	Interest on loan
SS. TT. King	8686 Spruce St	6/20/26	4300.00	Principal payment
UU. VV. Lopez	8787 Cedar St	7/1/26	2150.00	Interest on loan
WW. XX. Miller	8888 Pine St	7/15/26	4400.00	Principal payment
YY. ZZ. Wilson	8989 Birch St	7/20/26	2200.00	Interest on loan
AA. BB. Young	9090 Spruce St	8/1/26	4500.00	Principal payment
CC. DD. Adams	9191 Cedar St	8/15/26	2250.00	Interest on loan
EE. FF. Baker	9292 Pine St	8/20/26	4600.00	Principal payment
GG. HH. Evans	9393 Birch St	9/1/26	2300.00	Interest on loan
II. JJ. Garcia	9494 Spruce St	9/15/26	4700.00	Principal payment
KK. LL. Hernandez	9595 Cedar St	9/20/26	2350.00	Interest on loan
MM. NN. King	9696 Pine St	10/1/26	4800.00	Principal payment
OO. PP. Lopez	9797 Birch St	10/15/26	2400.00	Interest on loan
QQ. RR. Miller	9898 Spruce St	10/20/26	4900.00	Principal payment
SS. TT. Wilson	9999 Cedar St	11/1/26	2450.00	Interest on loan
UU. VV. Young	10000 Pine St	11/15/26	5000.00	Principal payment

Subscribed and sworn to before me this _____ day of _____, 2024.

Notary Public for the State of Texas

My Commission Expires _____

JoDavieess and Stephenson Counties - 1926

Factors helping to analyze the farm business	Your farm	Average of thirty-seven farms	Twelve most profitable farms	Twelve least profitable farms
Rate earned	%	5.58%	8.25%	3.25%
Labor and management wage	\$	\$ 829	\$ 1,665	\$ 35
Size of farm - acres	A	182.4 A	184.5 A	175.5 A
Percent of land area tillable	%	74.3 %	69 %	84.2 %
Acres in Corn	A	38.8 A	36.8 A	42.2 A
Oats	A	24.9 A	22.9 A	26.3 A
Wheat	A	2.8 A	4.4 A	1.4 A
Crop yields - Corn	bu.	42.6 bu.	45.6 bu.	37.2 bu.
Oats	bu.	36.8 bu.	39.5 bu.	40.3 bu.
Wheat	bu.	24.4 bu.	22.3 bu.	26.8 bu.
Percent in high profit crops*				
Returns per \$100 invested in all productive livestock	\$	\$ 125.00	\$ 154.00	\$ 100.00
For \$100 in Cattle	\$	\$ 85.00	\$ 108.00	\$ 80.00
Hogs	\$	\$ 223.00	\$ 244.00	\$ 155.00
Poultry	\$	\$ 161.00	\$ 173.00	\$ 114.00
Investment per acre in productive livestock	\$	\$ 19.34	\$ 17.82	\$ 22.45
Receipts per acre from productive livestock	\$	\$ 24.26	\$ 27.45	\$ 22.37
Man labor cost per acre	\$	\$ 6.15	\$ 6.23	\$ 6.50
Crop acres per man	A	63.5 A	56.7 A	67.2 A
Crop acres per horse (with tractor)	A	22.96 A	24.2 A	22 A
(wwithout tractor)	A	18.1 A	17.2 A	19.5 A
Expense per \$100 gross income	\$	\$ 58	\$ 48	\$ 71
Machinery cost per acre	\$	\$ 1.98	\$ 2.25	\$ 2.12
Building and fencing cost per acre	\$	\$ 1.11	\$.84	\$ 1.46
Gross receipts per acre	\$	\$ 24.70	\$ 28.39	\$ 22.52
Total expenses per acre	\$	\$ 14.22	\$ 13.54	\$ 15.88
Net receipts per acre	\$	\$ 10.48	\$ 14.85	\$ 6.64
Farms with tractor	%	62 %	42 %	75 %
Value of land per acre	\$	\$ 118.00	\$ 114.00	\$ 126.00
Total investment per acre	\$	\$ 188.00	\$ 180.00	\$ 204.00

*Percent of tillable land in corn, wheat, sweet clover and alfalfa

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JoDavieess and Stephenson Counties - 1926

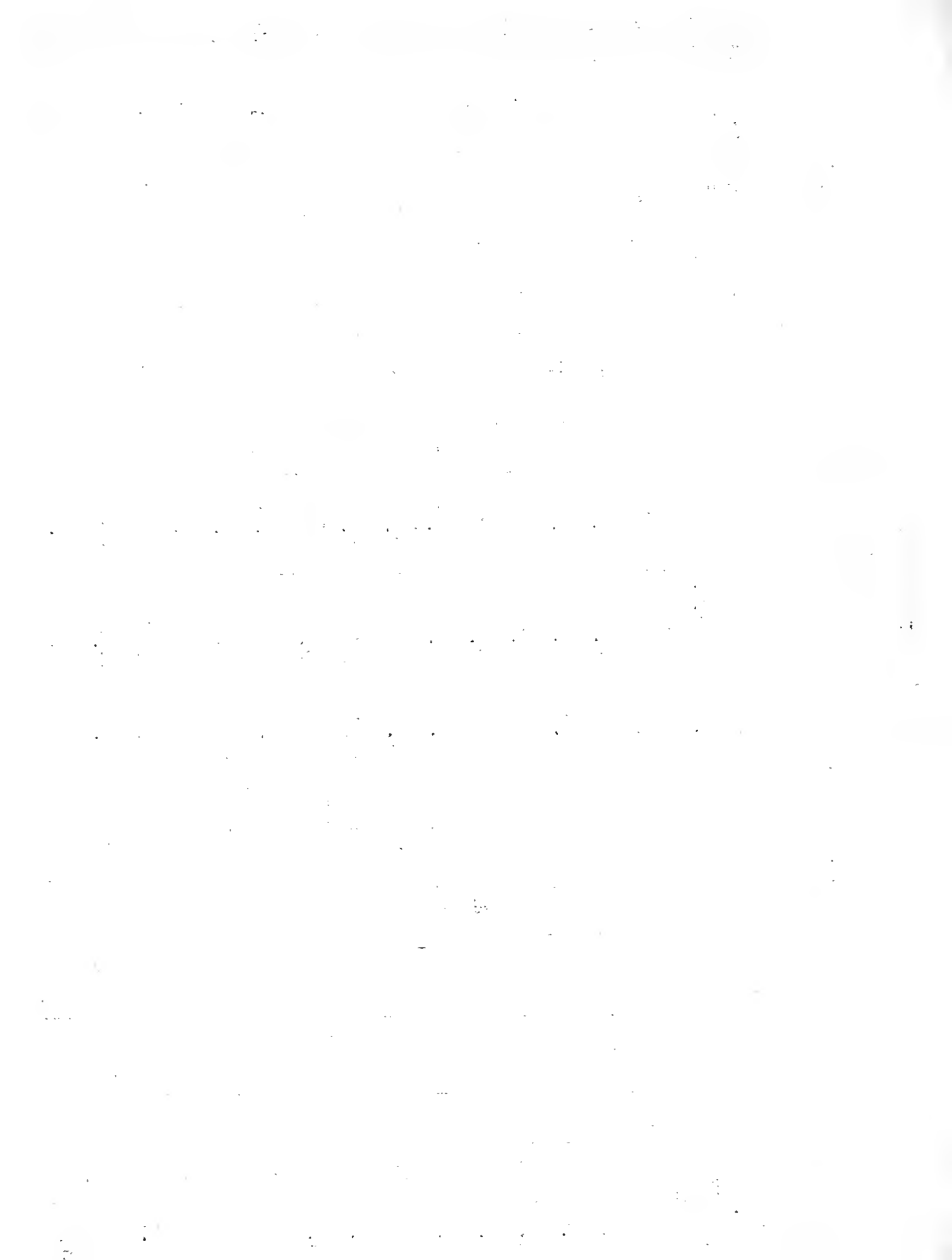
	Your farm	Average of thirty- seven farms	Twelve most profitable farms	Twelve least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$34,222	\$33,180	\$35,869
2 Land		21,548	21,023	22,074
3 Farm improvements		5,289	5,034	5,639
4 Machinery and equipment		1,366	1,400	1,424
5 Feed and supplies		1,984	1,938	2,289
6 Livestock		4,035	3,785	4,443
7 Horses		435	433	467
8 Cattle		2,238	2,005	2,411
9 Hogs		1,028	1,111	1,111
10 Sheep		162	62	298
11 Poultry		172	174	156
12 <u>Receipts-Net Increases - Total</u>		<u>4,504</u>	<u>5,237</u>	<u>3,952</u>
13 Feed and grain		--	--	--
14 Miscellaneous		79	172	26
15 Livestock - Total		4,425	5,065	3,926
16 Horses		--	--	--
17 Cattle		712	464	875
18 Hogs		2,195	2,501	1,755
19 Sheep		81	69	96
20 Poultry		107	112	78
21 Egg sales		174	189	113
22 Dairy sales		1,156	1,730	1,009
23 <u>Expenses-Net Decreases - Total</u>		<u>1,659</u>	<u>1,587</u>	<u>1,813</u>
24 Farm improvements		202	155	256
25 Livestock		18	18	30
26 Horses		18	18	30
27 Cattle		--	--	--
28 Hogs		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		361	416	373
32 Feed and supplies		450	369	499
33 Livestock expense other than feed		56	59	44
34 Crop expense		119	88	141
35 Labor hired		188	239	167
36 Taxes, insurance, etc.		238	217	277
37 Miscellaneous		27	26	26
38 <u>Receipts less Expenses</u>		<u>2,845</u>	<u>3,650</u>	<u>2,139</u>
39 Operator's and unpaid family labor		935	911	973
40 Net income from investment		1,910	2,739	1,166

Find Your Farm Leaks

JoDavies and Stephenson Counties - 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per		Expense per \$100 income	Gross receipts per acre	Size of farm		
	Corn	Oats	Wheat	Cattle				Hogs	Foultry				Man	Tractor	No tractor
12.6	71	58	38	155	363	301	33.34	38.26	2.65	99	37	32	46	322
11.6	67	55	36	145	343	281	31.34	36.26	3.15	94	35	30	43	302
10.6	63	52	34	135	323	261	29.34	34.26	3.65	89	33	28	40	282
9.6	59	49	32	125	303	241	27.34	32.26	4.15	84	31	26	37	262
8.6	55	46	30	115	283	221	25.34	30.26	4.65	79	29	24	34	242
7.6	51	43	28	105	263	201	23.34	28.26	5.15	74	27	22	31	222
6.6	47	40	26	95	243	181	21.34	26.26	5.65	69	25	20	28	202
5.6	43	37	24	85	223	161	19.34	24.26	6.15	64	23	18	25	182
4.6	29	34	22	75	203	141	17.34	22.26	6.65	59	21	16	22	162
3.6	25	31	20	65	183	121	15.34	20.26	7.15	54	19	14	19	142
2.6	21	28	18	55	163	101	13.34	18.26	7.65	49	17	12	16	122
1.6	17	25	16	45	143	81	11.34	16.26	8.15	44	15	10	13	102
0.6	13	22	14	35	123	61	9.34	14.26	8.65	39	13	8	10	82
-0.4	9	19	12	25	103	41	7.34	12.26	9.15	34	11	6	7	62
-1.4	-	16	10	15	83	21	5.34	10.26	9.65	29	9	4	4	42



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

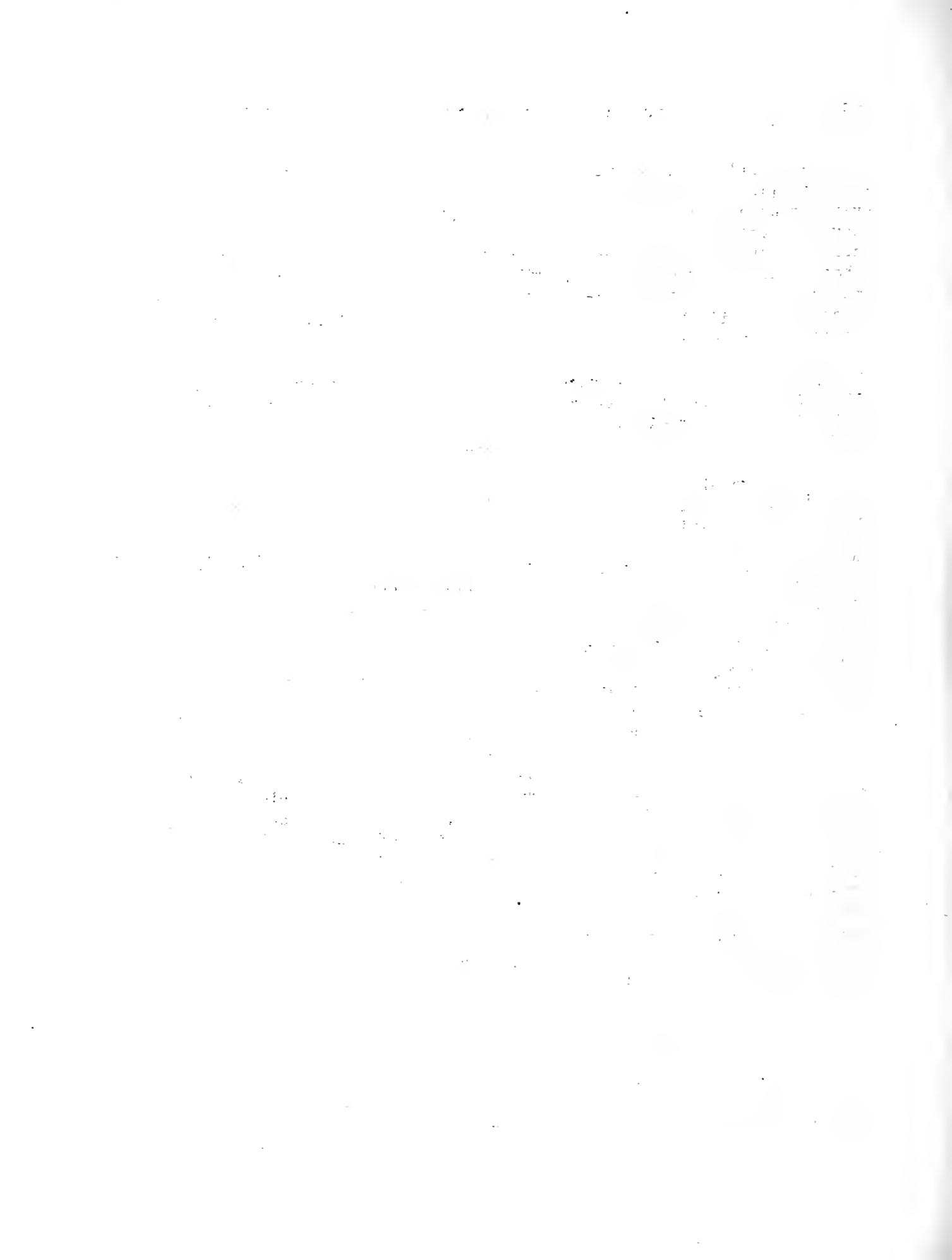
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

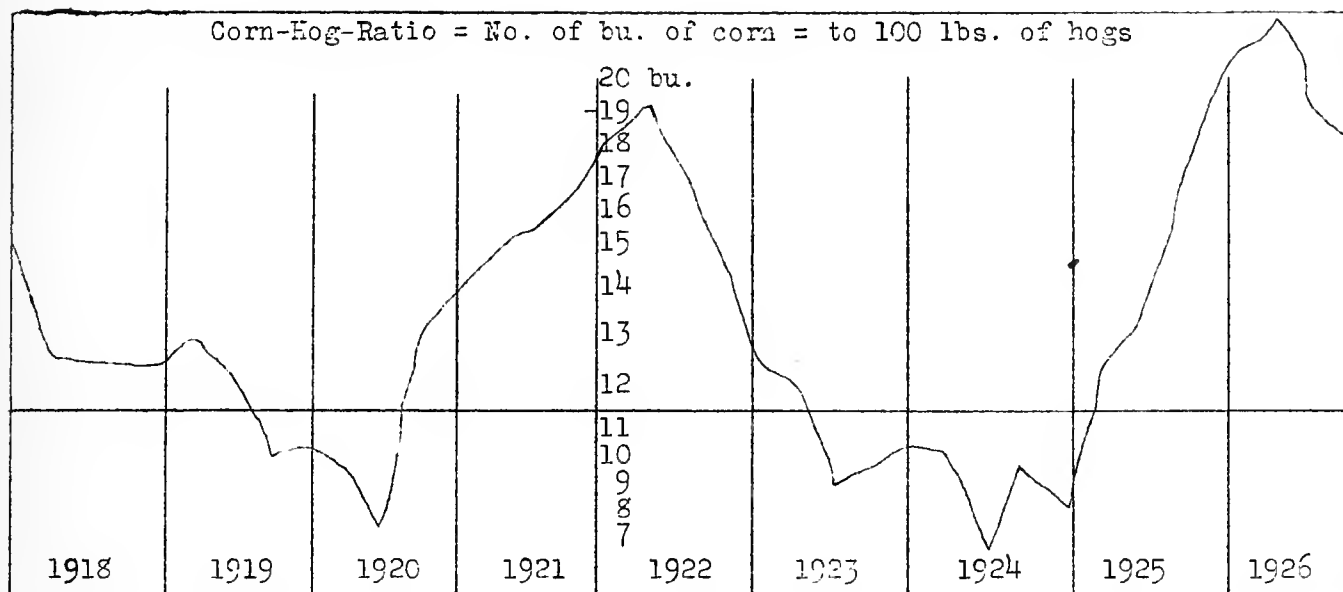
1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent data collection practices and the use of advanced analytical techniques to derive meaningful insights from the data.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and processing, thereby improving efficiency and accuracy.

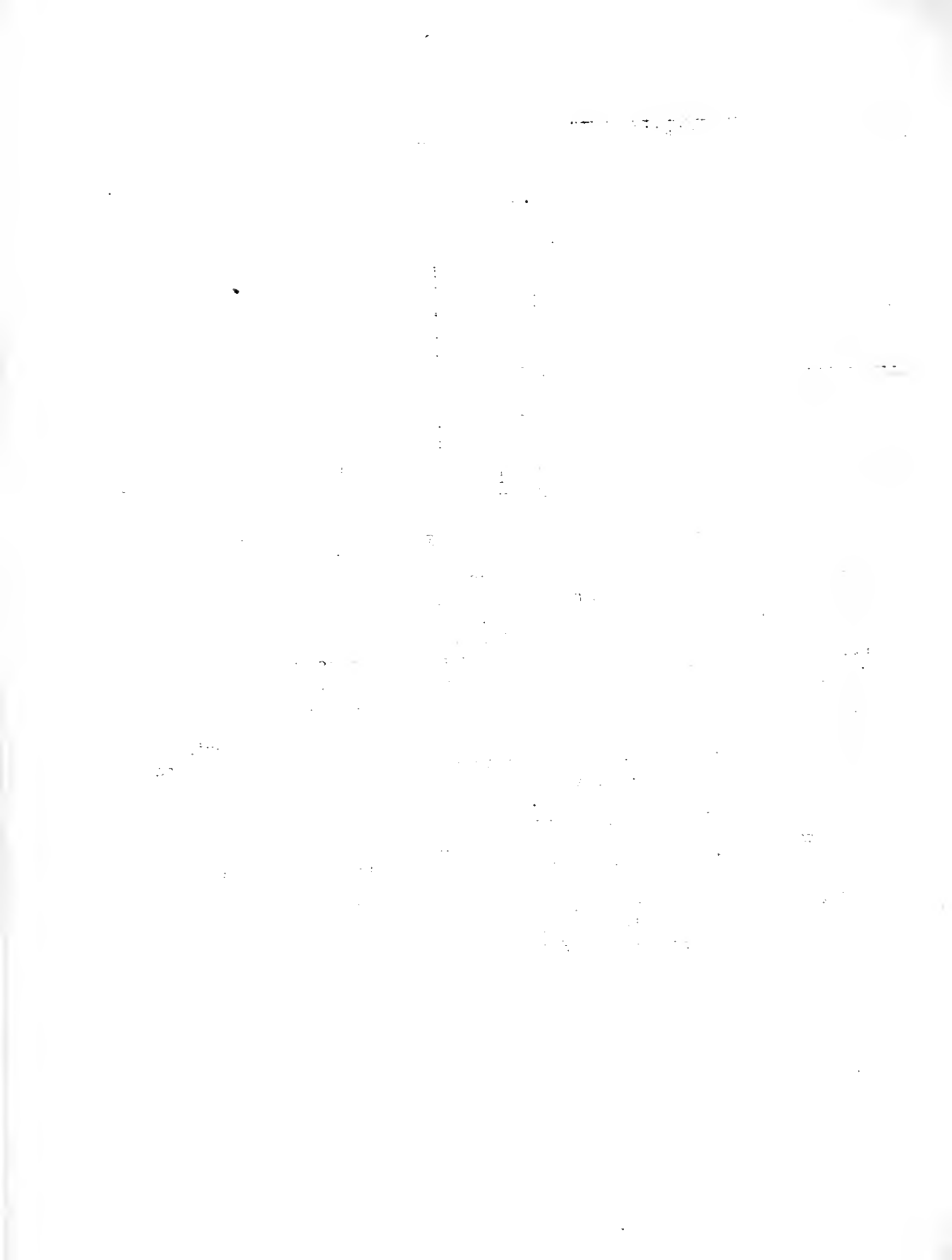
4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that the data remains reliable and secure throughout its lifecycle.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It stresses the importance of ongoing monitoring and evaluation to ensure that the data management processes remain effective and aligned with the organization's goals.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE

Department of Farm Organization and Management
and
DU PAGE, COOK AND MC HENRY COUNTY FARM BUREAUS
Cooperating

ANNUAL FARM BUSINESS REPORT
and
DAIRY ENTERPRISE COST STUDY
on
Thirty-five Farms
for
1926

Farm Account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

June 9, 1927

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ANNUAL FARM BUSINESS REPORT

Du Page, Cook and McHenry Counties, Illinois, 1926

Prepared by R. R. Hudelson, K. T. Wright, H. C. M. Case*

The first five pages of this report include a study of the entire farm business on 35 farms, and pages 6-15 a study of the cost of producing dairy products on the same farms.

The 35 farmers in Du Page, Cook and McHenry counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$652 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$226 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,943, while the one-third who were least successful lacked an average of \$775 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,713 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 35 farmers earned 4.9 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 8.6 percent and the least successful third .7 percent. The average investment on the 35 farms was \$36,429, which amounts to \$226 an acre. The higher profit third had an average investment of \$221 and the lower profit third \$243 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$135 an acre as an average for all farms.

Size of farm had little effect on the relative success of the high and low profit groups since they averaged within 20 acres of the same size. The more profitable group of farms, however, did have about 27 acres more tillable land per farm. The higher profit group had about 16 acres more corn and 2 acres more oats per farm than the low profit group.

The more successful group of farmers had some advantage in yields since they raised 3 bushels more corn, 7 bushels more oats, and 5 bushels more wheat per acre than their less successful neighbors. Since acre costs usually do not increase materially with yield this advantage was enough to increase profits.

The greatest advantage which the 12 most profitable farms had was in their larger amount of livestock and in its more efficient management. They had one-half more livestock income per acre with only one-fourth more livestock investment. Although they were only slightly larger farms they provided feed for more livestock and still purchased less feed than the less profitable farms.

*E. W. Carncross, O. G. Barrett, and E. M. Phillips, farm advisers in Du Page, Cook and McHenry counties respectively, cooperated in supervising and collecting the records used in this report.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The more successful farm operators took care of more livestock and still had a labor cost per acre smaller than that on the less profitable farms. It appears that the lower profit group should either increase the amount of livestock kept or reduce the amount of labor used by means of better cropping systems, larger and more convenient fields, better plans in using labor or better equipment. They already have a larger investment in equipment than the high profit farms, however.

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm as well as on the farms of the group making the most profit and the group making the least profit.

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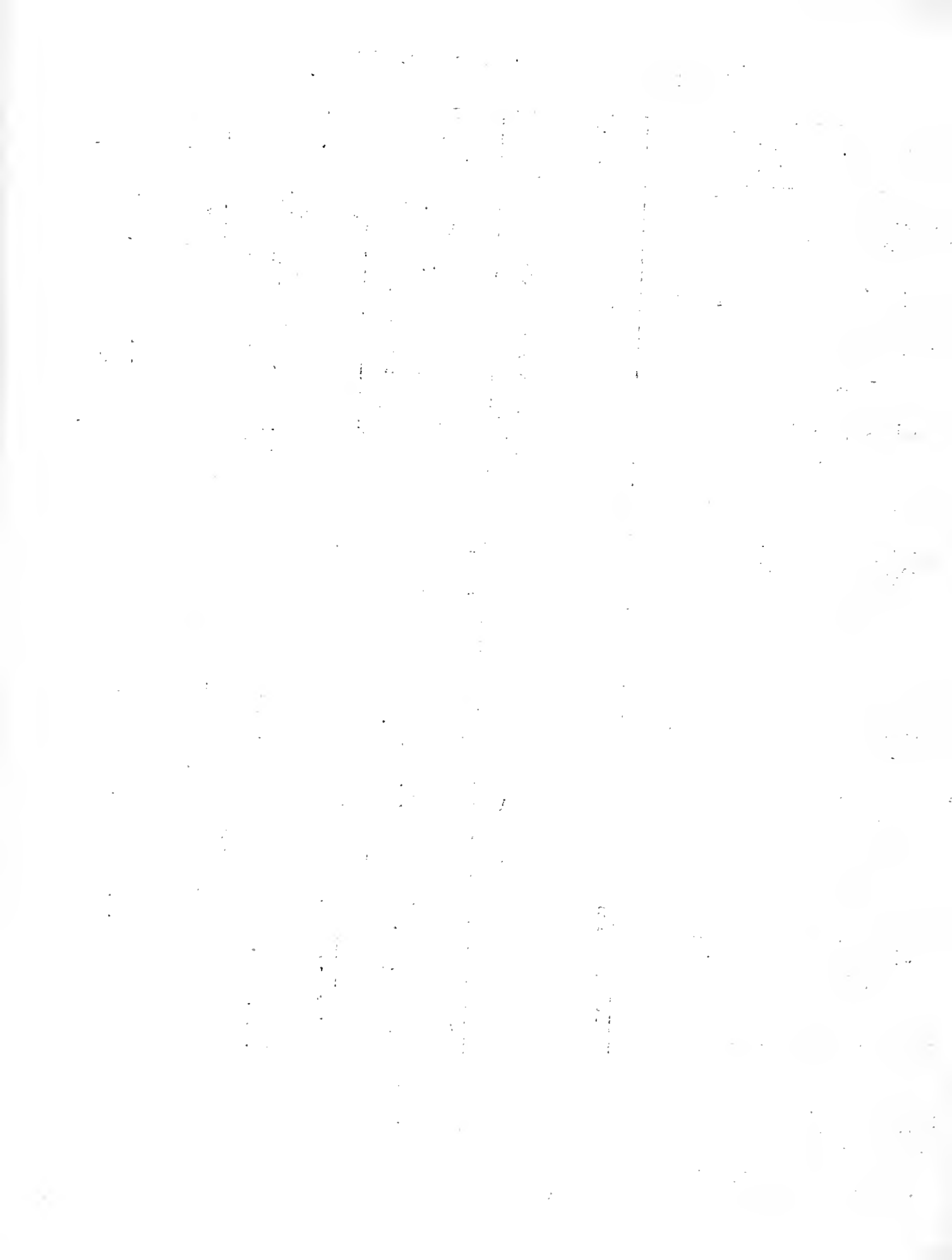
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DuPage, Cook and McHenry Counties, 1926

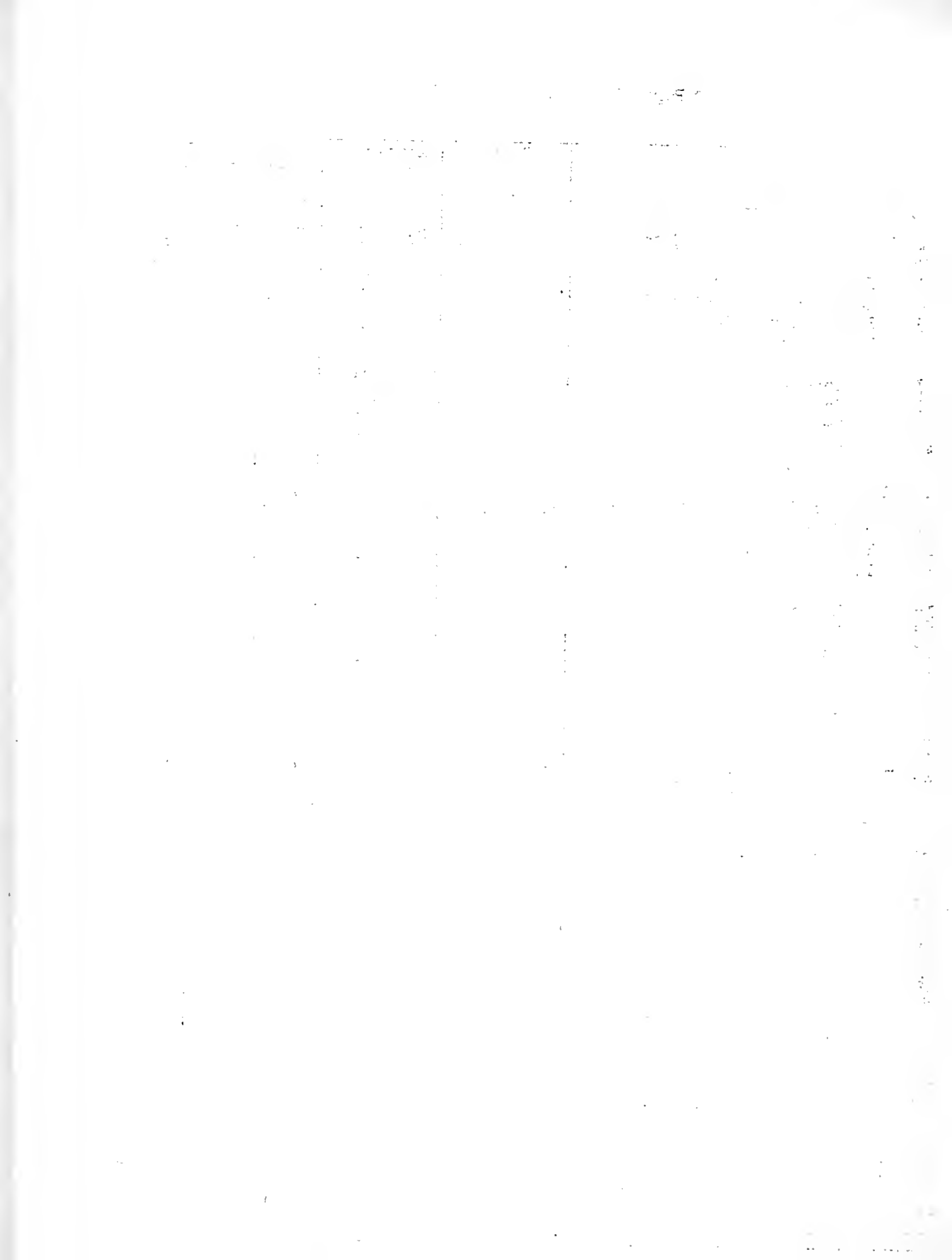
Factors helping to analyze the farm business	Your farm	Average of thirty-five farms	Twelve most profitable farms	Twelve least profitable farms
Rate earned	%	4.93%	8.64%	.68%
Labor and management wage	\$	\$ 652	\$ 1,943	\$ -775
Size of farm - acres	A	161.2 A	153.4 A	133.3 A
Percent of land area tillable	%	76.8 %	85.0 %	78.5 %
Acres in Corn	A	37.8 A	44.0 A	28.2 A
Oats	A	25.3 A	28.6 A	25.9 A
Wheat	A	5.9 A	3.8 A	2.0 A
Crop yields - Corn	bu.	34.7 bu.	35.6 bu.	32.5 bu.
Oats	bu.	46.9 bu.	46.1 bu.	39.2 bu.
Wheat	bu.	23.5 bu.	29.3 bu.	24.6 bu.
Percent in high profit crops*				
Returns per \$100 invested in all productive livestock	\$	\$ 125	\$ 146	\$ 118
For \$100 in Cattle	\$	\$ 121	\$ 145	\$ 110
Swine	\$	\$ 148	\$ 152	\$ 175
Poultry	\$	\$ 155	\$ 139	\$ 157
Investment per acre in productive livestock	\$	\$ 25.50	\$ 27.45	\$ 22.67
Receipts per acre from productive livestock	\$	\$ 31.82	\$ 39.99	\$ 26.80
Man labor cost per acre	\$	\$ 10.28	\$ 10.99	\$ 12.03
Crop acres per man	A	47.8 A	48.4 A	41.5 A
Crop acres per horse (with tractor)	A	22.6 A	21.1 A	23.0 A
(without tractor)	A	18.2 A	17.1 A	16.5 A
Expense per \$100 gross income	\$	\$ 65.00	\$ 53.00	\$ 94.00
Machinery cost per acre	\$	\$ 3.82	\$ 3.51	\$ 5.12
Building and fencing cost per acre	\$	\$ 1.48	\$ 1.22	\$ 1.96
Gross receipts per acre	\$	\$ 32.07	\$ 40.42	\$ 27.60
Total expenses per acre	\$	\$ 20.92	\$ 21.33	\$ 25.90
Net receipts per acre	\$	\$ 11.15	\$ 19.09	\$ 1.70
Percent of farms with tractor	%	71.4 %	75 %	66 2/3%
Value of land per acre	\$	\$ 135.00	\$ 137.00	\$ 142.00
Total investment per acre	\$	\$ 226.00	\$ 221.00	\$ 248.00

*Percent of tillable land in corn, wheat, sweet clover and alfalfa



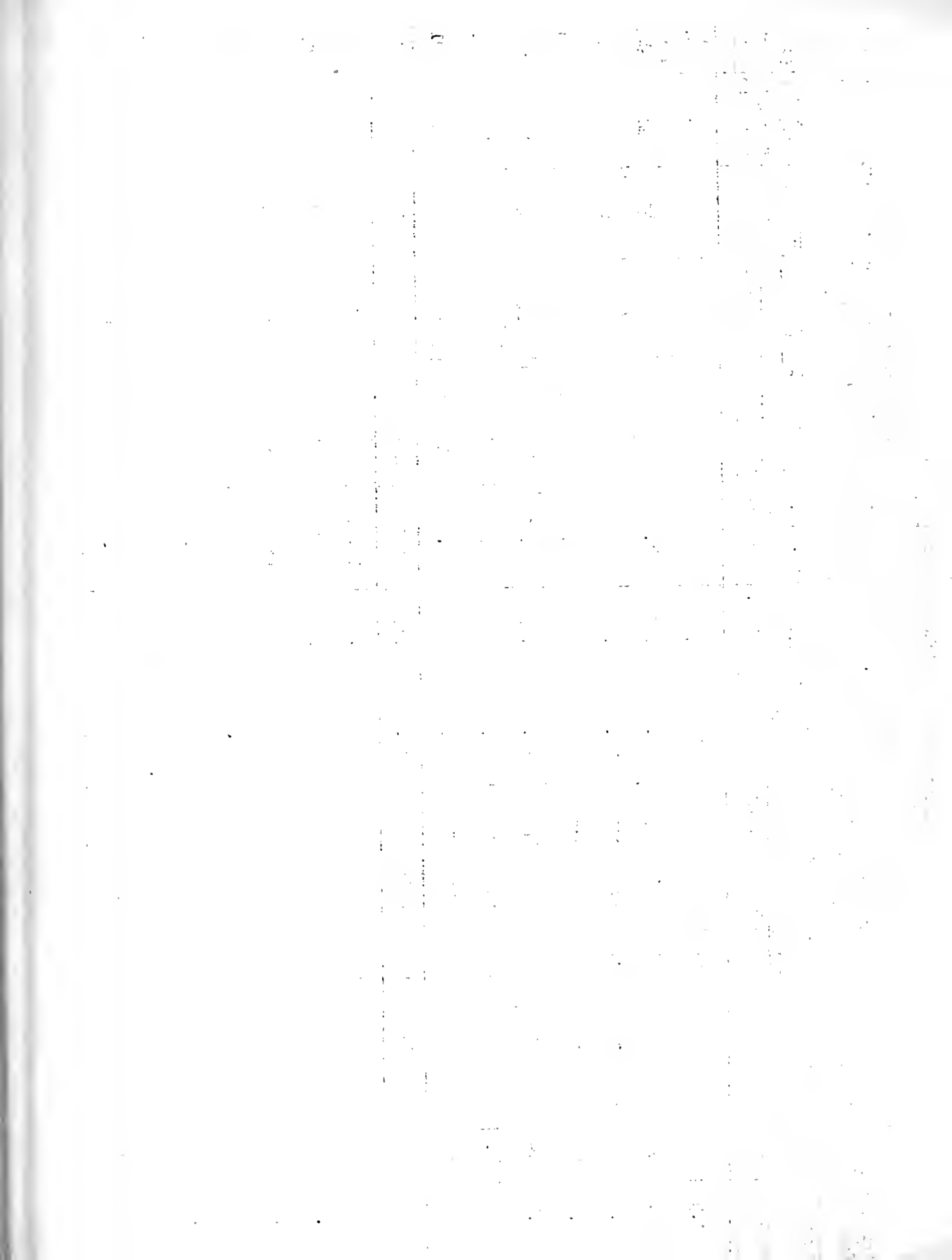
DuPage, Cook, and McHenry Counties, 1926

Item	Your farm	Average of 35 farms	Twelve most profitable farms	Twelve least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$36,429	\$33,902	\$33,025
2 Land		21,688	20,971	18,905
3 Farm improvements		6,290	4,586	6,995
4 Machinery and equipment		1,994	1,714	2,240
5 Feed and supplies		2,053	2,247	1,533
6 Livestock		4,404	4,384	3,352
7 Horses		423	459	345
8 Cattle		3,458	3,371	2,636
9 Swine		338	387	195
10 Sheep		21	12	4
11 Poultry		164	155	172
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 5,170	\$ 6,200	\$ 3,679
13 Feed and grain		--	--	--
14 Miscellaneous		41	66	45
15 Livestock - Total		5,129	6,134	3,634
16 Horses		--	--	--
17 Cattle		484	656	--
18 Swine		601	852	466
19 Sheep		17	15	--
20 Poultry		70	60	48
21 Egg sales		194	153	233
22 Dairy sales		3,763	4,398	2,887
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 2,235	\$ 2,039	\$ 2,446
24 Farm improvements		238	187	261
25 Livestock		40	49	92
26 Dairy expense		112	124	85
27 Horses		40	49	30
28 Cattle		--	--	60
29 Swine		--	--	--
30 Sheep		--	--	2
31 Poultry		--	--	--
32 Machinery and equipment		616	539	683
33 Feed and supplies		121	89	161
34 Livestock expense other than feed		36	56	16
35 Crop expense		173	178	184
36 Labor hired		569	453	597
37 Taxes, insurance, etc.		349	332	345
38 Miscellaneous		31	32	24
39 <u>Receipts less Expenses</u>	\$ _____	\$ 2,835	\$ 4,161	\$ 1,233
40 Operator's and unpaid family labor		1,088	1,233	1,007
41 Net income from investment		1,797	2,928	226



The numbers between the lines across the middle of the page are the approximate averages for your county of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your county.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per		Expense per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle				Hogs	Poultry				Man	Tractor	Horse
11.9	56	75	38	191	218	295	46.50	59.80	3.30	83	30	25	30	67	371
10.9	53	71	36	181	208	275	43.50	55.80	4.30	78	29	24	35	62	341
9.9	50	67	34	171	198	255	40.50	51.80	5.30	73	28	23	40	57	311
8.9	47	63	32	161	188	235	37.50	47.80	6.30	68	27	22	45	52	281
7.9	44	59	30	151	178	215	34.50	43.80	7.30	63	26	21	50	47	251
6.9	41	55	28	141	168	195	31.50	39.80	8.30	58	25	20	55	42	221
5.9	38	51	26	131	158	175	28.50	35.80	9.30	53	24	19	60	37	191
4.9	35	47	24	121	148	155	25.50	31.80	10.30	48	23	18	65	32	161
3.9	32	43	22	111	138	135	22.50	27.80	11.30	43	22	17	70	27	131
2.9	29	39	20	101	128	115	19.50	23.80	12.30	38	21	16	75	22	101
1.9	26	35	18	91	118	95	16.50	19.80	13.30	33	20	15	80	17	71
0.9	23	31	16	81	108	75	13.50	15.80	14.30	28	18	14	85	12	41
-1.9	20	27	14	71	98	55	10.50	11.80	15.30	23	17	13	90	7	11
-2.9	17	23	12	61	88	35	7.50	7.80	16.30	18	16	12	95	2	--
-3.9	14	19	10	51	78	15	5.50	3.80	17.30	13	15	11	100	-	--



DAIRY ENTERPRISE COST STUDY

These farms are almost all strictly dairy farms since they receive 82 percent of their farm income from that source. Dairy sales alone made up 72 percent of their income. Since dairying is the major enterprise and main source of income, it deserves special consideration.

An enterprise cost record has been kept on the dairy on all of these farms, and a detailed study can be made of the reasons for success or failure on every farm.

The table on milk production costs per cow shows that the cost per cow varied from \$103 up to \$249, or a difference of nearly two and one-half times the low cost.

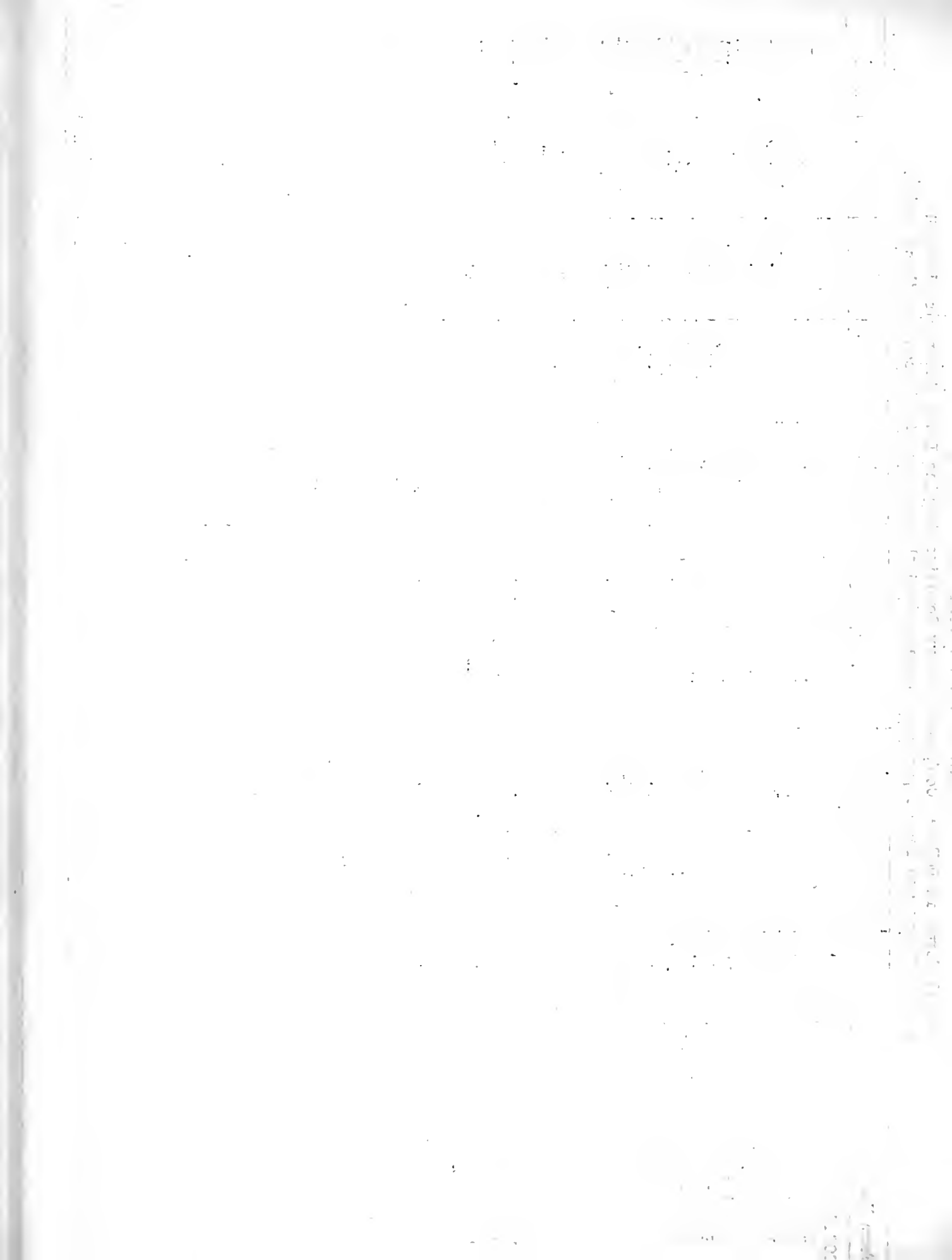
On farms #25 and #1 the milk production per cow was almost the same, but the expense in the first case was only \$154 per cow, while it was nearly \$212 in the latter case. Twenty-five dollars of this difference was due to lower feed cost. The part of the tables giving the quantities of feed fed show that considerably less feed was required on the first farm, due either to more efficient feeding or more efficient cows. There was \$26 more depreciation per cow on the second farm than on the first farm. Besides these two large items, the man labor charge was \$3 more and general farm expense \$2 more per cow on the latter farm. While there was not much difference in the man labor cost on these two farms, it varied from nearly \$19 up to \$72, with the average being slightly over \$35 per cow.

The total cost per cow on farms #5 and #3 was nearly the same, but the milk production per cow was 9,539 pounds on farm #5 and only 5,322 pounds on farm #3. This difference of 4,200 pounds at \$2.40 per hundredweight, which was the average price received, makes a difference of over \$100 per cow in dairy sales.

MILK PRODUCTION COSTS (per cow) 1926

On 37 farms in DuPage, Cook and McHenry Counties keeping Dairy Enterprise Records
 Items of Cost and Income per cow compared with the average of 733 cows on these farms.

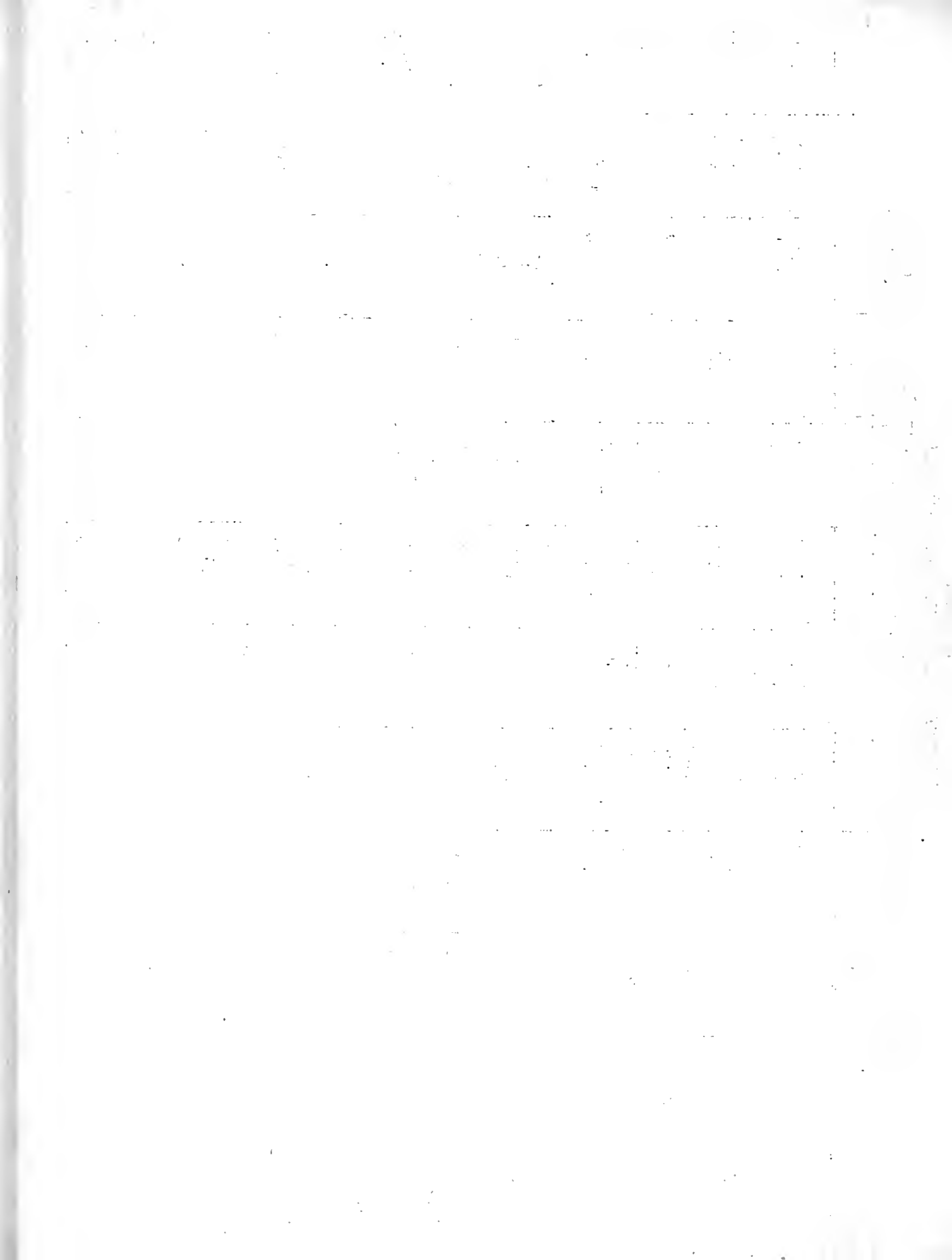
Farm Number	2	5	25	8	19	7	4	18	12	37
COSTS										
Feed	\$102.98	89.11	82.24	103.69	93.33	102.14	97.74	73.03	88.78	66.78
Man labor	36.11	27.68	42.78	46.58	28.67	38.23	22.82	27.92	25.33	23.00
Interest on investment	7.08	6.06	4.86	6.84	6.59	5.00	6.42	5.71	5.85	4.69
Depreciation	.56	---	---	10.75	---	15.33	8.64	11.19	---	---
Shelter	9.63	11.22	7.78	7.00	7.58	4.35	12.73	8.97	4.78	2.27
Equipment	2.65	4.69	2.08	.23	3.35	1.00	.98	.20	2.60	2.28
Veterinary & medicine	1.76	.08	1.39	1.40	1.31	1.06	1.14	2.34	4.61	1.75
Association dues	2.89	4.08	2.67	2.40	2.40	2.67	4.36	2.25	2.35	1.76
General farm expense	10.55	9.18	9.72	11.55	9.51	10.81	9.57	7.97	9.10	7.01
Miscellaneous	.11	1.42	.49	---	1.15	---	1.55	.76	.28	.12
TOTAL COST	\$174.32	153.52	154.01	190.24	153.89	180.59	165.95	140.34	143.68	109.66
INCOME										
Dairy sales	\$307.70	214.08	241.50	250.00	205.65	246.05	223.74	183.46	190.22	142.94
Milk and cream used	12.77	6.20	4.48	6.31	2.30	8.95	3.62	5.70	3.84	5.04
Milk fed calves	4.33	4.00	1.73	31.56	19.80	7.80	4.82	6.80	5.65	12.19
Appreciation	---	47.61	.39	---	7.08	---	---	---	6.74	8.16
Manure	12.78	17.69	15.61	11.45	19.11	11.00	21.90	14.84	10.22	13.37
TOTAL INCOME	\$337.58	289.58	263.71	299.32	254.94	273.80	254.08	215.80	216.67	181.70
NET PROFIT, per cow	\$163.26	136.06	109.70	109.08	101.05	93.21	88.13	75.46	72.99	72.04
MILK, per cow (in lbs.)	7,100	9,539	9,896	9,793	8,455	10,072	9,873	7,290	7,580	6,943
FEEDS, (in lbs.)										
Corn	169	1,214	587	1,415	1,251	211	596	694	125	
Oats	1,260	637	587	174	1,220	1,352	1,165	624	666	
Barley	1,078	---	---	459	326	930	456	---	518	
Total grain	2,507	1,851	1,174	2,048	2,797	2,493	2,217	1,318	1,309	
Mill feeds	513	770	1,065	1,306	974	824	727	623	834	
Malt	---	---	2,974	---	---	---	---	---	---	
Hay	2,688	2,648	1,514	2,728	2,167	2,375	2,547	1,504	1,636	
Silage	8,888	7,202	3,888	8,575	3,911	7,242	10,339	6,515	5,290	
Other roughage	---	---	839	750	1,269	---	---	1,205	2,332	
Pasture days	144	133	150	169	181	173	160	149	150	
Man hours	144	111	171	186	115	153	91	112	101	92
COWS per farm	18	13	18	20	26	18	11	26	23	32



Continued

MILK PRODUCTION COSTS (per cow) 1926
 On 37 farms in DuPage, Cook and McHenry Counties keeping Dairy Enterprise Records
 Items of Cost and Income per cow compared with the average of 733 cows on these farms.

Farm Number	22	17	1	9	15	24	10	30	21	20
COSTS										
Feed	\$ 79.00	83.32	107.20	66.24	107.77	65.11	83.03	81.05	81.02	82.99
Man labor	34.36	24.08	45.93	37.33	32.86	18.78	26.85	26.81	34.71	24.01
Interest on investment	4.18	5.00	6.64	5.89	7.21	5.50	5.25	8.29	5.84	4.26
Depreciation	8.27	8.13	26.78	2.25	13.69	10.75	6.80	7.50	14.94	19.58
Shelter	1.55	2.34	3.79	10.13	3.84	4.58	2.78	7.66	3.71	3.63
Equipment	.17	.67	3.21	.50	1.21	2.10	.91	1.31	2.70	2.00
Veterinary & medicine	5.08	.20	2.42	2.58	2.30	2.85	.30	2.49	1.20	1.32
Association dues	2.18	4.20	2.79	4.00	5.39	2.65	5.30	2.56	4.36	4.21
General farm expense	9.05	8.39	11.96	8.30	11.13	6.70	8.66	8.51	9.12	8.45
Miscellaneous	---	---	1.11	.50	---	---	---	.56	.30	.16
TOTAL COST	\$143.84	136.33	211.83	157.72	185.40	119.02	139.88	146.74	157.60	150.66
INCOME										
Dairy sales	\$198.28	182.53	249.88	163.41	211.35	163.68	159.70	187.72	200.55	191.05
Milk and cream used	3.67	2.69	4.32	6.72	3.50	4.03	8.07	3.51	1.79	4.24
Milk fed calves	2.74	4.48	7.25	9.94	14.00	2.60	25.86	7.80	---	2.96
Appreciation	---	---	---	---	---	---	---	---	---	---
Manure	10.36	16.33	16.00	22.17	20.85	11.70	8.40	8.68	15.45	6.10
TOTAL INCOME	\$215.05	206.03	277.45	202.24	249.80	182.01	202.03	207.71	217.79	204.35
NET PROFIT, per cow	\$ 71.21	69.70	65.62	64.52	64.40	62.99	62.15	60.97	60.19	53.69
MILK, per cow (in lbs.)	6,734	7,266	9,938	5,831	8,293	6,452	6,335	8,779	7,058	7,552
FEEBS (in lbs.)										
Corn	1,105	260	228	118	1,279	507	---	---	389	335
Oats	239	1,040	1,516	963	1,108	487	1,085	---	27	711
Barley	---	615	784	---	241	81	662	---	27	265
Total grain	1,344	1,915	2,528	1,081	2,628	1,175	1,747	1,850	443	1,911
Mill feeds	1,073	476	1,252	80	1,205	662	535	---	492	410
Malt	---	---	---	1,500	---	---	---	---	7,174	695
Hay	907	1,524	2,157	1,897	2,514	474	2,025	2,446	390	1,616
Silage	8,208	7,917	8,603	7,704	7,809	3,661	2,369	6,901	5,147	7,047
Other roughage	1,918	---	629	---	---	2,575	990	---	3,209	---
Pasture days	119	128	164	149	108	145	107	129	153	82
Man hours	137	96	184	149	131	75	107	107	139	96
COWS per farm	11	11	28	12	13	20	10	40	11	19



MILK PRODUCTION COSTS (per cow) 1926
 On 37 farms in DuPage, Cook and McHenry Counties keeping Dairy Enterprise Records
 Items of Cost and Income per cow compared with the average of 733 cows on these farms

Farm Number	28	27	35	6	16	38	32	13	31
COSTS									
Feed	\$ 77.73	96.42	66.54	91.20	74.69	78.17	80.33	87.00	66.73
Man labor	48.81	50.55	34.99	72.54	32.67	38.02	45.38	23.58	39.15
Interest on investment	6.55	8.46	5.65	4.67	6.79	6.08	8.61	5.66	4.06
Depreciation	6.29	33.96	-----	8.54	35.34	18.67	10.89	30.10	35.09
Shelter	6.25	4.24	3.29	5.38	6.96	4.20	8.47	3.50	1.52
Equipment	.44	1.33	1.05	1.52	3.22	1.03	2.58	2.74	1.98
Veterinary & medicine	-----	2.36	2.00	-----	1.04	1.44	2.26	-----	1.37
Association dues	2.62	3.43	3.94	4.08	2.66	3.93	2.59	3.55	2.68
General farm expense	9.70	11.46	8.12	12.58	8.34	9.12	9.81	8.60	8.25
Miscellaneous	.19	-----	.78	-----	.11	-----	.23	.46	-----
TOTAL COST	\$ 158.58	212.21	126.36	200.51	171.82	160.66	171.15	165.19	160.83
INCOME									
Dairy sales	\$ 180.37	240.45	139.00	221.69	187.88	168.47	166.73	177.10	178.17
Milk and cream used	3.84	2.60	2.99	6.20	3.25	5.38	3.08	8.07	4.10
Milk fed calves	14.26	6.50	12.52	-----	7.91	12.13	11.56	-----	-----
Appreciation	-----	-----	11.63	-----	-----	-----	-----	-----	-----
Manure	11.14	11.88	6.04	18.00	14.87	14.20	28.37	17.25	14.52
TOTAL INCOME	\$ 209.61	261.43	172.18	245.89	213.91	200.18	209.74	202.42	196.79
NET PROFIT, per cow	\$ 51.03	49.22	45.82	45.38	42.09	39.52	38.59	37.23	35.96
MILK, per cow (in lbs.)	8,642	11,100	5,806	7,898	6,676	8,191	8,695	7,326	7,219
FEEDS, (in lbs.)									
Corn				658	468			140	
Oats				1,168	831			1,378	
Barley				1,011	132			372	
Total grain	(2,228		(1,398	2,837	1,431	(1,533	(2,109	1,890	(1,826
Mill feeds				325	532			582	
Malt				-----	-----			-----	
Hay	1,381		1,815	3,502	2,547	2,533	2,648	1,602	1,861
Silage	5,952		5,700	5,021	4,772	6,268	6,915	5,290	7,390
Other roughage	-----		-----	-----	-----	-----	383	1,961	-----
Pasture days	138		152	118	95	153	169	167	160
Man hours	195	202	180	290	131	152	182	94	157
COWS per farm	21	24	27	13	23	15	27	20	23

1914

1915

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1918

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1925

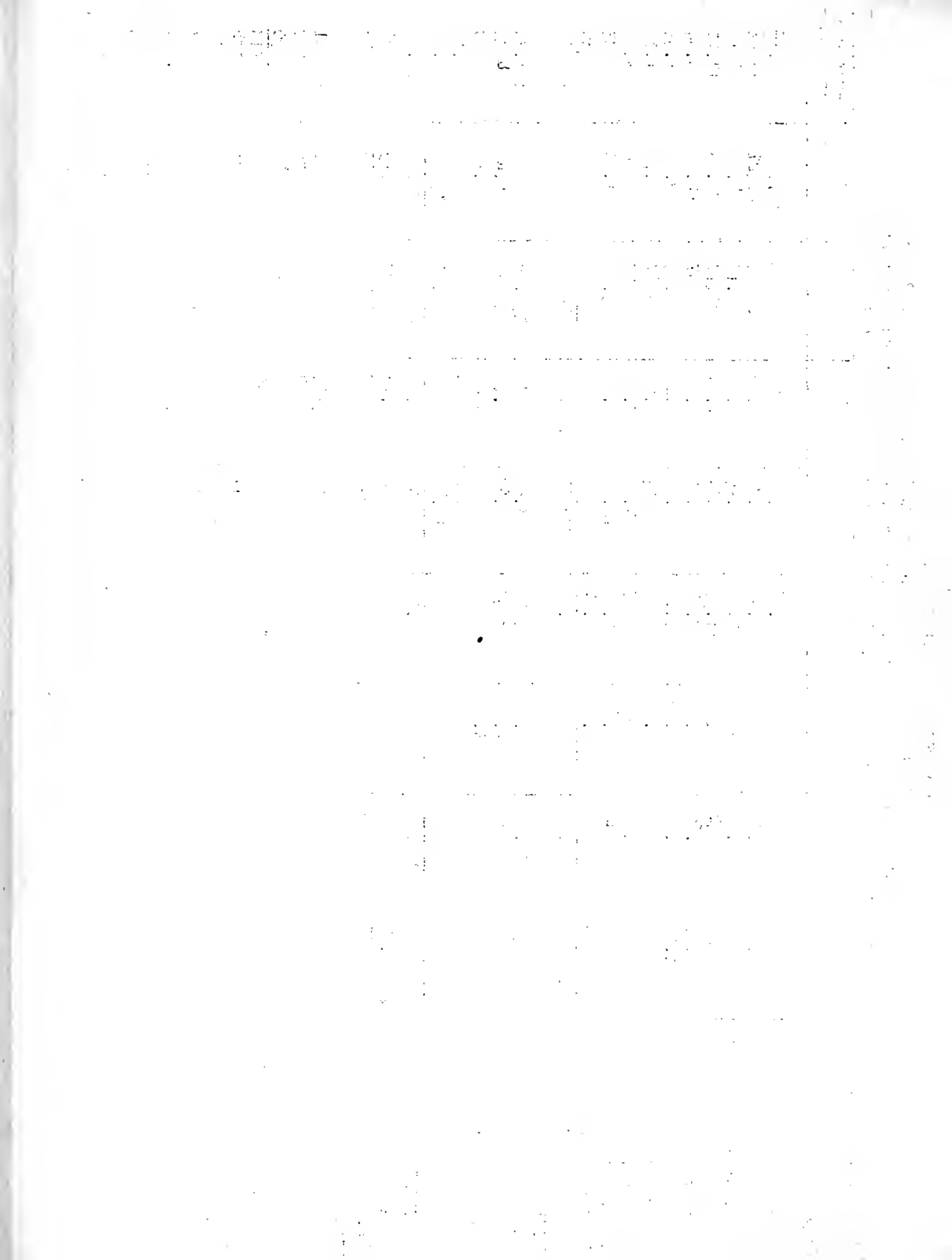
1914
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MILK PRODUCTION COSTS (per cow) 1926

On 37 farms in DuPage, Cook and McHenry Counties keeping Dairy Enterprise Records
Items of Cost and Income per cow compared with the average of 733 cows on these farms

Farm Number	33	36	29	14	23	3	11	26	Average 37 farms
COSTS									
Feed	\$ 69.85	70.57	81.70	83.66	99.39	68.93	93.72	107.89	83.66
Man labor	36.50	49.92	30.00	50.85	50.84	38.59	25.33	42.21	35.63
Interest on investment	4.33	7.65	5.28	6.36	6.95	5.62	7.17	4.50	6.10
Depreciation	27.23	26.54	35.72	11.50	60.91	21.54	87.17	22.39	17.49
Shelter	3.21	2.69	4.39	12.14	6.87	4.04	7.37	4.03	5.54
Equipment	1.15	.42	3.39	6.24	.82	.22	1.05	2.67	1.83
Veterinary & medicine	1.37	.15	.17	-----	7.09	1.42	3.67	1.78	1.74
Association dues	1.67	4.96	3.06	4.37	4.82	3.69	2.08	2.66	3.10
General farm expense	8.20	9.42	8.62	10.42	12.16	8.45	9.36	11.59	9.33
Miscellaneous	-----	-----	.07	.14	-----	-----	.05	-----	.30
TOTAL COST	\$ 153.51	172.32	173.40	185.68	249.85	152.50	236.97	199.72	164.72
INCOME									
Dairy sales	\$ 161.58	177.60	167.33	186.50	233.60	135.70	173.86	138.28	191.35
Milk and cream used	4.65	4.45	7.64	2.52	3.67	3.12	14.55	4.48	4.98
Milk fed calves	10.40	12.00	13.00	8.13	4.73	-----	4.15	3.31	8.39
Appreciation	-----	-----	-----	-----	-----	-----	-----	-----	2.10
Manure	9.13	9.39	14.22	11.44	12.45	16.15	10.17	13.50	13.58
TOTAL INCOME	\$ 185.76	203.44	202.19	208.59	254.45	154.97	202.73	159.57	220.40
NET PROFIT, per cow	\$ 32.25	31.12	28.79	22.91	4.60	2.47	-34.24	-40.15	55.68
MILK, per cow (in lbs.)	6,975	7,865	7,554	7,358	8,323	5,322	7,450	6,635	7,889
FEEDS, (in lbs.)									
Corn				674	507	1,120	707	882	* 601
Oats				548	93	1,024	712	84	822
Barley				241	-----	-----	712	40	390
Total grain		(1,788	(2,238	1,463	600	2,144	2,131	1,006	1,813
Mill feeds				1,255	1,911	230	490	781	774
Malt		-----	-----	-----	3,060	-----	-----	978	478
Hay		2,019	1,600	1,860	273	3,602	1,919	1,060	1,917
Silage		5,076	5,166	5,054	7,720	1,622	7,680	5,630	6,393
Other roughage		558	422	-----	3,420	1,881	-----	2,392	951
Pasture days		161	128	125	110	177	166	120	143
Man hours	146	200	120	203	203	154	101	169	143
COWS per farm	30	26	18	16	11	13	24	18	20

*The quantities of feed used are the average of 26 farms.



A farmer might keep his costs per cow down very low, but low production would make the cost per 100 pounds of milk produced very high. The second table showing milk production costs per 100 pounds produced, places more emphasis upon efficiency of production. The cost of producing 100 pounds of milk varied from \$1.56 on farm #25 up to \$3.18 on farm #11, with an average of \$2.08 for the 37 farms.

The principal reasons for the cost being so high on the last farm are: very high depreciation on cows and high feed cost. The production per cow on farms #37 and #26 was nearly the same, but the cost per 100 pounds of milk produced was \$1.58 on the first farm and \$3.01 on the last farm. The first farm made a profit of \$1.04 per 100 pounds of milk produced, whereas the latter farm lost \$.60. The feed cost was \$.66 more per 100 pounds on farm #26; the man labor charge was \$.31 more and there was depreciation amounting to \$.34 per 100 pounds on farm #26 and none on farm #37. The difference between these two farms in these items amounts to \$1.31 per 100 pounds of milk produced. The three items of cost just mentioned, feed, labor, and depreciation, are those over which the producer has most control.

It is evident with these wide differences existing that there is much opportunity to improve efficiency in production on many farms.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews, while secondary data was obtained from existing reports and databases.

The third section details the statistical analysis performed on the collected data. This involves the use of descriptive statistics to summarize the data and inferential statistics to test hypotheses. The results of these analyses are presented in a clear and concise manner, highlighting the key findings of the study.

Finally, the document concludes with a summary of the findings and their implications. It discusses the limitations of the study and suggests areas for future research. The overall goal is to provide a comprehensive overview of the research process and its results.

MILK PRODUCTION COSTS (100 lbs. basis) 1926

On 37 farms in DuPage, Cook and McHenry Counties keeping Dairy Enterprise Records
Items of Cost and Income per cwt. of Milk produced by 733 cows on these farms

Farm Number	5	25	37	30	4	7	19	28	24	17
COSTS										
Feed	\$.93	.83	.96	.92	.99	1.01	1.10	.90	1.01	1.15
Man labor	.29	.43	.33	.31	.23	.38	.34	.57	.29	.33
Interest on cows	.06	.05	.07	.09	.07	.05	.08	.08	.09	.07
Depreciation	---	---	---	.09	.09	.15	---	.07	.17	.11
Shelter	.12	.08	.03	.09	.13	.04	.09	.07	.07	.03
Equipment	.05	.02	.03	.01	.01	.01	.04	.01	.03	.01
Veterinary & medicine	---	.01	.03	.03	.01	.01	.02	---	.04	---
Association dues	.04	.03	.03	.03	.04	.03	.03	.03	.04	.06
General farm expense	.10	.10	.10	.10	.10	.11	.11	.11	.10	.12
Miscellaneous	.02	.01	---	.01	.02	---	.01	---	---	---
TOTAL COST	\$ 1.61	1.56	1.58	1.68	1.69	1.79	1.82	1.84	1.84	1.88
INCOME										
Dairy sales	\$ 2.24	2.44	2.06	2.14	2.27	2.44	2.45	2.09	2.54	2.51
Milk and cream used	.07	.05	.07	.04	.04	.09	.03	.04	.06	.04
Milk fed calves	.04	.02	.18	.09	.05	.08	.23	.17	.04	.06
Appreciation	.50	---	.12	---	---	---	.08	---	---	---
Manure	.19	.16	.19	.10	.22	.11	.23	.13	.18	.23
TOTAL INCOME	\$ 3.04	2.67	2.62	2.37	2.58	2.72	3.02	2.43	2.82	2.84
NET PROFIT per 100 lbs.	\$ 1.43	1.11	1.04	.69	.89	.93	1.20	.59	.98	.96
MILK per cow (lbs.)	9,539	9,896	6,943	8,779	9,873	10,072	8,455	8,642	6,452	7,266
FEED, in lbs.			*							
Corn	12.7	5.9			6.0	2.1	14.8		9.4	3.6
Oats	6.7	5.9			11.8	13.4	14.4		7.5	14.3
Barley	---	---		**	4.6	9.2	3.9		1.3	8.5
Total grain	19.4	11.8		(21.1	22.4	24.7	33.1	(25.7	18.2	26.4
Mill feeds	8.1	10.8		(	7.4	8.2	11.5	(	10.3	6.6
Malt	---	30.0		---	---	---	---	---	---	---
Hay	27.8	15.3		27.9	25.8	23.6	25.6	1.60	7.4	21.0
Silage	75.5	39.3		78.6	104.7	71.9	46.3	68.9	56.7	109.0
Other roughage	---	8.5		---	---	---	15.0	---	39.9	---
Pasture days	1.4	1.5		1.5	1.6	1.7	2.1	1.6	2.3	1.8
Man hours	1.16	1.73	1.33	1.22	.92	1.52	1.36	2.26	1.16	1.33
COWS per farm	13	18	32	40	11	18	26	21	20	15

*The quantities of feed fed were not available on 3 of the farms.

**In some cases the total grain and mill feed was reported as concentrates so could not be separated.

1. The first part of the document discusses the importance of maintaining accurate records.

2. It then goes on to describe the various methods used to collect and analyze data.

3. The next section details the results of the study and the conclusions drawn from the data.

4. Finally, the document provides a summary of the findings and offers suggestions for future research.

5. The overall goal of this document is to provide a comprehensive overview of the research process.

6. It is hoped that this information will be helpful to anyone interested in the field.

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11. The document is available for free download at the following link:

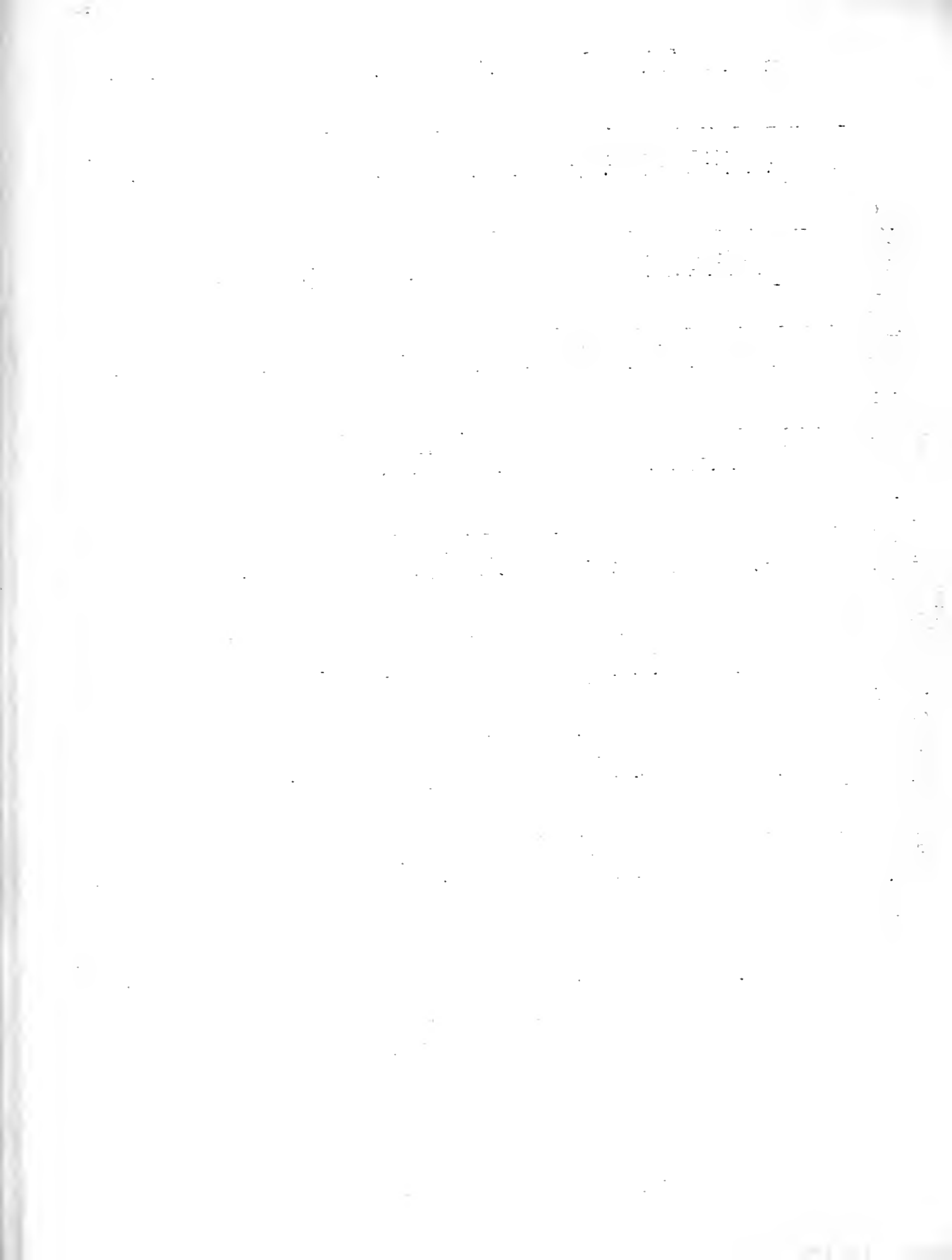
12. [http://www.example.com/research](#)

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Continued

MILK PRODUCTION COSTS (100 lbs. basis) 1926
 On 37 farms in DuPage, Cook and McHenry Counties keeping Dairy Enterprise Records
 Items of Cost and Income per hundredweight of Milk produced by 733 cows on these farms

Farm Number	12	27	18	8	38	32	20	1	22	35
COSTS										
Feed	\$ 1.17	.87	1.00	1.06	.96	.92	1.10	1.08	1.17	1.15
Man labor	.34	.46	.38	.48	.46	.52	.32	.46	.51	.60
Interest on cows	.08	.08	.08	.07	.07	.10	.06	.07	.06	.10
Depreciation	---	.31	.16	.11	.23	.13	.26	.27	.12	---
Shelter	.06	.04	.12	.07	.05	.10	.05	.04	.02	.06
Equipment	.04	.01	---	---	.01	.03	.03	.03	---	.02
Veterinary & medicine	.06	.02	.03	.01	.02	.03	.02	.02	.08	.03
Association dues	.03	.03	.03	.03	.05	.03	.05	.03	.03	.07
General farm expense	.12	.10	.11	.12	.11	.11	.11	.12	.14	.14
Miscellaneous	---	---	.01	---	---	---	---	.01	---	.01
TOTAL COST	\$ 1.90	1.92	1.92	1.95	1.96	1.97	2.00	2.13	2.13	2.18
INCOME										
Dairy sales	\$ 2.51	2.17	2.59	2.55	2.05	1.91	2.53	2.52	2.94	2.40
Milk and cream used	.05	.02	.08	.07	.07	.04	.06	.04	.06	.05
Milk fed calves	.08	.06	.09	.32	.15	.13	.04	.07	.04	.22
Appreciation	.09	---	---	---	---	---	---	---	---	.20
Manure	.13	.11	.20	.12	.17	.33	.08	.16	.15	.10
TOTAL INCOME	\$ 2.86	2.36	2.96	3.06	2.44	2.41	2.71	2.79	3.19	2.97
NET PROFIT per 100 lbs.	\$.96	.44	1.04	1.11	.48	.44	.71	.66	1.06	.79
MILK per cow (lbs.)	7,580	11,100	7,290	9,793	8,191	8,695	7,552	9,938	6,734	5,806
FEED, in lbs.										
Corn	1.7		9.5	14.4			4.4	2.3	16.4	
Oats	8.8		8.6	1.8			9.4	15.3	3.5	
Barley	6.8		---	4.7			11.4	7.9	---	
Total grain	17.3		18.1	20.9	(26.9	(24.3	25.2	25.5	19.9	(24.1
Mill feeds	11.0		8.6	13.3			5.4	12.6	15.9	
Malt	---		---	---			9.2	---	---	
Hay	21.6		20.6	27.8	30.9	30.5	21.4	21.7	13.5	31.3
Silage	69.8		89.4	87.6	76.5	79.5	93.3	86.6	121.9	98.1
Other roughage	30.8		16.5	7.7	---	4.0	---	6.3	28.5	---
Pasture days	2.0		2.0	1.7	1.9	1.9	1.1	1.6	1.8	2.6
Man hours	1.34	1.82	1.53	1.90	1.86	2.09	1.27	1.85	2.04	2.41
COWS per farm	23	24	26	20	15	27	19	23	11	27



Continued

MILK PRODUCTION COSTS (100 lbs. basis) 1926
 On 37 farms in DuPage, Cook and McHenry Counties keeping Dairy Enterprise Records
 Items of Cost and Income per hundredweight of Milk produced by 733 cows on these farms

Farm Number	36	33	10	31	21	15	13	29	9
COSTS									
Feed	\$.90	1.00	1.31	.92	1.15	1.30	1.19	1.08	1.14
Man labor	.64	.52	.42	.54	.49	.40	.32	.40	.64
Interest on cows	.10	.06	.08	.06	.08	.09	.08	.07	.10
Depreciation	.34	.39	.11	.49	.21	.16	.41	.49	.04
Sheeter	.03	.05	.04	.02	.05	.05	.05	.06	.13
Equipment	---	.02	.01	.03	.04	.01	.04	.04	---
Veterinary & medicine	---	.02	.01	.02	.02	.03	---	---	.04
Association dues	.06	.02	.08	.04	.06	.07	.05	.04	.07
General farm expenso	.12	.12	.14	.11	.13	.13	.12	.11	.14
Miscellaneous	---	---	---	---	---	---	---	---	---
TOTAL COSTS	\$ 2.19	2.20	2.20	2.23	2.23	2.24	2.26	2.29	2.36
INCOME									
Dairy sales	\$ 2.26	2.31	2.52	2.47	2.84	2.55	2.42	2.21	2.80
Milk and cream used	.06	.07	.12	.06	.02	.04	.11	.10	.12
Milk fed calves	.15	.15	.41	---	---	.17	---	.17	.17
Increase	---	---	---	---	---	---	---	---	---
Manure	.12	.13	.13	.20	.22	.25	.24	.19	.38
TOTAL INCOME	\$ 2.59	2.66	3.18	2.73	3.08	3.01	2.77	2.67	3.47
NET PROFIT	\$.40	.46	.98	.50	.85	.77	.51	.38	1.11
MILK, per cow (lbs.)	7,865	6,975	6,335	7,219	7,058	8,293	7,326	7,554	5,831
FEED, in lbs.									
Corn			---		5.5	15.4	1.9		2.0
Oats			17.1	.4	.4	13.4	18.8		16.5
Barley			10.5	.4	.4	2.9	5.1		---
Total grain	(22.7		27.6	(25.3	6.3	31.7	25.8	31.6	18.5
Mill feeds	(		8.4	(	7.0	14.5	8.0		1.4
Malt			---		101.6	---	---		25.7
Hay	25.7		32.0	25.8	5.5	30.3	21.9	21.2	32.5
Silage	64.6		132.1	102.4	72.9	94.2	72.3	68.4	132.1
Other roughage	---		15.6	---	45.5	---	26.8	5.6	---
Pasture days	2.1		1.7	2.2	2.2	1.3	2.3	1.7	2.6
Man hours	2.54	2.09	1.69	2.17	1.97	1.59	1.29	1.59	2.56
COWS, per farm	26	30	10	23	11	13	20	18	12

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MILK PRODUCTION COSTS (100 lbs. basis) 1926
On 37 farms in DuPage, Cook and McHenry Counties keeping Dairy Enterprise Records
Items of Cost and Income per hundredweight of Milk produced by 733 cows on these farms

Farm Number	2	14	6	16	3	23	26	11	Average 37 farms
COSTS									
Feed	\$ 1.45	1.14	1.15	1.12	1.30	1.19	1.62	1.26	1.06
Man labor	.51	.69	.92	.49	.73	.61	.64	.34	.45
Interest on cows	.10	.09	.06	.10	.11	.08	.07	.09	.08
Depreciation	---	.16	.11	.53	.40	.73	.34	1.17	.22
Shelter	.14	.16	.07	.10	.07	.08	.06	.10	.07
Equipment	.04	.08	.02	.05	---	.01	.04	.01	.02
Veterinary & medicine	.02	---	---	.02	.03	.09	.03	.05	.02
Association dues	.04	.06	.05	.04	.07	.06	.04	.03	.04
General farm expense	.15	.14	.16	.12	.16	.15	.17	.13	.12
Miscellaneous	---	---	---	---	---	---	---	---	---
TOTAL COSTS	\$ 2.45	2.52	2.54	2.57	2.87	3.00	3.01	3.18	2.08
INCOME									
Dairy sales	\$ 4.33	2.53	2.81	2.81	2.55	2.81	2.09	2.33	2.42
Milk and cream used	.18	.03	.08	.05	.06	.04	.07	.19	.06
Milk fed calves	.06	.11	---	.12	---	.06	.05	.06	.11
Increase	---	---	---	---	---	---	---	---	.03
Manure	.18	.16	.23	.22	.30	.15	.20	.14	.17
TOTAL INCOME	\$ 4.75	2.83	3.12	3.20	2.91	3.06	2.41	2.72	2.79
NET PROFIT	\$ 2.30	.31	.58	.63	.04	.06	-.60	-.46	.71
MILK, per cow (lbs.)	7,100	7,358	7,898	6,675	5,322	8,323	6,635	7,450	7,889
FEED, in lbs.									***
Corn	2.4	9.2	8.3	7.0	21.0	6.1	13.3	9.5	7.7
Oats	17.7	7.4	14.8	12.4	19.2	1.1	1.3	9.6	10.5
Barley	15.2	3.3	12.8	2.0	---	---	.6	9.5	4.9
Total grain	35.3	19.9	35.9	21.4	40.2	7.2	15.2	28.6	23.1
Mill feeds	7.2	17.1	4.1	8.0	4.3	23.0	11.8	6.6	9.8
Malt	---	---	---	---	---	36.8	14.7	---	6.1
Hay	37.9	25.3	44.4	38.2	67.7	3.3	16.0	25.8	24.4
Silage	125.2	68.7	63.6	71.5	30.5	92.8	84.8	103.1	81.5
Other roughage	---	---	---	---	35.3	41.1	36.1	---	12.1
Pasture days	2.0	1.7	1.5	1.4	3.3	1.3	1.8	2.2	1.8
Man hours	2.03	2.77	3.67	1.96	2.90	2.44	2.55	1.36	1.81
COWS, per farm	18	16	13	23	13	11	18	24	20

***The quantities of feed fed are the average on 26 farms.

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ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest conditions on the individual farm.

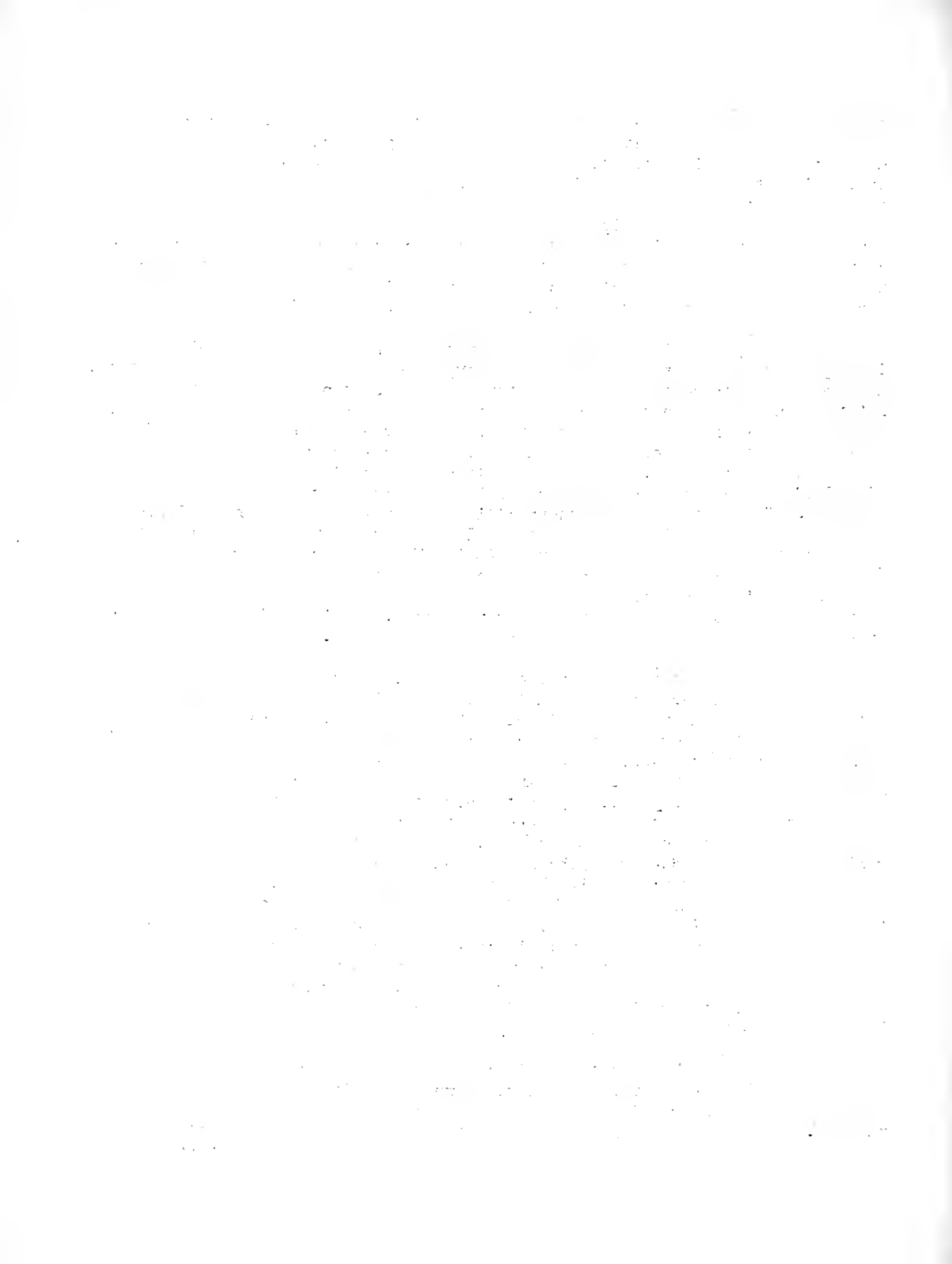
Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high

percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil, and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not de-



ficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed, red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to any one who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters. This section also touches upon the legal implications of failing to maintain such records, which can lead to severe consequences for individuals and organizations alike.

2. The second part of the document delves into the specific requirements for record-keeping, including the types of documents that must be retained and the duration for which they should be kept. It provides a detailed overview of the various categories of records, such as financial statements, contracts, and correspondence, and outlines the best practices for organizing and storing these documents to ensure they are easily accessible when needed.

3. The third part of the document addresses the challenges associated with record-keeping, particularly in the context of digital information. It discusses the risks of data loss, corruption, and unauthorized access, and offers strategies to mitigate these risks. This includes the use of secure storage solutions, regular backups, and access controls to protect sensitive information.

4. The fourth part of the document provides a comprehensive guide to the legal and regulatory requirements governing record-keeping. It covers the various laws and regulations that apply to different types of records and industries, and explains how to ensure compliance with these requirements. This section is particularly useful for organizations that operate in highly regulated sectors, where the consequences of non-compliance can be significant.

5. The fifth and final part of the document offers practical advice and tips for implementing an effective record-keeping system. It discusses the importance of developing a clear policy and procedure for record-keeping, and provides examples of best practices that can be adopted to streamline the process. This section also highlights the benefits of a well-implemented record-keeping system, such as improved efficiency, reduced risk, and enhanced decision-making capabilities.

may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies,

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The text notes that without reliable records, it would be difficult to verify the accuracy of financial statements and to identify any irregularities.

2. The second part of the document focuses on the role of internal controls in ensuring the accuracy and reliability of financial information. It describes how internal controls are designed to prevent errors and to detect any unauthorized transactions. The text highlights that a strong internal control system is a key component of an organization's risk management strategy and is crucial for maintaining the trust of investors and other stakeholders.

3. The third part of the document discusses the importance of transparency and disclosure in financial reporting. It explains that providing clear and concise information about an organization's financial performance and position is essential for making informed investment decisions. The text notes that transparency is also a key factor in building confidence in the financial system and in the organizations that participate in it.

4. The fourth part of the document addresses the challenges of financial reporting and the need for standardization. It discusses the various accounting standards and practices that are used around the world and the importance of ensuring that these standards are applied consistently. The text notes that standardization is essential for making financial information comparable and for facilitating cross-border investment and trade.

5. The fifth part of the document discusses the role of external audits in providing an independent assessment of an organization's financial statements. It explains that external audits are conducted by independent auditors who are not affiliated with the organization being audited. The text notes that external audits are a key component of the financial reporting process and are essential for ensuring the accuracy and reliability of financial information.

6. The sixth part of the document discusses the importance of financial literacy and the need for education and training. It explains that financial literacy is the ability to understand and use financial information to make informed decisions. The text notes that financial literacy is a key skill for individuals and organizations alike and is essential for participating in the financial system and for achieving financial success.

7. The seventh part of the document discusses the role of government in regulating the financial system and ensuring the integrity of financial reporting. It explains that government intervention is necessary to prevent fraud and to ensure that financial reporting is conducted in a fair and transparent manner. The text notes that government regulation is a key component of the financial system and is essential for maintaining the trust of investors and other stakeholders.

8. The eighth part of the document discusses the importance of financial innovation and the need for regulatory oversight. It explains that financial innovation is essential for the growth and development of the financial system and for providing new and improved services to investors and other stakeholders. The text notes that regulatory oversight is essential for ensuring that financial innovation is conducted in a safe and sound manner and for preventing any potential risks to the financial system.

9. The ninth part of the document discusses the importance of financial stability and the need for a strong financial system. It explains that financial stability is essential for the overall health and well-being of an economy and for the ability of individuals and organizations to participate in the financial system. The text notes that a strong financial system is a key component of a country's economic development and is essential for achieving long-term growth and prosperity.

10. The tenth part of the document discusses the importance of financial inclusion and the need for access to financial services. It explains that financial inclusion is the process of ensuring that all individuals and organizations have access to financial services and products. The text notes that financial inclusion is essential for reducing poverty and inequality and for promoting economic growth and development. It also notes that financial inclusion is a key goal of many international organizations and is essential for achieving the Sustainable Development Goals.

the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

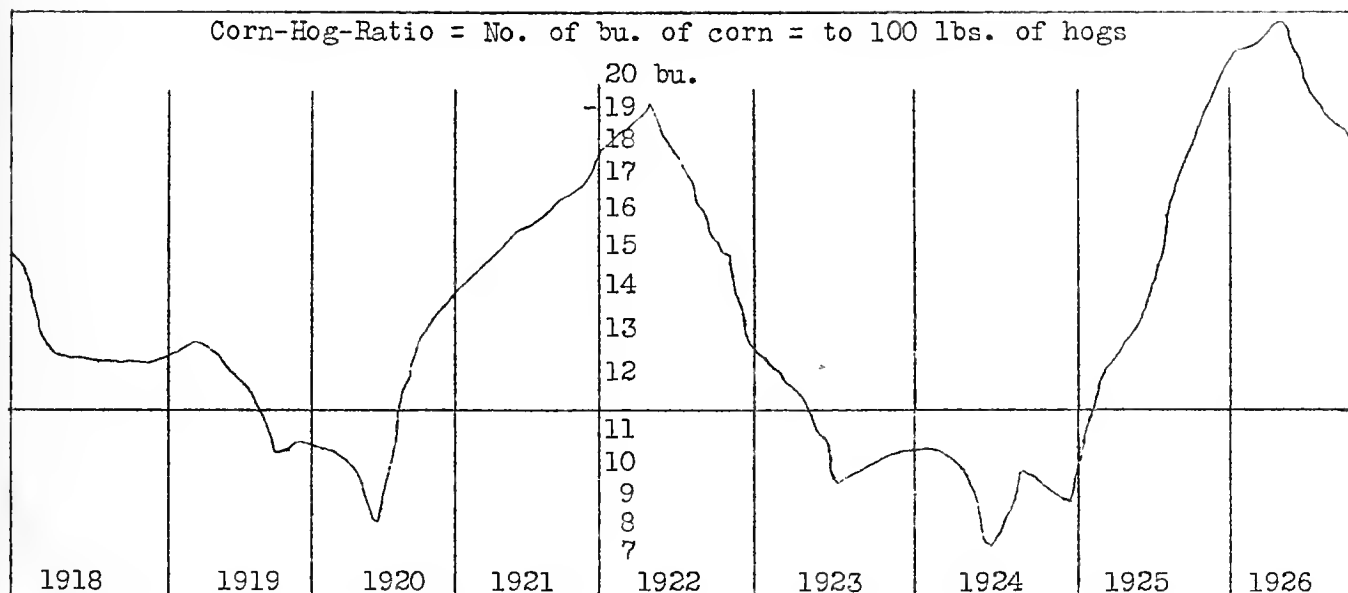
It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|--|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

1970-1971
1972-1973
1974-1975
1976-1977
1978-1979
1980-1981
1982-1983
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1986-1987
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1994-1995
1996-1997
1998-1999
2000-2001
2002-2003
2004-2005
2006-2007
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2016-2017
2018-2019
2020-2021
2022-2023
2024-2025



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

THE HISTORY OF THE UNITED STATES

The history of the United States is a story of growth and change. From the first European settlers to the present day, the nation has evolved through various stages of development. The early years were marked by exploration and the establishment of colonies. The American Revolution led to the birth of a new nation, and the subsequent years saw the expansion of territory and the growth of industry. The Civil War was a pivotal moment in the nation's history, leading to the abolition of slavery and the strengthening of the federal government. The 20th century brought significant social and economic changes, including the rise of the industrial revolution and the emergence of the United States as a global superpower.

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UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

CARROLL, WHITESIDE AND ROCK ISLAND COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-two Farms

for

1926

Farm Account keepers say:

"Farm accounts become more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

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ANNUAL FARM BUSINESS REPORT

Carroll, Whiteside, Rock Island Counties, Illinois 1926

Prepared by R.R. Hudelson, P.E. Johnston, H.A. Berg and H. C. M. Case*

The 32 farmers in Carroll, Whiteside and Rock Island counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$595 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$196 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,713, while the one-third who were least successful lacked an average of \$451 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,164 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 32 farmers earned 4.7 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 8.1 percent and the least successful third 1.3 percent. The average investment on the 32 farms was \$38,134, which amounts to \$196 an acre. The higher profit third had an average investment of \$173 and the lower profit third \$109 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$131 an acre as an average for all farms.

In addition to the above earnings, each farm family secures certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The farms of the higher profit group averaged nearly 40 acres larger than those of the lower profit group. About half of these extra acres were non-tillable land, however. It is doubtful whether the larger size had any important effect on relative earnings. Similar studies in other areas for 1926 and the report covering this same area for 1925 indicate that within ordinary limits size of farm is a minor factor in determining profits. Individual cases of very small or very large farms are exceptions to this rule. The more profitable farms had nearly 20 more acres of corn and 10 acres less oats. The less profitable farms had no wheat and the more profitable farms only averaged about 10 acres of wheat per farm.

The more successful farmers raised about 5 bushels more corn to the acre and 12 bushels more oats than their less successful neighbors. In similar

* M. P. Roske, L. O. Wise and S. S. Carney, farm advisers in Carroll, Whiteside and Rock Island counties respectively, cooperated in supervising and collecting the records used in this report.

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studies we have usually found even larger differences in crop yields in favor of the more profitable farms. Good yields are one of the important factors determining farm profits. Operating costs per acre usually do not rise in proportion to increased yields. The margin of profit is therefore increased.

The farms covered by this report are primarily livestock farms and derive almost their entire income from livestock sources. The biggest advantage of the ten most profitable farms was in their greater livestock efficiency. They realized a livestock income of \$147 for each \$100 invested in livestock compared with \$116 income per \$100 invested in livestock on the lower profit farms. With a livestock investment only \$3 an acre larger the more successful farm operators realized an income from livestock \$10 an acre larger. Still another proof of livestock efficiency is seen in the fact that the more profitable farms although only 40 acres larger and with feed purchases only \$235 larger on the average had livestock incomes \$2,764 per farm larger than the less profitable farms.

Hogs constituted the largest single enterprise on the farms of both groups. They produced 64 percent of the gross income on the more profitable farms and 55 percent on the less profitable farms. Beef cattle and dairy cattle stood next in order of importance. It was in the hog enterprise that the more successful farm operators showed the greatest advantage in efficiency. Cost studies on hog production indicate that the average farm can gain in efficiency with hogs by sanitary methods that result in a larger number of thrifty pigs per litter at weaning time and by a continuation of sanitation and balanced feeding which will prevent runts and unthriftiness.

The more successful farmers whose records are included in this report used their labor more efficiently as shown by the fact that they cared for more livestock, worked eight more crop acres per man and had a labor cost per acre \$1.50 an acre smaller than the less successful farmers. That their other expenses were handled with good judgment is indicated in their having an operating cost per acre \$1.30 smaller and a gross income per acre ten dollars larger than their less successful neighbors.

It is of interest to note that farm earnings in western Illinois were generally smaller for 1926 than 1925. The reduction for the area covered by this report was not so great, however, as for most other areas in the western part of the state. A report covering approximately the same area and a number of the same farms for 1925 showed an average rate earned of 5.3 percent compared with 4.7 percent for the farms included in this report for 1926. Some reasons for the lower level of earnings are : lower corn yields, lower quality of grain due to wet weather, a severe outbreak of hog cholera, less satisfactory prices for heavy cattle and lower farm prices for corn and wheat.

Some points of strength and some of weakness may be found in your own farm business by comparing the factors from your own record in the following tables with the same factors for the average farm and for farms of the high and low profit groups.

Carroll, Whiteside and Rock Island Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of 32 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	4.74%	8.09%	1.30%
Labor and management wage	\$	\$ 595	\$1,713	\$ -451
Size of farm - acres	A	194.4 A	197.3 A	157.9 A
Percent of land area tillable	%	85.3 %	77.7 %	85.8 %
Acres in Corn	A	61.6 A	66.3 A	47.2 A
Oats	A	31.8 A	24.1 A	34.9 A
Wheat	A	5.6 A	9.5 A	-
Crop yields - Corn	bu.	43.5 bu.	44.8 bu.	40.2 bu.
Oats	bu.	29.9 bu.	34.4 bu.	22.4 bu.
Wheat	bu.	23.6 bu.	20.5 bu.	-
Returns per \$100 invested in all productive livestock	\$	\$ 139	\$ 147	\$ 116
For \$100 in Cattle	\$	\$ 85	\$ 85	\$ 72
Hogs	\$	\$ 202	\$ 213	\$ 185
Poultry	\$	\$ 172	\$ 171	\$ 156
Investment per acre in productive livestock	\$	\$ 17.77	\$ 20.55	\$ 17.44
Receipts per acre in productive livestock	\$	\$ 24.75	\$ 30.17	\$ 20.19
Man labor cost per acre	\$	\$ 6.91	\$ 5.59	\$ 7.09
Crop acres per man	A	70.1 A	74.1 A	66 A
Crop acres per horse (with tractor)	A	28.2 A	32.4 A	27.1 A
(wwithout tractor)	A	19.1 A	19.3 A	20.1 A
Expense per \$100 gross income	\$	\$ 63	\$ 54	\$ 87
Machinery cost per acre	\$	\$ 2.12	\$ 1.91	\$ 1.89
Building and fencing cost per acre	\$	\$ 1.62	\$ 1.41	\$ 1.62
Gross receipts per acre	\$	\$ 24.96	\$ 30.49	\$ 20.34
Total expenses per acre	\$	\$ 15.66	\$ 16.46	\$ 17.76
Net receipts per acre	\$	\$ 9.30	\$ 14.03	\$ 2.58
Percent of farms with tractor		44%	20%	50%
Value of land per acre	\$	\$ 131	\$ 109	\$ 133
Total investment per acre	\$	\$ 195	\$ 173	\$ 199

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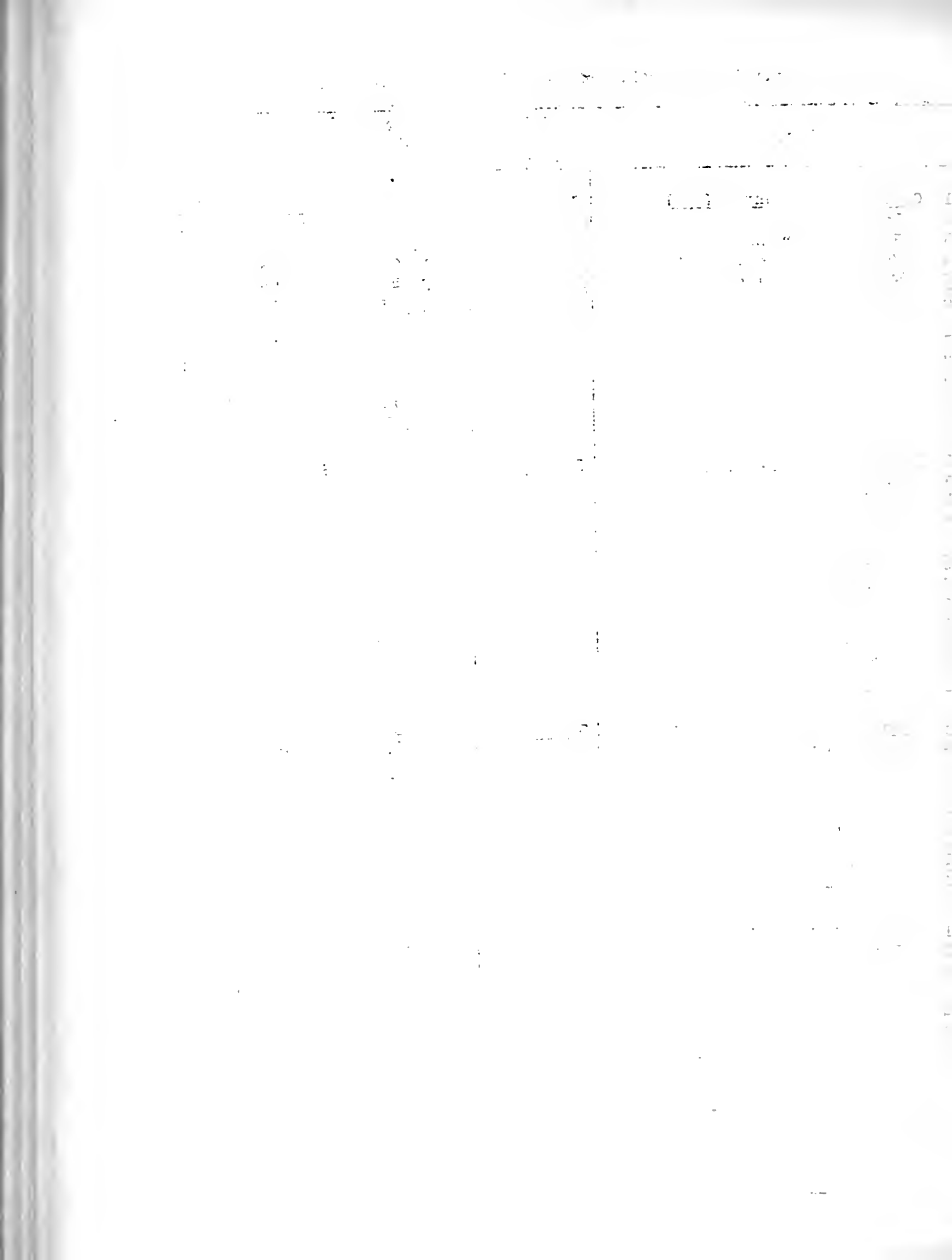
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Carroll, Whiteside and Rock Island Counties, 1926

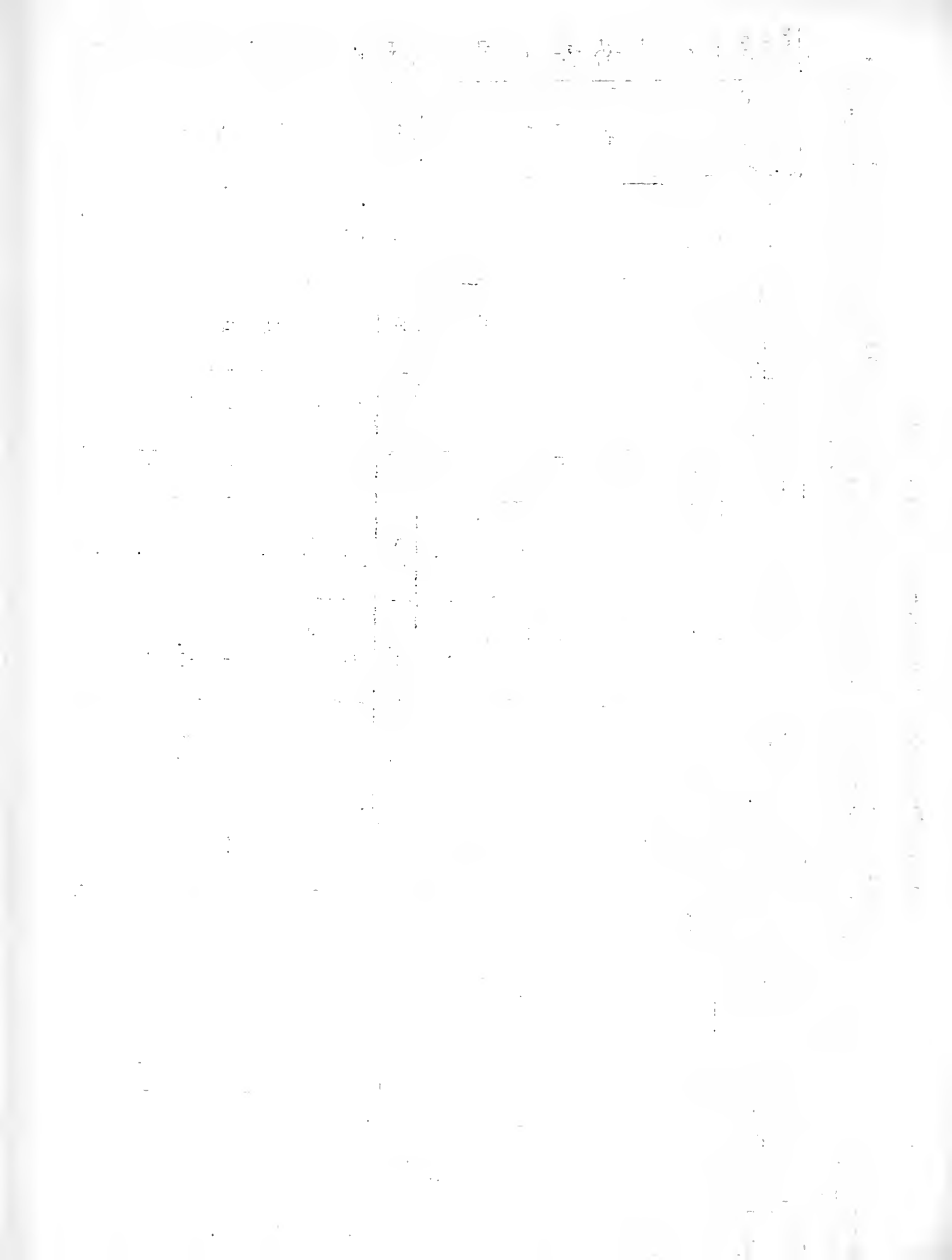
Item	Your farm	Average of 32 farms	Ten most profitable farms	Ten least profitable farms
1. <u>Capital Investment - Total</u>	\$ _____	\$38,134	\$34,219	\$31,348
2 Land		25,447	21,521	21,018
3 Farm improvements		5,238	5,008	4,426
4 Machinery and equipment		1,392	1,265	1,091
5 Feed and supplies		2,140	1,908	1,768
6 Livestock		3,917	4,517	3,045
7 Horses		538	629	318
8 Cattle		1,594	1,731	1,485
9 Hogs		1,532	1,912	980
10 Sheep		75	50	109
11 Poultry		178	195	153
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 4,852	\$ 6,017	\$ 3,212
13 Feed and grain		--	--	--
14 Miscellaneous		41	64	23
15 Livestock - Total		4,811	5,953	3,189
16 Horses		--	9	--
17 Cattle		796	970	569
18 Hogs		2,991	3,875	1,779
19 Sheep		48	39	71
20 Poultry		147	204	81
21 Egg sales		171	144	160
22 Dairy sales		658	712	529
23 <u>Expenses-Net-Decreases-Total</u>	\$ _____	\$ 2,040	\$ 2,441	\$ 1,805
24 Farm improvements		315	279	256
25 Livestock		18	-	27
26 Horses		18	-	27
27 Cattle		-	-	-
28 Hogs		-	-	-
29 Sheep		-	-	-
30 Poultry		-	-	-
31 Machinery and equipment		413	376	298
32 Feed and supplies		348	861	626
33 Livestock expense other than feed		88	93	61
34 Crop expense		177	158	160
35 Labor hired		340	351	120
36 Taxes, insurance, etc.		315	297	240
37 Miscellaneous		26	26	17
38 <u>Receipts less Expenses</u>	\$ _____	\$ 2,812	\$ 3,576	\$ 1,407
39 Operator's and unpaid family labor		1,004	806	999
40 Net income from investment		1,808	2,770	408



Carroll, Whiteside and Rock Island Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S. per acre	Man la- bor cost per acre	Crop acres per			Expense per \$100 income	Gross receipts per acre	Size of farm		
	Corn	Oats	Wheat	Horse					Tractor	No	trac-				tor	
				Cattle	Hogs											Poultry
11.7	72	51	38	155	342	312	38.75	3.40	105	42	34	28	46	324		
10.7	68	48	36	145	322	292	36.75	3.90	100	40	32	33	43	314		
9.7	64	45	34	135	302	272	34.75	4.40	95	38	30	38	40	294		
8.7	60	42	32	125	282	252	32.75	4.90	90	36	28	43	37	274		
7.7	56	39	30	115	262	232	30.75	5.40	85	34	26	48	34	254		
6.7	52	36	28	105	242	212	28.75	5.90	80	32	24	53	31	234		
5.7	48	33	26	95	222	192	26.75	6.40	75	30	22	58	28	214		
4.7	44	30	24	85	202	172	24.75	6.90	70	28	20	63	25	194		
3.7	40	27	22	75	182	152	22.75	7.40	65	26	18	68	22	174		
2.7	36	24	20	65	162	132	20.75	7.90	60	24	16	73	19	154		
1.7	32	21	18	55	142	112	18.75	8.40	55	22	14	78	16	134		
0.7	28	18	16	45	122	92	16.75	8.90	50	20	12	83	13	114		
-0.3	24	15	14	35	102	72	14.75	9.40	45	18	10	88	10	94		
-1.3	20	12	12	25	82	52	12.75	9.90	40	16	8	93	7	74		
-2.3	16	9	10	15	62	32	10.75	10.40	35	14	6	98	4	54		



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

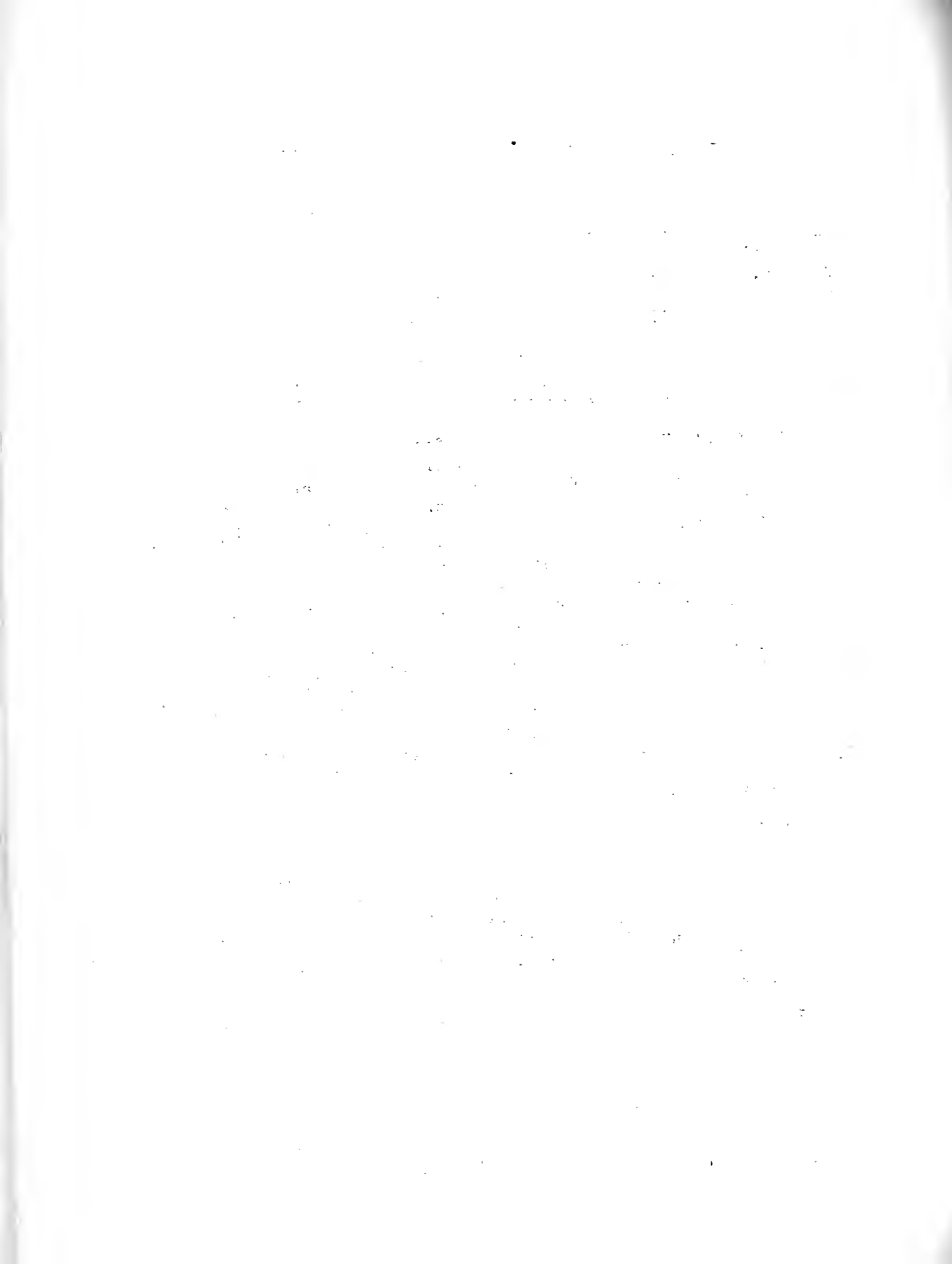
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

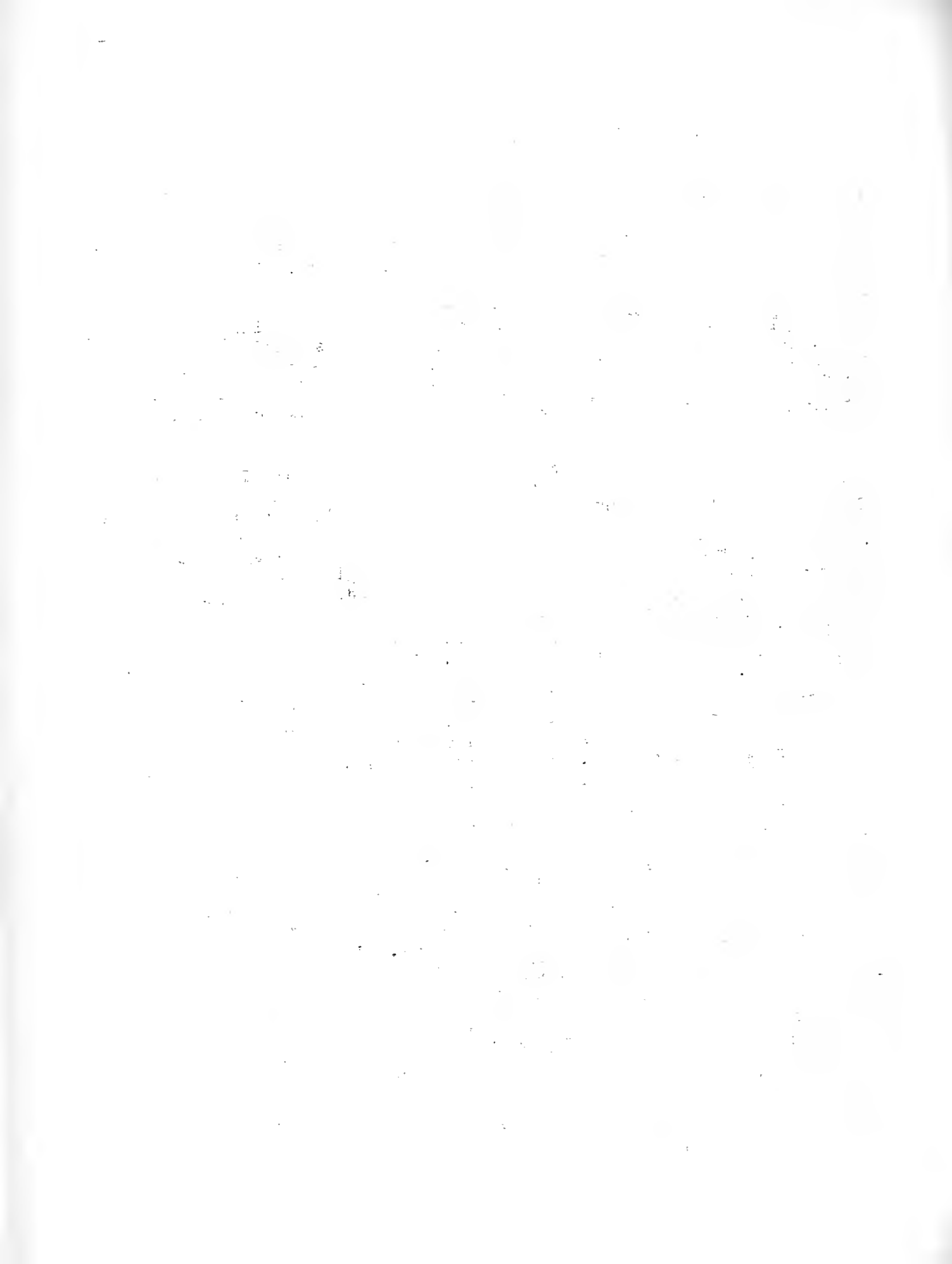


conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,



and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

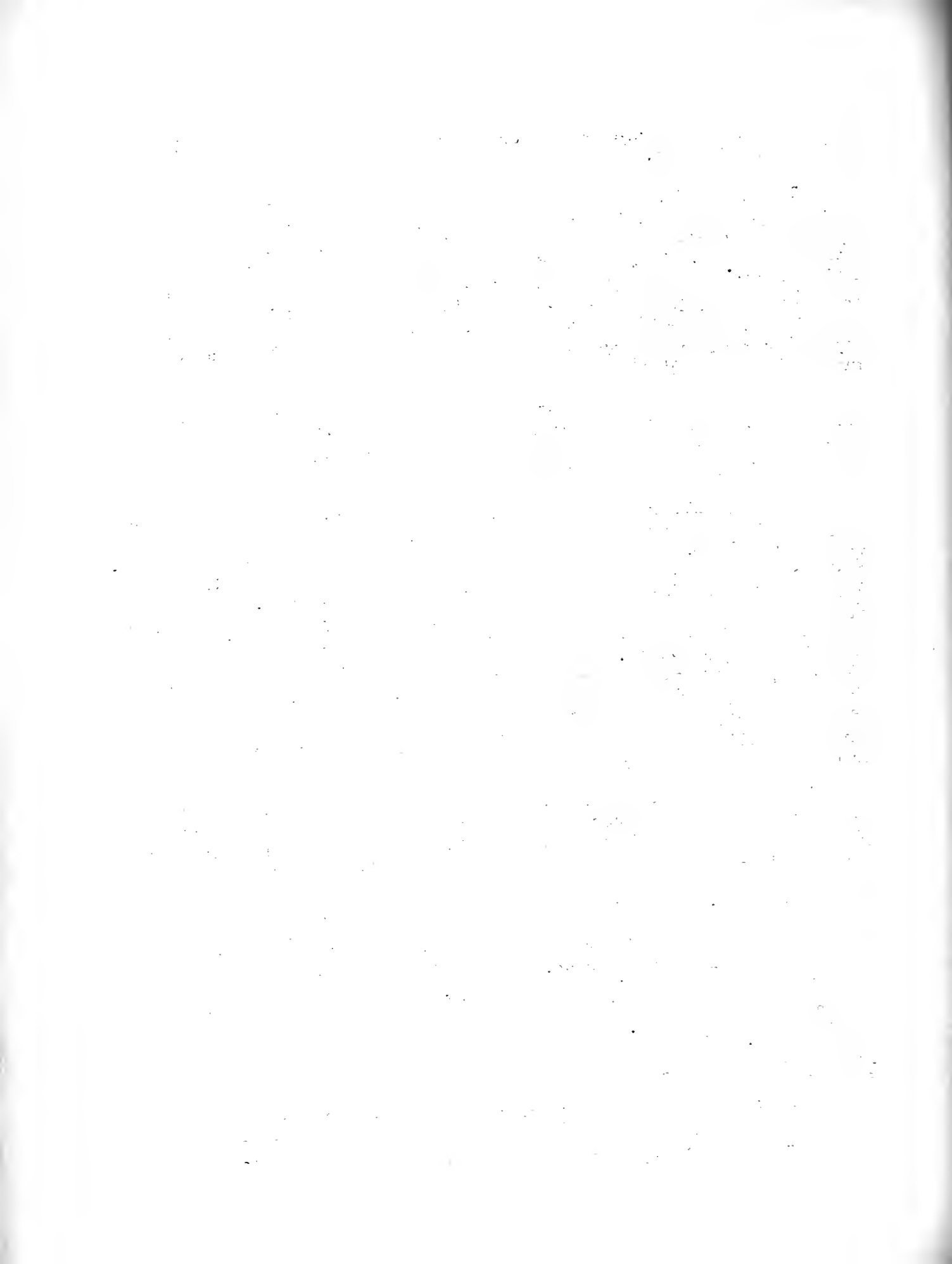
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|--|--|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

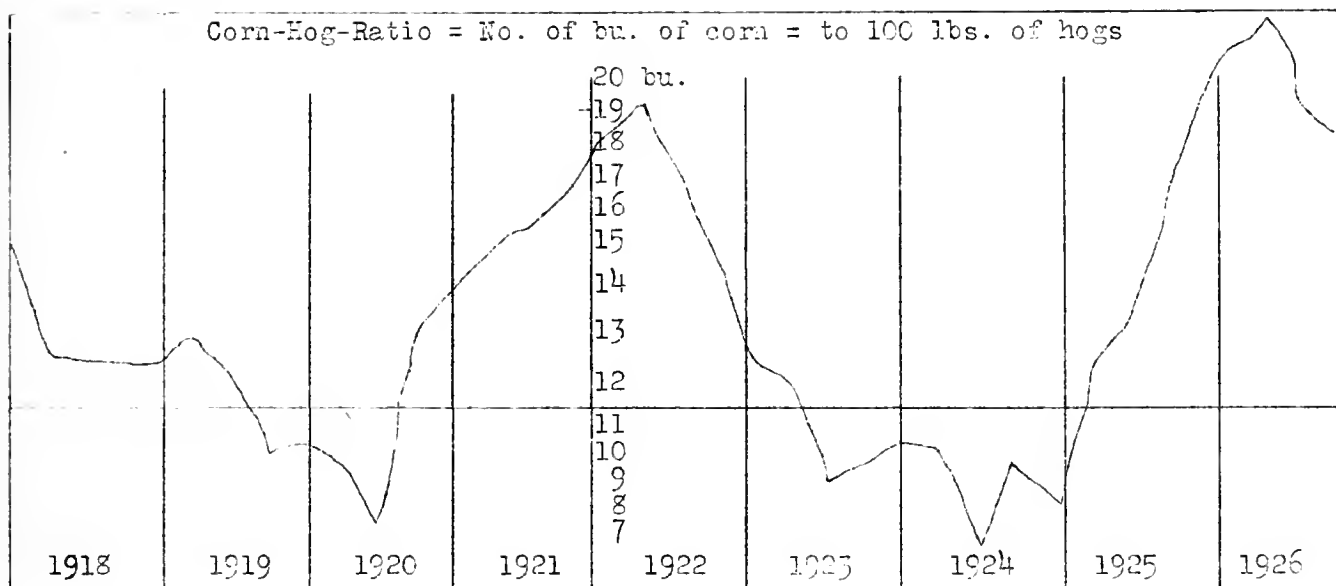
The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the various methods used to collect and analyze the data. This includes both manual and automated processes. The manual process involves reviewing each entry individually, while the automated process uses software to identify patterns and anomalies.

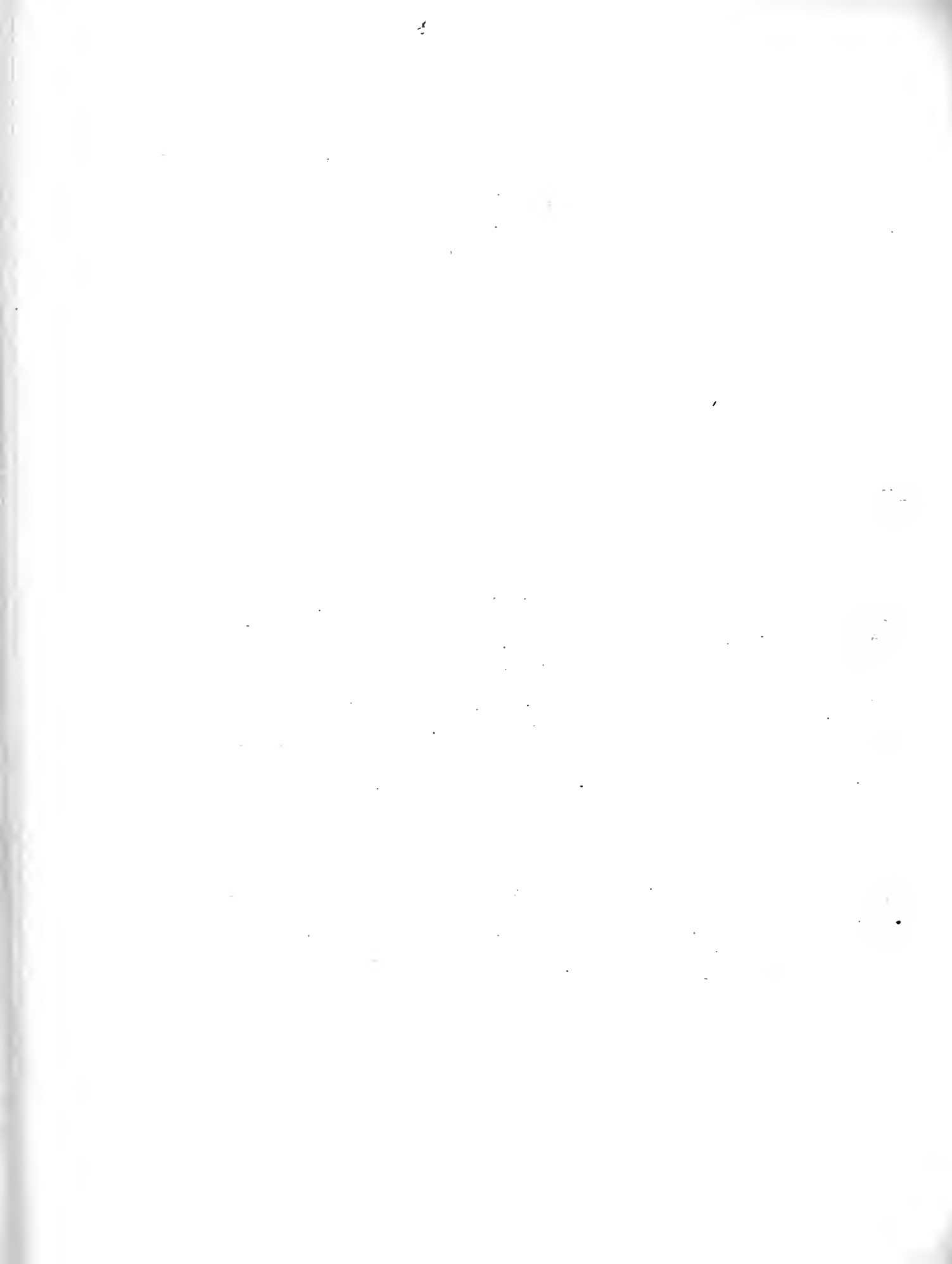
The third section describes the results of the analysis. It shows that there is a significant correlation between certain variables, which suggests that these factors are highly influential in the overall process. The data also indicates that there are several areas where efficiency can be improved.

Finally, the document concludes with a series of recommendations for future work. These include implementing more robust data collection methods, improving the accuracy of the reporting system, and conducting further research into the underlying causes of the observed trends.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

WILL COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1926

Farm Account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

April 20, 1927

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ANNUAL FARM BUSINESS REPORT

Will County, Illinois - 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. C. M. Case*

The 30 farmers in Will County who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$391 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of \$227 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,453, while the one-third who were least successful lacked an average of \$492 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$1,945 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 30 farmers earned 4.31 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 6.97 percent and the least successful third 1.88 percent. The average investment on the 30 farms was \$40,564, which amounts to \$227 an acre. The higher profit third had an average investment of \$221 and the lower profit third \$223 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$166 an acre as an average for all the farms.

In addition to the above earnings, each family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

There was less than 5 acres difference in size between the farms of the higher and lower profit groups covered by this report, but the farms in the first group had about 43 acres more tillable land per farm. They had about 7 acres more corn, 2 acres more oats, and 8 acres more wheat than their less successful neighbors.

In yields the more successful farms had an advantage of about 2 bushels of corn, and 7 bushels of wheat per acre with no advantage in oat yield. This is less difference than previous reports have shown. As a rule yields constitute one of the chief differences between the high and low profit groups.

*J. F. Hedgcock, farm adviser in Will County, cooperated in supervising and collecting the records used in this report.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be clearly documented, including the date, amount, and purpose of the transaction. This ensures transparency and allows for easy reconciliation of accounts.

In the second section, the author outlines the various methods used to collect and analyze data. These methods include direct observation, interviews, and the use of specialized software tools. Each method is described in detail, highlighting its strengths and limitations.

The third section focuses on the results of the data analysis. It presents a series of charts and graphs that illustrate the trends and patterns observed in the data. The author provides a detailed interpretation of these results, explaining their significance and how they relate to the overall objectives of the study.

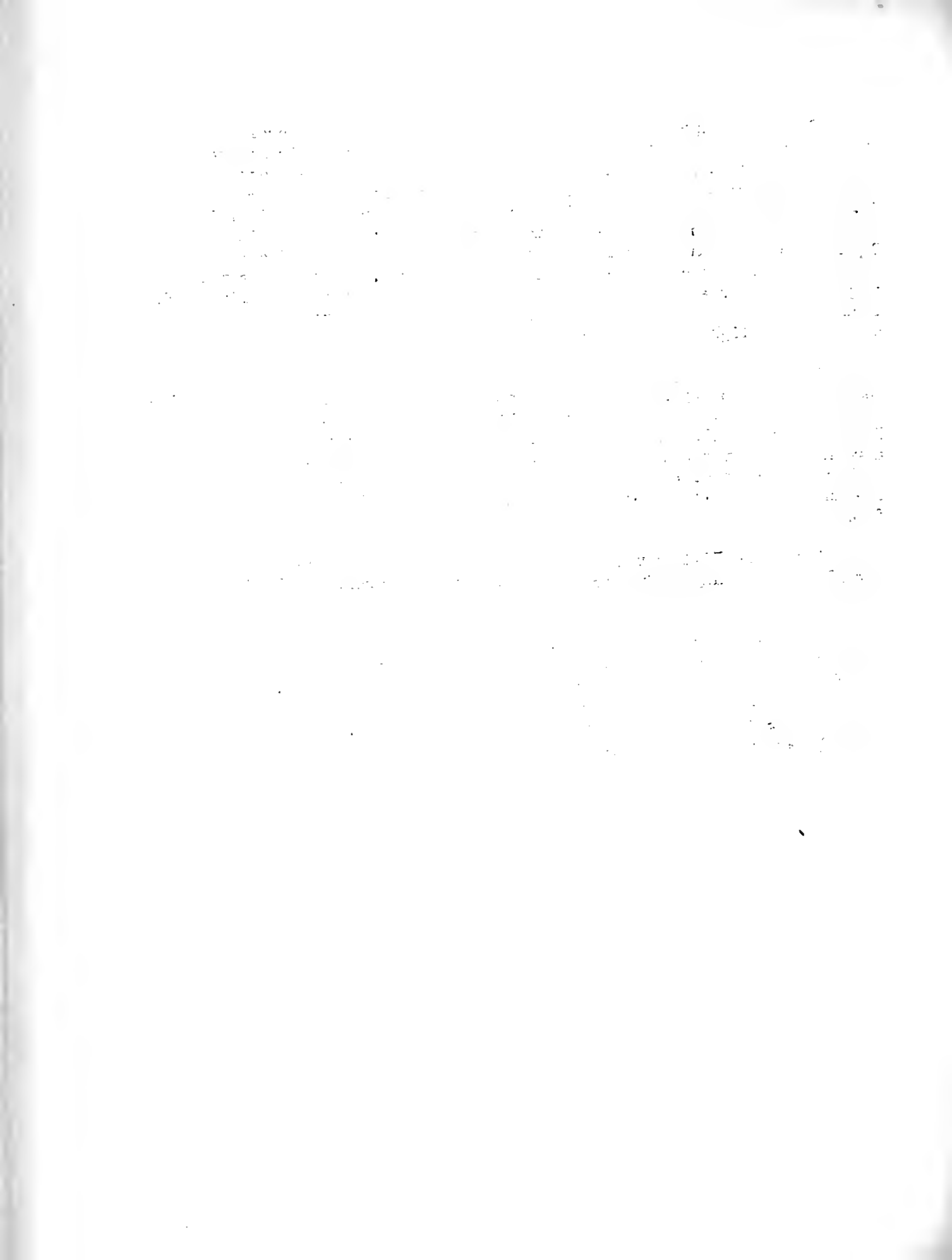
Finally, the document concludes with a summary of the findings and a list of recommendations. The author suggests several ways in which the information gathered can be used to improve organizational performance and efficiency. The document is intended to serve as a valuable resource for anyone interested in data analysis and business operations.

One of the greatest differences between the 10 most profitable farms and the 10 least profitable farms covered by this report is in their livestock efficiency. They had about the same livestock investment per acre, but the high profit group received \$17.42 livestock income per acre against \$9.71 received by the low profit group. The former took in \$157 income for each \$100 of livestock investment, while the latter took in only \$86. The more successful farms fed their livestock and still had net crop sales \$775 a farm larger than the less successful farms. Labor costs were only fifty-five cents an acre larger on the farms with the greater livestock income and the greater net earnings. They handled about 8 more crop acres per man but slightly less crop acres per horse.

On the expense side of the business the more successful group had machinery and equipment costs about 60 cents an acre higher and farm improvement costs 15 cents an acre higher than the less successful group. The more profitable farms had total operating costs almost a dollar an acre higher than the less profitable farms. Their higher gross income much more than overcame this handicap, however, leaving them a net operating income per acre nearly four times as large as that of the low profit farms.

Since the Will County records were kept on practically the same farms for 1924, 1925, and 1926, some interesting comparisons can be made between these years.

The following table gives a good three-year comparison of investments and earnings on these farms. The higher average of earnings for 1925 was due chiefly to the higher grain prices prevailing that year. It will be remembered that the higher grain prices were due to a short corn crop in the United States and to a short world crop of wheat. Operating costs apparently are not decreasing.



Comparative Earnings on Will County Farms

Item	1924	1925	1926
Number of farm records	34	33	30
Average size of farm in acres	188	186	179
Average rate earned	6.26%	4.13%	4.31%
Average value of land per acre	167	165	166
Average investment per acre	227	230	227
Investment in livestock per farm	2,738	2,844	2,690
Investment in cattle per farm	1,425	1,520	1,487
Investment in hogs per farm	539	610	501
Investment in poultry per farm	158	147	157
Gross income per acre	28.74	22.89	23.26
Operating cost per acre	14.50	13.40	13.48
Grain sales less feed purchases per farm	2,379	1,169	1,319
Miscellaneous income per farm	174	131	105
Livestock income per farm	2,856	2,949	2,739
Gross income per farm	5,409	4,249	4,163

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm, as well as on the farms of the group making the best profits and the group making the least profits.

The first part of the book is devoted to the early history of the United States, from the discovery of the continent to the establishment of the first colonies. It covers the period from 1492 to 1776.

The second part of the book deals with the American Revolution, from the outbreak of hostilities in 1775 to the signing of the Declaration of Independence in 1776. It also covers the war and the subsequent years of reconstruction.

The third part of the book is devoted to the early years of the United States, from the signing of the Constitution in 1787 to the end of the War of 1812. It covers the period of the first two presidencies, George Washington and John Adams.

The fourth part of the book deals with the years of the War of 1812, from the outbreak of hostilities in 1812 to the signing of the Treaty of Ghent in 1814. It covers the military and political aspects of the war.

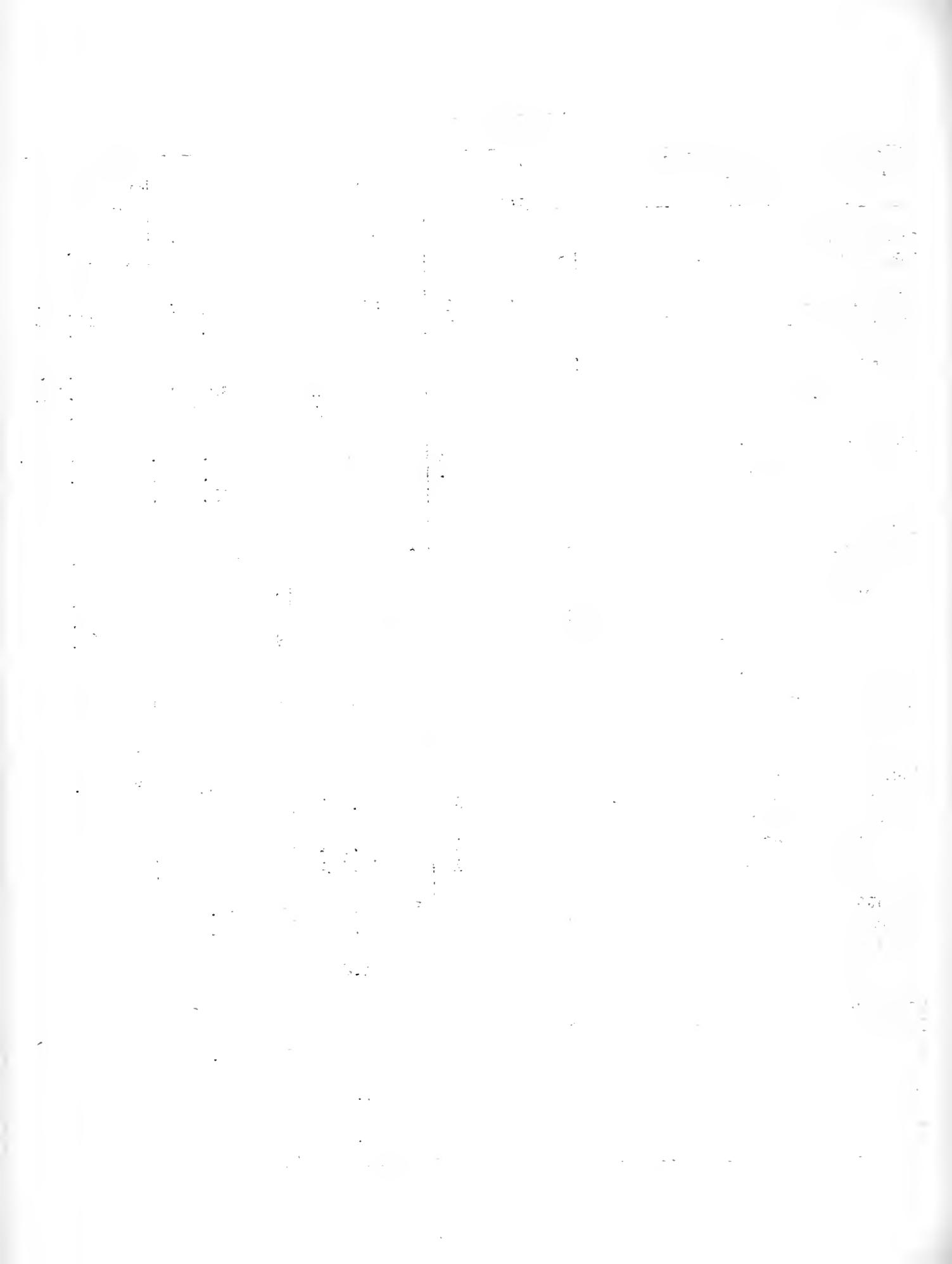
The fifth part of the book is devoted to the years of the Jacksonian era, from the election of Andrew Jackson in 1828 to the end of his presidency in 1836. It covers the period of the second presidency, Andrew Jackson.

The sixth part of the book deals with the years of the Tyler and Polk presidencies, from the election of John Tyler in 1840 to the end of James K. Polk's presidency in 1845. It covers the period of the third and fourth presidencies, John Tyler and James K. Polk.

The seventh part of the book is devoted to the years of the Taylor and Fillmore presidencies, from the election of Zachary Taylor in 1848 to the end of Millard Fillmore's presidency in 1850. It covers the period of the fifth and sixth presidencies, Zachary Taylor and Millard Fillmore.

Will County - 1926

Factors helping to analyze the farm business	Your farm	Average of thirty farms	Ten most profitable farms	Ten least profitable farms
Rate earned	\$	4.31%	6.97%	1.88%
Labor and management wage	\$	\$ 391	\$ 1,453	\$ -492
Size of farm - acres	A	179.0 A	176.8 A	172.1 A
Percent of land area tillable	%	88.2 %	92.8 %	70.5 %
Acres in Corn	A	51.4 A	52.4 A	45.3 A
Oats	A	32.2 A	32.7 A	30.9 A
Wheat	A	24.3 A	27.5 A	19.1 A
Crop yields - Corn	bu.	41.9 bu.	42.1 bu.	39.7 bu.
Oats	bu.	45.5 bu.	45.8 bu.	46.1 bu.
Wheat	bu.	26.6 bu.	29.3 bu.	22.4 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 124.00	\$ 157.00	\$ 86.00
For \$100 in Cattle	\$	\$ 102.00	\$ 132.00	\$ 66.00
Hogs	\$	\$ 164.00	\$ 190.00	\$ 135.00
Poultry	\$	\$ 187.00	\$ 191.00	\$ 165.00
Investment per acre in productive livestock	\$	\$ 12.34	\$ 11.09	\$ 11.25
Receipts per acre from productive livestock	\$	\$ 15.30	\$ 17.42	\$ 9.71
Man labor cost per acre	\$	\$ 6.54	\$ 6.78	\$ 6.23
Crop acres per man	A	87.0 A	87.3 A	79.1 A
Crop acres per horse (with tractor)	A	30.9 A	30.6 A	35.8 A
(without tractor)	A	20.5 A	16.9 A	22.2 A
Expense per \$100 gross income	\$	\$ 58.00	\$ 47.00	\$ 75.00
Machinery cost per acre	\$	\$ 2.60	\$ 2.69	\$ 2.10
Building and fencing cost per acre	\$	\$ 1.22	\$ 1.10	\$.95
Gross receipts per acre	\$	\$ 23.26	\$ 29.10	\$ 17.00
Total expenses per acre	\$	\$ 13.48	\$ 13.69	\$ 12.80
Net receipts per acre	\$	\$ 9.78	\$ 15.41	\$ 4.20
Percent of farms with tractor	%	61.7 %	70 %	50 %
Value of land per acre	\$	\$ 155.00	\$ 162.00	\$ 168.00
Total investment per acre	\$	\$ 227.00	\$ 221.00	\$ 223.00



Will County - 1926

Item	Your farm	Average of thirty farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$40,564	\$39,108	\$38,429
2 Land		29,700	28,712	28,875
3 Farm improvements		4,208	3,941	3,685
4 Machinery and equipment		1,511	1,469	1,602
5 Feed and supplies		2,355	2,418	1,998
6 Livestock		2,690	2,568	2,268
7 Horses		519	510	436
8 Cattle		1,487	1,137	1,395
9 Hogs		501	653	302
10 Sheep and bees		26	35	15
11 Poultry		157	233	120
12 <u>Receipts-Net Increases - Total</u>		<u>4,163</u>	<u>5,144</u>	<u>2,925</u>
13 Feed and grain		1,319	1,919	1,144
14 Miscellaneous		105	128	23
15 Livestock - Total		2,739	3,097	1,758
16 Horses		-	17	-
17 Cattle		481	445	-
18 Hogs		890	1,185	431
19 Sheep and bees		35	37	45
20 Poultry		131	179	102
21 Egg sales		168	263	117
22 Dairy sales		1,034	971	1,063
23 <u>Expenses-Net Decreases - Total</u>		<u>1,513</u>	<u>1,467</u>	<u>1,272</u>
24 Farm improvements		219	195	163
25 Livestock		4	-	101
26 Horses		4	-	14
27 Cattle		-	-	87
28 Hogs		-	-	-
29 Sheep		-	-	-
30 Poultry		-	-	-
31 Machinery and equipment		465	475	361
32 Feed and supplies		-	-	-
33 Livestock expense other than feed		66	72	59
34 Crop expense		176	181	157
35 Labor hired		271	245	141
36 Taxes, insurance, etc.		279	260	268
37 Miscellaneous		33	39	22
38 <u>Receipts less Expenses</u>		<u>2,650</u>	<u>3,677</u>	<u>1,653</u>
39 Operator's and unpaid family labor		900	953	931
40 Net income from investment		1,750	2,724	722

Date	Description	Amount	Balance	Total
1912	Jan 1			
	Jan 2	100.00	100.00	100.00
	Jan 3	50.00	50.00	150.00
	Jan 4	25.00	25.00	200.00
	Jan 5	75.00	75.00	275.00
	Jan 6	125.00	125.00	400.00
	Jan 7	175.00	175.00	575.00
	Jan 8	225.00	225.00	800.00
	Jan 9	275.00	275.00	1075.00
	Jan 10	325.00	325.00	1400.00
	Jan 11	375.00	375.00	1775.00
	Jan 12	425.00	425.00	2200.00
	Jan 13	475.00	475.00	2675.00
	Jan 14	525.00	525.00	3200.00
	Jan 15	575.00	575.00	3775.00
	Jan 16	625.00	625.00	4400.00
	Jan 17	675.00	675.00	5075.00
	Jan 18	725.00	725.00	5800.00
	Jan 19	775.00	775.00	6575.00
	Jan 20	825.00	825.00	7400.00
	Jan 21	875.00	875.00	8275.00
	Jan 22	925.00	925.00	9200.00
	Jan 23	975.00	975.00	10175.00
	Jan 24	1025.00	1025.00	11200.00
	Jan 25	1075.00	1075.00	12275.00
	Jan 26	1125.00	1125.00	13400.00
	Jan 27	1175.00	1175.00	14575.00
	Jan 28	1225.00	1225.00	15800.00
	Jan 29	1275.00	1275.00	17075.00
	Jan 30	1325.00	1325.00	18400.00
	Jan 31	1375.00	1375.00	19775.00
	Feb 1	1425.00	1425.00	21200.00
	Feb 2	1475.00	1475.00	22675.00
	Feb 3	1525.00	1525.00	24200.00
	Feb 4	1575.00	1575.00	25775.00
	Feb 5	1625.00	1625.00	27400.00
	Feb 6	1675.00	1675.00	29075.00
	Feb 7	1725.00	1725.00	30800.00
	Feb 8	1775.00	1775.00	32575.00
	Feb 9	1825.00	1825.00	34400.00
	Feb 10	1875.00	1875.00	36275.00
	Feb 11	1925.00	1925.00	38200.00
	Feb 12	1975.00	1975.00	40175.00
	Feb 13	2025.00	2025.00	42200.00
	Feb 14	2075.00	2075.00	44275.00
	Feb 15	2125.00	2125.00	46400.00
	Feb 16	2175.00	2175.00	48575.00
	Feb 17	2225.00	2225.00	50800.00
	Feb 18	2275.00	2275.00	53075.00
	Feb 19	2325.00	2325.00	55400.00
	Feb 20	2375.00	2375.00	57775.00
	Feb 21	2425.00	2425.00	60200.00
	Feb 22	2475.00	2475.00	62675.00
	Feb 23	2525.00	2525.00	65200.00
	Feb 24	2575.00	2575.00	67775.00
	Feb 25	2625.00	2625.00	70400.00
	Feb 26	2675.00	2675.00	73075.00
	Feb 27	2725.00	2725.00	75800.00
	Feb 28	2775.00	2775.00	78575.00
	Feb 29	2825.00	2825.00	81400.00
	Feb 30	2875.00	2875.00	84275.00
	Feb 31	2925.00	2925.00	87200.00
	Mar 1	2975.00	2975.00	90175.00
	Mar 2	3025.00	3025.00	93200.00
	Mar 3	3075.00	3075.00	96275.00
	Mar 4	3125.00	3125.00	99400.00
	Mar 5	3175.00	3175.00	102575.00
	Mar 6	3225.00	3225.00	105800.00
	Mar 7	3275.00	3275.00	109075.00
	Mar 8	3325.00	3325.00	112400.00
	Mar 9	3375.00	3375.00	115775.00
	Mar 10	3425.00	3425.00	119200.00
	Mar 11	3475.00	3475.00	122675.00
	Mar 12	3525.00	3525.00	126200.00
	Mar 13	3575.00	3575.00	129775.00
	Mar 14	3625.00	3625.00	133400.00
	Mar 15	3675.00	3675.00	137075.00
	Mar 16	3725.00	3725.00	140800.00
	Mar 17	3775.00	3775.00	144575.00
	Mar 18	3825.00	3825.00	148400.00
	Mar 19	3875.00	3875.00	152275.00
	Mar 20	3925.00	3925.00	156200.00
	Mar 21	3975.00	3975.00	160175.00
	Mar 22	4025.00	4025.00	164200.00
	Mar 23	4075.00	4075.00	168275.00
	Mar 24	4125.00	4125.00	172400.00
	Mar 25	4175.00	4175.00	176575.00
	Mar 26	4225.00	4225.00	180800.00
	Mar 27	4275.00	4275.00	185075.00
	Mar 28	4325.00	4325.00	189400.00
	Mar 29	4375.00	4375.00	193775.00
	Mar 30	4425.00	4425.00	198200.00
	Mar 31	4475.00	4475.00	202675.00
	Apr 1	4525.00	4525.00	207200.00
	Apr 2	4575.00	4575.00	211775.00
	Apr 3	4625.00	4625.00	216400.00
	Apr 4	4675.00	4675.00	221075.00
	Apr 5	4725.00	4725.00	225800.00
	Apr 6	4775.00	4775.00	230575.00
	Apr 7	4825.00	4825.00	235400.00
	Apr 8	4875.00	4875.00	240275.00
	Apr 9	4925.00	4925.00	245200.00
	Apr 10	4975.00	4975.00	250175.00
	Apr 11	5025.00	5025.00	255200.00
	Apr 12	5075.00	5075.00	260275.00
	Apr 13	5125.00	5125.00	265400.00
	Apr 14	5175.00	5175.00	270575.00
	Apr 15	5225.00	5225.00	275800.00
	Apr 16	5275.00	5275.00	281075.00
	Apr 17	5325.00	5325.00	286400.00
	Apr 18	5375.00	5375.00	291775.00
	Apr 19	5425.00	5425.00	297200.00
	Apr 20	5475.00	5475.00	302675.00
	Apr 21	5525.00	5525.00	308200.00
	Apr 22	5575.00	5575.00	313775.00
	Apr 23	5625.00	5625.00	319400.00
	Apr 24	5675.00	5675.00	325075.00
	Apr 25	5725.00	5725.00	330800.00
	Apr 26	5775.00	5775.00	336575.00
	Apr 27	5825.00	5825.00	342400.00
	Apr 28	5875.00	5875.00	348275.00
	Apr 29	5925.00	5925.00	354200.00
	Apr 30	5975.00	5975.00	360175.00
	Apr 31	6025.00	6025.00	366200.00
	May 1	6075.00	6075.00	372275.00
	May 2	6125.00	6125.00	378400.00
	May 3	6175.00	6175.00	384575.00
	May 4	6225.00	6225.00	390800.00
	May 5	6275.00	6275.00	397075.00
	May 6	6325.00	6325.00	403400.00
	May 7	6375.00	6375.00	409775.00
	May 8	6425.00	6425.00	416200.00
	May 9	6475.00	6475.00	422675.00
	May 10	6525.00	6525.00	429200.00
	May 11	6575.00	6575.00	435775.00
	May 12	6625.00	6625.00	442400.00
	May 13	6675.00	6675.00	449075.00
	May 14	6725.00	6725.00	455800.00
	May 15	6775.00	6775.00	462575.00
	May 16	6825.00	6825.00	469400.00
	May 17	6875.00	6875.00	476275.00
	May 18	6925.00	6925.00	483200.00
	May 19	6975.00	6975.00	490175.00
	May 20	7025.00	7025.00	497200.00
	May 21	7075.00	7075.00	504275.00
	May 22	7125.00	7125.00	511400.00
	May 23	7175.00	7175.00	518575.00
	May 24	7225.00	7225.00	525800.00
	May 25	7275.00	7275.00	533075.00
	May 26	7325.00	7325.00	540400.00
	May 27	7375.00	7375.00	547775.00
	May 28	7425.00	7425.00	555200.00
	May 29	7475.00	7475.00	562675.00
	May 30	7525.00	7525.00	570200.00
	May 31	7575.00	7575.00	577775.00
	Jun 1	7625.00	7625.00	585400.00
	Jun 2	7675.00	7675.00	593075.00
	Jun 3	7725.00	7725.00	600800.00
	Jun 4	7775.00	7775.00	608575.00
	Jun 5	7825.00	7825.00	616400.00
	Jun 6	7875.00	7875.00	624275.00
	Jun 7	7925.00	7925.00	632200.00
	Jun 8	7975.00	7975.00	640175.00
	Jun 9	8025.00	8025.00	648200.00
	Jun 10	8075.00	8075.00	656275.00
	Jun 11	8125.00	8125.00	664400.00
	Jun 12	8175.00	8175.00	672575.00
	Jun 13	8225.00	8225.00	680800.00
	Jun 14	8275.00	8275.00	689075.00
	Jun 15	8325.00	8325.00	697400.00
	Jun 16	8375.00	8375.00	705775.00
	Jun 17	8425.00	8425.00	714200.00
	Jun 18	8475.00	8475.00	722675.00
	Jun 19	8525.00	8525.00	731200.00
	Jun 20	8575.00	8575.00	739775.00
	Jun 21	8625.00	8625.00	748400.00
	Jun 22	8675.00	8675.00	757075.00
	Jun 23	8725.00	8725.00	765800.00
	Jun 24	8775.00	8775.00	774575.00
	Jun 25	8825.00	8825.00	783400.00
	Jun 26	8875.00	8875.00	792275.00
	Jun 27	8925.00	8925.00	801200.00
	Jun 28	8975.00	8975.00	810175.00
	Jun 29	9025.00	9025.00	819200.00
	Jun 30	9075.00	9075.00	828275.00
	Jun 31	9125.00	9125.00	837400.00
	Jul 1	9175.00	9175.00	846575.00
	Jul 2	9225.00	9225.00	855800.00
	Jul 3	9275.00	9275.00	865075.00
	Jul 4	9325.00	9325.00	874400.00
	Jul 5	9375.00	9375.00	883775.00
	Jul 6	9425.00	9425.00	893200.00
	Jul 7	9475.00	9475.00	902675.00
	Jul 8	9525.00	9525.00	912200.00
	Jul 9	9575.00	9575.00	921775.00
	Jul 10	9625.00	9625.00	931400.00
	Jul 11	9675.00	9675.00	

The numbers between the lines across the middle of the page are the approximate averages for your county of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your county.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per acre in I.S.	Receipts per acre from I.S.	Man labor cost per acre	Cron acres per		Expense per \$100 income	Gross receipts per acre	Size of farm			
	Wheat	Corn	Cattle	Hogs				Man	Tractor				Horses	No tractor	
11.31	53	66	41	172	304	327	26.34	29.30	3.00	122	45	34	23	51	319
10.31	60	63	39	162	284	307	24.34	27.30	3.50	117	43	32	28	47	299
9.31	57	60	37	152	264	287	22.34	25.30	4.00	112	41	30	33	43	279
8.31	54	57	35	142	244	267	20.34	23.30	4.50	107	39	28	38	39	259
7.31	51	54	33	132	224	247	18.34	21.30	5.00	102	37	26	43	35	239
6.31	48	51	31	122	204	227	16.34	19.30	5.50	97	35	24	48	31	219
5.31	45	48	29	112	184	207	14.34	17.30	6.00	92	33	22	53	27	199
4.31	42	45	27	102	164	187	12.34	15.30	6.50	87	31	20	58	23	179
3.31	39	42	25	92	144	167	10.34	13.30	7.00	82	29	18	63	19	159
2.31	36	39	23	82	124	147	8.34	11.30	7.50	77	27	16	68	15	139
1.31	33	36	21	72	104	127	6.34	9.30	8.00	72	25	14	73	11	119
0.31	30	33	19	62	84	107	4.34	7.30	8.50	67	23	12	78	7	99
-0.69	27	30	17	52	64	87	2.34	5.30	9.00	62	21	10	83	3	79
-1.69	24	27	15	42	44	67	-----	3.30	9.50	57	19	8	88	-	59
-2.69	21	24	13	32	24	47	-----	1.30	10.00	52	17	6	93	-	39

日期	姓名	性别	年龄	籍贯	职业	文化程度	健康状况	婚姻状况	备注
1950.1.1	张三	男	45	山西	工人	小学	良好	已婚	
1950.1.1	李四	女	35	河北	农民	文盲	一般	已婚	
1950.1.1	王五	男	25	山东	学生	中学	良好	未婚	
1950.1.1	赵六	男	55	河南	干部	大学	良好	已婚	
1950.1.1	孙七	女	65	浙江	退休	小学	一般	已婚	
1950.1.1	周八	男	30	江苏	工人	小学	良好	已婚	
1950.1.1	吴九	女	40	安徽	农民	文盲	一般	已婚	
1950.1.1	郑十	男	20	湖北	学生	中学	良好	未婚	
1950.1.1	冯十一	男	50	湖南	工人	小学	一般	已婚	
1950.1.1	陈十二	女	30	四川	工人	小学	良好	已婚	
1950.1.1	林十三	男	40	江西	农民	文盲	一般	已婚	
1950.1.1	黄十四	女	20	广东	学生	中学	良好	未婚	
1950.1.1	周十五	男	60	广西	退休	小学	一般	已婚	
1950.1.1	吴十六	女	50	福建	工人	小学	良好	已婚	
1950.1.1	郑十七	男	30	贵州	工人	小学	良好	已婚	
1950.1.1	冯十八	女	40	云南	农民	文盲	一般	已婚	
1950.1.1	陈十九	男	20	陕西	学生	中学	良好	未婚	
1950.1.1	林二十	女	30	甘肃	工人	小学	良好	已婚	
1950.1.1	黄二十一	男	40	宁夏	农民	文盲	一般	已婚	
1950.1.1	周二十二	女	20	青海	学生	中学	良好	未婚	
1950.1.1	吴二十三	男	50	新疆	工人	小学	一般	已婚	
1950.1.1	郑二十四	女	30	内蒙古	工人	小学	良好	已婚	
1950.1.1	冯二十五	男	40	吉林	农民	文盲	一般	已婚	
1950.1.1	陈二十六	女	20	辽宁	学生	中学	良好	未婚	
1950.1.1	林二十七	男	30	黑龙江	工人	小学	良好	已婚	
1950.1.1	黄二十八	女	40	河北	农民	文盲	一般	已婚	
1950.1.1	周二十九	男	20	山西	学生	中学	良好	未婚	
1950.1.1	吴三十	女	30	山东	工人	小学	良好	已婚	
1950.1.1	郑三十一	男	40	河南	农民	文盲	一般	已婚	
1950.1.1	冯三十二	女	20	湖北	学生	中学	良好	未婚	
1950.1.1	陈三十三	男	30	湖南	工人	小学	良好	已婚	
1950.1.1	林三十四	女	40	四川	农民	文盲	一般	已婚	
1950.1.1	黄三十五	男	20	江西	学生	中学	良好	未婚	
1950.1.1	周三十六	女	30	广东	工人	小学	良好	已婚	
1950.1.1	吴三十七	男	40	广西	农民	文盲	一般	已婚	
1950.1.1	郑三十八	女	20	福建	学生	中学	良好	未婚	
1950.1.1	冯三十九	男	30	贵州	工人	小学	良好	已婚	
1950.1.1	陈四十	女	40	云南	农民	文盲	一般	已婚	
1950.1.1	林四十一	男	20	陕西	学生	中学	良好	未婚	
1950.1.1	黄四十二	女	30	甘肃	工人	小学	良好	已婚	
1950.1.1	周四十三	男	40	宁夏	农民	文盲	一般	已婚	
1950.1.1	吴四十四	女	20	青海	学生	中学	良好	未婚	
1950.1.1	郑四十五	男	30	新疆	工人	小学	良好	已婚	
1950.1.1	冯四十六	女	40	内蒙古	农民	文盲	一般	已婚	
1950.1.1	陈四十七	男	20	吉林	学生	中学	良好	未婚	
1950.1.1	林四十八	女	30	辽宁	工人	小学	良好	已婚	
1950.1.1	黄四十九	男	40	黑龙江	农民	文盲	一般	已婚	
1950.1.1	周五十	女	20	河北	学生	中学	良好	未婚	
1950.1.1	吴五十一	男	30	山西	工人	小学	良好	已婚	
1950.1.1	郑五十二	女	40	山东	农民	文盲	一般	已婚	
1950.1.1	冯五十三	男	20	河南	学生	中学	良好	未婚	
1950.1.1	陈五十四	女	30	湖北	工人	小学	良好	已婚	
1950.1.1	林五十五	男	40	湖南	农民	文盲	一般	已婚	
1950.1.1	黄五十六	女	20	四川	学生	中学	良好	未婚	
1950.1.1	周五十七	男	30	江西	工人	小学	良好	已婚	
1950.1.1	吴五十八	女	40	广东	农民	文盲	一般	已婚	
1950.1.1	郑五十九	男	20	广西	学生	中学	良好	未婚	
1950.1.1	冯六十	女	30	福建	工人	小学	良好	已婚	
1950.1.1	陈六十一	男	40	贵州	农民	文盲	一般	已婚	
1950.1.1	林六十二	女	20	云南	学生	中学	良好	未婚	
1950.1.1	黄六十三	男	30	陕西	工人	小学	良好	已婚	
1950.1.1	周四十四	女	40	甘肃	农民	文盲	一般	已婚	
1950.1.1	吴六十五	男	20	宁夏	学生	中学	良好	未婚	
1950.1.1	郑六十六	女	30	青海	工人	小学	良好	已婚	
1950.1.1	冯六十七	男	40	新疆	农民	文盲	一般	已婚	
1950.1.1	陈六十八	女	20	内蒙古	学生	中学	良好	未婚	
1950.1.1	林六十九	男	30	吉林	工人	小学	良好	已婚	
1950.1.1	黄七十	女	40	辽宁	农民	文盲	一般	已婚	
1950.1.1	周七十一	男	20	黑龙江	学生	中学	良好	未婚	
1950.1.1	吴七十二	女	30	河北	工人	小学	良好	已婚	
1950.1.1	郑七十三	男	40	山西	农民	文盲	一般	已婚	
1950.1.1	冯七十四	女	20	山东	学生	中学	良好	未婚	
1950.1.1	陈七十五	男	30	河南	工人	小学	良好	已婚	
1950.1.1	林七十六	女	40	湖北	农民	文盲	一般	已婚	
1950.1.1	黄七十七	男	20	湖南	学生	中学	良好	未婚	
1950.1.1	周四十七	女	30	四川	工人	小学	良好	已婚	
1950.1.1	吴七十八	男	40	江西	农民	文盲	一般	已婚	
1950.1.1	郑七十九	女	20	广东	学生	中学	良好	未婚	
1950.1.1	冯八十	男	30	广西	工人	小学	良好	已婚	
1950.1.1	陈八十一	女	40	福建	农民	文盲	一般	已婚	
1950.1.1	林八十二	男	20	贵州	学生	中学	良好	未婚	
1950.1.1	黄八十三	女	30	云南	工人	小学	良好	已婚	
1950.1.1	周四十八	男	40	陕西	农民	文盲	一般	已婚	
1950.1.1	吴八十四	女	20	甘肃	学生	中学	良好	未婚	
1950.1.1	郑八十五	男	30	宁夏	工人	小学	良好	已婚	
1950.1.1	冯八十六	女	40	青海	农民	文盲	一般	已婚	
1950.1.1	陈八十七	男	20	新疆	学生	中学	良好	未婚	
1950.1.1	林八十八	女	30	内蒙古	工人	小学	良好	已婚	
1950.1.1	黄八十九	男	40	吉林	农民	文盲	一般	已婚	
1950.1.1	周九十	女	20	辽宁	学生	中学	良好	未婚	
1950.1.1	吴九十一	男	30	黑龙江	工人	小学	良好	已婚	
1950.1.1	郑九十二	女	40	河北	农民	文盲	一般	已婚	
1950.1.1	冯九十三	男	20	山西	学生	中学	良好	未婚	
1950.1.1	陈九十四	女	30	山东	工人	小学	良好	已婚	
1950.1.1	林九十五	男	40	河南	农民	文盲	一般	已婚	
1950.1.1	黄九十六	女	20	湖北	学生	中学	良好	未婚	
1950.1.1	周四十九	男	30	湖南	工人	小学	良好	已婚	
1950.1.1	吴九十七	女	40	四川	农民	文盲	一般	已婚	
1950.1.1	郑九十八	男	20	江西	学生	中学	良好	未婚	
1950.1.1	冯九十九	女	30	广东	工人	小学	良好	已婚	
1950.1.1	陈一百	男	40	广西	农民	文盲	一般	已婚	

1. 本表为1950年1月1日的人口普查数据。
 2. 普查对象为16岁及以上常住居民。
 3. 普查项目包括姓名、性别、年龄、籍贯、职业、文化程度、健康状况、婚姻状况等。
 4. 普查数据将作为制定国家人口政策的重要依据。
 5. 普查数据将向社会公布，接受社会监督。
 6. 普查数据将作为制定国家发展规划的重要依据。
 7. 普查数据将作为制定国家教育政策的重要依据。
 8. 普查数据将作为制定国家卫生政策的重要依据。
 9. 普查数据将作为制定国家就业政策的重要依据。
 10. 普查数据将作为制定国家社会保障政策的重要依据。

ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for a systematic approach to data collection and the importance of using reliable sources of information.

3. The third part of the document describes the process of identifying and measuring key performance indicators (KPIs). It explains how these indicators are used to track progress and identify areas for improvement.

4. The fourth part of the document discusses the role of technology in data management and analysis. It highlights the benefits of using software tools to streamline data collection and analysis processes.

5. The fifth part of the document discusses the importance of data security and privacy. It outlines the measures that should be taken to protect sensitive information and ensure compliance with relevant regulations.

6. The sixth part of the document discusses the role of data in decision-making. It explains how data can be used to identify trends, make predictions, and inform strategic decisions.

7. The seventh part of the document discusses the importance of data literacy. It explains that all employees should have a basic understanding of data and be able to interpret and use it effectively.

8. The eighth part of the document discusses the role of data in innovation. It explains how data can be used to identify new opportunities and develop innovative solutions to existing problems.

9. The ninth part of the document discusses the importance of data governance. It outlines the policies and procedures that should be in place to ensure that data is managed and used in a responsible and ethical manner.

10. The tenth part of the document discusses the future of data. It highlights the growing importance of data in the digital age and the need for organizations to continue to invest in data management and analysis capabilities.

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This not only helps in tracking expenses but also ensures compliance with tax regulations. The document further outlines the process of reconciling bank statements with the company's ledger to identify any discrepancies. It stresses the need for regular reviews and the involvement of multiple staff members to ensure accuracy and prevent fraud.

In the second section, the focus is on budgeting and financial forecasting. It provides a detailed breakdown of the company's budget for the current year, categorized by department and project. The document explains how these budgets are used to allocate resources effectively and monitor spending against the plan. It also discusses the importance of having a contingency fund to handle unexpected costs. The text concludes this section by stating that regular budget reviews are essential for staying on track and achieving financial goals.

The final part of the document addresses the issue of financial reporting and transparency. It describes the various reports generated, such as the monthly profit and loss statement, the balance sheet, and the cash flow statement. It highlights the importance of providing clear and concise information to stakeholders, including investors and management. The document also mentions the role of external auditors in verifying the accuracy of the financial statements. It ends with a commitment to maintaining the highest standards of financial integrity and accountability.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

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supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

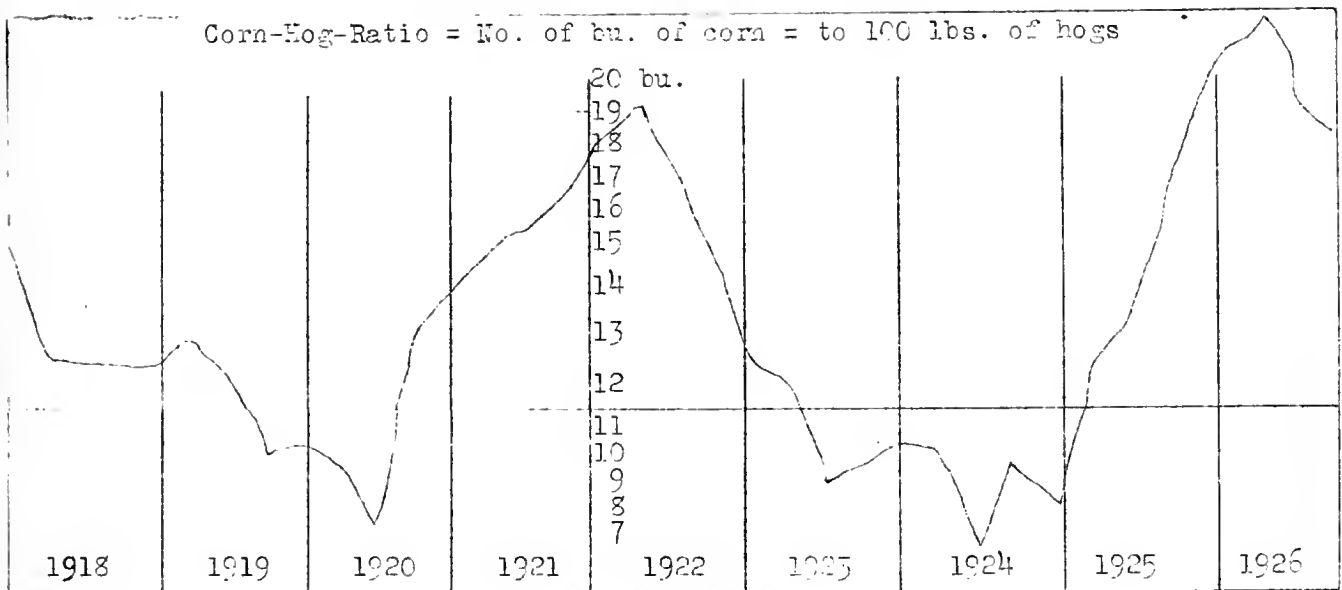
In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

The following table shows the results of the experiment. The first column is the number of trials, the second column is the number of correct responses, and the third column is the percentage of correct responses.

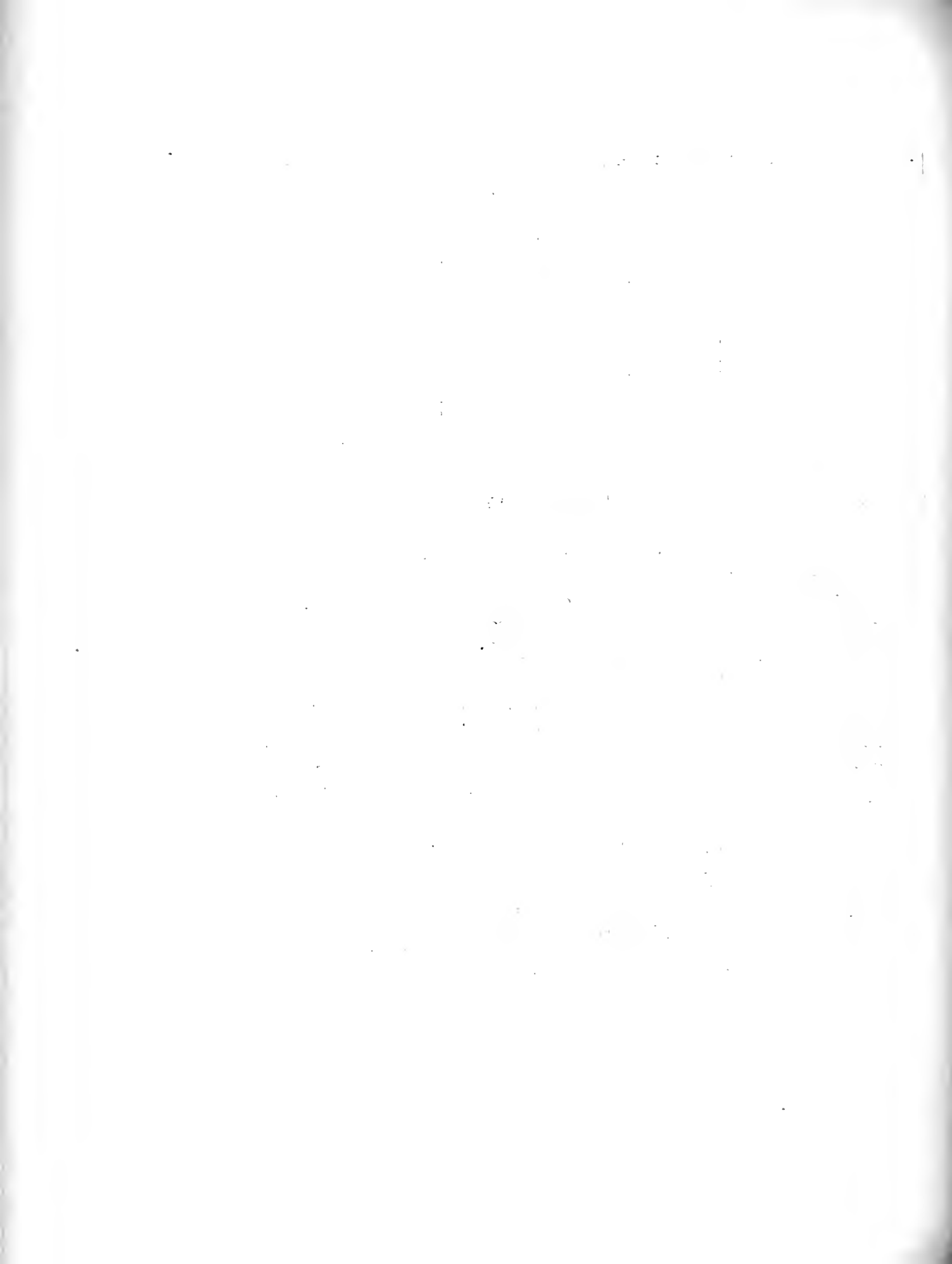
Number of trials	Number of correct responses	Percentage of correct responses
10	8	80%
20	15	75%
30	22	73.3%
40	28	70%
50	35	70%
60	42	70%
70	48	68.6%
80	55	68.8%
90	62	68.9%
100	68	68%

The results show that the percentage of correct responses increases as the number of trials increases, but it levels off after about 50 trials. This suggests that the subject is learning the task and reaching a plateau of performance.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

KENDALL AND GRUNDY COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-four Farms

for

1926

Farm Account keepers say:

"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

April 20, 1927

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ANNUAL FARM BUSINESS REPORT

Kendall and Grundy Counties, Illinois - 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. A. Berg, H. C. M. Case*

The 34 farmers in Kendall and Grundy counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$535 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of \$223 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,521, while the one-third who were least successful lacked an average of \$949 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,470 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 34 farmers earned 4.2 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 6.9 percent and the least successful third 1.1 percent. The average investment on the 34 farms was \$45,093, which amounts to \$223 an acre. The higher profit third had an average investment of \$214 and the lower profit third \$217 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$161 an acre as an average for all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

Size of farm had little effect on the relative success of the high and low profit groups since they averaged within 12 acres of the same size. The more profitable group of farms, however, did have about 30 acres more tillable land per farm. The higher profit group had about 15 acres more corn and 8 acres more wheat but $5\frac{1}{2}$ acres less oats per farm than the low profit group.

*F. E. Longmire, and M. H. Watson, farm advisers in Grundy and Kendall counties respectively cooperated in supervising and collecting the records used in this report.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 311 - QUANTUM MECHANICS

1. The wave function $\psi(x)$ is a complex-valued function of position x . It is normalized so that the total probability of finding the particle somewhere is 1. The probability density is given by $|\psi(x)|^2$. The wave function satisfies the Schrödinger equation, which is a second-order differential equation. The energy eigenvalues are determined by the boundary conditions and the potential energy function.

2. The expectation value of an observable A is given by $\langle A \rangle = \int \psi^* A \psi dx$. For a stationary state, the expectation value of energy is constant in time. The uncertainty principle states that the product of the uncertainties in position and momentum is bounded below by $\hbar/2$.

3. The wave function in the momentum representation is given by $\tilde{\psi}(p) = \int \psi(x) e^{-ipx/\hbar} dx$. The momentum eigenvalues are determined by the boundary conditions in momentum space. The wave function in momentum space satisfies the Schrödinger equation in terms of momentum.

4. The wave function in the energy representation is given by $\tilde{\psi}(E) = \int \psi(x) e^{-iEx/\hbar} dx$. The energy eigenvalues are determined by the boundary conditions in energy space. The wave function in energy space satisfies the Schrödinger equation in terms of energy.

5. The wave function in the position representation is given by $\psi(x) = \int \tilde{\psi}(p) e^{ipx/\hbar} dp$. The wave function in position space satisfies the Schrödinger equation in terms of position.

6. The wave function in the momentum representation is given by $\tilde{\psi}(p) = \int \psi(x) e^{-ipx/\hbar} dx$. The wave function in momentum space satisfies the Schrödinger equation in terms of momentum.

The more successful group of farmers had some advantage in yields since they raised 5 bushels more corn, 8 bushels more oats, and 2 bushels more wheat per acre than their less successful neighbors. Since acre costs usually do not increase materially with yield this advantage was enough to increase profits.

The greatest advantage which the 12 most profitable farms had was in their larger amount of livestock and in its more efficient management. They had almost twice as much livestock income per acre with only about 50 percent more livestock investment. Although they were only slightly larger farms they provided feed for more livestock and still had about \$250 more crop sales than the less profitable farms. Each group of farms derived about half their total livestock income from hogs. Beef cattle stood next in importance.

The more successful farm operators took care of more livestock and still had a labor cost per acre smaller than that on the less profitable farms. It appears that the lower profit group should either increase the amount of livestock kept or reduce the amount of labor used by means of better cropping systems, larger and more convenient fields, better plans in using labor or better equipment. They already have a larger investment in equipment than the high profit farms, however.

Although there was a considerable shift in individual farms reported, chiefly due to new farms entering the project, it is interesting to compare this report with the 1925 "Farm Business Report" for Kendall and Grundy counties. The average rate earned was 4.74 percent in 1925 and 4.25 percent in 1926. The slight reduction in earnings was due to lower yields and slightly less income from livestock. Average operating costs per acre were \$1.59 less in 1926 than in 1925.

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm as well as on the farms of the group making the most profit and the group making the least profit.

Kendall and Grundy Counties - 1926

Factors helping to analyze the farm business	Your farm	Average of thirty-four farms	Twelve most profitable farms	Eleven least profitable farms
Rate earned	%	4.25%	6.97%	1.10%
Labor and management wage	\$	\$ 535.	\$ 1,521.	\$ -949.
Size of farm - acres	A	202.3 A	204.7 A	193.0 A
Percent of land area tillable	%	90.9 %	93.2 %	88.6 %
Acres in Corn	A	79.2 A	83.6 A	69.1 A
Oats	A	47.0 A	45.1 A	50.6 A
Wheat	A	12.6 A	15.5 A	7.4 A
Crop yields - Corn	bu.	42.1bu.	44.1bu.	39.2 bu.
Oats	bu.	41.1bu.	45.5bu.	37.6 bu.
Wheat	bu.	23.4bu.	25.2bu.	23.0 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 122.00	\$ 135.00	\$ 102.00
For \$100 in Cattle	\$	\$ 76.00	\$ 90.00	\$ 65.00
Hogs	\$	\$ 185.00	\$ 185.00	\$ 177.00
Poultry	\$	\$ 214.00	\$ 229.00	\$ 184.00
Investment per acre in productive livestock	\$	\$ 12.04	\$ 15.20	\$ 10.84
Receipts per acre from productive livestock	\$	\$ 14.66	\$ 20.54	\$ 11.40
Man labor cost per acre	\$	\$ 6.10	\$ 5.93	\$ 6.70
Crop acres per man	A	91.5 A	96.8 A	91.9 A
Crop acres per horse (with tractor)	A	26.4 A	30.7 A	31.3 A
(wwithout tractor)	A	21.3 A	22.6 A	21.6 A
Expense per \$100 gross income	\$	\$ 57.00	\$ 44.00	\$ 86.00
Machinery cost per acre	\$	\$ 1.86	\$ 1.75	\$ 2.23
Building and fencing cost per A.	\$	\$ 1.25	\$ 1.08	\$ 1.64
Gross receipts per acre	\$	\$ 22.09	\$ 26.91	\$ 16.63
Total expenses per acre	\$	\$ 12.61	\$ 11.96	\$ 14.24
Net receipts per acre	\$	\$ 9.48	\$ 14.95	\$ 2.39
Percent of farms with tractor	%	56 %	66 %	44 %
Value of land per acre	\$	\$ 161.00	\$ 155.00	\$ 149.00
Total investment per acre	\$	\$ 223.00	\$ 214.00	\$ 217.00

Kendall and Grundy Counties - 1926

Item	Your farm	Average of thirty-four farms	Twelve most profitable farms	Eleven least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$45,093	\$43,893	\$41,941
2 Land		32,564	31,697	28,789
3 Farm improvements		5,307	4,739	6,628
4 Machinery and equipment		1,591	1,491	1,582
5 Feed and supplies		2,531	2,541	2,574
6 Livestock		2,900	3,425	2,368
7 Horses		674	615	658
8 Cattle		1,205	1,490	802
9 Hogs		776	1,073	603
10 Sheep and bees		105	87	131
11 Poultry		140	160	116
12 <u>Receipts-Net Increases-Total</u>	_____	4,469	5,509	3,210
13 Feed and grain		1,454	1,236	988
14 Miscellaneous		50	69	21
15 Livestock - Total		2,965	4,204	2,201
16 Horses		--	--	--
17 Cattle		629	1,037	372
18 Hogs		1,503	2,186	1,117
19 Sheep and bees		117	203	98
20 Poultry		224	343	144
21 Egg sales		128	126	105
22 Dairy sales		364	309	365
23 <u>Expenses-Net Decreases-Total</u>	_____	1,700	1,604	1,864
24 Farm improvements		252	221	317
25 Livestock		46	15	67
26 Horses		46	15	67
27 Cattle		--	--	--
28 Hogs		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		376	359	431
32 Feed and supplies		--	--	--
33 Livestock expense other than feed		43	45	39
34 Crop expense		214	212	202
35 Labor hired		383	368	408
36 Taxes, insurance, etc.		359	365	368
37 Miscellaneous		27	19	32
38 <u>Receipts less Expenses</u>	_____	2,769	3,905	1,346
39 Operator's and unpaid family labor		851	845	885
40 Net income from investment		1,918	3,060	461

Date	Description	Debit	Credit
1947-01-01	Balance		100.00
1947-01-15	Income		50.00
1947-02-01	Expenses	20.00	
1947-03-01	Income		30.00
1947-04-01	Expenses	10.00	
1947-05-01	Income		40.00
1947-06-01	Expenses	15.00	
1947-07-01	Income		25.00
1947-08-01	Expenses	8.00	
1947-09-01	Income		35.00
1947-10-01	Expenses	12.00	
1947-11-01	Income		45.00
1947-12-01	Expenses	18.00	
1948-01-01	Income		55.00
1948-02-01	Expenses	22.00	
1948-03-01	Income		40.00
1948-04-01	Expenses	14.00	
1948-05-01	Income		30.00
1948-06-01	Expenses	9.00	
1948-07-01	Income		48.00
1948-08-01	Expenses	16.00	
1948-09-01	Income		38.00
1948-10-01	Expenses	11.00	
1948-11-01	Income		52.00
1948-12-01	Expenses	19.00	
1949-01-01	Income		60.00
1949-02-01	Expenses	24.00	
1949-03-01	Income		42.00
1949-04-01	Expenses	15.00	
1949-05-01	Income		32.00
1949-06-01	Expenses	10.00	
1949-07-01	Income		50.00
1949-08-01	Expenses	17.00	
1949-09-01	Income		40.00
1949-10-01	Expenses	13.00	
1949-11-01	Income		55.00
1949-12-01	Expenses	21.00	
1950-01-01	Income		65.00
1950-02-01	Expenses	26.00	
1950-03-01	Income		45.00
1950-04-01	Expenses	16.00	
1950-05-01	Income		35.00
1950-06-01	Expenses	11.00	
1950-07-01	Income		53.00
1950-08-01	Expenses	18.00	
1950-09-01	Income		42.00
1950-10-01	Expenses	14.00	
1950-11-01	Income		58.00
1950-12-01	Expenses	23.00	
1951-01-01	Income		70.00
1951-02-01	Expenses	28.00	
1951-03-01	Income		48.00
1951-04-01	Expenses	17.00	
1951-05-01	Income		38.00
1951-06-01	Expenses	12.00	
1951-07-01	Income		56.00
1951-08-01	Expenses	19.00	
1951-09-01	Income		45.00
1951-10-01	Expenses	15.00	
1951-11-01	Income		62.00
1951-12-01	Expenses	25.00	
1952-01-01	Income		75.00
1952-02-01	Expenses	30.00	
1952-03-01	Income		50.00
1952-04-01	Expenses	18.00	
1952-05-01	Income		40.00
1952-06-01	Expenses	13.00	
1952-07-01	Income		60.00
1952-08-01	Expenses	20.00	
1952-09-01	Income		48.00
1952-10-01	Expenses	16.00	
1952-11-01	Income		65.00
1952-12-01	Expenses	27.00	
1953-01-01	Income		80.00
1953-02-01	Expenses	32.00	
1953-03-01	Income		55.00
1953-04-01	Expenses	19.00	
1953-05-01	Income		42.00
1953-06-01	Expenses	14.00	
1953-07-01	Income		63.00
1953-08-01	Expenses	21.00	
1953-09-01	Income		50.00
1953-10-01	Expenses	17.00	
1953-11-01	Income		68.00
1953-12-01	Expenses	29.00	
1954-01-01	Income		85.00
1954-02-01	Expenses	34.00	
1954-03-01	Income		60.00
1954-04-01	Expenses	20.00	
1954-05-01	Income		45.00
1954-06-01	Expenses	15.00	
1954-07-01	Income		70.00
1954-08-01	Expenses	22.00	
1954-09-01	Income		55.00
1954-10-01	Expenses	18.00	
1954-11-01	Income		75.00
1954-12-01	Expenses	31.00	
1955-01-01	Income		90.00
1955-02-01	Expenses	36.00	
1955-03-01	Income		65.00
1955-04-01	Expenses	21.00	
1955-05-01	Income		50.00
1955-06-01	Expenses	16.00	
1955-07-01	Income		75.00
1955-08-01	Expenses	23.00	
1955-09-01	Income		60.00
1955-10-01	Expenses	19.00	
1955-11-01	Income		80.00
1955-12-01	Expenses	33.00	
1956-01-01	Income		95.00
1956-02-01	Expenses	38.00	
1956-03-01	Income		70.00
1956-04-01	Expenses	22.00	
1956-05-01	Income		55.00
1956-06-01	Expenses	17.00	
1956-07-01	Income		80.00
1956-08-01	Expenses	24.00	
1956-09-01	Income		65.00
1956-10-01	Expenses	20.00	
1956-11-01	Income		85.00
1956-12-01	Expenses	35.00	
1957-01-01	Income		100.00
1957-02-01	Expenses	40.00	
1957-03-01	Income		75.00
1957-04-01	Expenses	23.00	
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1957-09-01	Income		70.00
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1957-11-01	Income		90.00
1957-12-01	Expenses	37.00	
1958-01-01	Income		105.00
1958-02-01	Expenses	42.00	
1958-03-01	Income		80.00
1958-04-01	Expenses	24.00	
1958-05-01	Income		65.00
1958-06-01	Expenses	19.00	
1958-07-01	Income		90.00
1958-08-01	Expenses	26.00	
1958-09-01	Income		75.00
1958-10-01	Expenses	22.00	
1958-11-01	Income		95.00
1958-12-01	Expenses	39.00	
1959-01-01	Income		110.00
1959-02-01	Expenses	44.00	
1959-03-01	Income		85.00
1959-04-01	Expenses	25.00	
1959-05-01	Income		70.00
1959-06-01	Expenses	20.00	
1959-07-01	Income		95.00
1959-08-01	Expenses	27.00	
1959-09-01	Income		80.00
1959-10-01	Expenses	23.00	
1959-11-01	Income		100.00
1959-12-01	Expenses	41.00	
1960-01-01	Income		115.00
1960-02-01	Expenses	46.00	
1960-03-01	Income		90.00
1960-04-01	Expenses	26.00	
1960-05-01	Income		75.00
1960-06-01	Expenses	21.00	
1960-07-01	Income		100.00
1960-08-01	Expenses	28.00	
1960-09-01	Income		85.00
1960-10-01	Expenses	24.00	
1960-11-01	Income		105.00
1960-12-01	Expenses	43.00	
1961-01-01	Income		120.00
1961-02-01	Expenses	48.00	
1961-03-01	Income		95.00
1961-04-01	Expenses	27.00	
1961-05-01	Income		80.00
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1962-09-01	Income		95.00
1962-10-01	Expenses	26.00	
1962-11-01	Income		115.00
1962-12-01	Expenses	47.00	
1963-01-01	Income		130.00
1963-02-01	Expenses	52.00	
1963-03-01	Income		105.00
1963-04-01	Expenses	29.00	
1963-05-01	Income		90.00
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1963-07-01	Income		115.00
1963-08-01	Expenses	31.00	
1963-09-01	Income		100.00
1963-10-01	Expenses	27.00	
1963-11-01	Income		120.00
1963-12-01	Expenses	49.00	
1964-01-01	Income		135.00
1964-02-01	Expenses	54.00	
1964-03-01	Income		110.00
1964-04-01	Expenses	30.00	
1964-05-01	Income		95.00
1964-06-01	Expenses	25.00	
1964-07-01	Income		120.00
1964-08-01	Expenses	32.00	
1964-09-01	Income		105.00
1964-10-01	Expenses	28.00	
1964-11-01	Income		125.00
1964-12-01	Expenses	51.00	
1965-01-01	Income		140.00
1965-02-01	Expenses	56.00	
1965-03-01	Income		115.00
1965-04-01	Expenses	31.00	
1965-05-01	Income		100.00
1965-06-01	Expenses	26.00	
1965-07-01	Income		125.00
1965-08-01	Expenses	33.00	
1965-09-01	Income		110.00
1965-10-01	Expenses	29.00	
1965-11-01	Income		130.00
1965-12-01	Expenses	53.00	
1966-01-01	Income		145.00
1966-02-01	Expenses	58.00	
1966-03-01	Income		120.00
1966-04-01	Expenses	32.00	
1966-05-01	Income		105.00
1966-06-01	Expenses	27.00	
1966-07-01	Income		130.00
1966-08-01	Expenses	34.00	
1966-09-01	Income		115.00
1966-10-01	Expenses	30.00	
1966-11-01	Income		135.00
1966-12-01	Expenses	55.00	
1967-01-01	Income		150.00
1967-02-01	Expenses	60.00	
1967-03-01	Income		125.00
1967-04-01	Expenses	33.00	
1967-05-01	Income		110.00
1967-06-01	Expenses	28.00	
1967-07-01	Income		135.00
1967-08-01	Expenses	35.00	
1967-09-01	Income		120.00
1967-10-01	Expenses	31.00	
1967-11-01	Income		140.00
1967-12-01	Expenses	57.00	
1968-01-01	Income		155.00
1968-02-01	Expenses	62.00	
1968-03-01	Income		130.00
1968-04-01	Expenses	34.00	
1968-05-01	Income		115.00
1968-06-01	Expenses	29.00	
1968-07-01	Income		140.00
1968-08-01	Expenses	36.00	

Find Your Farm Leaks

Kendall and Grundy Counties - 1926

The numbers between the lines across the middle of the page are the approximate average for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Investment per acre in I.S.	Receipts per acre from I.S.	Man labor cost per acre	Crop acres per		Expense per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle				Hogs	Poultry				Man	Horse	
														Tractor	No Tractor
11.25	63	62	37	146	325	354	26.04	28.66	2.60	126	40	35	22	36	342
10.25	60	59	35	136	305	334	24.04	26.66	3.10	121	38	33	27	34	322
9.25	57	56	33	126	285	314	22.04	24.66	3.60	116	36	31	32	32	302
8.25	54	53	31	116	265	294	20.04	22.66	4.10	111	34	29	37	30	282
7.25	51	50	29	106	245	274	18.04	20.66	4.60	106	32	27	42	28	262
6.25	48	47	27	96	225	254	16.04	18.66	5.10	101	30	25	47	26	242
5.25	45	44	25	86	205	234	14.04	16.66	5.60	96	28	23	52	24	222
4.25	42	41	23	76	185	214	12.04	14.66	6.10	91	26	21	57	22	202
3.25	39	38	21	66	165	194	10.04	12.66	6.60	86	24	19	62	20	182
2.25	36	35	19	56	145	174	8.04	10.66	7.10	81	22	17	67	18	162
1.25	33	32	17	46	125	154	6.04	8.66	7.60	76	20	15	72	16	142
0.25	30	29	15	36	105	134	4.04	6.66	8.10	71	18	13	77	14	122
-0.75	27	26	13	26	85	114	2.04	4.66	8.60	66	16	11	82	12	102
-1.75	24	23	11	16	65	94	----	2.66	9.10	61	14	9	87	10	82
-2.75	21	20	9	6	45	74	----	0.66	9.60	56	12	7	92	8	62

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ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

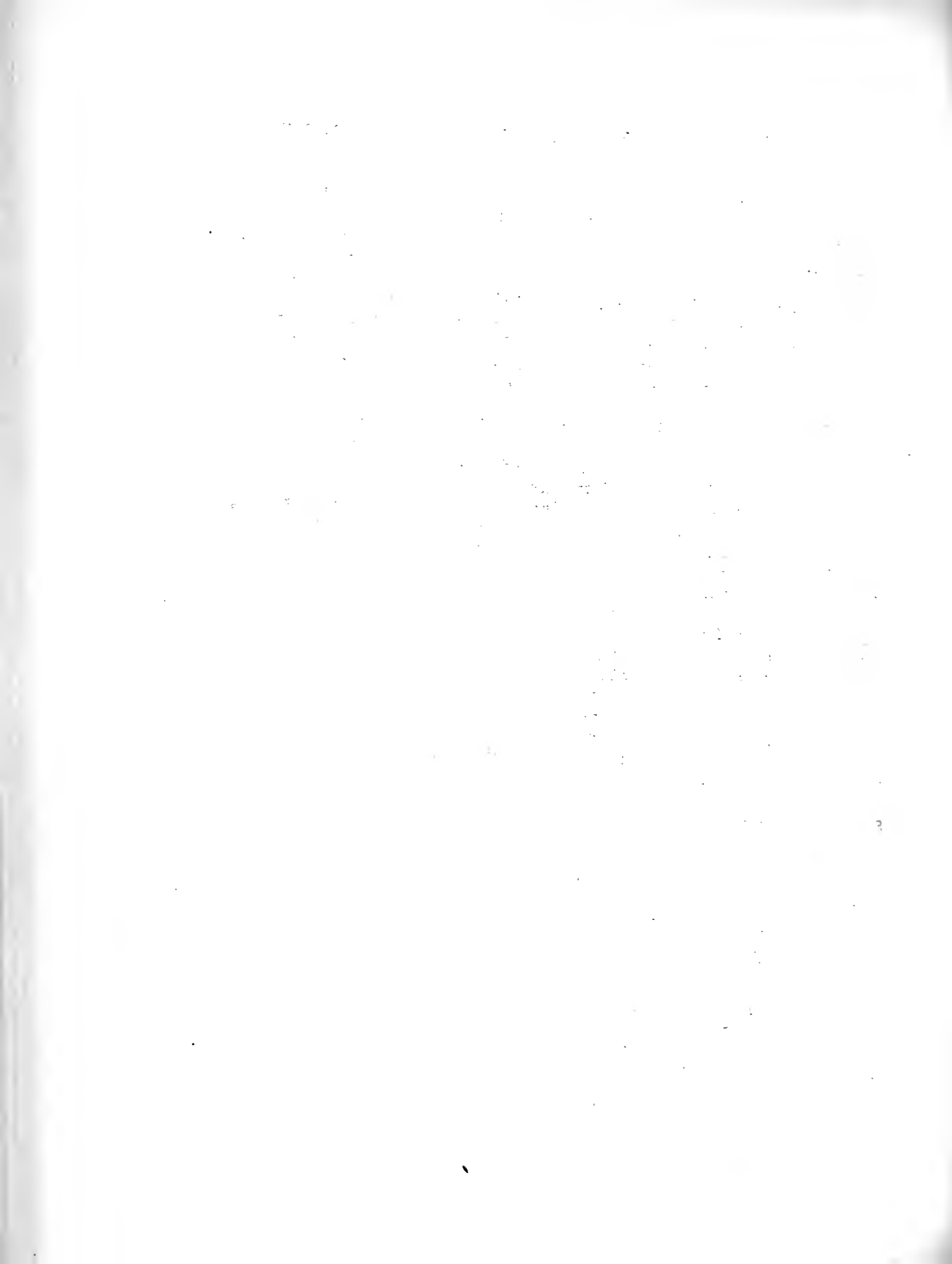
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest



conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

The first part of the report discusses the current state of the world economy and the impact of the Asian financial crisis. It notes that the crisis has led to a sharp decline in growth rates in many Asian countries, and has had a significant impact on the global economy. The report also discusses the impact of the crisis on the United States and other major economies.

The second part of the report discusses the impact of the crisis on the environment. It notes that the crisis has led to a significant increase in environmental degradation, particularly in the Asian region. This is due to a number of factors, including the increased use of fossil fuels, the expansion of agriculture, and the growth of urban areas. The report also discusses the impact of the crisis on the environment in the United States and other major economies.

The third part of the report discusses the impact of the crisis on the social and political situation in the Asian region. It notes that the crisis has led to a significant increase in social and political instability in many Asian countries. This is due to a number of factors, including the increased unemployment, the decline in living standards, and the growth of corruption. The report also discusses the impact of the crisis on the social and political situation in the United States and other major economies.

The fourth part of the report discusses the impact of the crisis on the global environment. It notes that the crisis has led to a significant increase in global environmental degradation, particularly in the Asian region. This is due to a number of factors, including the increased use of fossil fuels, the expansion of agriculture, and the growth of urban areas. The report also discusses the impact of the crisis on the global environment in the United States and other major economies.

The fifth part of the report discusses the impact of the crisis on the global economy. It notes that the crisis has led to a significant decline in global growth rates, and has had a significant impact on the global economy. The report also discusses the impact of the crisis on the global economy in the United States and other major economies.

The sixth part of the report discusses the impact of the crisis on the global environment. It notes that the crisis has led to a significant increase in global environmental degradation, particularly in the Asian region. This is due to a number of factors, including the increased use of fossil fuels, the expansion of agriculture, and the growth of urban areas. The report also discusses the impact of the crisis on the global environment in the United States and other major economies.

The seventh part of the report discusses the impact of the crisis on the global economy. It notes that the crisis has led to a significant decline in global growth rates, and has had a significant impact on the global economy. The report also discusses the impact of the crisis on the global economy in the United States and other major economies.

The eighth part of the report discusses the impact of the crisis on the global environment. It notes that the crisis has led to a significant increase in global environmental degradation, particularly in the Asian region. This is due to a number of factors, including the increased use of fossil fuels, the expansion of agriculture, and the growth of urban areas. The report also discusses the impact of the crisis on the global environment in the United States and other major economies.

The ninth part of the report discusses the impact of the crisis on the global economy. It notes that the crisis has led to a significant decline in global growth rates, and has had a significant impact on the global economy. The report also discusses the impact of the crisis on the global economy in the United States and other major economies.

The tenth part of the report discusses the impact of the crisis on the global environment. It notes that the crisis has led to a significant increase in global environmental degradation, particularly in the Asian region. This is due to a number of factors, including the increased use of fossil fuels, the expansion of agriculture, and the growth of urban areas. The report also discusses the impact of the crisis on the global environment in the United States and other major economies.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

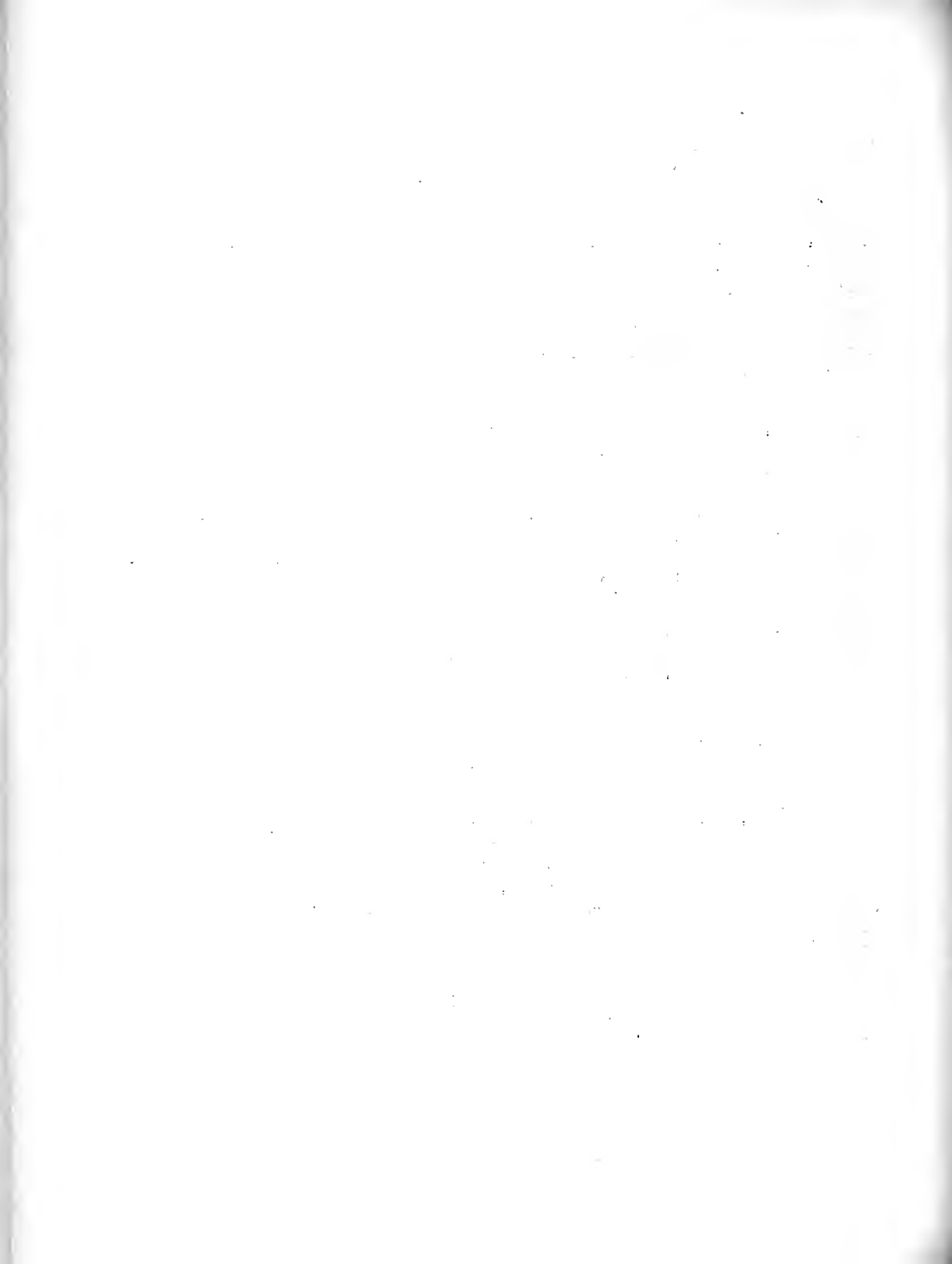
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



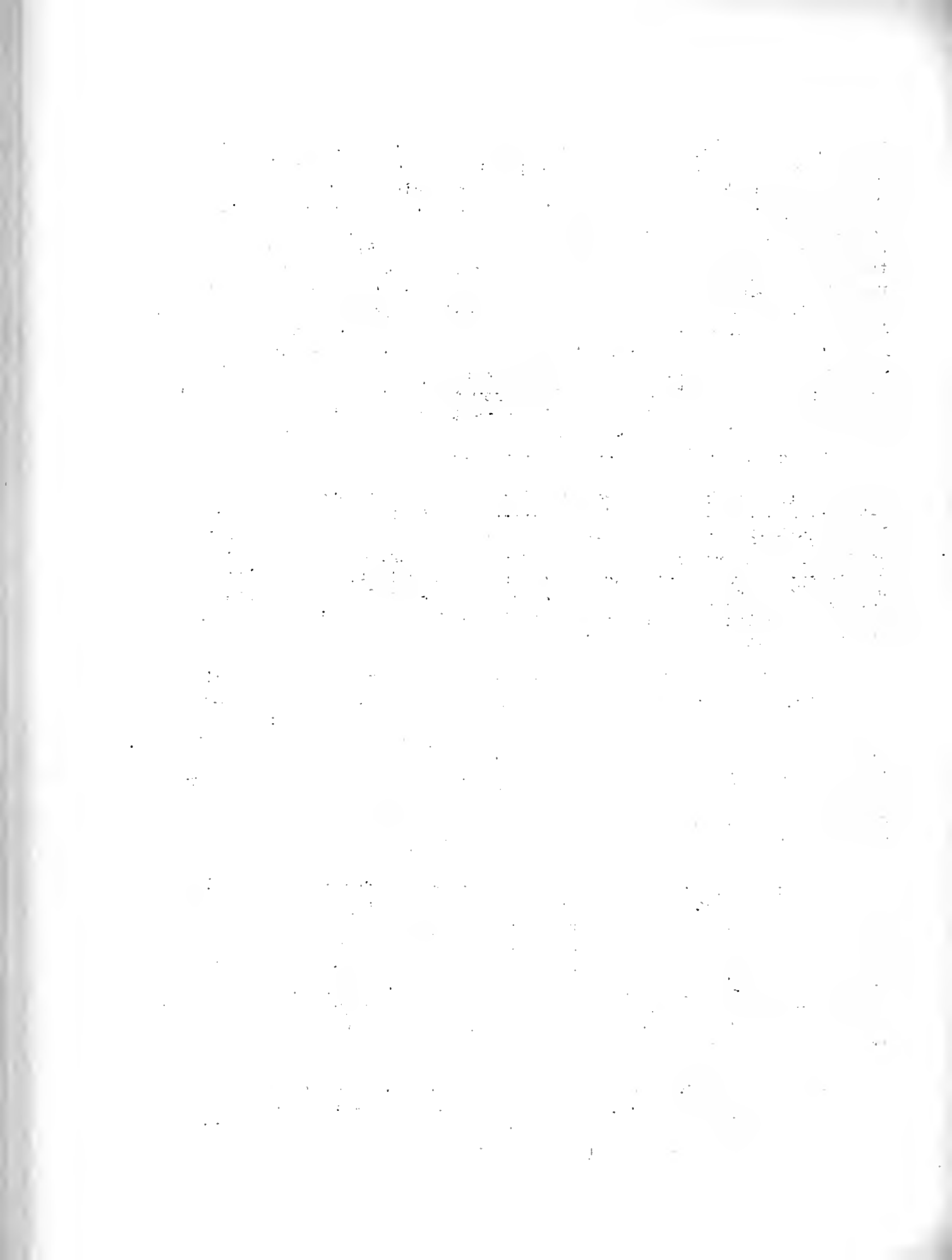
as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in



supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|--|--|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

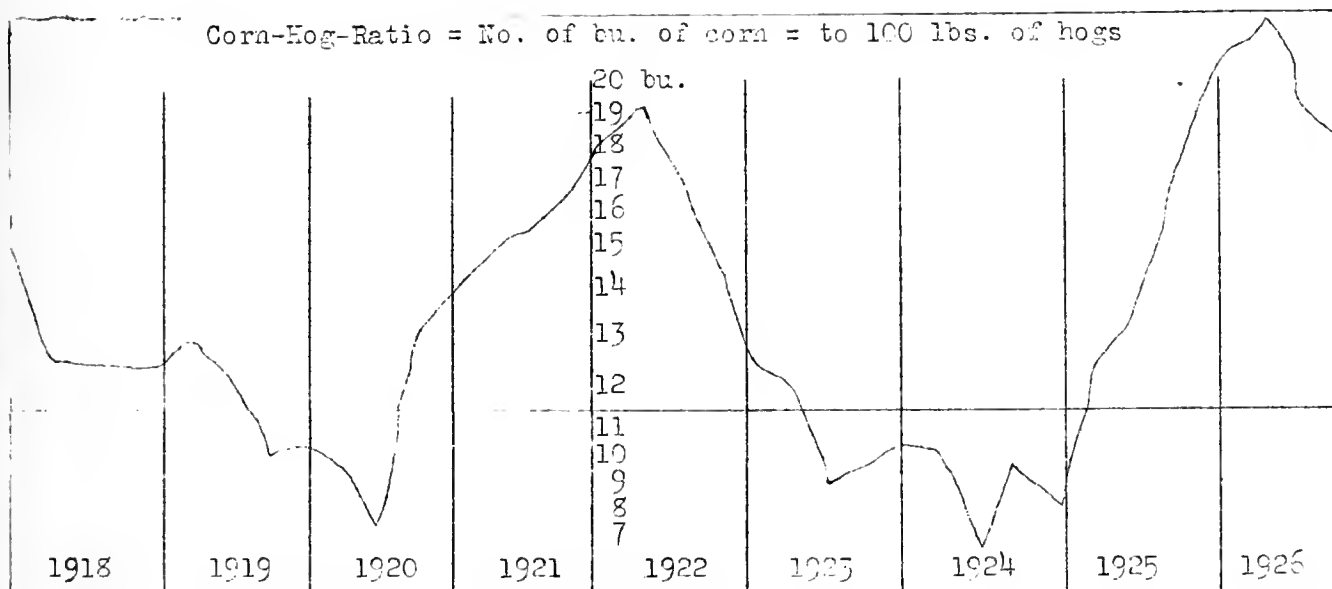
1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that this is crucial for ensuring the integrity of the financial data and for facilitating audits.

2. The second part of the document outlines the various methods used to collect and analyze data. It includes a detailed description of the sampling process and the statistical techniques employed to interpret the results.

3. The third part of the document provides a comprehensive overview of the findings. It highlights the key trends and patterns observed in the data, as well as the implications of these findings for the organization's operations.

4. The fourth part of the document discusses the limitations of the study and suggests areas for future research. It acknowledges that while the current study provides valuable insights, there are still several factors that could be explored in more detail.

5. The fifth part of the document concludes with a summary of the main points and a final statement on the overall significance of the research. It reiterates the importance of the findings and the need for continued attention to the issues discussed.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

6

UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE
Department of Farm Organization and Management
and
LA SALLE COUNTY FARM BUREAU
Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty Farms

for

1926

Farm Account keepers say:
"Farm accounts become more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

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ANNUAL FARM BUSINESS REPORT

La Salle County, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston,
H. A. Berg, H. C. M. Case*

The 40 farmers in La Salle County who kept financial records in the Illinois Farm Account Project for 1926 lacked an average of \$742 of having enough income to pay operating costs and 5 percent interest on their average investment of \$283 an acre, allowing nothing for their labor, management and risk. The one-third of these farmers who made the best profits had an average labor and management wage of \$333 after paying operating costs and 5 percent interest on their investment, while the one-third who were least successful lacked an average of \$1,920 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,253 in the relative amounts which these last two groups received for their time and labor.

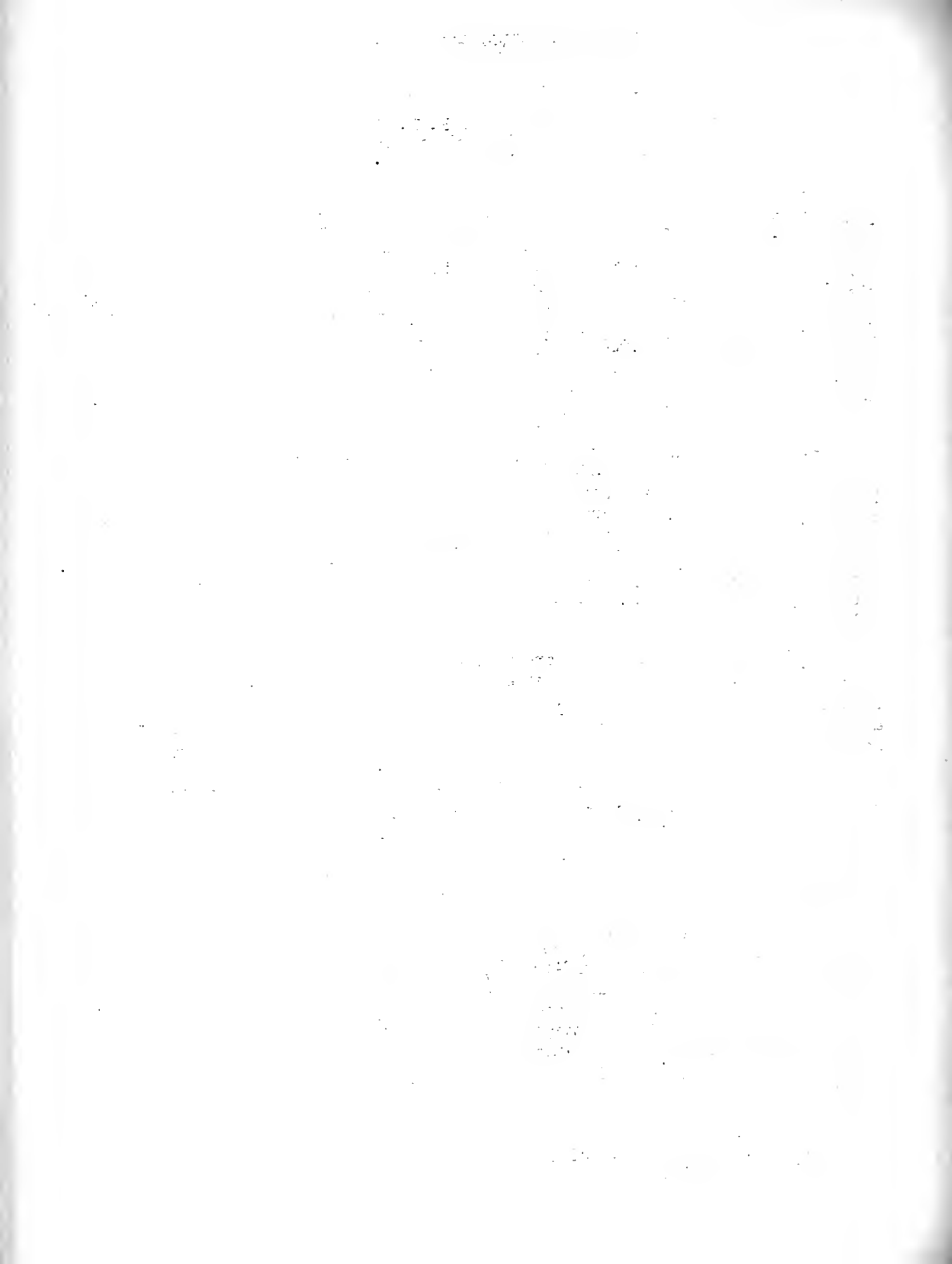
Expressed in another way, these 40 farmers earned 2.5 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 4.4 percent and the least successful third 0.5 percent. The average investment on the 40 farms was \$57,649, which amounts to \$283 an acre. The higher profit thirds each had an average investment of \$277 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$217 an acre as an average of all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The farms of the more successful group averaged about 20 acres larger than those of the low profit group. It is doubtful whether this had any significant effect on relative profits however. Both groups averaged a little over 200 acres in size, and records for past years in different sections of the state indicate little advantage in size between 200 and 240 acres. This size provides profitable employment for two men allowing about 100 crop acres per man. The more profitable farms averaged about 20 acres more corn, 14 acres more oats, and $3\frac{1}{2}$ acres less wheat per farm than the less profitable farms.

*R. W. Cross and W. W. McLaughlin, farm advisers in La Salle County, cooperated in supervising and collecting the records used in this report.



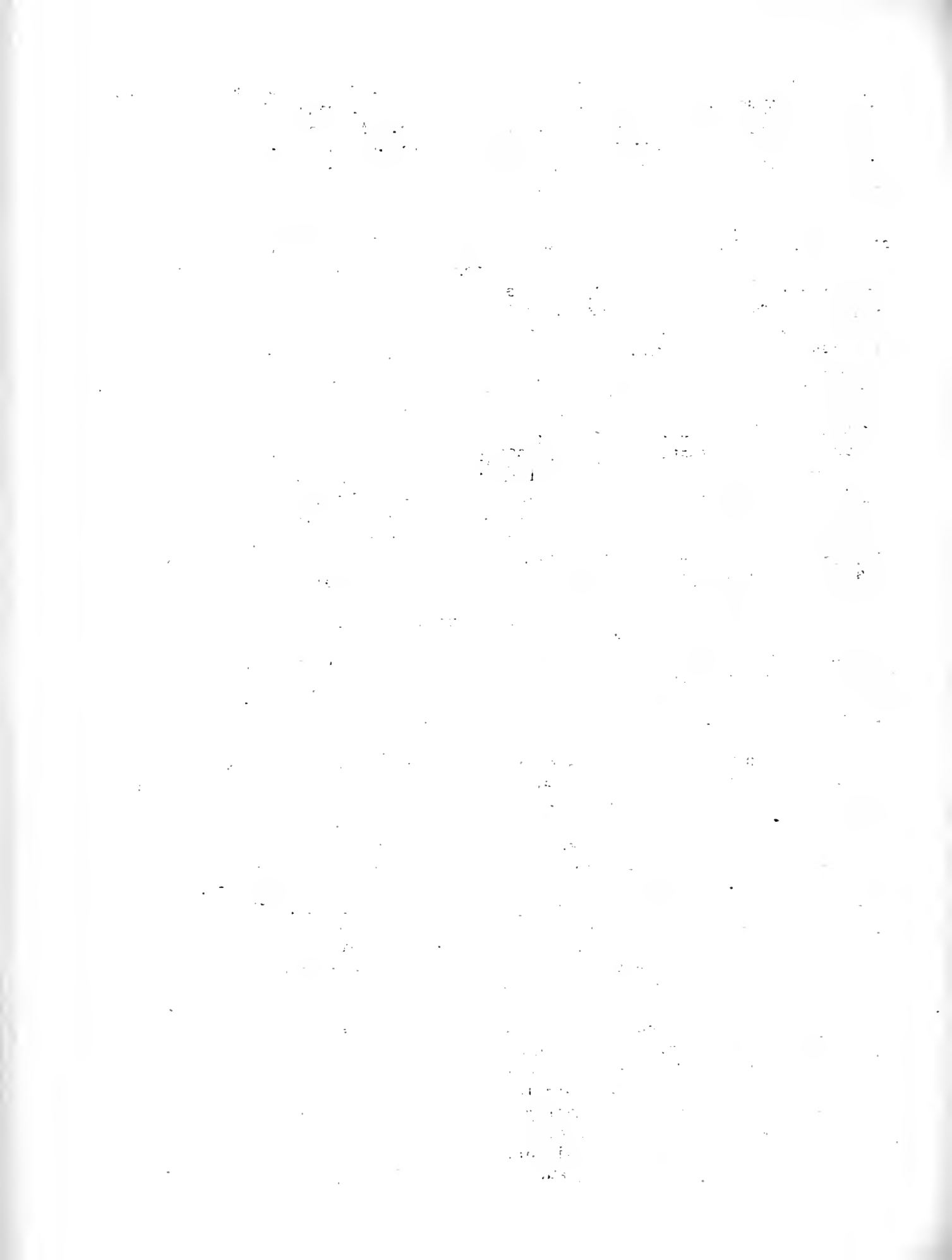
There was very little difference in crop yields between the two groups which was unusual. In past years one of the big differences between the high and low profit groups usually has been in yields. Acre costs usually do not rise materially with larger yields and the extra produce per acre goes to increase profits. Last year yields were very much dependent on the weather and other efficiency factors dominated.

The biggest single advantage of the more successful farm operators whose records are included in this report was in their greater efficiency with livestock. They had more livestock, too, which was an advantage under 1926 price conditions. Farms of the more profitable group had a livestock investment of \$11.25 an acre and a livestock income of \$16.76 an acre compared with a livestock investment of \$9.02 an acre and a livestock income of \$8.14 an acre on the less profitable farms. From this it is evident that the more successful operators with an investment in livestock about 25 percent greater secured a livestock income twice as large as their less successful neighbors. The advantage in efficiency is also reflected in the fact that the more profitable farms had a livestock income of \$149 for every \$100 of livestock investment compared with a livestock income of \$91 for every \$100 of livestock investment on the less profitable farms. Still another way of showing the greater efficiency with livestock on the more successful group of farms is to note that although they were only slightly larger in size they handled their feeding so as to sell more than twice as much livestock products and still had a little larger average income from crops than farms of the less successful group. In this case any purchased feeds were deducted from crop sales.

It is interesting to note that dairying was the largest livestock enterprise on the more profitable farms with hogs next in order. These two enterprises were reversed in order on the less profitable farms. Crop sales were an important source of income to both groups constituting almost half of the average gross income on the less profitable farms and nearly one-third of the average gross income on the more profitable farms.

Labor was used more effectively on the more profitable farms. They had about 12 more crop acres per man and a labor cost slightly less per acre in spite of the fact that they had more livestock and realized a gross income per acre 60 percent larger than that of the low profit farms. They also used their power with greater efficiency as indicated by their handling 5 more crop acres per horse on tractor farms and 6 more crop acres per horse on farms without tractors. Equipment costs were slightly larger on the more profitable farms probably due to larger amounts of dairy equipment. That other cost items were used with better judgment by the more successful operators is indicated by their operating costs per acre being slightly less than those of their less successful neighbors in spite of the fact that the latter group realized much smaller gross incomes per acre.

As we now have three years of records on almost the same group of La Salle County farms a very interesting comparison can be made between earnings, investments and costs for different years. The following table shows such a comparison. During the three years land values have been carried at almost exactly the same level and the average total investment per acre has changed only slightly. The average rate earned on the investment was highest for 1924. This was due to the fact that grain prices were higher for that year than for any other year since 1919. The causes of these higher prices were a short



corn crop in the United States and a short wheat crop for the world. There appears to have been a tendency for the operating cost per acre to increase during the three years. One cause of this increase was the tendency to increase the amount of dairying on these farms. Evidently these farm operators have been replacing a declining crop income with an increased income from dairy products. This appears to be a move in the right direction since for each of the three years since this project was started in the county the more profitable group of farms has shown a considerably larger dairy income than the low profit group.

Like any other farm enterprise dairying may eventually be increased to the point that markets may be over supplied and prices depressed. La Salle County, however, appears to be in a district of increasing industrial population which would justify a gradual increase in supplies of dairy products.

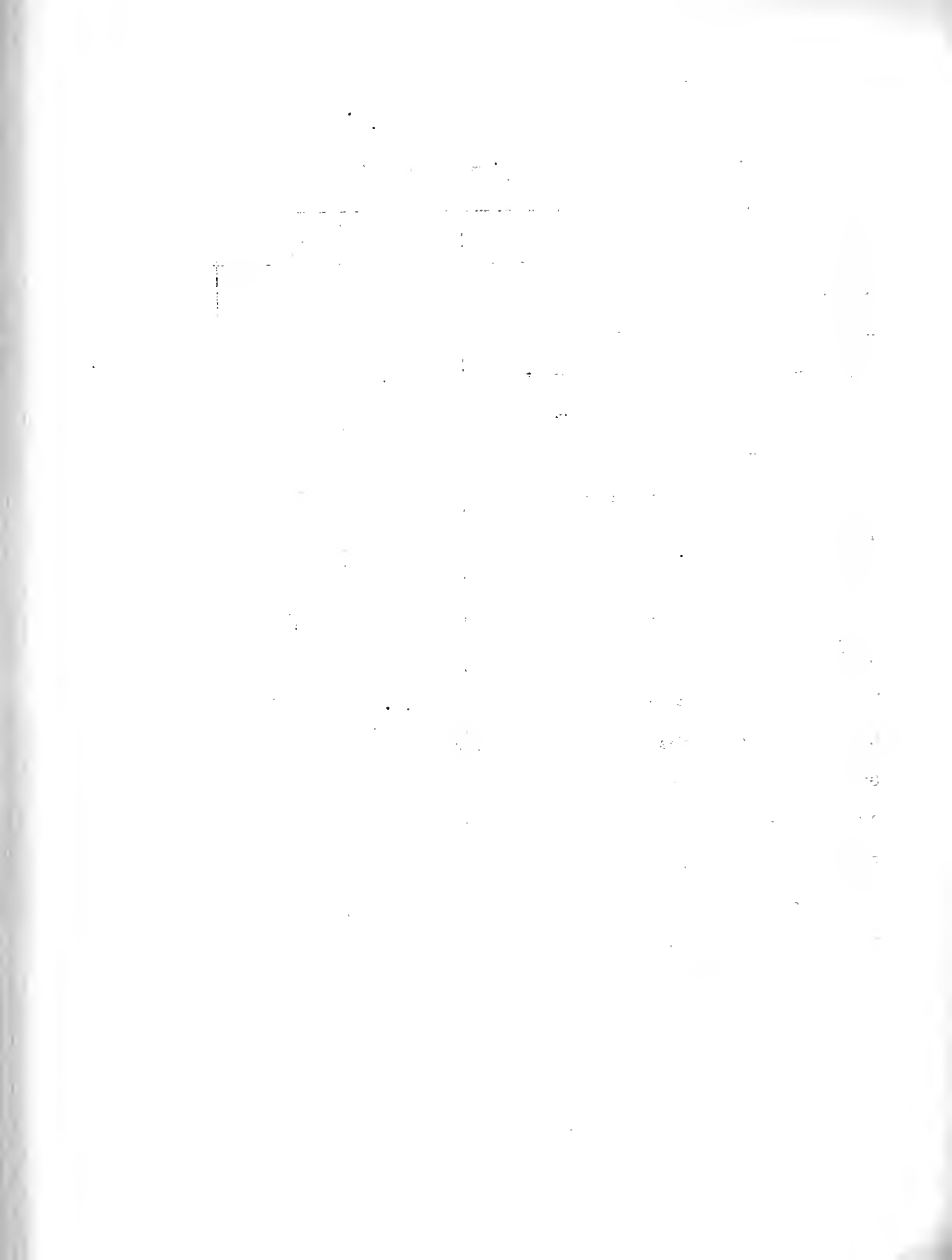
1. The first part of the document discusses the importance of maintaining accurate records of all transactions.

2. It also emphasizes the need for regular audits to ensure the integrity of the financial data.

Comparative Earnings on Some LaSalle County Farms

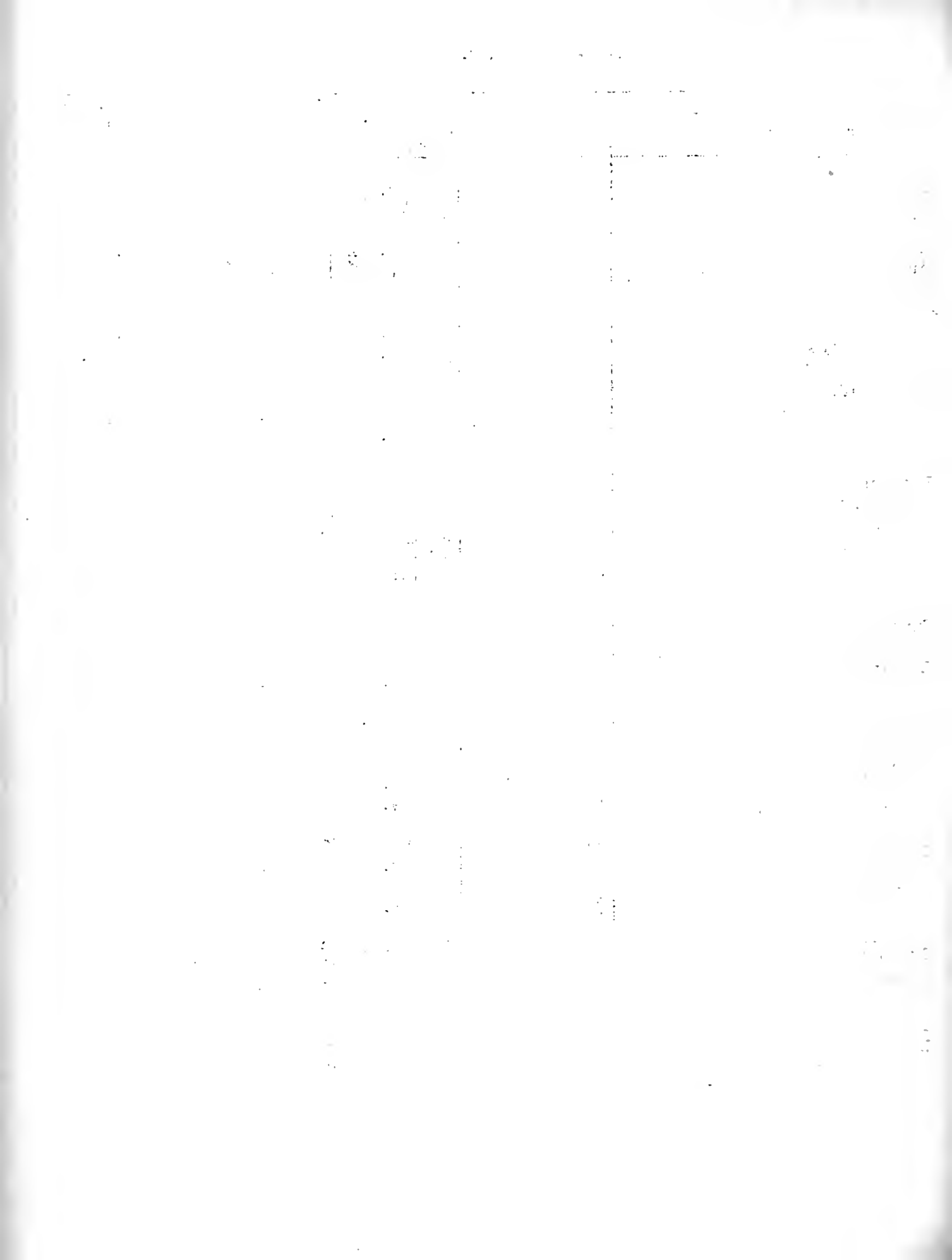
Item	1924	1925	1926
Number of farms included	34	32	40
Average size of farms in acres	247	242	204
Average rate earned on investment	7.2%	2.7%	2.5%
Average value of land per acre	\$ 217	\$ 216	\$ 217
Average investment per acre	274	279	283
Investment in livestock per farm	2,848	3,304	2,836
Investment in cattle per farm	1,101	1,345	1,335
Investment in hogs per farm	551	728	469
Investment in poultry per farm	120	143	121
Gross income per acre	32.67	20.81	22.30
Operating cost per acre	12.91	13.28	15.25
Grain sales less feed purchases per farm	5,347	1,891	1,769
Miscellaneous income per farm	82	65	27
Livestock income per farm	2,650	3,075	2,749
Gross income per farm	8,079	5,031	4,545
Cattle income per farm	464	617	356
Dairy sales per farm	544	743	1,148
Hog income per farm	1,103	1,211	953
Poultry income per farm	180	229	193

Some points of strength and some of weakness in your own farm business may be found by comparing the factors from your own record in the following tables with the same factors for the average farm as well as for the farms of the high and low profit groups.



La Salle County, 1926

Factors helping to analyze the farm business	Your farm	Average of 40 farms	Fifteen most profitable farms	Fifteen least profitable farms
Rate earned	%	2.49%	4.40%	0.60%
Labor and management wage	\$	\$ -742	\$ 333	\$ -1,920
Size of farm - acres	A	203.8 A	231.2 A	212.4 A
Percent of land area tillable	%	91 %	94.3 %	89.1 %
Acres in Corn	A	79.6 A	95.7 A	75.8 A
Oats	A	46.5 A	58.9 A	44.3 A
Wheat	A	12.1 A	12.9 A	16.4 A
Crop yields - Corn	bu.	46.6 bu.	47.6 bu.	46.4 bu.
Oats	bu.	38.1 bu.	38.3 bu.	35.3 bu.
Wheat	bu.	19.6 bu.	21.1 bu.	17.3 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 123.	\$ 149	\$ 91
For \$100 in Cattle	\$	\$ 115	\$ 155	\$ 75
Hogs	\$	\$ 165	\$ 158	\$ 155
Poultry	\$	\$ 151	\$ 125	\$ 193
Investment per acre in productive livestock	\$	\$ 10.96	\$ 11.25	\$ 9.02
Receipts per acre from productive livestock	\$	\$ 13.49	\$ 16.76	\$ 8.17
Man labor cost per acre	\$	\$ 6.91	\$ 6.21	\$ 6.49
Crop acres per man	A	81.9 A	93.4 A	81 A
Crop acres per horse (with tractor)	A	25.7 A	28.6 A	23.7 A
(w without tractor)	A	19.7 A	23.2 A	17.1 A
Expense per \$100 gross income	\$	\$ 68	\$ 54	\$ 90
Machinery cost per acre	\$	\$ 2.92	\$ 3.33	\$ 2.81
Building and fencing cost per acre	\$	\$ 1.63	\$ 1.52	\$ 1.55
Gross receipts per acre	\$	\$ 22.30	\$ 26.63	\$ 16.25
Total expenses per acre	\$	\$ 15.25	\$ 14.44	\$ 14.60
Net receipts per acre	\$	\$ 7.05	\$ 12.19	\$ 1.65
Percent of farms with tractor	%	70 %	80 %	87 %
Value of land per acre	\$	\$ 217	\$ 217	\$ 214
Total investment per acre	\$	\$ 283	\$ 277	\$ 277



La Salle County, 1926

	Your farm	Average of 40 farms	Fifteen most prof- itable farms	Fifteen least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$57,649	\$64,046	\$58,910
2 Land		44,181	50,267	45,551
3 Farm improvements		5,476	4,845	5,387
4 Machinery and equipment		2,004	2,339	2,121
5 Feed and supplies		3,152	3,351	3,381
6 Livestock		2,836	3,244	2,470
7 Horses		670	667	690
8 Cattle		1,335	1,695	873
9 Hogs		469	556	359
10 Sheep		241	187	437
11 Poultry		121	139	111
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 4,545	\$ 6,156	\$ 3,451
13 Feed and grain		1,769	2,223	1,705
14 Miscellaneous		27	59	10
15 Livestock - Total		2,749	3,874	1,736
16 Horses		-	-	-
17 Cattle		356	601	238
18 Hogs		953	1,153	698
19 Sheep		99	135	86
20 Poultry		104	93	130
21 Egg sales		89	82	108
22 Dairy sales		1,148	1,810	476
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 2,150	\$ 2,412	\$ 2,167
24 Farm improvements		331	352	329
25 Livestock		25	16	29
26 Horses		25	16	29
27 Cattle		-	-	-
28 Hogs		-	-	-
29 Sheep		-	-	-
30 Poultry		-	-	-
31 Machinery and equipment		596	769	597
32 Feed and supplies		-	-	-
33 Livestock expense other than feed		53	68	48
34 Crop expense		202	204	210
35 Labor hired		450	506	444
36 Taxes, insurance, etc.		429	425	471
37 Miscellaneous		36	43	33
38 Dairy expense		28	29	6
39 <u>Receipts less Expenses</u>	\$ _____	\$ 2,395	\$ 3,744	\$ 1,284
40 Operator's and unpaid family labor		958	929	934
41 Net income from investment		1,437	2,815	350

Find Your Farm Leaks

La Salle County, 1926

The numbers between the lines across the middle of the page are the approximate averages for your County of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your county.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per acre in I. S.	Receipts per acre from I.S.	Man labor cost per acre	Crop acres per		Expenses per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle				Hogs	Poultry				Man	Tractor	Horse	No tractor
9.5	74	59	34	255	305	291	24.96	27.50	3.40	117	39	34	33	43	344
8.5	70	56	32	235	285	271	22.96	25.50	3.90	112	37	32	38	40	324
7.5	66	53	30	215	265	251	20.96	23.50	4.40	107	35	30	43	37	304
6.5	62	50	28	195	245	231	18.96	21.50	4.90	102	33	28	48	34	284
5.5	58	47	26	175	225	211	16.96	19.50	5.40	97	31	26	53	31	264
4.5	54	44	24	155	205	191	14.96	17.50	5.90	92	29	24	58	28	244
3.5	50	41	22	135	185	171	12.96	15.50	6.40	87	27	22	63	25	224
2.5	46	38	20	115	165	151	10.96	13.50	6.90	82	25	20	68	22	204
1.5	42	35	18	95	145	131	8.96	11.50	7.40	77	23	18	73	19	184
0.5	38	32	16	75	125	111	6.96	9.50	7.90	72	21	16	78	16	164
-0.5	34	29	14	55	105	91	4.96	7.50	8.40	67	19	14	83	13	144
-1.5	30	26	12	35	85	71	2.96	5.50	8.90	62	17	12	88	10	124
-2.5	26	23	10	15	65	51	0.96	3.50	9.40	57	15	10	93	7	104
-3.5	22	20	8	-	45	31	-	1.50	9.90	52	13	8	98	4	84
-4.5	-	-	-	-	25	-	-	-	10.40	47	11	6	103	-	64

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ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

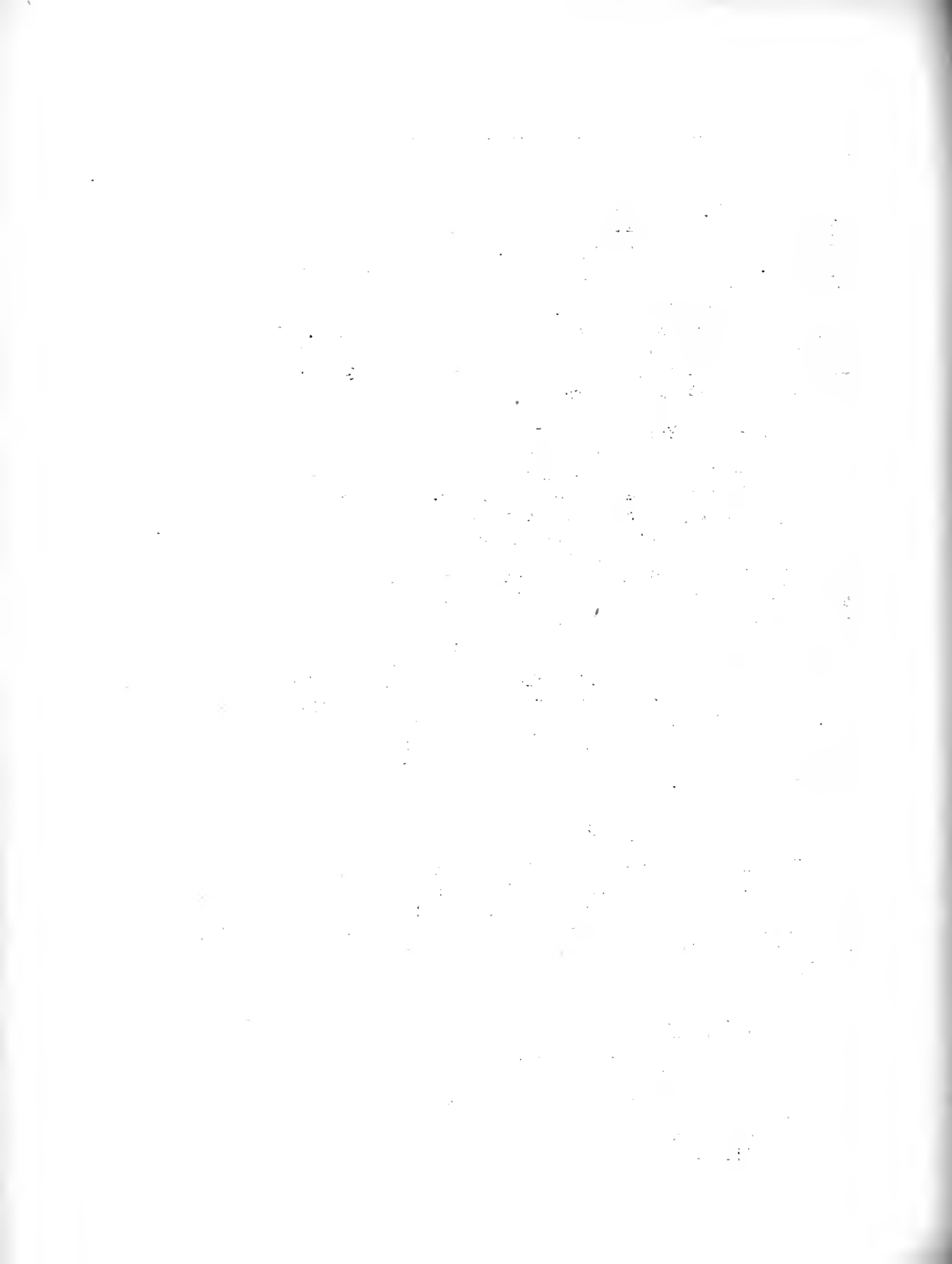
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest



conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

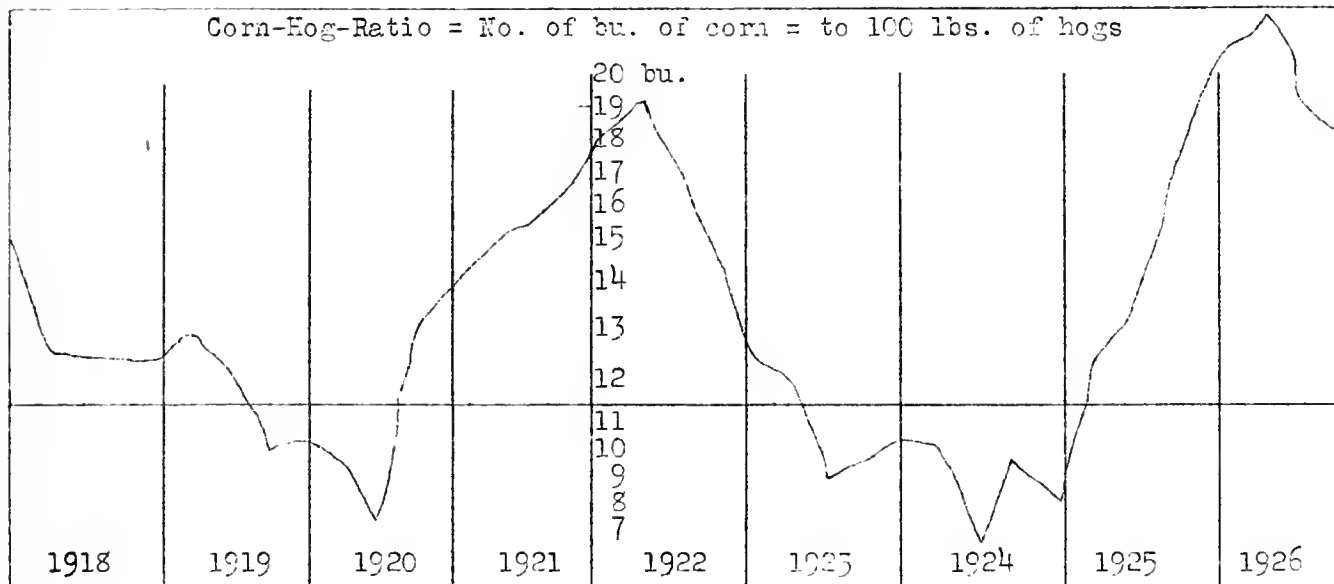
It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

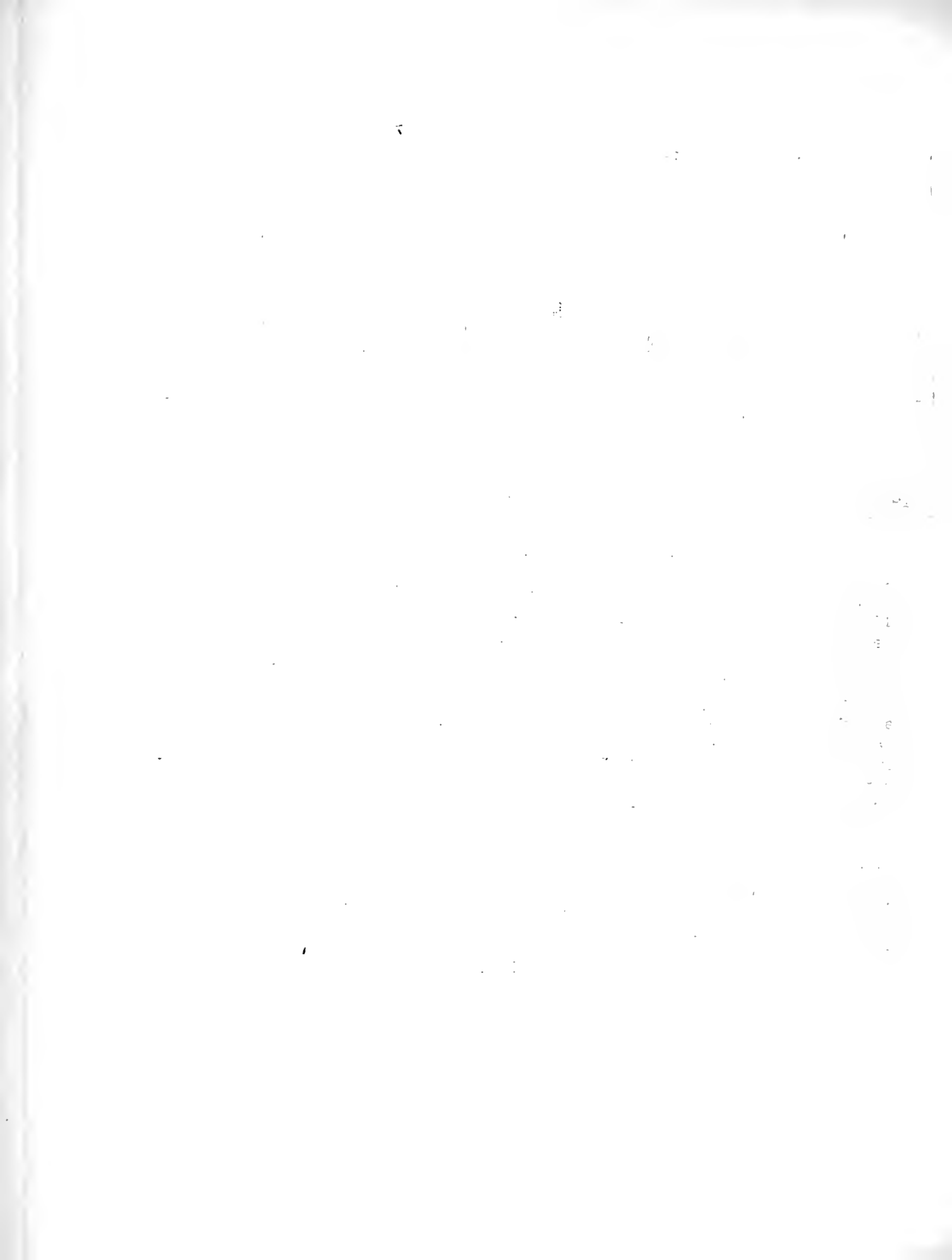
The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

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The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

HENRY COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Fifty-nine Farms

for

1926

Farm account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

April 20, 1927

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ANNUAL FARM BUSINESS REPORT

Henry County, Illinois-1926

Prepared by R. R. Hudelson, P. E. Johnston, H. C. M. Case*

The 59 farmers in Henry county who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$378 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of \$239 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,718, while the one-third who were least successful lacked an average of \$918 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,636 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 59 farmers earned 4.29 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 7.29 percent and the least successful third 1.58 percent. The average investment on the 59 farms was \$47,547, which amounts to \$239 an acre. The higher profit third had an average investment of \$249 and the lower profit third \$254 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at \$169 on the average farm.

In addition to the above earnings, each family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The 20 least profitable farms averaged about 12 acres larger than the 20 most profitable farms and each group had about the same percentage of tillable land. Size of farm was therefore not a factor in determining the relative profits of these groups. The more profitable farms had slightly more acres of the chief grain crops, but the difference was small.

*J. W. Whisenand and H. K. Danforth, farm advisers in Henry County, cooperated in supervising and collecting the records used in this report.

1950-1951

1950-1951

1950-1951

1950-1951

1950-1951

1950-1951

All farms included in this report averaged 16 bushels less corn and 19 bushels less oats per acre in 1925 than the average of all farms included for 1925. This had a big influence in reducing earnings. The 20 most profitable farms included in this report had about 6 bushels more corn and 3 bushels more oats per acre than the 20 least profitable farms. There was less difference in yields between these groups than in former reports.

One of the biggest advantages of the high profit group was in their greater amount of livestock and especially in their greater efficiency with livestock. They averaged \$2.67 per acre more livestock investment but they received \$13.46 per acre more livestock income than the less successful group. This larger amount of livestock was handled with a man labor cost only 21 cents an acre larger than on the less successful farms. On the average the crop sales and feed purchases just about balanced on the farms of both the high and low profit groups. The feed bill was larger by an average of \$94 a farm for the less successful farms and by \$47 a farm for the more successful farms. Practically the entire income on the average farm covered by this report was from livestock or livestock products. The 20 most profitable farms had a livestock income of \$149 for every \$100 of livestock investment while the corresponding income for the 20 least profitable farms was \$101 income for each \$100 investment.

The two groups did not differ much in labor and power efficiency expressed on the acre basis but the more profitable farms really had a greater labor efficiency as shown by their larger livestock income with only a slightly larger man labor cost. Building and fencing costs were about the same for both groups, but the lower profit farms had 62 cents an acre more equipment costs.

The 20 most profitable farms spent only \$46 out of each \$100 of income in paying operating expenses, while the 20 least profitable farms spent \$80 out of every \$100 income. This difference was chiefly due to a much larger gross income on the more profitable farms. The two groups had operating expenses nearly equal but the more successful operators had \$33.55 an acre gross income while the less successful ones took in only \$19.99 an acre.

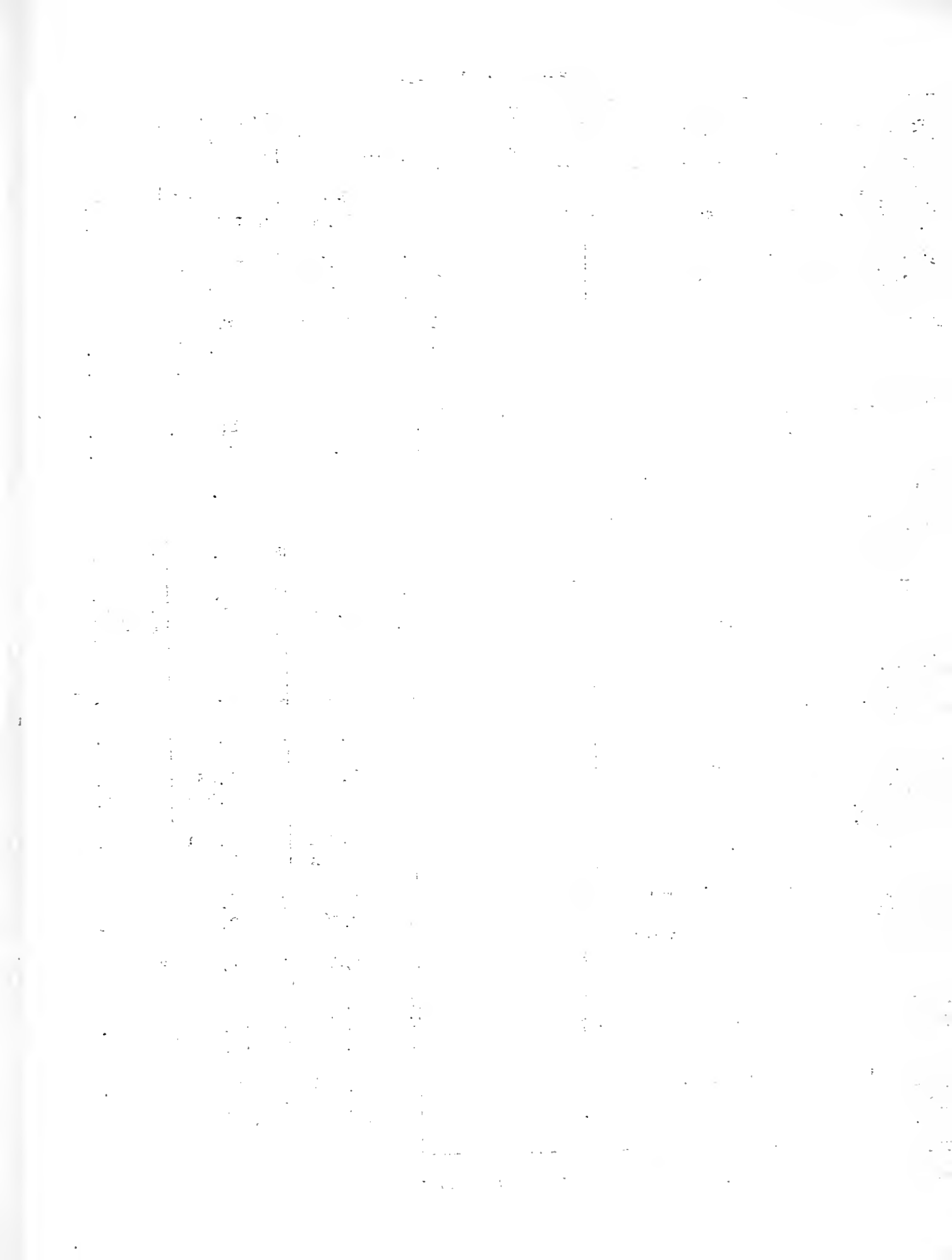
Although there was a large increase in the number of accounts included for 1926, it is interesting to make a comparison of farm earnings in Henry County for 1925 and 1926. For 1926 the rate earned dropped from 7 percent to 4.29 percent on about the same average investment. This drop appears to be due to lower crop yields, smaller margins between costs and selling prices of heavy cattle, and severe losses from hog cholera. The quality of crops harvested was lower for 1926, due to excessively wet weather in late summer, fall and winter.

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm as well as on farms of the group making the best profits and the group making the least profits.

Henry County - 1926

Factors helping to analyze the farm business	Your farm	Average of fifty-nine farms	Twenty most profitable farms	Twenty least profitable farms
Rate earned	¢	4.29%	7.29%	1.58%
Labor and management wage	\$	\$ 378.00	\$ 1,718.	\$ -918.
Size of farm - acres	A	198.9 A	175.7 A	188 A
Percent of land area tillable	¢	85.0 %	89.9 %	88.2%
Acres in Corn	A	75.3 A	74.8 A	68.5A
Oats	A	31.9 A	29.3 A	30.0A
Wheat	A	7.8 A	3.2 A	7.9A
Crop yields - Corn	bu.	49.0 bu.	52.7bu.	46.8 bu.
Oats	bu.	38.9 bu.	41.9bu.	38.8 bu.
Wheat	bu.	23.8 bu.	22.2bu.	21.0 bu.
Percent in high profit crops*	¢	54.4 %	58.3 %	49.4 %
Returns per \$100 invested in all productive livestock	\$	\$ 124.00	\$ 149.00	\$ 101.00
For \$100 in Cattle	\$	\$ 83.00	\$ 99.00	\$ 75.00
Hogs	\$	\$ 171.00	\$ 187.00	\$ 139.00
Poultry	\$	\$ 170.00	\$ 196.00	\$ 144.00
Investment per acre in productive livestock	\$	\$ 19.45	\$ 22.24	\$ 19.57
Receipts per acre from productive livestock	\$	\$ 24.18	\$ 33.23	\$ 19.77
Man labor cost per acre	\$	\$ 7.49	\$ 8.03	\$ 7.82
Crop acres per man	A	79.4 A	79.6 A	71.9 A
Crop acres per horse (with tractor)	A	25.2 A	23.8 A	21.6 A
(without tractor)	A	17.8 A	17.8 A	16.6 A
Expense per \$100 gross income	\$	\$ 59.00	\$ 46.00	\$ 80.00
Machinery cost per acre	\$	\$ 2.36	\$ 2.20	\$ 2.82
Building and fencing cost per acre	\$	\$ 1.22	\$ 1.22	\$ 1.24
Gross receipts per acre	\$	\$ 24.80	\$ 33.55	\$ 19.99
Total expenses per acre	\$	\$ 14.54	\$ 15.41	\$ 15.98
Net receipts per acre	\$	\$ 10.26	\$ 18.14	\$ 8.59
Farms with tractor (percent)	¢	64.4 %	65.0 %	55.9 %
Value of land per acre	\$	\$ 169.00	\$ 173.00	\$ 182.00
Total investment per acre	\$	\$ 239.00	\$ 249.00	\$ 254.00

*Percent of tillable land in corn, wheat, sweet clover, and alfalfa



Henry County - 1926

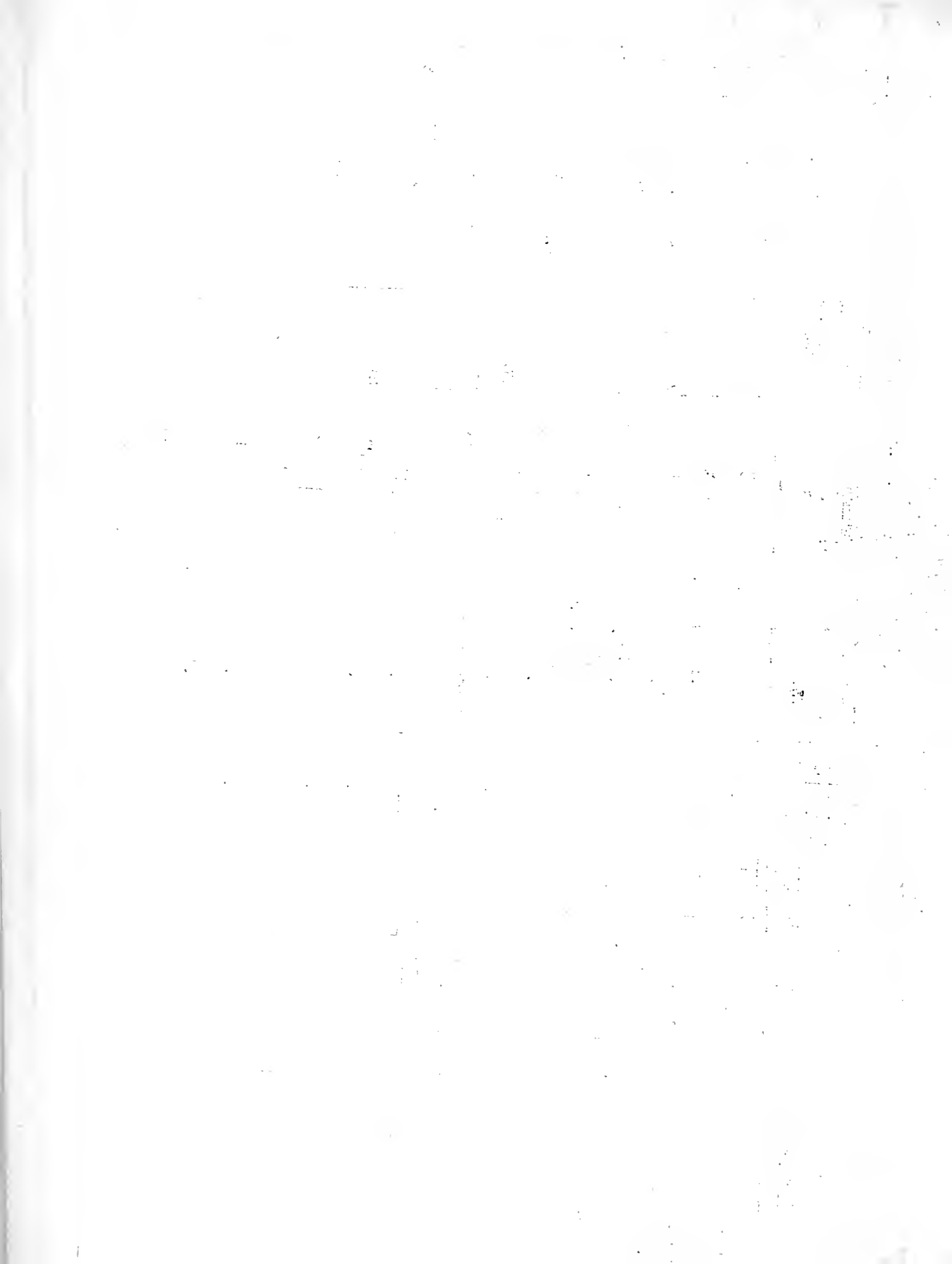
Item	Your farm	Average of fifty-nine farms	Twenty most profitable farms	Twenty least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$47,547	\$43,699	\$47,835
2 Land		33,556	30,338	34,281
3 Farm improvements		4,792	4,710	4,260
4 Machinery and equipment		1,668	1,316	1,933
5 Feed and supplies		3,143	3,114	2,959
6 Livestock		4,388	4,221	4,402
7 Horses		517	482	580
8 Cattle		1,917	1,621	1,970
9 Hogs		1,744	1,900	1,618
10 Sheep		46	40	75
11 Poultry		164	178	159
12 <u>Receipts-Net Increases-Total</u>	\$ _____	4,933	5,895	3,759
13 Feed and grain		68	---	---
14 Miscellaneous		55	56	43
15 Livestock - Total		4,810	5,839	3,716
16 Horses		--	--	--
17 Cattle		1,178	1,101	1,144
18 Hogs		2,894	3,891	1,924
19 Sheep		36	29	61
20 Poultry		156	181	139
21 Egg sales		119	150	92
22 Dairy sales		427	487	356
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	1,961	1,825	2,144
24 Farm improvements		243	215	233
25 Livestock		20	9	27
26 Horses		20	9	27
27 Cattle		--	--	--
28 Hogs		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		470	386	530
32 Feed and supplies		--	47	94
33 Livestock expense other than feed		83	113	70
34 Crop expense		208	187	192
35 Labor hired		558	527	610
36 Taxes, insurance, etc.		345	316	354
37 Miscellaneous		29	25	34
38 <u>Receipts less Expenses</u>	\$ _____	2,972	4,070	1,615
39 Operator's and unpaid family labor		932	883	861
40 Net income from investment		2,040	3,187	754

The first part of the chapter discusses the importance of maintaining accurate records of all transactions. This is essential for the proper management of the business and for the preparation of financial statements. The second part of the chapter covers the various methods of recording transactions, including the double-entry system and the use of journals and ledgers. The third part of the chapter discusses the importance of reconciling the books and the preparation of a trial balance. The fourth part of the chapter covers the various methods of adjusting the books, including the use of adjusting entries and the preparation of an adjusted trial balance. The fifth part of the chapter discusses the importance of closing the books and the preparation of a final trial balance. The sixth part of the chapter covers the various methods of preparing financial statements, including the balance sheet, the income statement, and the statement of owner's equity. The seventh part of the chapter discusses the importance of analyzing the financial statements and the use of ratios and percentages. The eighth part of the chapter covers the various methods of interpreting the financial statements and the use of the information to make business decisions. The ninth part of the chapter discusses the importance of maintaining the books and the use of the information to improve the business. The tenth part of the chapter covers the various methods of preparing the books and the use of the information to improve the business.

Find Your Farm Leaks
Henry County - 1926

The numbers between the lines across the middle of the page are the approximate averages for your county of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per A. in L.S.	Receipts per acre from L.S.	Man lab. cost per acre	Crop acres per			Expense per \$100 income	Gross receipts per acre	Size of farm		
	Corn	Oats	Wheat	Cattle				Hogs	Poultry	Man				Tractor	Horse	No Tractor
11.29	70	60	38	153	311	310	33.45	38.18	4.00	115	39	32	24	46	369
10.29	67	57	36	143	291	290	31.45	36.18	4.50	110	37	30	29	43	339
9.29	64	54	34	133	271	270	29.45	34.18	5.00	105	35	28	34	40	309
8.29	61	51	32	123	251	250	27.45	32.18	5.50	100	33	26	39	37	279
7.29	58	48	30	113	231	230	25.45	30.18	6.00	95	31	24	44	34	259
6.29	55	45	28	103	211	210	23.45	28.18	6.50	90	29	22	49	31	239
5.29	52	42	26	93	191	190	21.45	26.18	7.00	85	27	20	54	28	219
4.29	49	39	24	83	171	170	19.45	24.18	7.50	80	25	18	59	25	199
3.29	46	36	22	73	151	150	17.45	22.18	8.00	75	23	16	64	22	179
2.29	43	33	20	63	131	130	15.45	20.18	8.50	70	21	14	69	19	159
1.29	40	30	18	53	111	110	13.45	18.18	9.00	65	19	12	74	16	139
0.29	37	27	16	43	91	90	11.45	16.18	9.50	60	17	10	79	13	119
-0.71	34	24	14	33	71	70	9.45	14.18	10.00	55	15	8	84	10	99
-1.71	31	21	12	23	51	50	7.45	12.18	10.50	50	13	6	89	7	79
-2.71	28	18	10	13	31	30	5.45	10.18	11.00	45	11	4	94	4	59



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

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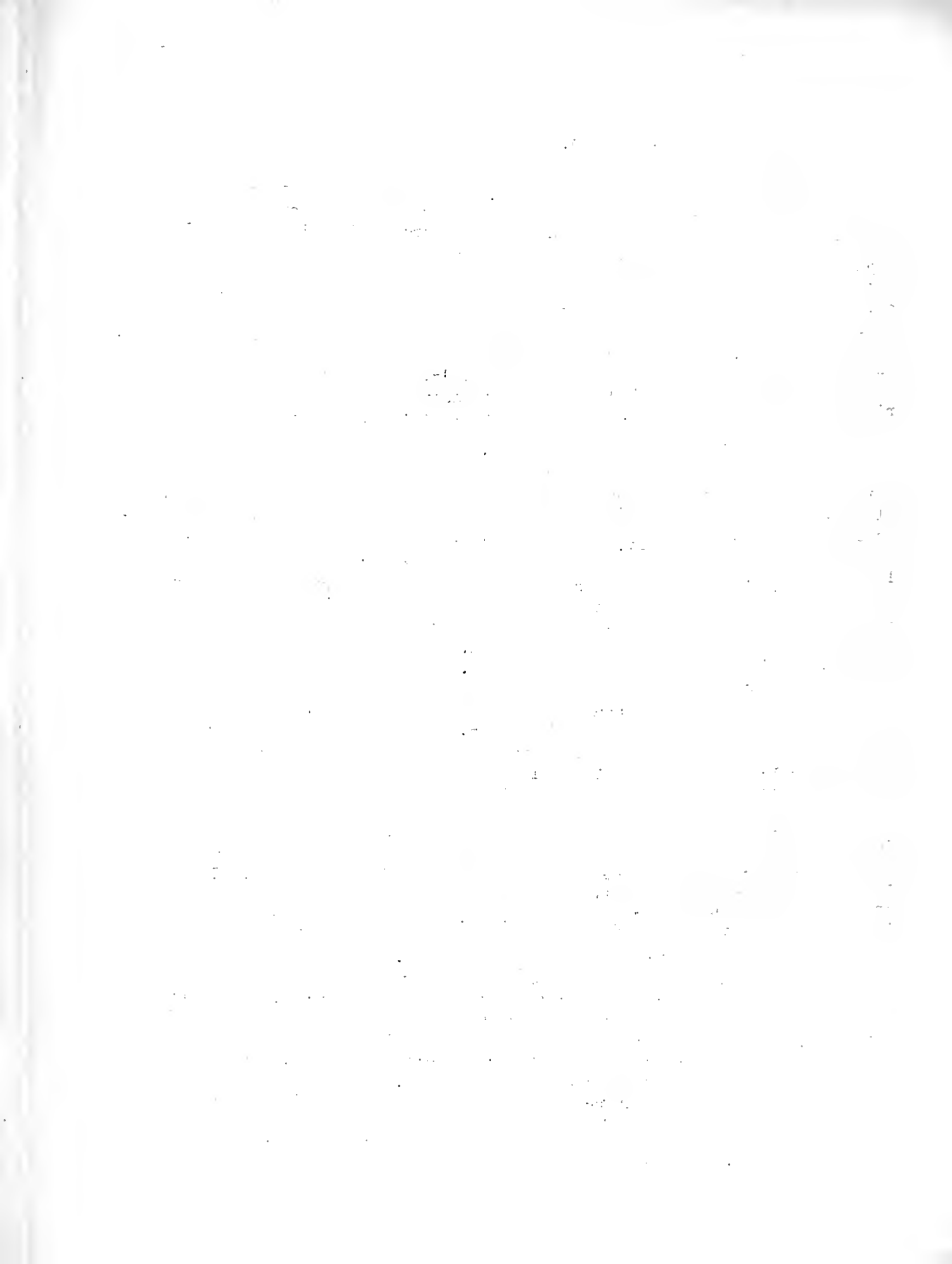
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conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,



and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

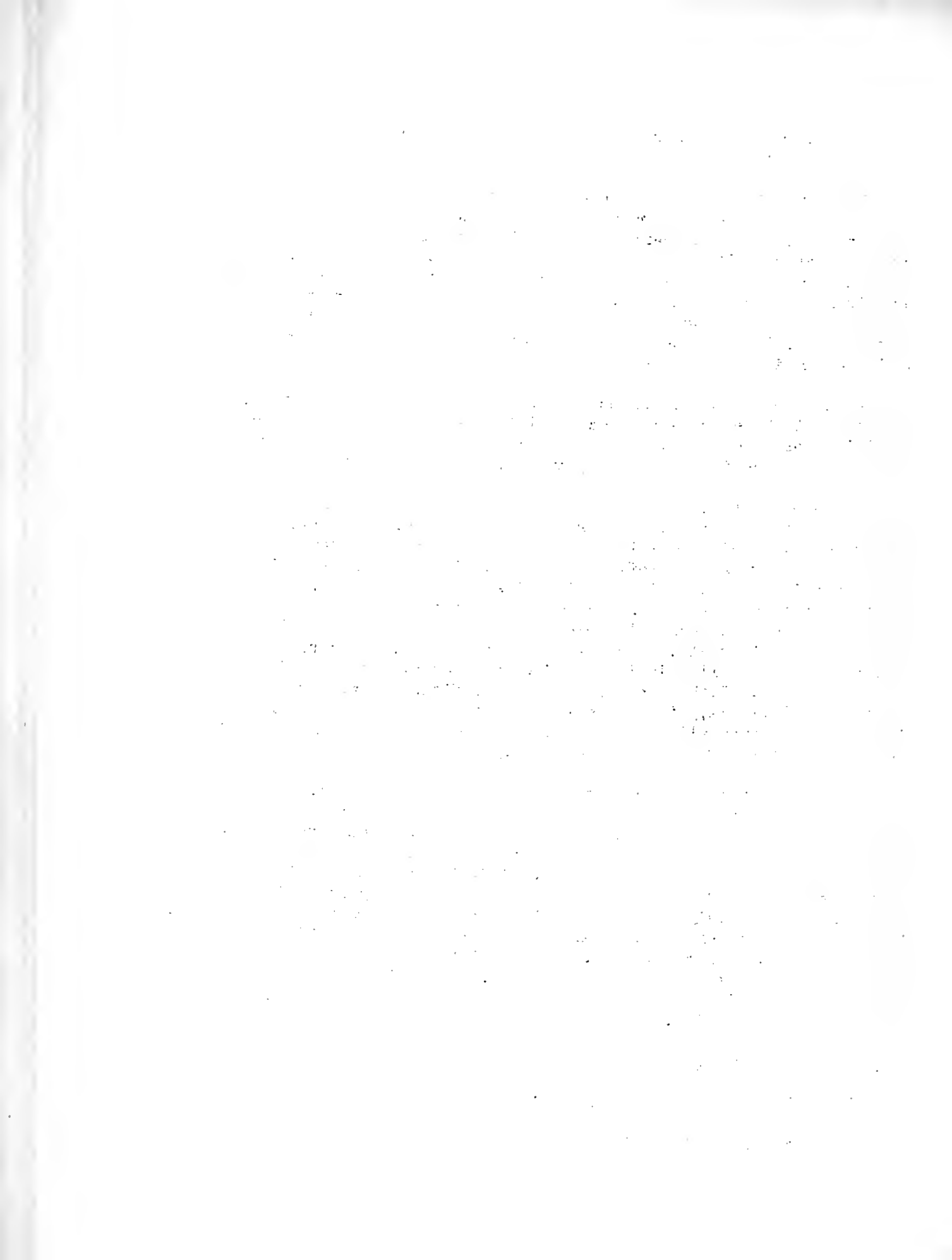
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

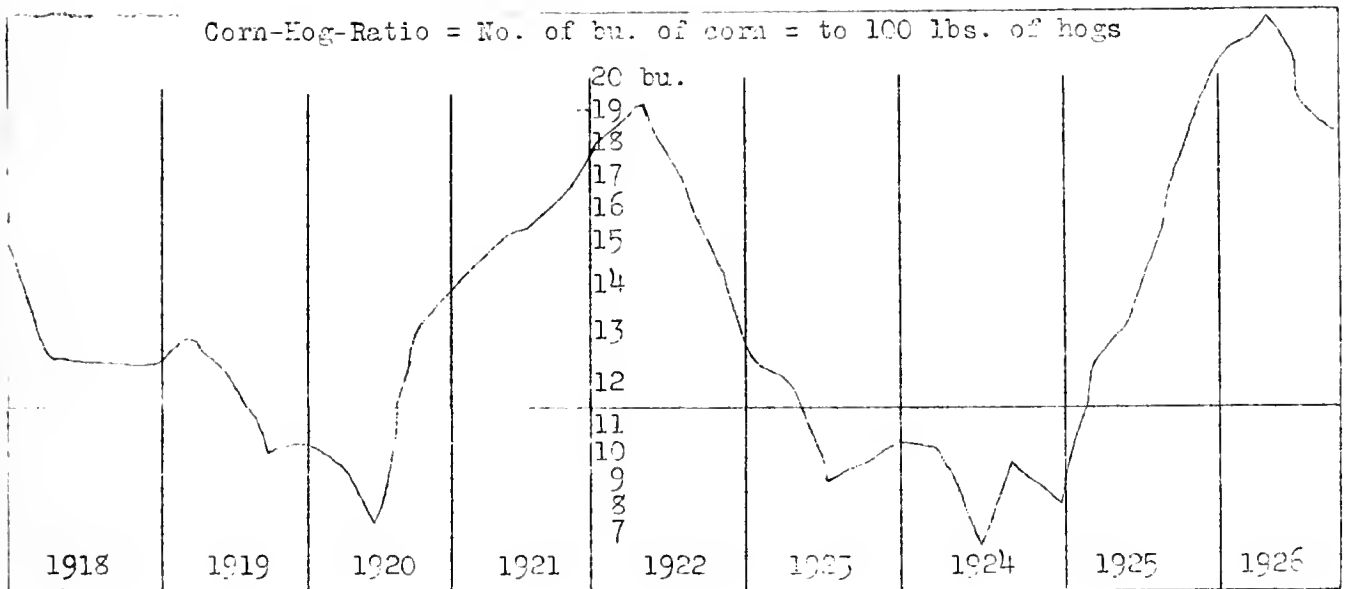
1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent data collection procedures and the use of advanced analytical techniques to derive meaningful insights from the data.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and analysis processes, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that the data remains reliable and secure throughout its lifecycle.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It stresses the importance of continuous monitoring and evaluation of the data management process to ensure it remains effective and aligned with the organization's goals.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

MARSHALL-PUTNAM AND STARK COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty-one Farms

for

1926

Farm Account keepers say:

"Farm accounts are more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

M52

1. Introduction

2. Methodology

3. Results and Discussion

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ANNUAL FARM BUSINESS REPORT

Marshall-Putnam and Stark Counties, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. C. M. Case*

The 41 farmers in Marshall-Putnam and Stark counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$329 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of \$258 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,730, while the one-third who were least successful lacked an average of \$918 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,648 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 41 farmers earned 4.4 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 7.3 percent and the least successful third 1.9 percent. The average investment on the 41 farms was \$50,361, which amounts to \$258 an acre. The higher profit third had an average investment of \$250 and the lower profit third \$266 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$195 an acre as an average for all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

There was practically no difference in average size between farms of the low and high profit groups. Neither was there any significant difference in the percentage of land tillable. Both groups had the same number of acres of corn but the low profit farms averaged thirteen more acres of oats and four less acres of wheat. It is clear that size of farm had little influence on the relative earnings of these groups.

The more profitable farms averaged only a little higher yields than the less profitable farms, the difference consisting of about two bushels more corn, seven bushels more oats, and four bushels more wheat. As a rule,

*F. E. Fuller and E. E. Brown, farm advisers in Marshall-Putnam and Stark counties respectively, cooperated in supervising and collecting the records used in this report.

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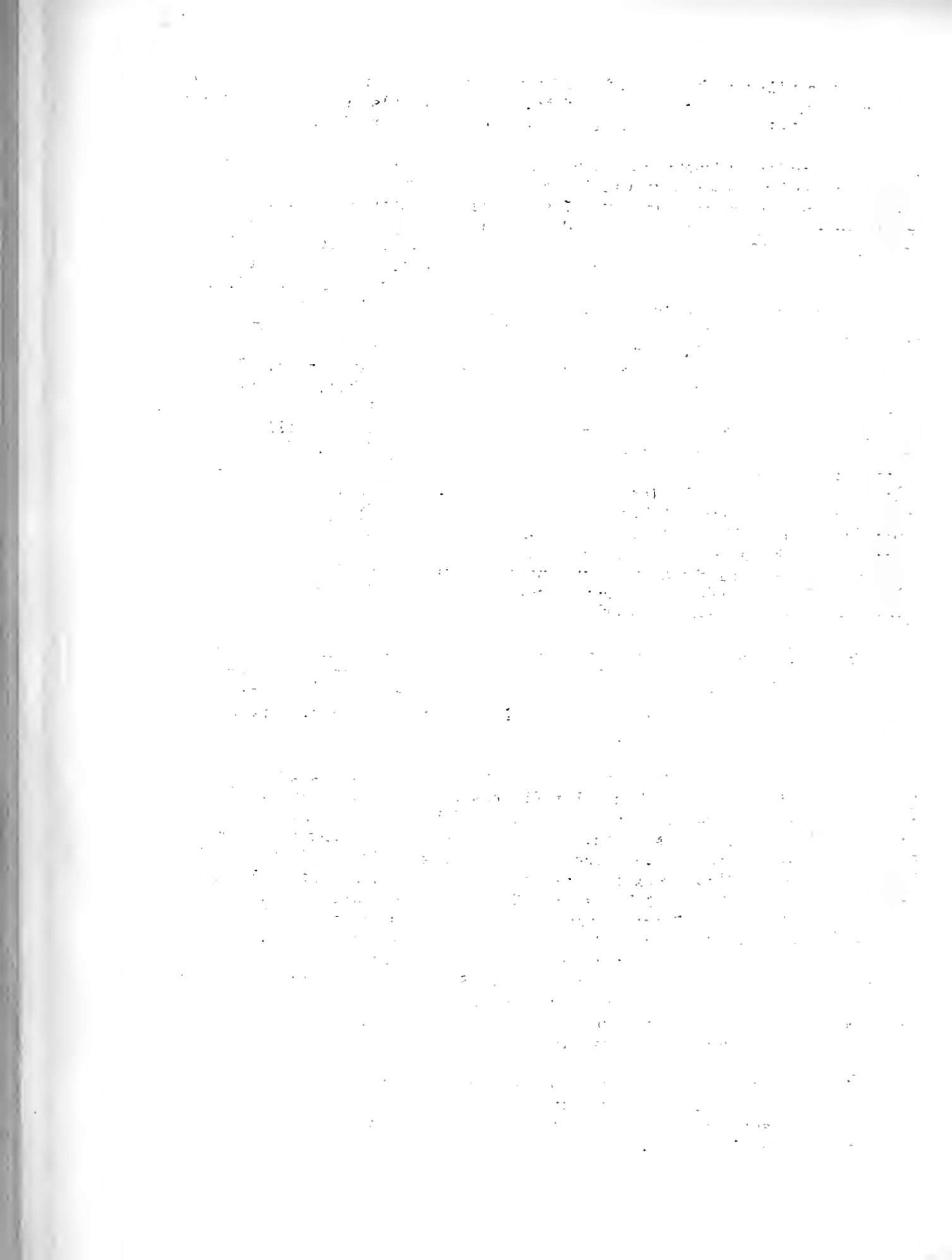
in similar studies we have found differences in yields to be one of the large factors causing a difference in profits. Higher yields usually mean lower costs per bushel or ton of crop and therefore larger profits.

The greatest advantage of the high profit farms over the low profit farms covered by this report was in having more livestock and in handling their livestock more efficiently. The 15 most profitable farms had an average livestock investment of \$18.22 an acre, compared with an investment of \$14.24 an acre on the 15 least profitable farms. The difference in livestock income was even greater, the more profitable farms having a livestock income of \$27.16 an acre compared with about half that amount or \$13.72 an acre on the less profitable farms. The difference in livestock efficiency is shown in the fact that the operators of the more successful farms secured \$149 income from each \$100 invested in livestock, compared with \$95 income from each \$100 livestock investment on the less successful farms. Further evidence of more efficient feeding is seen in the fact that, although the more profitable farms were no larger and raised only slightly larger yields, they fed out and marketed about twice as much livestock and still had almost as much income from crop sales as the less profitable farms. Hogs were the source of 65 percent of the income on the more profitable farms and 53 percent of the income on the less profitable farms. The fact that hogs form the largest enterprise on these farms leads to a big advantage for those operators who grow hogs most efficiently. Cost accounting studies on hog production have shown that the man who can save a high percentage of pigs farrowed, keep his herd thrifty throughout the period from birth to market, and feed efficiently, will make money on hogs even when prices are much less favorable than they were in 1926.

Operating costs per acre were practically the same on farms of the high and low profit groups. Labor, power and other expenses were used more efficiently on the high profit farms, however, for at the same acre cost they secured a gross income per acre of \$30.99 as compared with \$17.84 on farms of the low profit group.

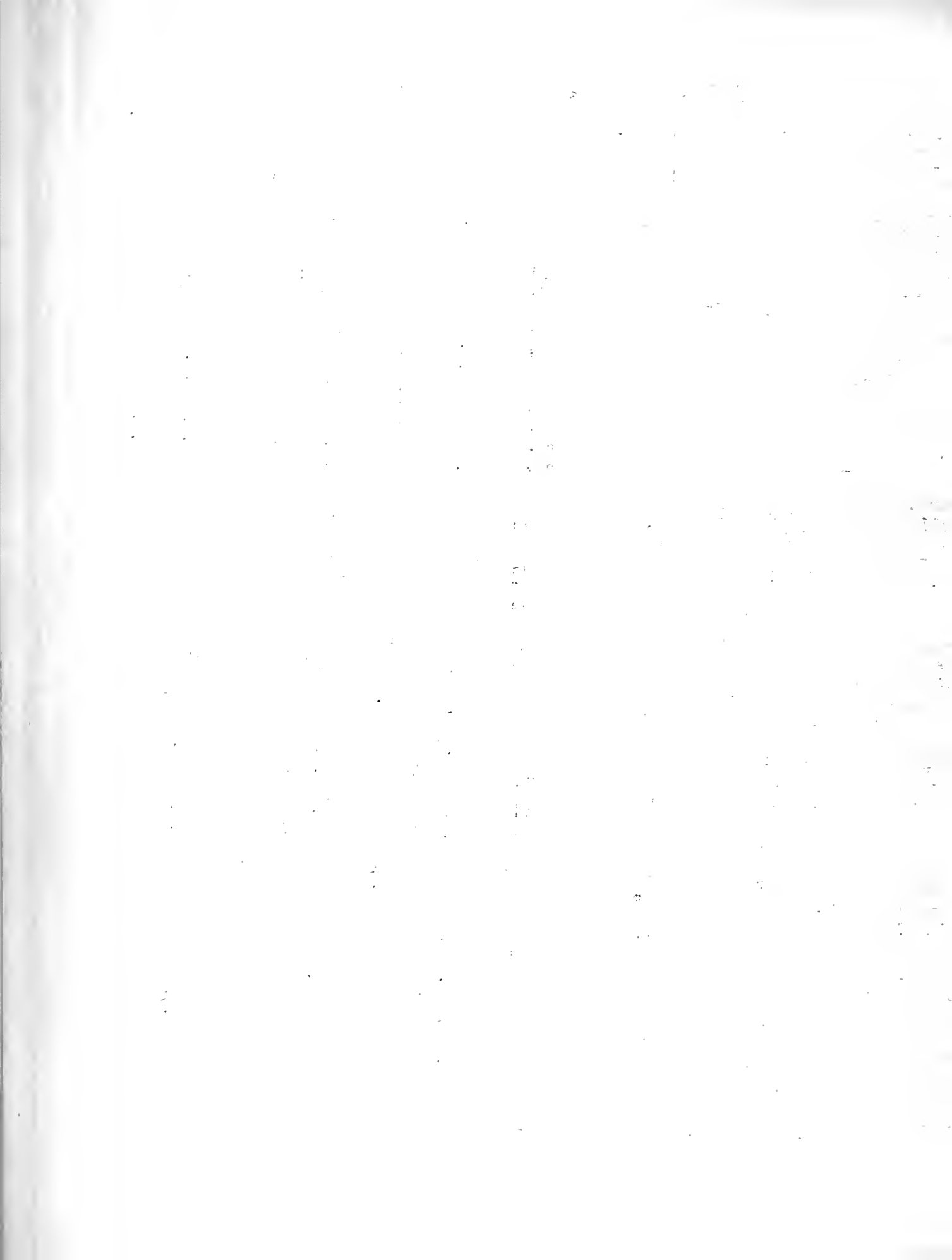
It is of some interest to compare farm earnings in the area covered by this report for 1926 with similar figures for preceding years. For 1924 forty-one farms in Henry, Marshall-Putnam, and Whiteside Counties averaged 7.4 percent on their investments. For 1925 twenty-seven farms in Marshall-Putnam Counties averaged 4.3 percent and 30 farms in Stark, Peoria, and eastern Henry counties averaged 6 percent on their investments. For 1926 forty-one farms in Marshall-Putnam and Stark counties averaged 4.3 percent on their investments. These figures agree with those from other areas of western Illinois in indicating lower earnings for 1926 than 1925. The year 1924 was the most satisfactory since 1919 on most Central Illinois farms, the chief cause being higher grain prices. Some causes of lower earnings for 1926 than in 1925 were lower corn yields, lower quality of grain, less satisfactory prices on heavy beef cattle, and losses from hog cholera. Corn and wheat prices at the farm ranged somewhat lower also.

Some points of strength and some of weakness in your own farm business may be found by comparing the factors from your record in the following tables with the same factors for the average farm as well as for farms of the high and low profit groups.



Marshall-Putnam and Stark Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of 41 farms	Fifteen most profitable farms	Fifteen least profitable farms
Rate earned		4.38%	7.34%	1.91%
Labor and management wage	\$	\$ 329	\$1,730	\$ -918
Size of farm - acres	A	195.4 A	189 A	191.6 A
Percent of land area tillable	%	89.7 %	88.1 %	89.5 %
Acres in Corn	A	85.5 A	83.5 A	83.2 A
Oats	A	36.4 A	31.4 A	44.3 A
Wheat	A	6.4 A	6.4 A	2.2 A
Crop yields - Corn	bu.	48.6 bu.	48.9 bu.	46.5 bu.
Oats	bu.	34.3 bu.	36.9 bu.	29.6 bu.
Wheat	bu.	23.3 bu.	21.9 bu.	18.2 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 124	\$ 149	\$ 95
For \$100 in Cattle	\$	\$ 76	\$ 95	\$ 56
Swine	\$	\$ 172	\$ 190	\$ 153
Poultry	\$	\$ 164	\$ 156	\$ 138
Investment per acre in productive livestock	\$	\$ 15.17	\$ 18.22	\$ 14.24
Receipts per acre from productive livestock	\$	\$ 18.86	\$ 27.16	\$ 13.72
Man labor cost per acre	\$	\$ 6.28	\$ 6.08	\$ 6.46
Crop acres per man	A	91.3 A	91.0 A	87.3 A
Crop acres per horse (with tractor)	A	23.4 A	24.2 A	19.6 A
(wwithout tractor)	A	21.5 A	19.9 A	22.7 A
Expense per \$100 gross income	\$	\$ 54	\$ 41	\$ 72
Machinery cost per acre	\$	\$ 2.15	\$ 1.83	\$ 1.96
Building and fencing cost per acre	\$	\$ 1.15	\$ 1.19	\$ 1.09
Gross receipts per acre	\$	\$ 24.32	\$ 30.99	\$ 17.84
Total expenses per acre	\$	\$ 13.03	\$ 12.63	\$ 12.77
Net receipts per acre	\$	\$ 11.29	\$ 18.36	\$ 5.07
Farms with tractor - percent	%	62.2 %	60 %	56.7 %
Value of land per acre	\$	\$ 195	\$ 184	\$ 204
Total investment per acre	\$	\$ 258	\$ 250	\$ 266



Marshall-Putnam and Stark Counties, 1926

Item	Your farm	Average of 41 farms	Fifteen most profitable farms	Fifteen least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$50,361	\$47,265	\$50,910
2 Land		38,008	34,792	39,052
3 Farm improvements		4,191	4,479	3,902
4 Machinery and equipment		1,454	1,530	1,239
5 Feed and supplies		3,423	2,884	3,530
6 Livestock		3,285	3,580	3,187
7 Horses		649	653	650
8 Cattle		1,112	1,204	1,055
9 Swine		1,333	1,575	1,213
10 Sheep		75	25	161
11 Poultry		116	123	108
12 <u>Receipts-Net Increases-Total</u>	\$	\$ 4,752	\$ 5,857	\$ 3,418
13 Feed and grain		1,018	564	762
14 Miscellaneous		48	49	28
15 Livestock - Total		3,686	5,144	2,628
16 Horses		--	11	29
17 Cattle		622	886	360
18 Swine		2,599	3,834	1,801
19 Sheep		67	42	88
20 Poultry		95	73	88
21 Egg sales		97	99	74
22 Dairy sales		206	199	188
23 <u>Expenses-Net Decreases-Total</u>	\$	\$ 1,779	\$ 1,526	\$ 1,671
24 Farm improvements		225	225	210
25 Livestock		4	-	-
26 Horses		4	-	-
27 Cattle		-	-	-
28 Swine		-	-	-
29 Sheep		-	-	-
30 Poultry		-	-	-
31 Machinery and equipment		420	346	373
32 Feed and supplies		-	-	-
33 Livestock expense other than feed		73	98	52
34 Crop expense		171	171	171
35 Labor hired		462	389	461
36 Taxes, insurance, etc.		402	379	382
37 Miscellaneous		22	18	22
38 <u>Receipts less Expenses</u>	\$	\$ 2,973	\$ 4,231	\$ 1,747
39 Operator's and unpaid family labor		756	761	776
40 Net income from investment		2,207	3,470	971

1. Introduction

2. Methodology

3. Results

4. Discussion

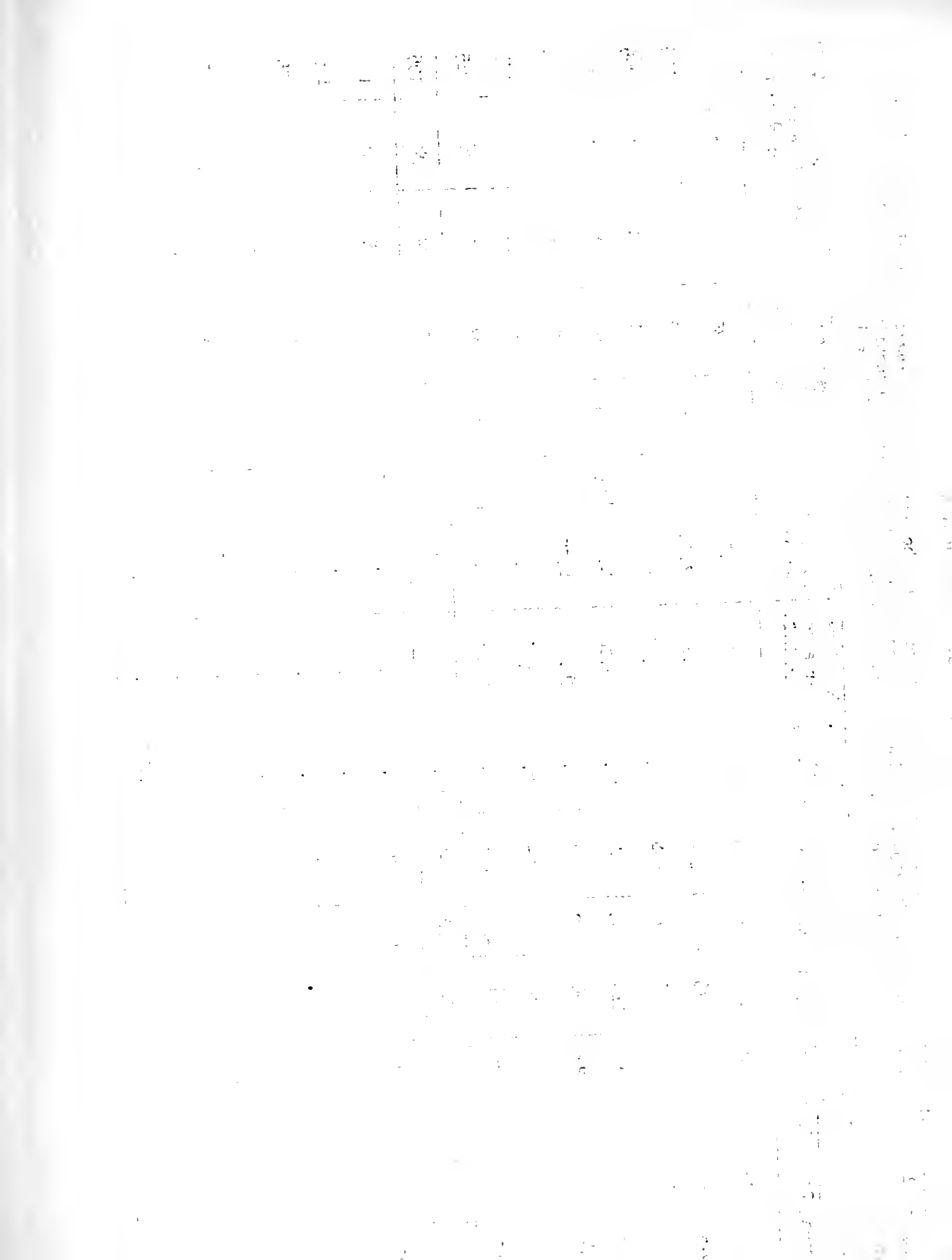
5. Conclusion

6. References

Marshall-Putnam and Stark Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your county of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expenses per \$100 income	Gross receipts per acre	Size of farm		
	Corn	Oats	Wheat	Cattle				Hogs	Poultry	Man				Tractor	No tractor
11.4	76	55	37	146	312	304	29.17	32.86	2.75	125	37	35	19	38	335
10.4	72	52	35	136	292	284	27.17	30.86	3.25	120	35	33	24	36	315
9.4	68	49	33	126	272	264	25.17	28.86	3.75	115	33	31	29	34	295
8.4	64	46	31	116	252	244	23.17	26.86	4.25	110	31	29	34	32	275
7.4	60	43	29	106	232	224	21.17	24.86	4.75	105	29	27	39	30	255
6.4	56	40	27	96	212	204	19.17	22.86	5.25	100	27	25	44	28	235
5.4	52	37	25	86	192	184	17.17	20.86	5.75	95	25	23	49	26	215
4.4	48	34	23	76	172	164	15.17	18.86	6.25	90	23	21	54	24	195
3.4	44	31	21	66	152	144	13.17	16.86	6.75	85	21	19	59	22	175
2.4	40	28	19	56	132	124	11.17	14.86	7.25	80	19	17	64	20	155
1.4	36	25	17	46	112	104	9.17	12.86	7.75	75	17	15	69	18	135
0.4	32	22	15	36	92	84	7.17	10.86	8.25	70	15	13	74	16	115
-0.6	28	19	13	26	72	64	5.17	8.86	8.75	65	13	11	79	14	95
-1.6	24	16	11	16	52	44	3.17	6.86	9.25	60	11	9	84	12	75
-2.6	20	--	9	6	32	24	1.17	4.86	9.75	55	9	7	89	10	55



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

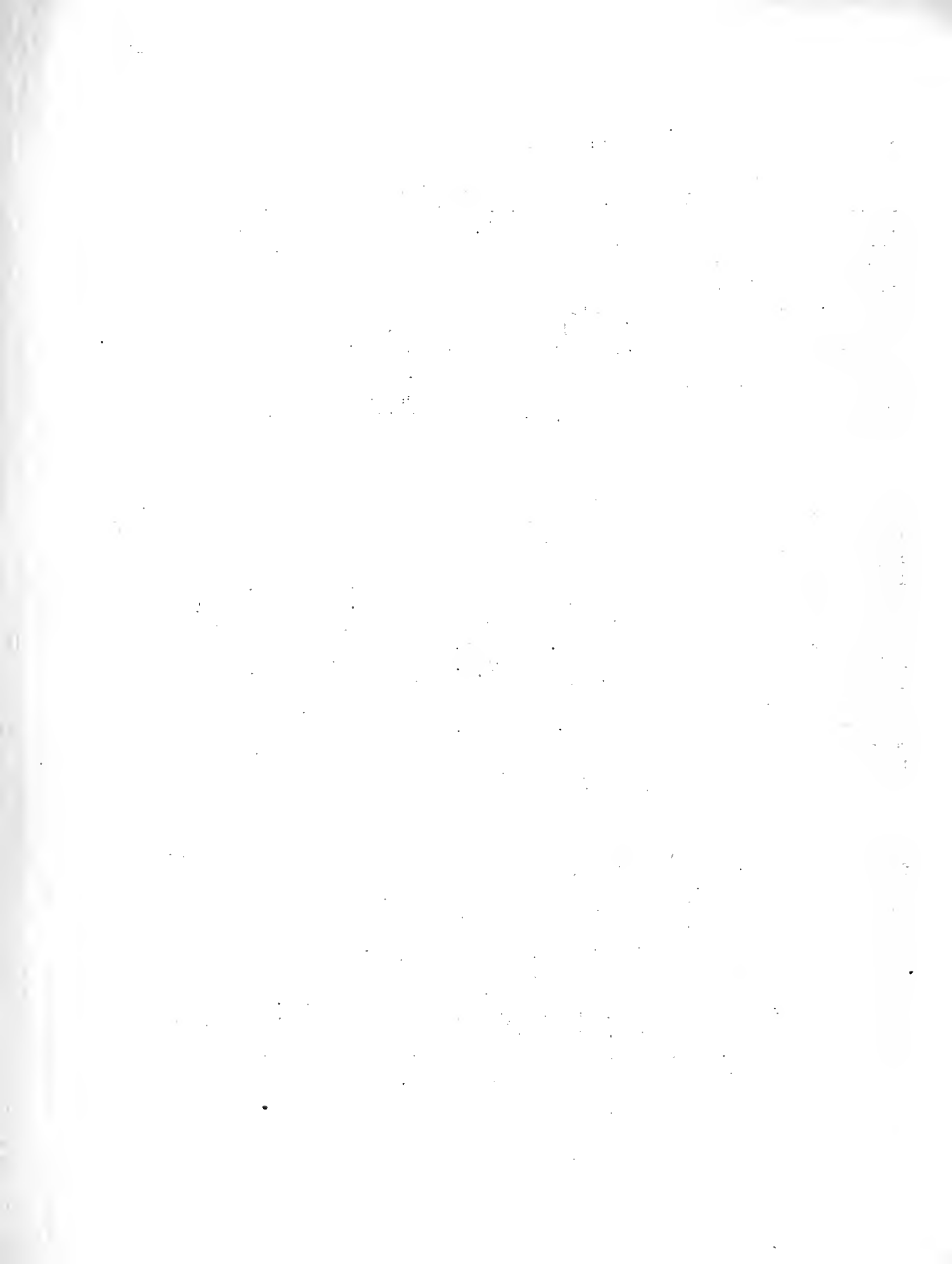


conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,



end of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

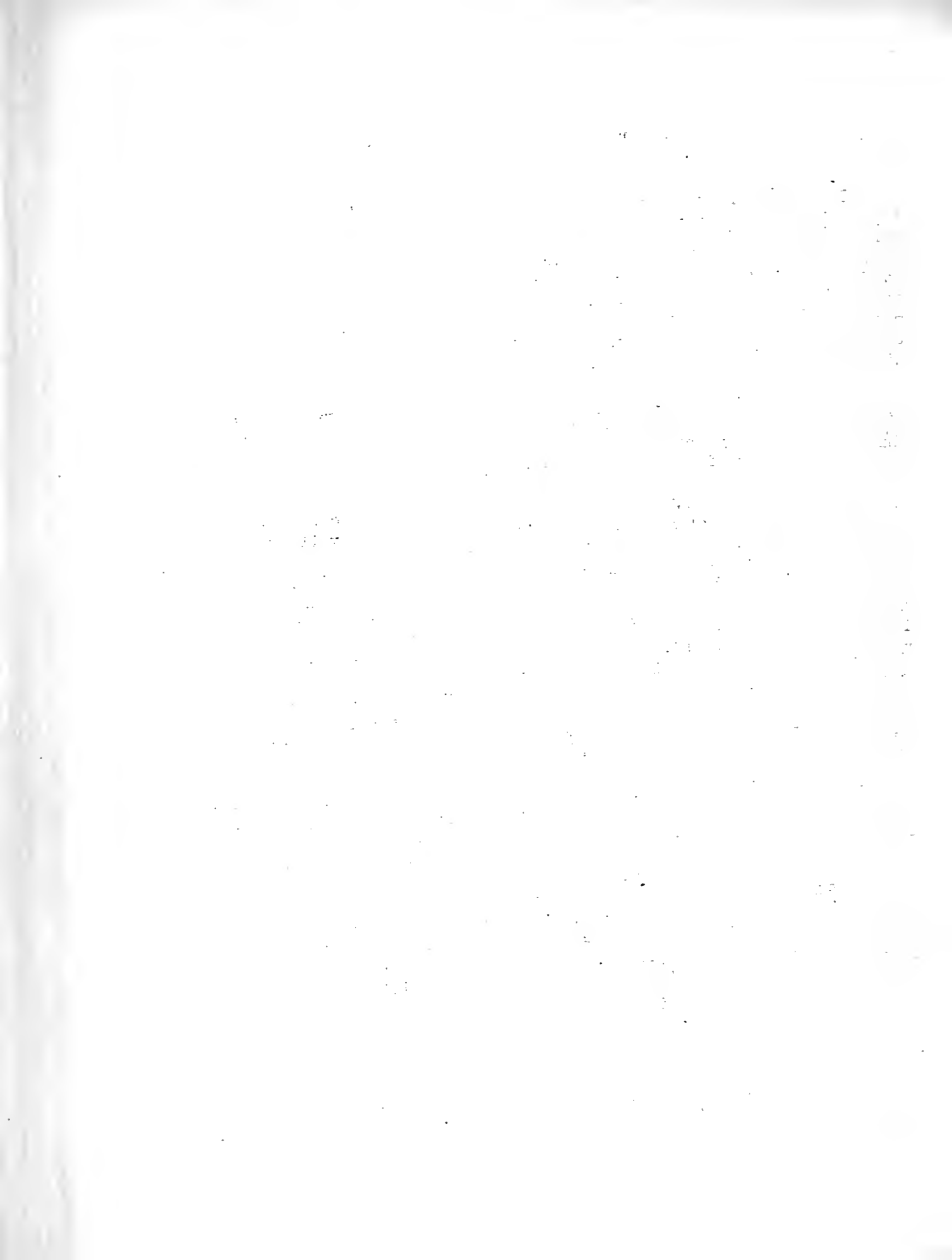
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



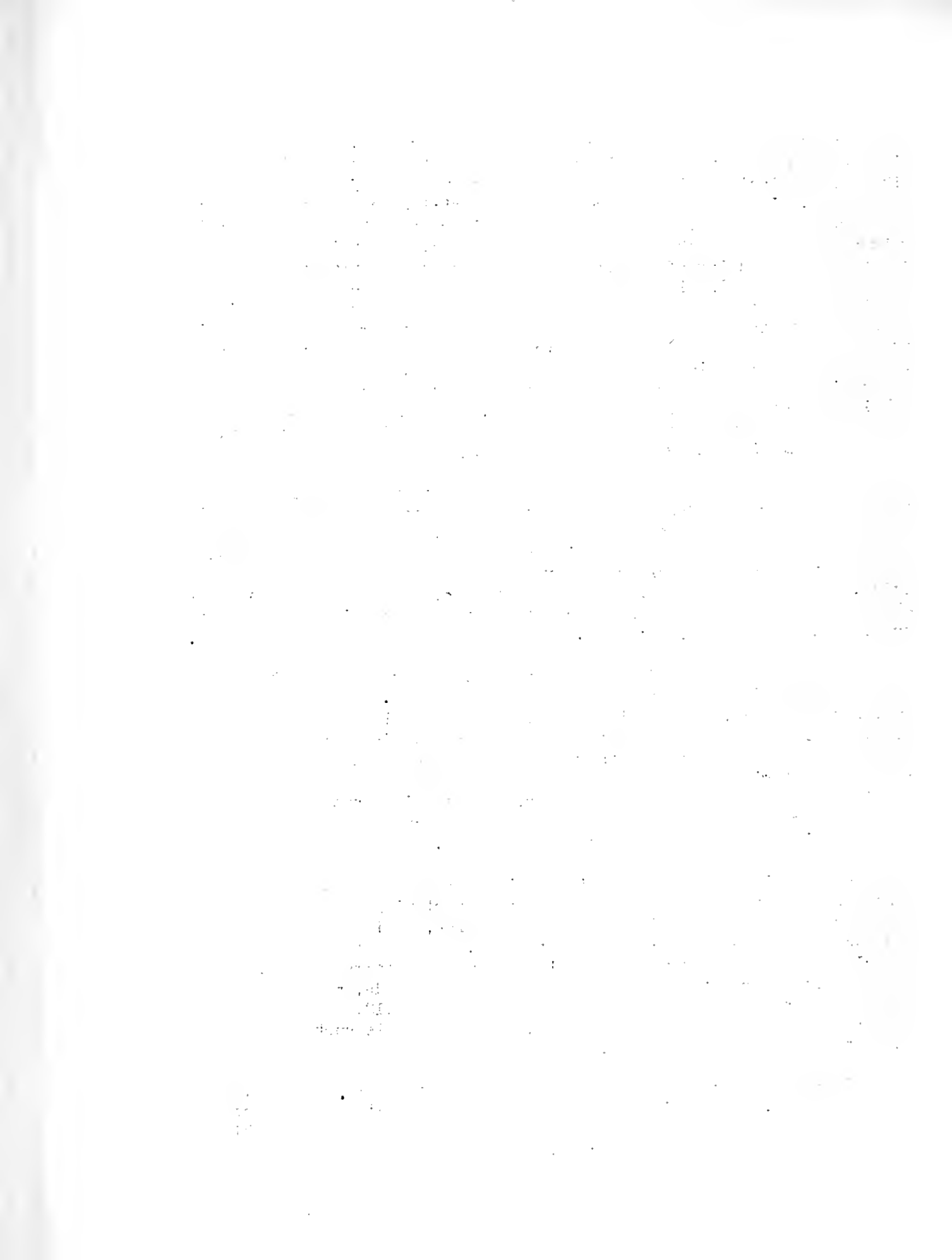
as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in



supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

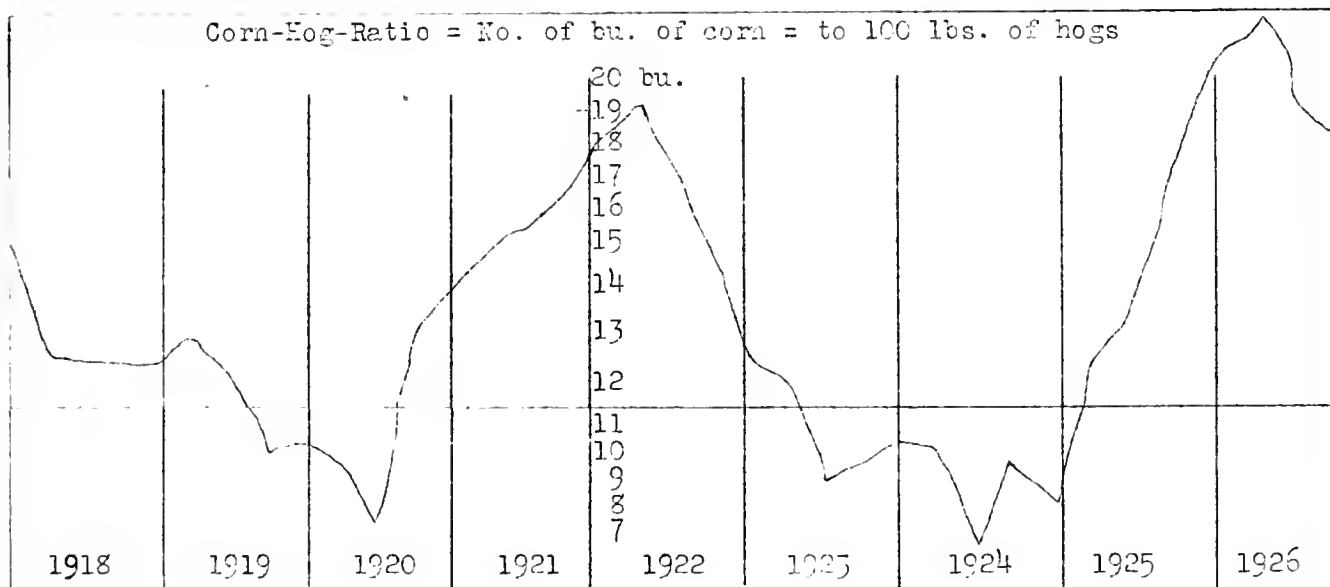
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station:

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

UNIVERSITY OF ILLINOIS
Department of Farm Organization and Management
and the -
Farm Bureaus of
Livingston, McLean, Tazewell and Woodford Counties
Cooperating

SECOND ANNUAL REPORT
of the
FARM BUREAU-FARM MANAGEMENT SERVICE
for the year
1926

This report prepared for the farm operated by

Farm account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois
April 22, 1927

SECOND ANNUAL REPORT

For the Cooperators in the Farm Bureau-Farm Management Service For the Year 1926

Prepared by M. L. Mosher, and F. C. M. Case

An average of 2.8 percent on the entire farm investment, after deducting all expenses and \$720 allowance for the value of the operator's labor, was made by the 210 farmers who are cooperators in the Farm Bureau-Farm Management Service and whose records were used in preparing this report. The average investment in land, buildings, livestock, and other equipment was \$255.93 per acre with land valued at \$192.24. Expressing the earnings in another way, these men after paying all expenses of operating their farms and allowing 5 percent interest charge on the investment lacked \$516 of getting any return for their own labor.

In addition to the above earnings each family secured produce from the farm which, based on records kept on 181 farms, amounted to \$456.70 at farm prices. Also the house they lived in was worth \$470.35 per farm each year, based on depreciation, upkeep, and interest charges. The total value of these two items amounted to \$937.05 at farm prices.

The income figures given in this report should not be considered as representative of all farms in these counties. A survey study of all farms in one township in McLean County in 1925 in about the center of the four counties included in this project, and a similar study of farm incomes in a township in Bond County in 1926 indicate that the farms on which the records were kept in this project earned about 2 percent higher rate on the investment than the average of all farms in the same part of the state.

Differences in Earnings Between Farms

There are wide variations in the earnings on the most successful and the least successful farms. The 42 most profitable of the 210 farms made 5 percent interest on the investment and had \$1,410 to pay the operator for his own labor and management while the 42 least profitable farms lacked \$2,311 of making 5 percent on the investment, and left nothing to the operator for his own labor and management.

This amounts to a total difference of \$3,710 in the return for the labor and management of the operators between the high and low groups of farms. This may be expressed in another way by saying, after all expenses were paid and the operator allowed \$720 for his own labor, the most profitable group made 6.23 percent on the investment, while the least profitable group lacked .01 of 1 percent of getting any return for the money invested.

What Accounted for the Difference in Farm Earnings

The one-fifth most profitable farms (42 farms) had an income of \$29.59 an acre, while the one-fifth least profitable farms had an income of only \$14.74 per acre (see Table 2). The total expenses per acre on the two groups of farms were \$13.71 and \$14.77 per acre respectively. In other words, the most profitable group of farms with \$1.06 less expense per acre received two times as large returns per acre. The same table shows that the least profitable farms were a little larger in size on the average and that they had a little larger investment per acre due mainly to a larger investment in farm improvements.

Factors Affecting Farm Income

Crop yields. The yields per acre on the most profitable farms were as follows: Corn 55.8; oats 43.5; wheat 25.5 bushels. On the least profitable group the yields were: Corn 47; oats 35.6; and wheat 18.3 bushels. The difference in the yield of corn, wheat, and oats shown between the most profitable and the least profitable groups of farms, when applied to the acreage of these crops grown on the average of all farms, would amount to a difference of \$869.28 with corn valued at 60 cents, oats 35 cents, and wheat \$1.25 per bushel. The effect of yields on the farm income is greater than is indicated by this figure if the comparison had been worked out for all the other crops grown.

Kinds of crops grown. The most profitable group of farms grew a larger acreage of corn, wheat, alfalfa, sweet clover, red clover, and canning crops, but a smaller acreage of oats, bluegrass, timothy, and other crops. The most profitable group of farms grew a larger proportion of the more profitable crops, as discussed later. The difference in the proportion of land in corn, oats, and wheat shown between the most profitable and the least profitable groups of farms when applied to the average size farm would account for a difference of \$412.49 with the crops valued at the same prices given above.

The amount and efficiency of livestock. The most profitable group of farms with an investment of \$12.04 an acre in productive livestock received a livestock return of \$19.07 per acre, while the least profitable group of farms had \$9.04 invested and received a return of \$10.10 per acre. Also the most profitable group of farms received \$185.09 returns for each \$100 worth of feed fed compared with a return of \$129.95 for the least profitable group. The return for \$100 worth of feed fed was greater for beef cattle, mixed cattle, dairy cattle, hogs, sheep, and poultry on the most profitable farms. The difference in the return for \$100 worth of feed fed between the most profitable and the least profitable farms amounted to a difference of \$1,049.44 with the amount of \$1,903.23 worth of feed fed on the average farm. This does not include the difference in cost of keeping horses on the two groups of farms.

Use of man labor. The most profitable group of farms had the same man labor expense (\$6.87) per acre as the least profitable group (\$6.86). This is significant when one recognizes that the returns were twice as high on the most profitable farms.

Power and machinery costs. The total cost of horse and tractor power and machinery cost per acre on the most profitable farms amounted to only \$4.24 per acre compared with a cost of \$4.96 per acre on the least profitable farms. This difference in cost of power and machinery of 72 cents per acre would amount to a difference of \$167 less cost per farm in favor of the most profitable farms.

Relation of expense to income. The most profitable farms had a total expense of \$46.32 for every \$100 taken in compared with the expense of \$100.17 on the least profitable farms. These expenses did not include interest on the investment in the farm business. As shown in the previous discussion, this difference is due largely to the larger income per acre on the most profitable farms. It illustrates, however, the necessity of keeping the right relationship between expenses and income. Many farms with a good income failed to make a good profit because of large expenses.

Table 1. SUMMARY OF THE YEAR'S FARM BUSINESS

Your summary as shown on pages 34 and 35 of your book compared with 210 farms, the forty-two most profitable and the forty-two least profitable farms.

Items	Your farm	Average of 210 farms	42 most profitable farms	42 least profitable farms
1 <u>Capital Investments - Total</u>	\$ _____	\$59,403	\$55,390	\$59,701
2 Land		44,620	42,230	43,770
3 Farm improvements		5,840	4,637	7,055
4 Machinery and equipment		1,883	1,699	2,004
5 Feed, grain and supplies		3,809	3,393	3,917
6 Livestock - Total		3,251	3,431	2,955
7 Horses		820	707	845
8 Cattle		1,131	1,032	967
9 Hogs		931	1,261	855
10 Sheep		203	243	151
11 Poultry		152	142	123
12 Bees		14	46	14
13 <u>Receipts and Net Increases - Total</u>	\$ _____	\$ 4,813	\$ 6,483	\$ 3,383
14 Farm improvements		---	---	---
15 Feed, grain and supplies		1,961	2,457	1,339
16 Labor off the farm		63	106	44
17 Miscellaneous		6	6	7
18 Livestock - Total		2,783	3,914	1,993
19 Horses		--	33	--
20 Cattle		454	467	418
21 Hogs		1,689	2,669	1,182
22 Sheep		32	41	--
23 Poultry		121	115	97
24 Egg sales		130	141	37
25 Dairy sales		353	427	208
26 Bees		4	21	1
27 <u>Expenses and Net Decreases - Total</u>	\$ _____	\$ 2,234	\$ 2,127	\$ 2,520
28 Farm improvements		259	201	347
29 Machinery and equipment		481	474	549
30 Feed, grain and supplies		---	---	---
31 Miscellaneous livestock expense		52	61	61
32 Miscellaneous crop expense		250	254	258
33 Hired labor		634	630	704
34 Taxes, insurance, etc.		500	460	518
35 Miscellaneous expenses		50	47	61
36 Horses - decreases		8	--	22
37 Miscellaneous livestock decreases		--	--	--
38 <u>Receipts less expenses</u>	\$ _____	\$ 2,579	\$ 4,356	\$ 863
39 Operator's and family labor		914	876	869
40 <u>Net income from investment</u>		1,665	3,480	- 6

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Table 2 - IMPORTANT FACTORS BY WHICH THE FARM BUSINESS MAY BE STUDIED
 Underlined factors are the ones used on the chart, Page 6

Item	Your farm	Average of 210 farms	42 most profitable high farms	42 least profitable low farms
<u>Rate earned on investment</u>	_____ %	<u>2.80%</u>	<u>6.28%</u>	- 0.01%
Labor and management wage	\$	\$-616.	\$1,410.	\$-2,311.
<u>Gross receipts per acre</u>	_____	<u>20.74</u>	<u>29.59</u>	<u>14.74</u>
Total expense per acre		13.57	13.71	14.77
Net receipts per acre		7.17	15.88	- .03
<u>Size of farm</u>	_____	<u>232.1</u>	<u>219.1</u>	<u>229.4</u>
Total investments per acre	\$	\$ 255.93	\$ 252.80	\$ 250.28
Land		192.24	192.74	190.83
Farm improvements		25.16	21.16	30.76
Machinery and equipment		8.11	7.75	8.74
Feed, grain and supplies		16.41	15.49	17.07
Horses		3.53	3.23	3.68
Productive livestock		10.48	12.43	9.20
<u>Corn - Bushels per acre</u>	_____	<u>51.3</u>	<u>55.8</u>	<u>47.0</u>
<u>Oats - Bushels per acre</u>		<u>37.1</u>	<u>43.5</u>	<u>35.6</u>
<u>Wheat - Bushels per acre</u>		<u>20.6</u>	<u>25.5</u>	<u>18.3</u>
Hay - Tons per acre		1.3	1.4	1.3
Percent of farm tillable		90.3	90.0	91.4
Percent of tillable land in				
<u>Higher profit crops</u>	_____	<u>60.1</u>	<u>66.8</u>	<u>55.7</u>
Corn		45.6	48.3	42.8
Wheat		7.0	10.2	7.3
Alfalfa		2.7	2.1	2.0
Sweet clover		3.7	4.6	3.6
Canning crops		1.1	1.6	0.0
Medium profit crops		7.4	6.1	8.3
Clover		1.7	1.5	1.4
Clover and timothy mixed		3.2	2.1	4.1
Barley, soybeans, etc.		2.5	2.5	2.8
Low profit crops		32.5	27.1	36.0
Oats		25.5	22.1	25.8
Timothy		2.8	2.6	3.3
Bluegrass		4.2	2.4	6.9
All legumes		12.8	12.2	12.7
All grain and hay crops		83.6	90.9	85.1

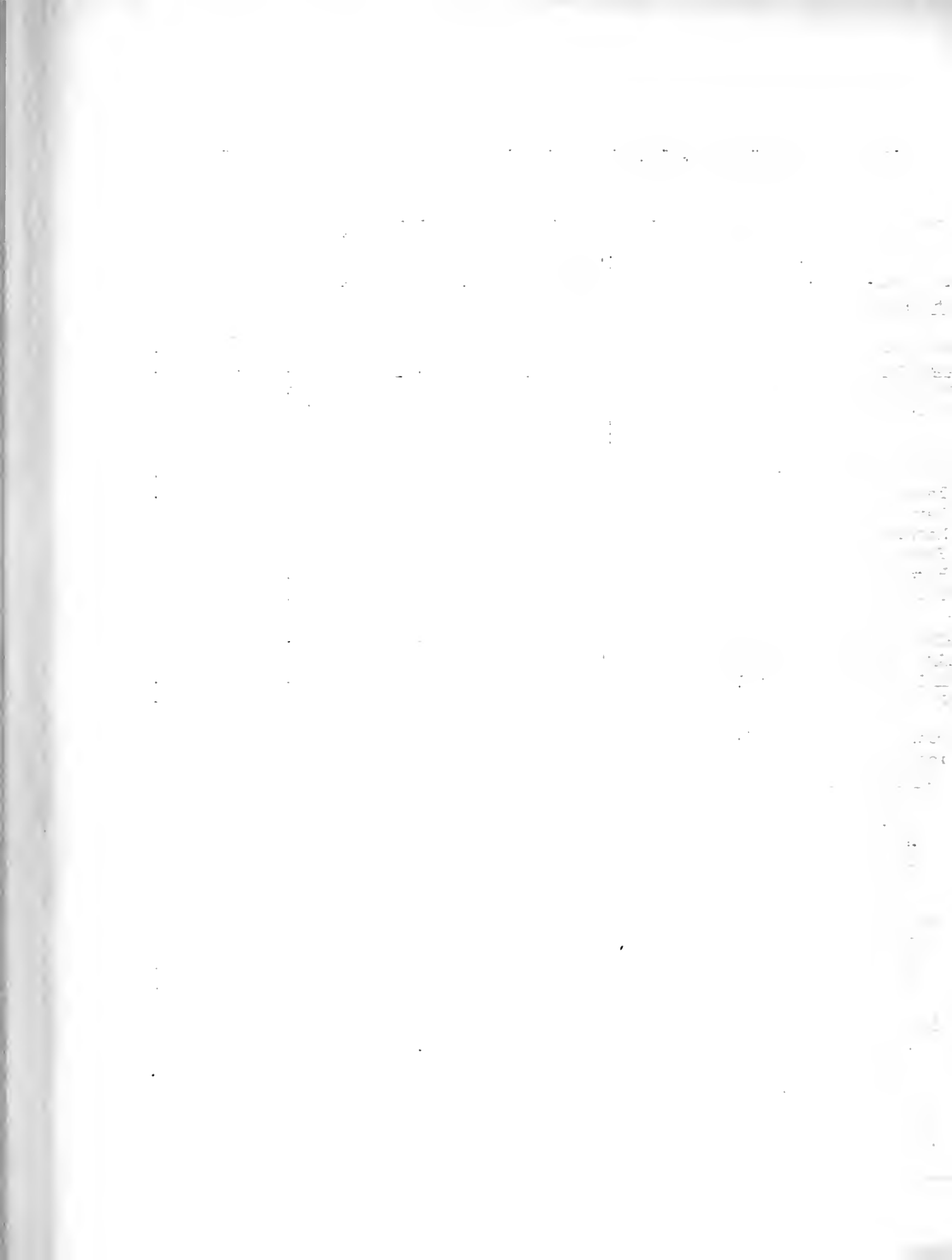


Table 2 - (Continued)

Item	Your farm	Average of 210 farms	42 most profitable farms	42 least profitable farms
<u>Productive livestock</u>				
Investment per acre	\$ _____	\$ 10.43	\$ 12.04	\$ 9.04
Returns per acre		13.38	19.07	10.10
Value of feed fed to all productive livestock		1,903.23	2,321.00	1,857.72
Returns per \$100 feed fed to All productive livestock		159.70	185.09	129.95
Beef cattle	_____	84.84	135.81	53.29
Mixed cattle	_____	108.54	121.45	100.54
Dairy cattle	_____	137.61	153.74	108.09
Hogs	_____	196.41	206.10	179.96
Sheep	_____	47.00	120.75	- 5.89
Poultry		280.03	302.73	261.66
Pounds of pork produced		14,848	22,563	10,598
Feed cost per 100 pounds of pork		\$ 6.10	\$ 5.90	\$ 6.77
Returns per 100 pounds of pork		11.96	12.20	11.96
Pounds of pork per acre		64.0	103.0	46.2
Returns per \$100 invested in poultry	_____	\$ 207.11	\$ 226.43	\$ 202.48
Average number of hens kept		107.0	100.9	104.3
Number of eggs per hen		85.4	96.7	78.0
<u>Labor and power</u>				
Percent of farms with tractors		65.2	71.4	66.7
Percent of farms with trucks		29.5	21.4	33.3
Percent with tractors and trucks		24.8	19.0	28.6
Percent without tractors or trucks		30.0	26.2	28.6
Crop acres per man		92.5	90.6	89.6
Crop acres per horse		24.7	26.6	23.4
Hired and home labor per acre of farm		\$ 6.67	\$ 6.87	\$ 6.86
Horse feed and depreciation per acre of farm		2.35	2.08	2.57
Machinery cost per acre of farm		2.07	2.16	2.39
Horse and machinery cost per acre		4.42	4.24	4.96
<u>Expenses per \$100 gross income</u>	\$ _____	\$ 65.40	\$ 46.32	\$ 100.17
Expenses per acre of whole farm		13.57	13.71	14.77
Farm improvements		1.12	.92	1.51
Horses		.03	--	.10
Machinery and equipment		2.07	2.16	2.39
Feed, grain and supplies		----	----	----
Miscellaneous livestock expense		.22	.28	.27
Miscellaneous crop expense		1.08	1.16	1.12
Hired and home labor		6.67	6.87	6.86
Taxes, insurance, etc.		2.16	2.10	2.26
Miscellaneous expenses		.22	.22	.26
<u>Family living furnished by 181 farms</u>				
Farm produce used in home		\$ 466.70	\$ 450.72	\$ 481.94
House rent (10 percent of value)		470.35	457.64	502.21
Total living furnished by farm		937.05	908.36	984.15
Size of family		5.0	4.8	5.0

Table 3 - FIND YOUR FARM LEAKS

The numbers above the double line across the middle of the page are the averages for the 210 farms used in this summary of the factors named at the tops of the columns. By drawing a line across each column at the number measuring the efficiency of your farm as shown in Table 2, you can compare your efficiency with that of the other farms in the project.

Rate earned on investment	Bushels per acre			Percent land in high profit crops	Livestock returns per \$100 feed				Investment in L.S. per acre	Size of farm	Percent efficiency		Expense per \$100 gross income	Gross income per acre
	Corn	Oats	Wheat		Cat-tle	Hogs	Sheep	(1) Hens			Man labor	Horse and machinery		
10.8	91	77	53	100		276	207	367	26	552	180	180	25	45
9.8	86	72	49	95		266	187	347	24	512	170	170	30	42
8.8	81	67	45	90		256	167	327	22	472	160	160	35	39
7.8	76	62	41	85		246	147	307	20	432	150	150	40	36
6.8	71	57	37	80		236	127	287	18	392	140	140	45	33
5.8	66	52	33	75		226	107	267	16	352	130	130	50	30
4.8	61	47	29	70		216	87	247	14	312	120	120	55	27
3.8	56	42	25	65		206	67	227	12	272	110	110	60	24
2.8	51	37	21	60		196	47	207	10	232	100	100	65	21
1.8	46	32	17	55		186	27	187	8	192	90	90	70	18
.8	41	27	13	50		176	7	167	6	152	80	80	75	15
-.2	36	22	9	45		166	-13	147	4	112	70	70	80	12
-1.2	31	17	5	40		156	-33	127	2	72	60	60	85	9
-2.2	26	12	1	35		146	-53	107	0	32	50	50	90	6
-3.2	21	7	--	30		136	-73	87	-	-	40	40	95	3

(1) Returns per \$100 invested used for poultry.

1. The first part of the document is a title page containing the classification unit number and the year 2000.

2. The second part of the document is a table of contents listing the various sections and their corresponding page numbers.

3. The third part of the document is a list of references or sources used in the preparation of the document.

4. The fourth part of the document is a list of abbreviations and symbols used throughout the document.

5. The fifth part of the document is a list of definitions for the key terms and concepts used in the document.

6. The sixth part of the document is a list of the various sections and their corresponding page numbers.

7. The seventh part of the document is a list of the various sections and their corresponding page numbers.

8. The eighth part of the document is a list of the various sections and their corresponding page numbers.

9. The ninth part of the document is a list of the various sections and their corresponding page numbers.

10. The tenth part of the document is a list of the various sections and their corresponding page numbers.

11. The eleventh part of the document is a list of the various sections and their corresponding page numbers.

Profitable Farming Requires Balanced Farming

Weaknesses in some parts of the farm business often offset the advantages gained at other points. In an efficiency study of an ordinary corn-belt farm the more important points to be considered, most of which are well illustrated in the data in this report, include the following:

- | | |
|--|---|
| 1. Crop yields | 4. Use of man labor |
| 2. Kinds of crops grown | 5. Use of horse labor and farm power |
| 3. Efficiency with which livestock is produced | 6. Relationship of expenses to receipts |

Two other factors which are important in some areas but not used in the analysis on this page are "amount of livestock" and "size of farm."

In Chart 1 is shown the value of doing at least fairly well in each line of farm work. Farms on which complete records were kept in 1925 were divided into seven groups according to the number of the six factors named above in which each farm did more efficient work than the average of all the farms studied.

Chart 1 - Relation of Rate Earned on the Total Farm Investment to the Number of Factors in Which Farms Excel. Data from 1925 Records.

Number of factors in which farms excel	Number of farms	Your farm	The lengths of the shaded lines are in proportion to the average rates earned on the total farm investments.	Rate earned	Average net income
0	7		XXXX	.9	\$ 539
1	30		XXXXXX	1.1	659
2	44		XXXXXXXXXXXXXX	2.4	1,437
3	57		XXXXXXXXXXXXXXXXXX	3.0	1,797
4	42		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.9	2,935
5	27		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.9	2,935
6	7		XX	7.6	4,552

It may well be noted that those few farms which were doing better than the average along all six lines of farm work earned 7.6 percent on their total farm investments, while those which were below the average in all factors earned only .9 percent. Applied to the average farm investment, this meant a difference of over \$4,000. With considerable regularity, the rates earned on the seven groups of farms increased as the number of factors in which the farms excelled increased.

Each operator may well study this report, first, to determine how his efficiency compares with the average in each particular; and, second, to learn the methods used on those farms which are operated more efficiently in each factor. Each of the above factors is discussed briefly on the following pages.

The following information was obtained from a confidential source who has provided reliable information in the past.

On 10/15/68, the source advised that the individual in question is currently residing at 123 Main Street, New York, New York.

The source further stated that the individual is currently employed as a [redacted] at [redacted].

The source also advised that the individual has been in contact with [redacted] and [redacted] in the past few months.

The source is confident that the information provided is accurate and reliable.

Item	Description	Quantity	Value
1	XXXXXXXXXXXXXXXXXXXX	1	100.00
2	XXXXXXXXXXXXXXXXXXXX	2	200.00
3	XXXXXXXXXXXXXXXXXXXX	1	150.00
4	XXXXXXXXXXXXXXXXXXXX	3	300.00
5	XXXXXXXXXXXXXXXXXXXX	1	120.00
6	XXXXXXXXXXXXXXXXXXXX	2	240.00
7	XXXXXXXXXXXXXXXXXXXX	1	180.00
8	XXXXXXXXXXXXXXXXXXXX	4	400.00
9	XXXXXXXXXXXXXXXXXXXX	1	160.00
10	XXXXXXXXXXXXXXXXXXXX	2	220.00

The total value of the items listed above is \$2,080.00. The source is confident that this information is accurate.

This information is being provided for your information only. It is not to be disseminated outside your office.

Crop Yields

Good crop yields are, as a general rule, essential for good net farm incomes. Chart 2 shows the relation found in 1925 between the yields of corn on the farms of the cooperators and the rates earned on the total farm investments. It should be understood that not all of the indicated increase of net income on the farms having higher yields of corn is due to the increased corn yield. The tendency is for the same farms which have good corn yields to have good yields of other crops, larger proportions of tillable land in the higher profit crops, and to have higher returns for feed fed to livestock.

Chart 2 - Rate Earned as Related to the Yield of Corn

The rates earned on the different groups of farms were affected more or less by other factors such as percent of land in higher profit crops and efficiency in feeding livestock.

Yield of corn	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned on the total farm investments	Rate earned	Average net incomes
30-40	8		XXXXXXXXXXXXXX	1.3	\$ 779
40-50	51		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	2.3	1,377
50-60	94		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.2	1,916
60-70	55		XX	4.0	2,396
70-80	9		XX	4.9	2,935

It may well be noted that each increase of ten bushels per acre of corn was accompanied by an increase of about nine-tenths of one percent in the rate earned on the investment. On the average farm this meant that with each ten bushels increase in yield of corn there was about \$500 increase in the total net return for the farm.

What Cooperators Do To Secure Good Crop Yields

1. Use varieties and strains of corn, wheat, oats, etc., which long-time investigations of the experiment stations have proved to be high-yielding and adapted to the conditions. (Chart 3 on page 9)
2. Make germination tests of representative samples of all seeds.
3. Test for disease at least enough seed corn to plant a small field on which no corn had been grown for two or more years from which to select the next year's seed. (Chart 3) Treat seed oats and wheat for smut each year.
Any tenant or landowner in difficult financial condition can do the above things almost as easily as the most prosperous landowner.
4. Use a cropping system which provides that each field is left in some deep-rooted legume at least once in four or five years.
5. Use a definite plan for the efficient use of all available manure.
6. Use limestone and rock phosphate on soil types where investigations show that they can be profitably used.

The first part of the report deals with the general situation of the country. It is noted that the economy is showing signs of recovery, but that there are still many problems to be solved. The government is working hard to improve the situation and to bring the country back to a state of normalcy.

THE ECONOMIC SITUATION IN THE COUNTRY

The economy of the country is in a state of transition. The agricultural sector is showing signs of recovery, but the industrial sector is still in a state of depression. The government is working to stimulate the economy and to create more jobs for the people.

Year	Production (Index)	Consumption (Index)	Trade Balance
1950	100	100	Surplus
1951	105	102	Surplus
1952	110	105	Surplus
1953	115	108	Surplus
1954	120	110	Surplus
1955	125	115	Surplus
1956	130	120	Surplus
1957	135	125	Surplus
1958	140	130	Surplus
1959	145	135	Surplus
1960	150	140	Surplus

The data in the table shows a steady increase in both production and consumption over the period from 1950 to 1960. The trade balance remains in surplus throughout the entire period, indicating that the country is producing more than it consumes.

THE SOCIAL SITUATION IN THE COUNTRY

The social situation in the country is also showing signs of improvement. The government is working to improve the living standards of the people and to provide better social services. There is a growing sense of optimism among the people, and they are beginning to look towards the future with confidence.

Value of Growing Profitable Kinds of Crops

It often happens that a farm which has good crop yields and where efficient work with livestock is done is relatively unprofitable because a large part of the tillable land is used in growing crops which do not give as good returns for the land, labor, power, and machinery as do other crops which might be grown.

Chart 3 shows the relation of the rates earned on these farms and the percent of tillable land in the combined acreage of the higher profit crops of corn, wheat, alfalfa, sweet clover and canning crops of sweet corn, peas, and pumpkin. The selection of corn and wheat as the higher profit grain crops, of alfalfa as the higher profit hay crop, and of sweet clover as the higher profit pasture crop for tillable land was based on long-time investigations of the Departments of Farm Organization and Management and Animal Husbandry of the University of Illinois.

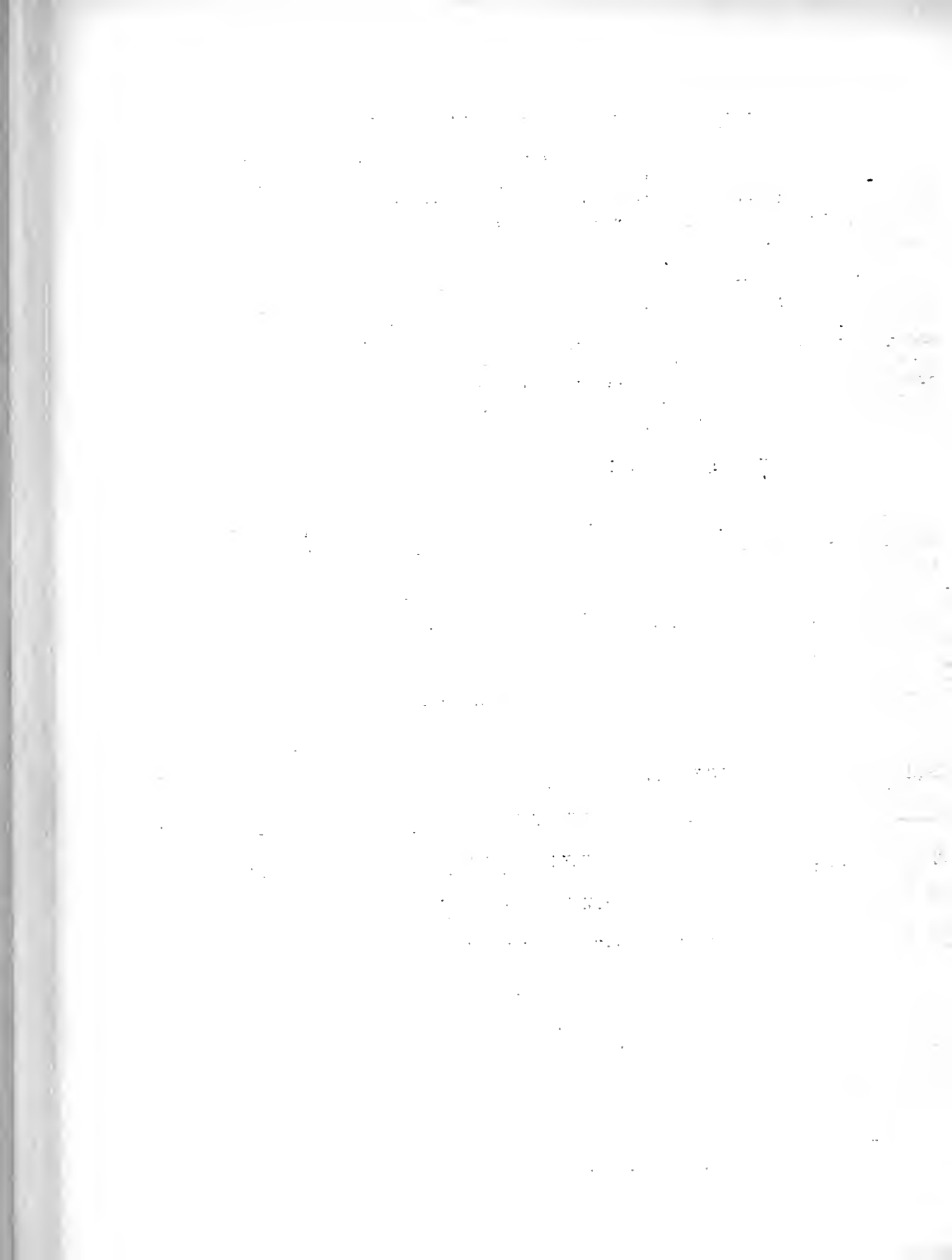
Chart 3 - Rate Earned as Related to the Percent of Land in the Higher Profit Crops

It should be understood that part of the increased net income was due to better crop yields, better handled livestock, etc., on the same farms. Data is from 1925 records.

Percent land in higher profit crops	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned on the total farm investments	Rate earned	Average net income
30 - 40	8		XXXXXXXXXXXXX	1.4	\$ 838
40 - 50	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	2.5	1,497
50 - 60	82		XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	2.9	1,737
60 - 70	65		XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.5	2,096
70 - 80	25		XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.1	2,455
80 - 90	9		XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	5.8	3,474

It will be noted in Table 2 that 48.3 percent of the tillable land on the 42 most profitable farms was in corn. It is doubtful if it is ever wise to have more than fifty percent of the tillable land in corn or any other one crop, because of the uneven distribution of labor, difficulty of maintaining soil fertility, difficulty of controlling weeds and insects and the risk of storms or other uncontrollable conditions which may seriously injure one crop but do little damage to others.

It is apparent that those cooperators who are farming most profitably are, in most cases, men who have almost done away with timothy and blue-grass on tillable land and have reduced the acreage of oats.



Relation of Amount and Efficiency of Livestock to Farm Incomes

Efficient care and feeding of livestock is essential for the best net farm incomes. Those farms having a small amount of livestock well handled had larger net incomes than farms having large amounts of livestock poorly handled. With the present favorable prices of livestock in relation to prices of grain the farms which fed most of their grain to well handled livestock had net incomes about \$2,000 higher than farms having small amounts of livestock poorly handled.

Chart 4 - Relation of the Rate Earned and the Amount and Efficiency of Livestock

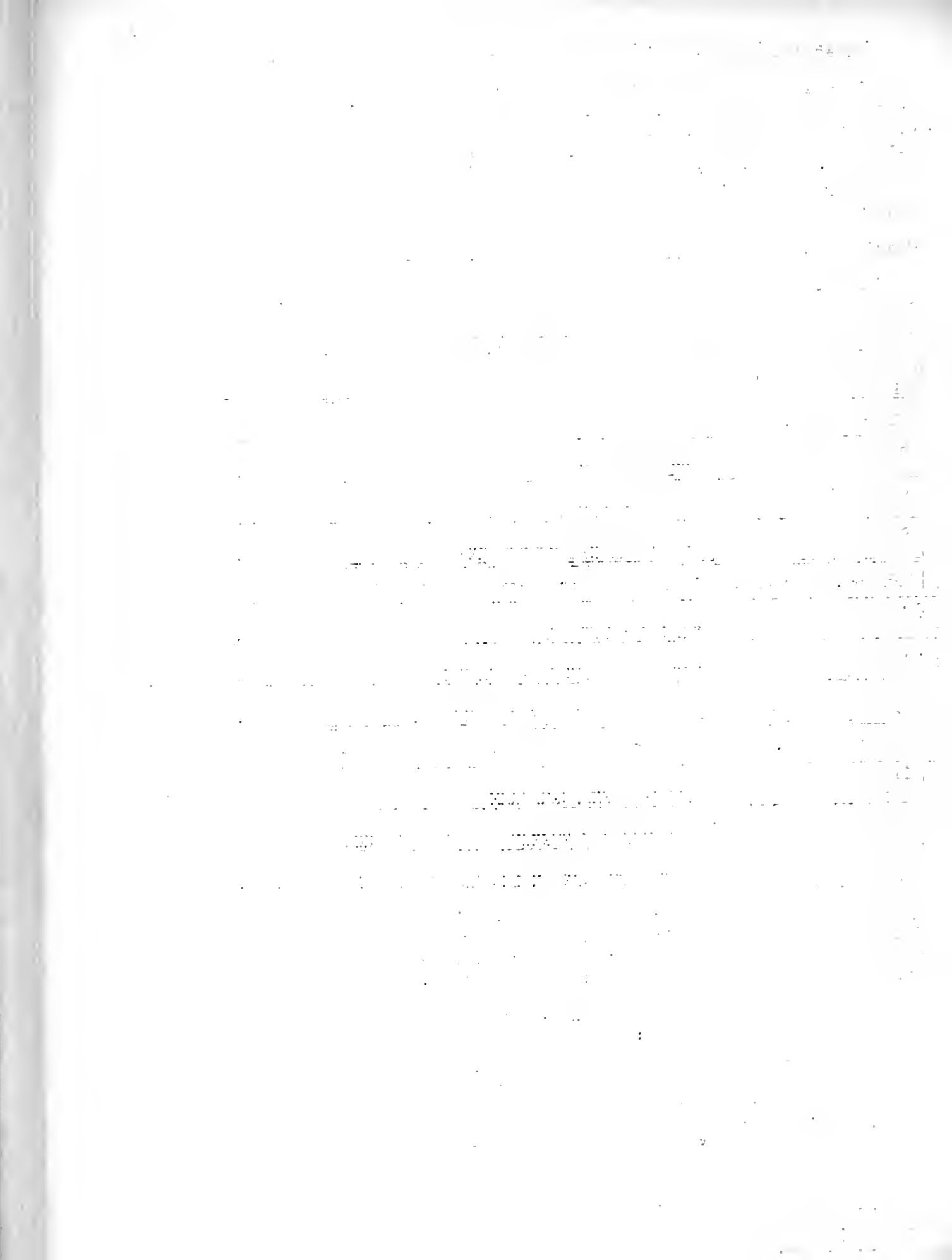
It should be understood that the rates earned were affected also by the crop yields, percent of land in higher profit crops, etc., - 1925 data.

Returns for \$100 feed	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned by the different groups of farms.	Rate earned	Average net income
Less than \$6.00 invested in productive livestock per acre - \$4.00 average					
\$100-150	21		XXXXXXXXXXXX	1.7	\$1,018
\$150-200	29		XXXXXXXXXXXXXXXXXXXX	3.1	1,857
\$200-250	8		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.4	2,036
From \$6.00 to \$11.00 invested in productive livestock per acre - \$8.25 average					
\$100-150	26		XXXXXXXXXXXXXXXXXXXX	2.2	\$1,318
\$150-200	31		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.7	2,216
\$200-250	6		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.1	2,455
More than \$11.00 invested in productive livestock per acre - \$18.50 average					
\$100-150	29		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.1	\$1,857
\$150-200	27		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	5.2	3,114
\$200-250	6		XX	6.0	3,593

Those farms in the first three groups which had an average of only four dollars per acre invested in productive livestock sold a large portion of their crops while those in the last three groups which had an average of \$18.50 per acre invested in livestock fed most of their grain.

A few of the more important things the cooperators do to get high returns for feed fed to livestock are:

1. Use the best types of breeding stock.
2. Study market conditions carefully as a guide to the purchase and sale of cattle, sheep, and hogs.
3. Follow proved plans for keeping livestock healthy, such as the McLean County System of Swine Sanitation and the growing of chicks on clean ground.
4. Use rotated legume pastures which provide clean feeding grounds and the necessary protein and minerals in the rations.
5. Grow their own feeds, especially legumes, for the proper feeding of livestock.
6. Purchase sufficient unmixed high protein products, such as tankage, oil meal, and cottonseed meal to balance the home-grown feeds.



Efficiency in the Use of Man Labor and Horse Power and Machinery

While the efficient use of man labor and of horse power and machinery are important as they affect the net farm incomes, no divisions of the farms into groups according to such efficiencies have yet been made. In Table 2, page 4, it is shown that with more than double the gross income per acre, the 42 most profitable farms had the same labor cost per acre and somewhat lower horse power and machinery costs than were found on the 42 least profitable farms. This statement appears more significant since these records show that the actual value of man labor and the cost of horse and tractor power and machinery amounted to over \$11.00 an acre on the average farm, while the income amounted to only \$20.74 an acre.

What Cooperators Do To Make Good Use of Man Labor

1. Adopt cropping systems which will tend to make use of labor evenly throughout the year.
2. Grow and feed such livestock as will make use of available labor throughout the year and especially to provide productive winter work.
3. Fit the cropping system to the available labor supply. For illustration, farmers having boys in High School and College coming home for summer vacations may safely increase the alfalfa and wheat acreage above what could ordinarily be grown.
4. Plan ahead so as to have odd jobs and other work out of the way when the rush seasons for field work come.
5. Arrange the size, shape, and location of fields so as to save time in taking livestock to pasture and in doing the field work.

What Cooperators Do To Make Good Use of Horse Power and Machinery

1. Keep machinery under cover and protected from poultry and other livestock.
2. Clean, repair, paint, and oil machinery and harness regularly. On many of the more profitable farms this work is done in the winter with farm labor.
3. Study the use and care of expensive and more complicated machines such as tractors, trucks, threshing machines, corn huskers, combines, etc. On many farms the saving of labor by the use of labor saving machinery is overbalanced by the heavy depreciation and repair bills.
4. Keep only as many workable horses as are needed under ordinary conditions.
5. Feed horses according to the work done.

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The following information was obtained from the records of the
 Department of the Interior, Bureau of Land Management, on the
 subject of the land owned by the United States in the
 State of California, and more particularly in the
 County of San Diego, and more particularly in the
 Township of Escondido, and more particularly in the
 Section 17, T. 12 N., R. 12 E., S. 14 E., and more particularly
 in the quarter section 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Size of Farms

The farms in this project vary from 40 to 640 acres in size. The type of soil is similar on most of the farms, except a few more farms between 141 and 180 acres in size were on a lighter type of soil. The average rate earned on the investment by the different groups of farms varied only from 2.6 percent to 3.1 percent in 1926. With the exception of the farms from 141 to 180 acres in size the average rate earned in 1925 varied from 3.0 percent to 3.9 percent (See Table 4).

Table 4 - FARM INCOME AS RELATED TO SIZE OF FARMS

Size of farm	1926		1925	
	Number of farms	Rate earned	Number of farms	Rate earned
40-140 acres	28	2.9	33	3.6
141-180 "	45	3.1	47	2.5
181-230 "	37	3.1	34	3.9
231-280 "	39	2.6	41	3.2
281-330 "	36	2.6	43	3.3
331-640 "	25	2.7	27	3.0
Total	210	2.8	225	3.2

The most favorable size of farm for both years based on the rate earned are the farms between 181-230 acres in size. In general the farms of this size or smaller make a larger rate on the investment than larger farms. Small farms usually have a larger income per acre and also due to the disadvantage of a small size these farms have a larger expense per acre. Even tho a good return on the investment is secured, a good sized farm is necessary to give a large return to the individual.

There are some disadvantages of the smaller sized farms which are clearly brought out in records on some of these farms. The number of acres of crops worked with one man and one horse gradually increase with the larger sized farm. Also the expense per acre for farm improvements, machinery and equipment, the value of all labor, and other expenses are higher on the small sized farms and gradually decrease as the acreage increases. This is to be expected since many of the farm improvements and much of the machinery and equipment have to be provided even with a small acreage and the cost is not increased proportionately as the size of farms increases. The small farm to be successful must have a good sized business. Some of the ways the operators of small farms are overcoming this disadvantage include:

1. Keeping more livestock, especially dairy cows and poultry
2. Selecting crops that give a large return per acre
3. Canning crops, or, especially in some localities near good markets, truck crops are grown to advantage
4. Renting additional land

Many large farms are less successful because they are not so carefully organized and operated. Some of the common faults of large farms are:

1. Land is badly scattered and not readily reached from the farmstead
2. Usually less livestock per acre is kept on large farms
3. A smaller percentage of the land is in legumes and too large a percentage of land is grown to oats or other low profit crops on many large farms
4. Yields are lower because less care is given the soil and work is not as well done on many farms where much of the labor is hired

Dear Mr. [Name],
I have received your letter of the 28th and am glad to hear from you.
The information you have provided is being reviewed and we will contact you again.
Sincerely,
[Name]

On the 28th of December, 1947, I received your letter regarding the matter of [Topic].
I am sorry that I cannot provide a more definitive answer at this time, but the situation is complex.
I will do my best to resolve this as quickly as possible and will keep you informed of any developments.
Thank you for your patience and understanding.

I am sure that you will understand the need for thoroughness in this process.
If you have any further questions or concerns, please do not hesitate to contact me.
Very truly yours,
[Name]

I have discussed this matter with the relevant departments and we are working to expedite the process.
Your cooperation and patience are appreciated.
I will contact you again once a final decision has been reached.
Sincerely,
[Name]

I am sorry for the delay in providing you with a response.
The complexity of the situation requires a careful and thorough review.
I will ensure that you are kept up to date on the progress of the matter.

I am sure that you will be satisfied with the outcome of this process.
Thank you for your understanding and patience.
Very truly yours,
[Name]

ORGANIZATION AND PURPOSE OF THE FARM BUREAU-

FARM MANAGEMENT SERVICE PROJECT

The Farm Bureau-Farm Management Service Project was organized during the latter part of the year 1924. Its purpose is to assist the farmers cooperating in it to keep such farm accounts as will enable them to study the efficiency with which they are conducting their farm business and to help them to apply to their individual farms the practices in farm organization and operation which have proved profitable on other farms of a similar type. The cooperators in the project are farm bureau members of Livingston, McLean, Tazewell, and Woodford counties. The project is an outgrowth of the regular farm management extension work. The extension work in Farm Management was begun in Tazewell county in 1915 and some work was done in all of the four counties in 1916.

In Woodford county from 30 to 100 farmers completed farm accounts from 1916 to 1921 and beginning in 1921 over 100 records have been closed each year. Farm management tours have played an important part in developing interest in the work. The growing number of farmers keeping records made it impossible for the College of Agriculture to give as much assistance through the regular extension work as was desired by the farmers cooperating in the extension project. This was the situation that led to the organization of the Farm Bureau-Farm Management Service.

About sixty farm bureau members in each of the four counties agreed to cooperate in the project for the three years of 1925, 1926, and 1927. The total average cost is about twenty-five dollars per farm per year. One-third of the expense is borne by the University of Illinois. This leaves a cost per farm of about seventeen dollars per year. The fee per farm varies from ten to twenty dollars per year, depending on the size of the farm. In two of the counties the farm bureaus pay a portion of each fee, while in two counties the cooperators pay the entire fee of ten to twenty dollars.

The entire time of M. L. Mosher, one of the authors of this report, is given to the project. Each cooperator is being visited on his farm at least three times during each year.

The work is under the direction of H. C. M. Case, in charge of the Department of Farm Organization and Management acting in cooperation with an advisory committee consisting of one representative of each farm bureau. This committee consists of G. F. Bennett, Livingston County, Chairman, E. D. Lawrence, McLean County, W. C. Somer, Tazewell County, and J. Frank Felter, Woodford County, who is secretary-treasurer. This committee is responsible to the cooperating farm bureau for the custody and expenditure of the funds raised by the collection of the cooperators' fees. Each Farm Bureau collects the fees from its cooperating members and pays them over to the committee.

The organization of the project was made possible by the hearty support and assistance of the four Farm Advisers and their assistants. The Farm Advisers who were in charge of their counties when the work was organized are E. O. Allison, Livingston County, H. Fahrnkopf, McLean County, Ralph E. Arnett, Tazewell County, and P. E. Johnston, Woodford County. Mr. Johnston left the county in January 1925 to specialize in Farm Management and H. A. deWierff, the present Farm Adviser, has cooperated since the work was started.

PHYSICS DEPARTMENT

PHYSICS 551

LECTURE 10

STATISTICAL MECHANICS

ENTROPY

AND THE SECOND LAW

OF THERMODYNAMICS

AND THE ARROW OF TIME

AND THE BOLTZMANN CONSTANT

AND THE GIBBS PARADOX

AND THE MAXWELL DEMON

AND THE INFORMATION THEORY

AND THE ENTROPY OF A BLACK HOLE

AND THE HAWKING RADIATION

AND THE THERMAL FLUCTUATIONS

AND THE BRUNNEN PARADOX

AND THE THERMAL NOISE

AND THE FLUCTUATION-DISSIPATION THEOREM

AND THE EINSTEIN RELATION

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AND THE THERMAL DISSIPATION

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Printed in furtherance of the Agricultural
Extension Act of May 8, 1914.
H. W. Mumford, Director

UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

WOODFORD COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Fifty-five Farms

for

1926

Farm account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

April 20, 1927

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ANNUAL FARM BUSINESS REPORT

Woodford County, Illinois-1926

Prepared by R. R. Hudelson, P. E. Johnston, H. C. M. Case*

The 55 farmers in Woodford county who kept financial records in the Illinois Farm Account Project for 1926 lacked an average of \$261 each of having enough income to pay operating costs and 5 percent interest on their average investment of \$250 an acre, allowing nothing for their labor management and risk. The one-third of these farmers who made the best profits paid operating expenses and 5 percent on their investments and had left an average labor and management wage of \$977, while the one-third who were least successful lacked an average of \$1,363 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,345 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 55 farmers earned 2.95 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 5.64 percent and the least successful third 1.04 percent. The average investment on the 55 farms was \$47,787, which amounts to \$250 an acre. The higher profit third had an average investment of \$230 and the lower profit third \$261 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at \$200 an acre on the average farm.

In addition to the above earnings each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept make an average of about 2 percent higher rate on the investment than the average of all farms in the same locality.

The 20 least profitable farms averaged 27 acres larger in size and had 10 percent more tillable land than the 20 most profitable farms. The average farm in either group was large enough to be farmed economically and size apparently had no influence on the relative earnings of the two groups. The less successful farms had 26 acres more corn, 18 acres more oats, and 6 acres less wheat per farm than their more successful neighbors

*H. A. deWerff, farm adviser in Woodford County, cooperated in supervising and collecting the records used in this report.

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As to yields the more profitable farms averaged 4 bushels more corn, 6 bushels more oats, and 6 bushels more wheat than the low profit group. The acreage of wheat was so small that the advantage in wheat yield had little effect on earnings, however.

The biggest advantage of the high profit over the low profit group was in the larger amount and greater efficiency of their livestock. The more successful farmers had \$4.57 more livestock investment per acre and they secured \$10.77 more livestock income per acre. With prices for livestock relatively better than for grain during 1926, it was an advantage to have more livestock, particularly if the livestock were kept thrifty and fed efficiently. The more profitable farms averaged \$157 and the less profitable farms \$120 livestock income for every \$100 of livestock investment. The total livestock income per farm was twice as large on the high profit as on the low profit farms. The hog enterprise contributed about half of the income on the more profitable group of farms.

The larger amount of livestock on the 20 most profitable farms was handled with the same labor cost per acre as on the 20 least profitable farms. The less successful group did handle slightly more crop acres per man and per horse, but they lost this advantage in other ways.

The 20 most profitable farms show a better utilization of feed, for with smaller farms they sold about twice as much livestock and two-thirds as much crops as the lower profit farms.

It may be noted that the less profitable group of farms shows a smaller investment per acre. This is due to a lower land value. In Woodford county the timber soil farms tend to have more livestock because they have more non-tillable land. The advantage in having more livestock under 1926 price conditions was enough to put a number of timber soil farms into the higher profit group. As these farms are generally held at lower values than the prairie soil farms, this tended to reduce the average land value in the high profit group.

The following table, giving comparative earnings on Woodford County farms for the last 5 years, reflects the influence of price and other seasonal conditions. It shows no progress in average rates earned, in gross incomes, or in reduction of operating costs. The effect of higher grain prices in 1924 is strikingly brought out in the higher rates earned and in the larger volume of crop sales for that year. Following 1924, however, these Woodford County farmers dropped back to about the same level of earnings as they experienced in 1922 and 1923. Of course, the higher grain prices of 1924 were due to accidental causes, a fact which is generally accepted now but which was denied by a large section of the public press at that time. The accidental causes were primarily a relatively short corn crop for the United States and a short wheat crop for the world with a fairly good crop in the United States.

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Comparative Earnings on Woodford County Farms

ITEM	1922	1923	1924	1925	1926
Number of farms included	99	95	101	44*	55*
Average size of farms in acres	233	204	208	190	191
Average rate earned	3.1%	3.1%	7.2%	3.3%	2.9%
Average value of land per acre	\$ 236	\$ 215	\$ 223	\$ 211	\$ 200
Average investment per acre	282	271	281	266	250
Investment in livestock per farm	2,758	2,863	2,655	2,223	2,234
Investment in cattle per farm	872	858	910	740	730
Investment in hogs per farm	716	848	697	530	639
Investment in poultry per farm	141	148	141	123	147
Gross income per acre	20.72	21.48	32.58	22.06	19.96
Operating cost per acre	11.74	12.94	12.21	13.16	12.59
Grain sales less feed purchases per farm	2,567	2,372	4,399	1,996	1,440
Miscellaneous income per farm	162	79	80	48	34
Livestock income per farm	2,098	1,902	2,300	2,148	2,340
Gross income per farm	4,827	4,353	6,779	4,192	3,814
Cattle income per farm	531	687	662	580	626
Hog income per farm	1,237	948	1,328	1,271	1,434
Poultry income per farm	245	224	233	254	249

*Beginning in 1925 a new accounting project was organized in which 62 Woodford County farms were included, thus reducing the number in this project. This change was also responsible for the decrease in the average size of farms.

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm, as well as on the farms of the group making the best and the group making the least profits.

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Woodford County - 1926

Factors helping to analyze the farm business	Your farm	Average of fifty-five farms	Twenty most profitable farms	Twenty least profitable farms
Rate earned	%	2.95%	5.64%	1.04%
Labor and management wage	\$	\$ -261	\$ 977	\$-1,368
Size of farm - acres	A	191 A	175 A	202 A
Percent of land area tillable	%	85 %	80 %	90 %
Acres in Corn	A	75 A	62 A	88 A
Oats	A	51 A	41 A	59 A
Wheat	A	5 A	9 A	1 A
Crop yields - Corn	bu.	51 bu.	53 bu.	49 bu.
Oats	bu.	32 bu.	34 bu.	28 bu.
Wheat	bu.	22 bu.	22 bu.	16 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 140	\$ 167	\$ 120
For \$100 in Cattle	\$	\$ 87	\$ 89	\$ 98
Hogs	\$	\$ 192	\$ 232	\$ 149
Poultry	\$	\$ 163	\$ 175	\$ 132
Investment per acre in productive livestock	\$	\$ 8.75	\$ 11.23	\$ 6.66
Receipts per acre from productive livestock	\$	\$ 12.25	\$ 18.77	\$ 8.00
Man labor cost per acre	\$	\$ 6.47	\$ 6.64	\$ 6.62
Crop acres per man	A	85 A	73 A	93 A
Crop acres per horse (with tractor)	A	22 A	21 A	23 A
(wwithout tractor)	A	19 A	19 A	20 A
Expense per \$100 gross income	\$	\$ 63	\$ 48	\$ 83
Machinery cost per acre	\$	\$ 1.86	\$ 1.52	\$ 2.21
Building and fencing cost per acre	\$	\$.73	\$.67	\$.75
Gross receipts per acre	\$	\$ 19.96	\$ 25.01	\$ 15.96
Total expenses per acre	\$	\$ 12.59	\$ 12.01	\$ 13.24
Net receipts per acre	\$	\$ 7.37	\$ 13.00	\$ 2.72
Percent of farms with tractor	%	67 %	65 %	75 %
Value of land per acre	\$	\$ 200	\$ 181	\$ 213
Total investment per acre	\$	\$ 250	\$ 230	\$ 261

The first part of the report deals with the general situation in the country. It is noted that the economy is still in a state of depression, and that the government is struggling to meet its obligations. The report also mentions the need for international assistance and the importance of maintaining law and order.

In the second part, the author discusses the political situation. It is pointed out that the government is facing a crisis of confidence, and that there is a need for a new government. The author also mentions the role of the military and the importance of a strong central government.

The third part of the report deals with the social and economic conditions. It is noted that the population is suffering from poverty and unemployment, and that there is a need for social reforms. The author also mentions the importance of education and the role of the state in providing social services.

Finally, the report concludes with a series of recommendations. It is suggested that the government should take steps to improve the economy, to reform the political system, and to address the social and economic needs of the population.

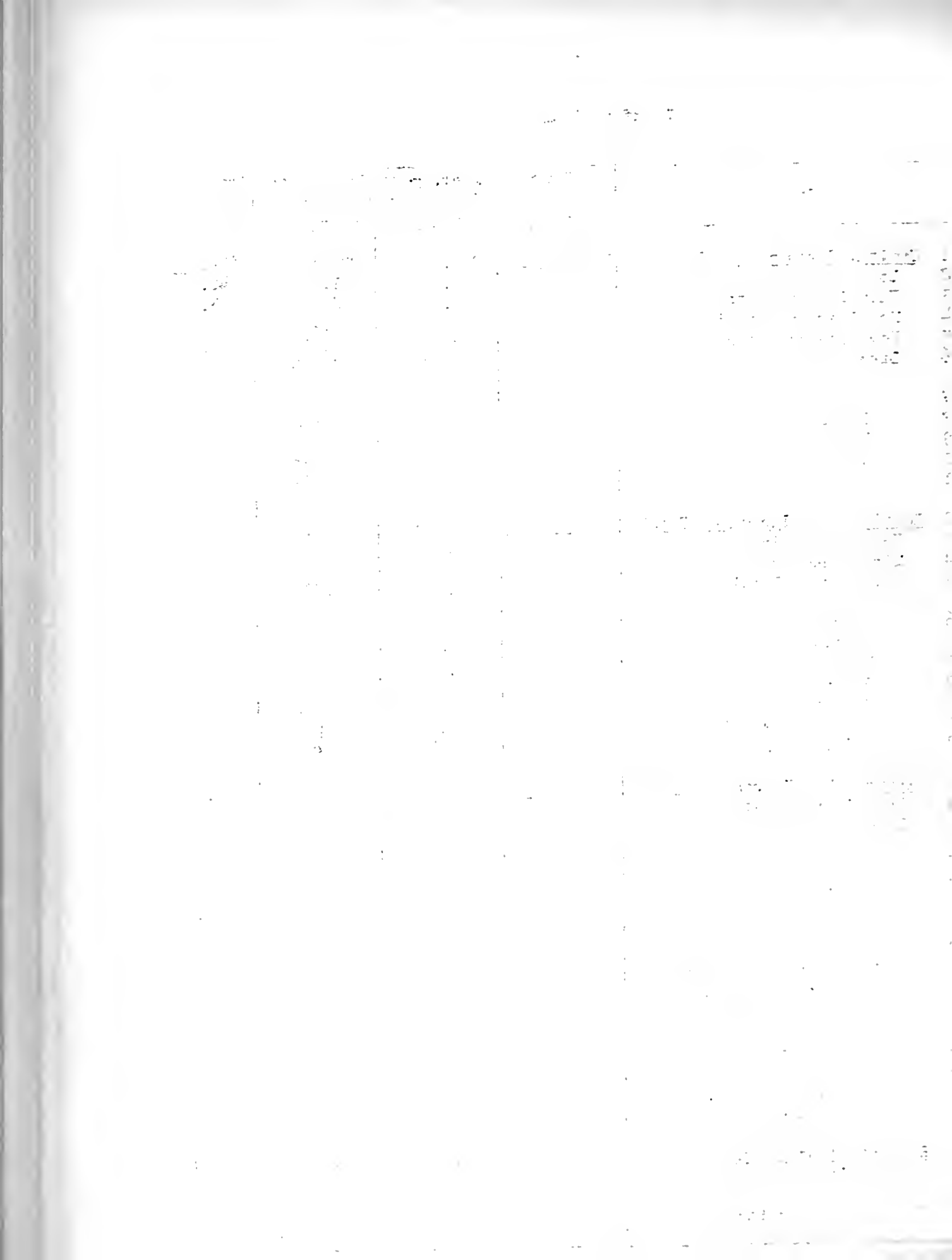
The following table shows the results of the survey conducted in the various provinces. It is noted that the data is preliminary and subject to change.

Province	Population	Area (sq. miles)	Capital
Province A	1,200,000	15,000	City A
Province B	900,000	12,000	City B
Province C	1,500,000	18,000	City C
Province D	1,100,000	14,000	City D
Province E	1,300,000	16,000	City E

The data indicates that the population is concentrated in the coastal areas, and that there is a need for development in the interior. It is also noted that the economy is heavily dependent on agriculture, and that there is a need for diversification.

Woodford County - 1926

Item	Your farm	Average of fifty-five farms	Twenty most profitable farms	Twenty least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$47,787	\$40,307	\$52,719
2 Land		38,088	31,650	42,966
3 Farm improvements		3,437	2,921	3,491
4 Machinery and equipment		1,400	1,184	1,452
5 Feed and supplies		2,628	2,297	2,693
6 Livestock		2,234	2,255	2,117
7 Horses		663	626	671
8 Cattle		730	710	709
9 Hogs		639	720	542
10 Sheep		55	36	42
11 Poultry		147	163	153
12 <u>Receipts-Net Increases-Total</u>		3,814	4,378	3,221
13 Feed and grain		1,440	1,064	1,581
14 Miscellaneous		34	30	26
15 Livestock - Total		2,340	3,284	1,614
16 Horses		--	--	--
17 Cattle		283	296	246
18 Hogs		1,434	2,278	787
19 Sheep		31	23	16
20 Poultry		102	111	74
21 Egg sales		147	186	125
22 Dairy sales		343	390	366
23 <u>Expenses-Net Decreases-Total</u>		1,510	1,203	1,714
24 Farm improvements		139	118	153
25 Livestock		17	12	25
26 Horses		17	12	25
27 Cattle		--	--	--
28 Hogs		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		356	265	446
32 Feed and supplies		---	---	---
33 Livestock expense other than feed		54	43	38
34 Crop expense		171	133	190
35 Labor hired		342	262	375
36 Taxes, insurance, etc.		402	349	449
37 Miscellaneous		29	21	38
38 <u>Receipts less Expenses</u>		2,304	3,175	1,507
39 Operator's and unpaid family labor		895	900	959
40 Net income from investment		1,409	2,275	548



Find Your Farm Leaks
Woodford County - 1926

The numbers between the lines across the middle of the page are the approximate averages for your county of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your county.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per A. in L.S.	Receipts per acre from L.S.	Man lab. cost per acre	Crop acres per			Expense per \$100 income	Gross receipts per acre	Size of farm		
	Corn	Oats	Wheat	Cattle				Hogs	Poultry	Man				Tractor	No Tractor
10.95	86	53	36	157	332	303	22.75	26.25	3.00	120	36	33	28	41	401
9.95	81	50	34	147	312	283	20.75	24.25	3.50	115	34	31	33	38	381
8.95	76	47	32	137	292	263	18.75	22.25	4.00	110	32	29	38	35	361
7.95	71	44	30	127	272	243	16.75	20.25	4.50	105	30	27	43	32	341
6.95	66	41	28	117	252	223	14.75	18.25	5.00	100	28	25	48	29	321
4.95	61	38	26	107	232	203	12.75	16.25	5.50	95	26	23	53	26	301
3.95	56	35	24	97	212	183	10.75	14.25	6.00	90	24	21	58	23	281
2.95	51	32	22	87	192	163	8.75	12.25	6.50	85	22	19	63	20	261
1.95	46	29	20	77	172	143	6.75	10.25	7.00	80	20	17	68	17	241
0.95	41	26	18	67	152	123	4.75	8.25	7.50	75	18	15	73	14	221
-0.05	36	23	16	57	132	103	2.75	6.25	8.00	70	16	13	78	11	201
-1.05	31	20	14	47	112	83	0.75	4.25	8.50	65	14	11	83	8	181
-2.05	26	17	12	37	92	63	-----	2.25	9.00	60	12	9	88	5	161
-3.05	21	14	10	27	72	43	-----	-----	9.50	55	10	7	93	---	141
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ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

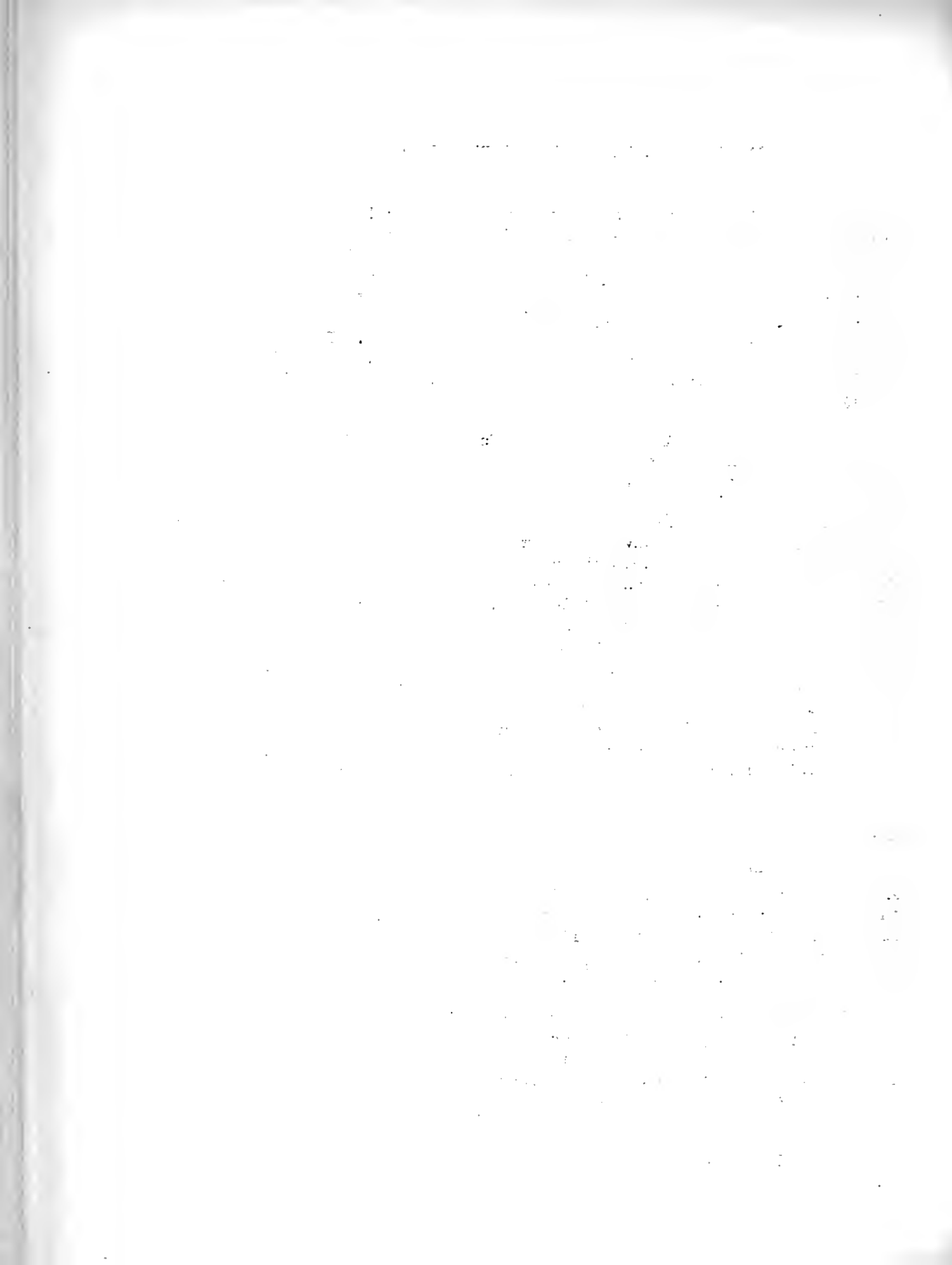
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest



conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

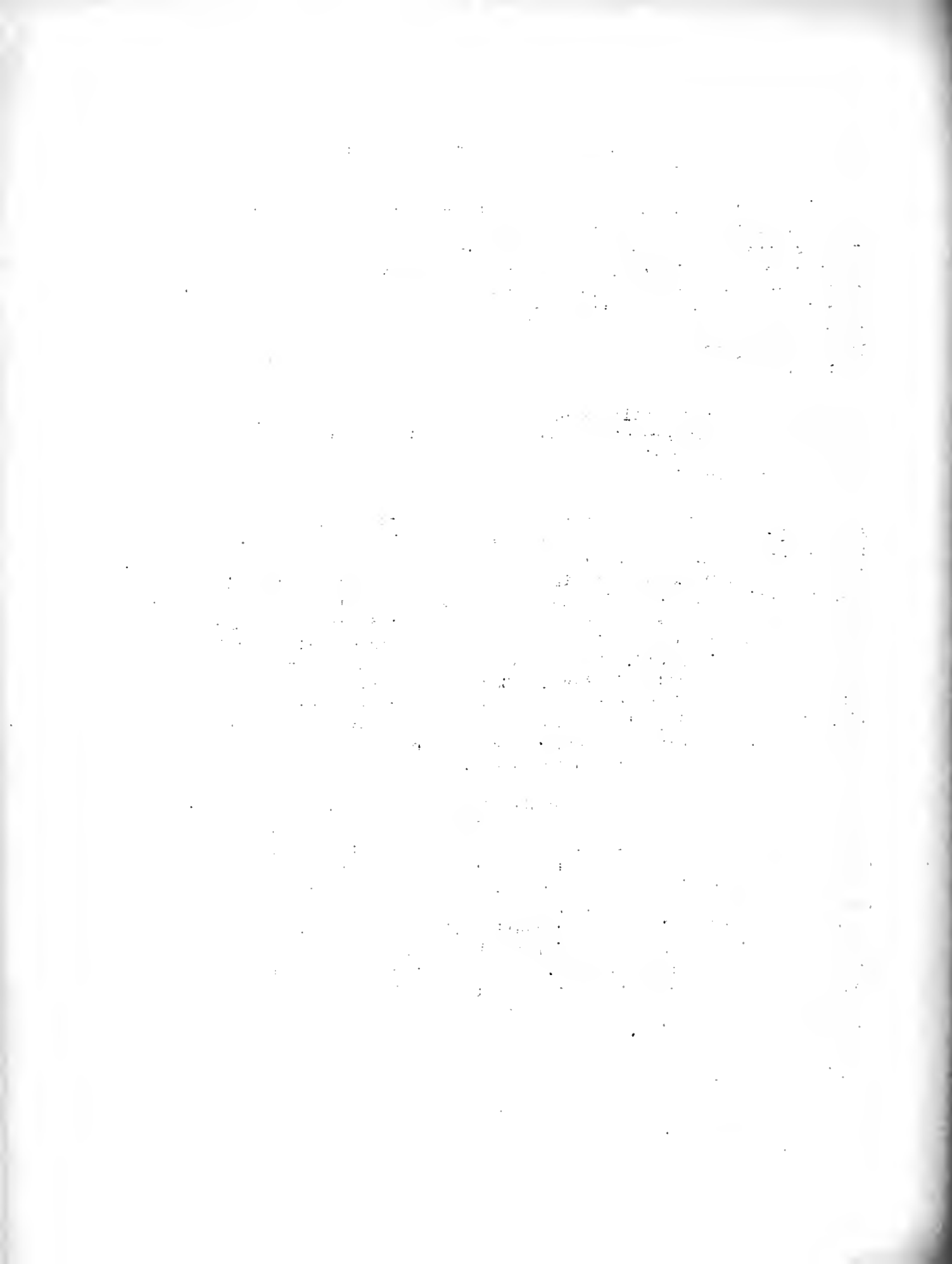
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



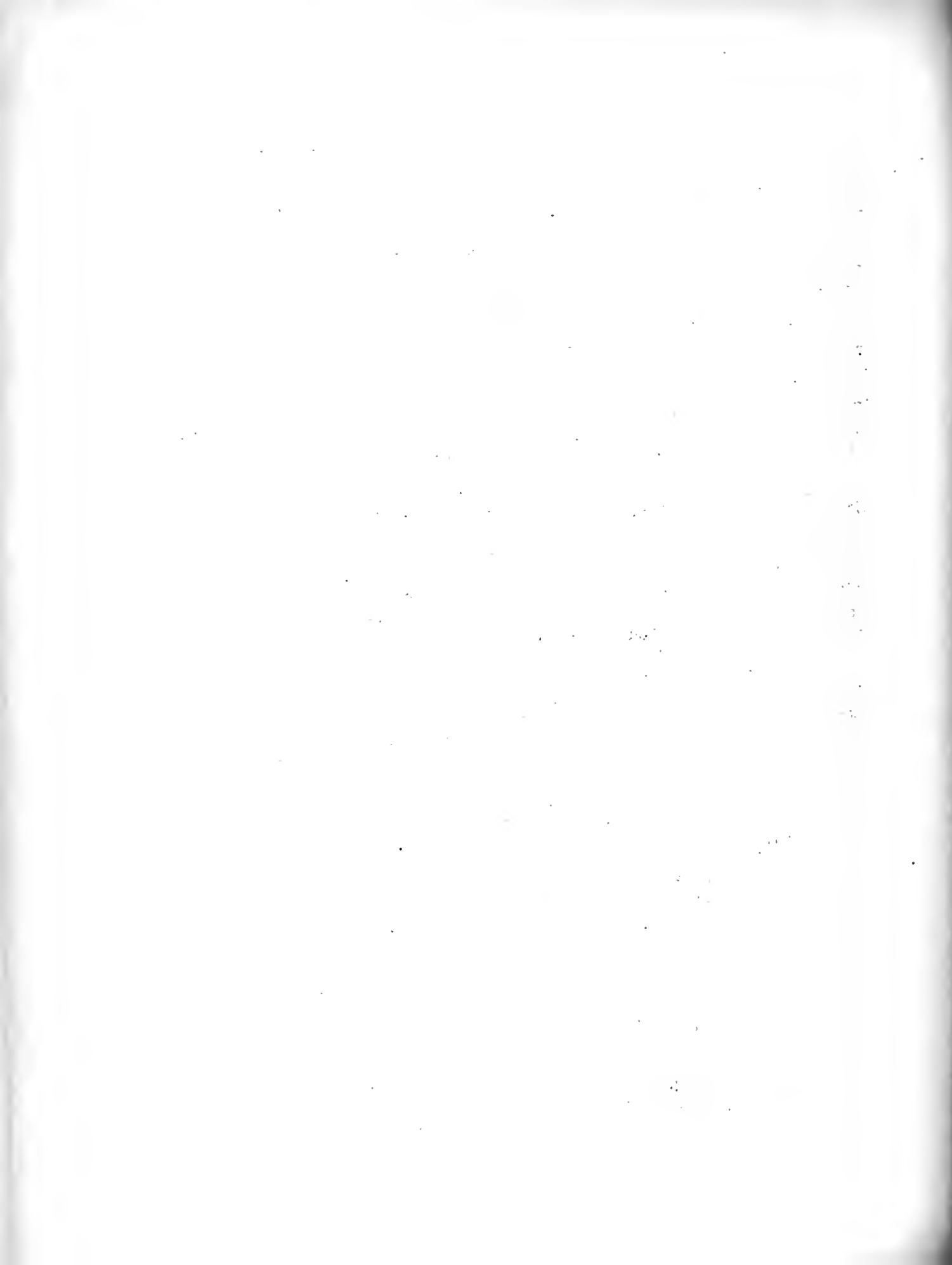
as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in



supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

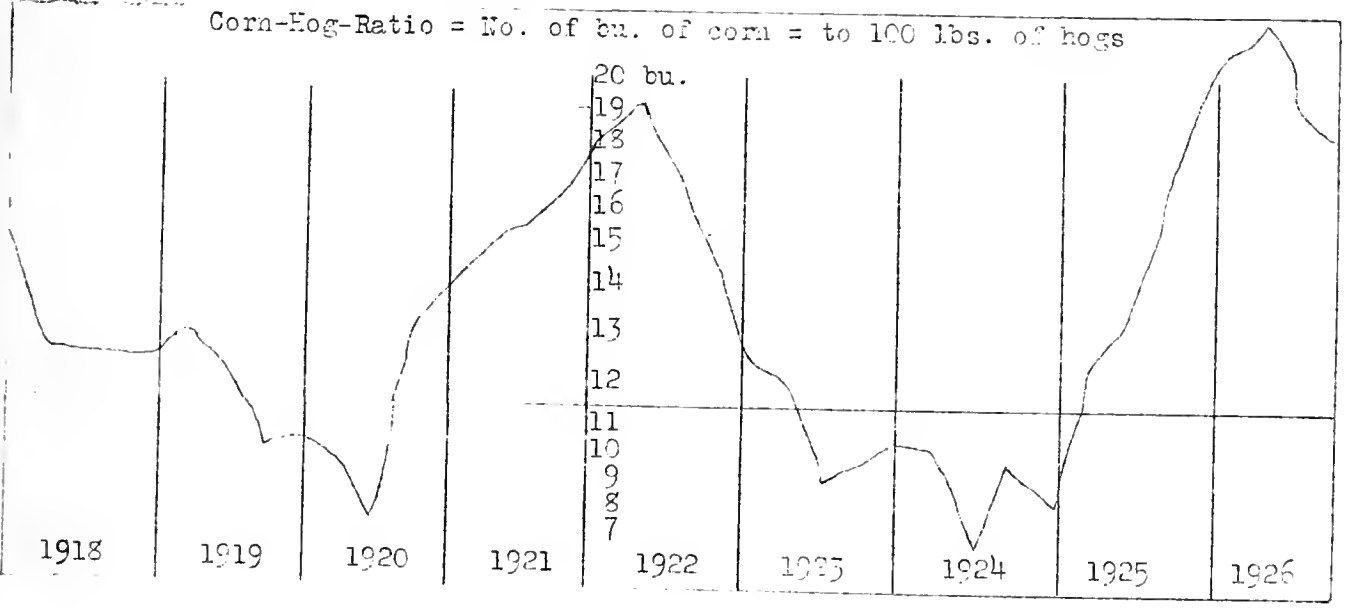
In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

The following table shows the results of the experiment. The first column is the number of trials, the second column is the number of correct responses, and the third column is the percentage of correct responses.

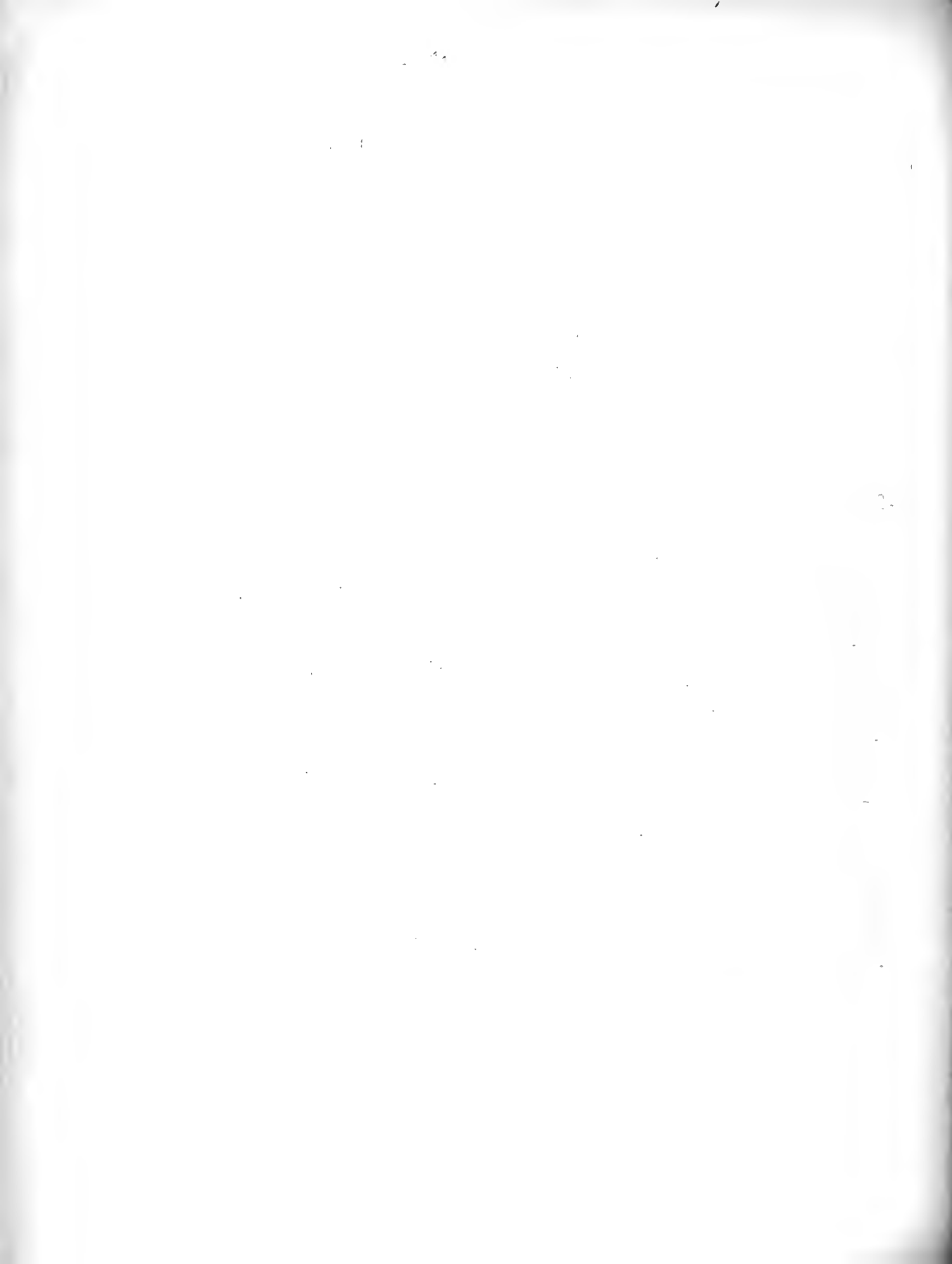
Number of trials	Number of correct responses	Percentage of correct responses
10	8	80%
20	15	75%
30	22	73%
40	28	70%
50	35	70%
60	42	70%
70	48	69%
80	55	69%
90	62	69%
100	68	68%

The results show that the percentage of correct responses increases as the number of trials increases, but it levels off after about 50 trials. This suggests that the subject is learning the task and reaching a plateau of performance.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE
Department of Farm Organization and Management
and
FORD AND IROQUOIS COUNTY FARM BUREAUS
Cooperating

ANNUAL FARM BUSINESS REPORT

on
Thirty-one Farms
for
1926

Farm Account keepers say:
"Farm accounts are more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

M54



FIG. 1. Relationship between the number of fish and the number of fish per square meter.

The relationship between the number of fish and the number of fish per square meter is shown in Figure 1. The number of fish per square meter increases as the number of fish increases, but the rate of increase decreases as the number of fish increases. This is because the number of fish per square meter is a function of the number of fish, and the function is concave down.

The relationship between the number of fish and the number of fish per square meter is shown in Figure 2. The number of fish per square meter increases as the number of fish increases, but the rate of increase decreases as the number of fish increases. This is because the number of fish per square meter is a function of the number of fish, and the function is concave down.

The relationship between the number of fish and the number of fish per square meter is shown in Figure 3. The number of fish per square meter increases as the number of fish increases, but the rate of increase decreases as the number of fish increases. This is because the number of fish per square meter is a function of the number of fish, and the function is concave down.

The relationship between the number of fish and the number of fish per square meter is shown in Figure 4. The number of fish per square meter increases as the number of fish increases, but the rate of increase decreases as the number of fish increases. This is because the number of fish per square meter is a function of the number of fish, and the function is concave down.

ANNUAL FARM BUSINESS REPORT

Ford and Iroquois Counties, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnstone, H. C. M. Case*

The 31 farmers in Ford and Iroquois counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$53 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$245 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$980, while the one-third who were least successful lacked an average of \$935 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$1,915 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 31 farmers earned 3.9 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 5.4 percent and the least successful third 2.1 percent. The average investment on the 31 farms was \$56,731, which amounts to \$245 an acre. The higher profit third had an average investment of \$244 and the lower profit third \$246 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$199 an acre as an average for all farms.

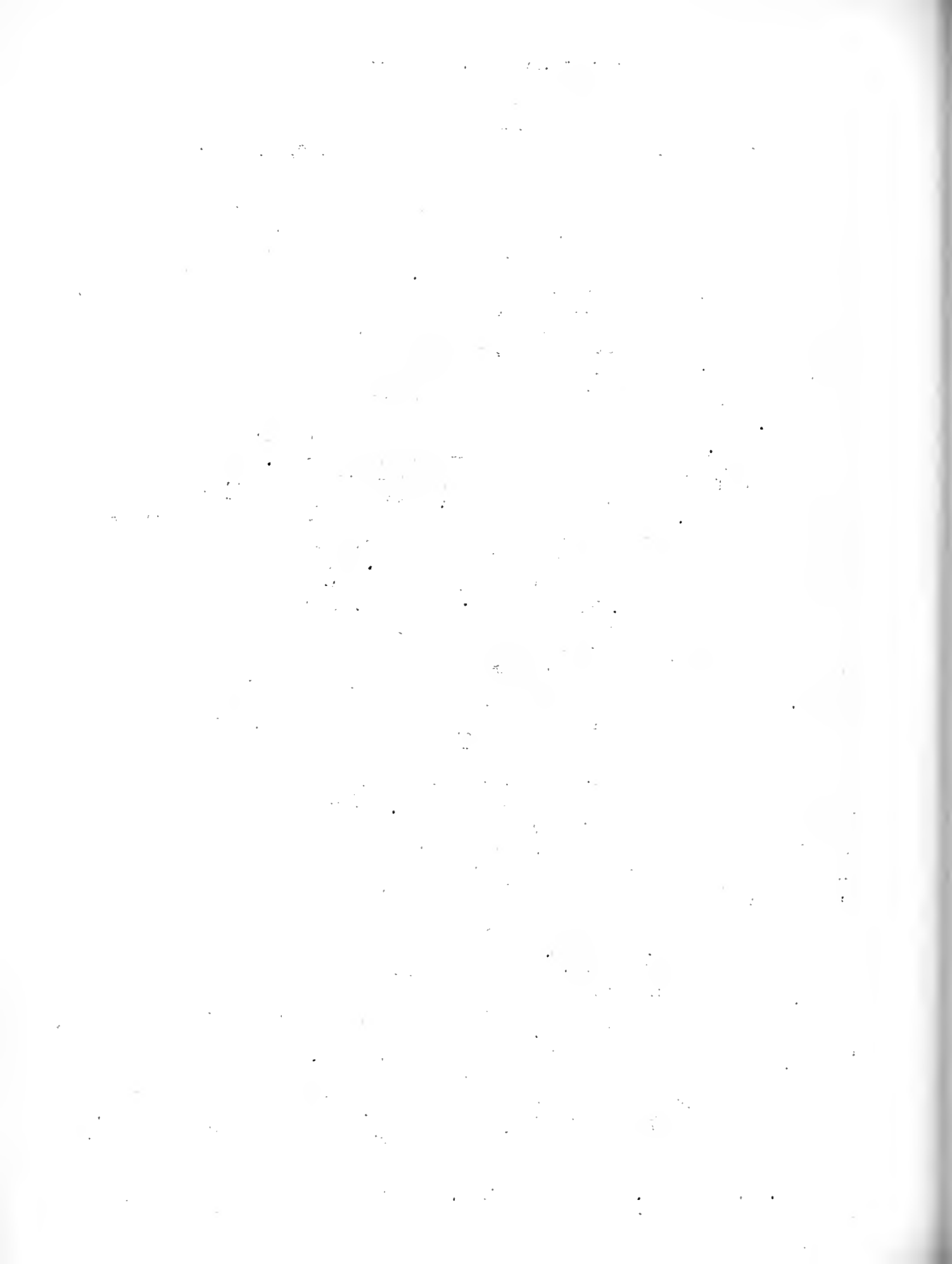
In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

Farms of the higher profit group averaged 40 acres larger than those of the low profit group. It is probable, however, that this had little influence on relative profits since both groups were large enough to farm economically. Our accounting studies usually show that under average conditions there is little advantage in size beyond about 200 acres, particularly when nearly all the land is tillable. Any size from 200 to 240 acres provides about 100 crop acres per man and makes a good two-man farm.

The more profitable farms averaged 27 acres more corn and 12 acres more wheat than the low profit farms. They had about the same acreage of oats. The lower percentage of land in oats was a distinct advantage since oats are

*G. T. Swaim, L. W. Wise and C. E. Johnson, farm advisers in Ford and Iroquois counties respectively, cooperated in supervising and collecting the records used in this report.



are not very profitable especially when used as a cash crop. They do help to distribute labor and up to the quantity that can be fed on the farm they have a place in the cropping system.

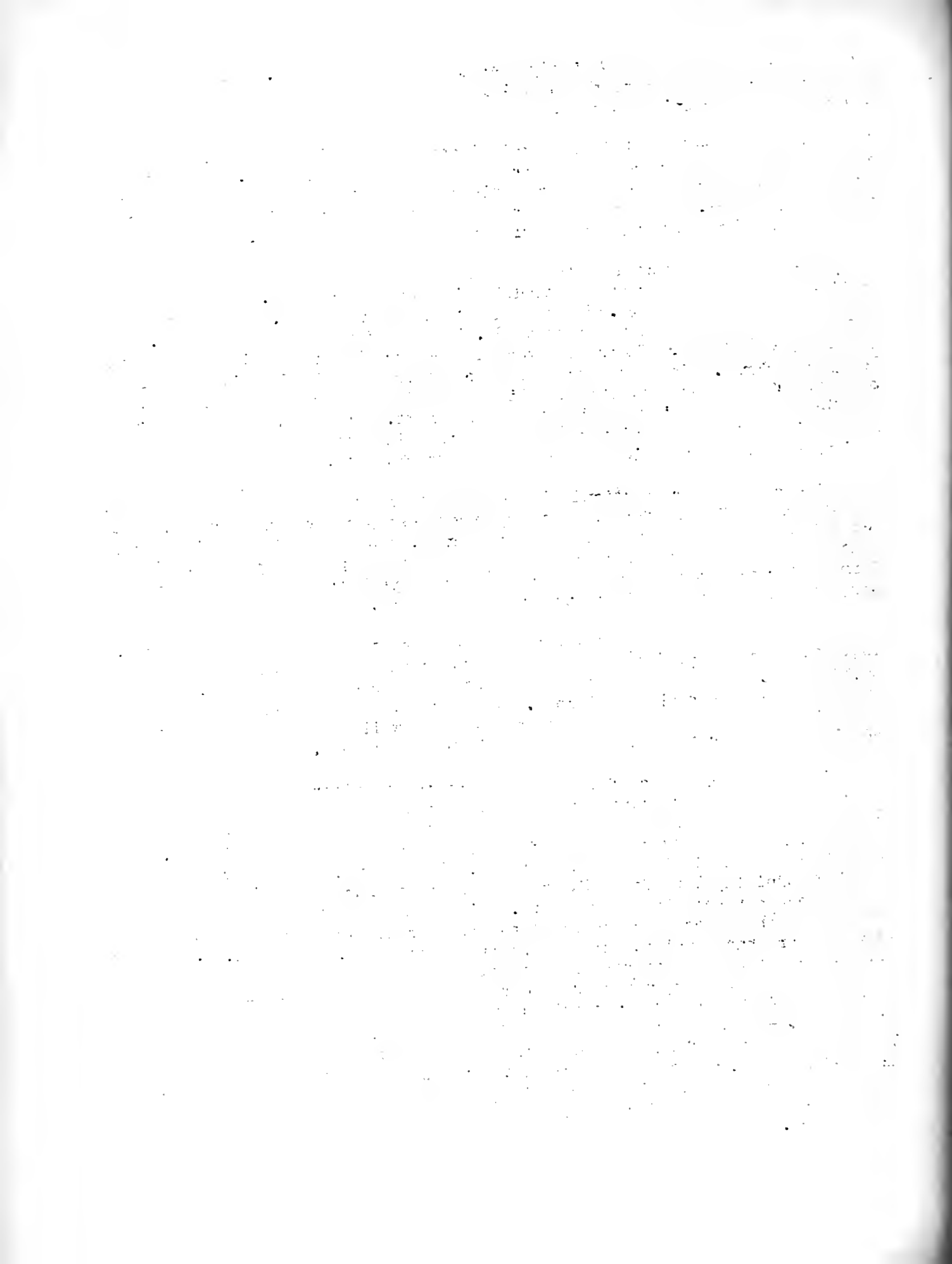
The more successful farmers raised about 7 bushels more corn and 5 bushels more oats to the acre than their less successful neighbors. The latter group raised a little larger average yields of wheat, but they had only 8 acres of wheat per farm. Higher yields are a distinct advantage in securing profits because acre costs usually do not rise in proportion to yield.

One of the biggest advantages of the more successful farm operators was in having more livestock and in handling it more efficiently. They had a livestock investment of \$8.25 and a livestock income of \$11.00 per acre compared with a livestock investment of \$5.55 and a livestock income of \$5.48 on the low profit farms. Their livestock income was therefore twice that on the low profit farms. The less successful operators had only \$99 livestock income per \$100 of livestock investment, while those in the more successful group had \$133 income per \$100 of livestock investment. Comparing income figures it is evident that the chief sources of larger livestock incomes on the more profitable farms were sales of hogs and dairy products.

Labor and power, particularly tractor power, were used more efficiently on the more profitable farms. The man labor cost per acre was about the same for both groups but the more successful farmers took care of more livestock, handled them more efficiently and cultivated more crop acres per man. On farms having tractors the more successful farm operators worked 5 more crop acres per horse than the less successful operators.

Operating costs were only slightly lower on the more profitable farms. Their advantage in profits came chiefly from using their land, labor, power, equipment and feed in such a way as to return a larger gross income. This reduced the cost per \$100 of income. The more successful operators spent \$45 from each \$100 income in paying operating costs while the less successful ones spent \$69 for operating costs out of each \$100 of income.

If we make allowance for the fact that the territory covered by these reports has shifted somewhat during the last four years but note that most of the records included have come from Ford County we can safely make a comparison of earnings and investments on farms in the vicinity of Ford County. This comparison is made in the following table. The inclusion of records from counties adjoining Ford for 1924 and 1926 seems to have reduced the investment in livestock per farm for those years. Since 1923 when the number of farms included in the report was too small to give a reliable average the operating cost per acre has remained quite uniformly between \$11.10 and \$11.50. Higher grain prices for 1924 are reflected in much larger crop sales per farm that year and in the larger average rate earned on the investment. It will be remembered that the higher grain prices of 1924 were due to a short world crop of wheat and a short corn crop in the United States. It is clear that excluding 1924 the level of earnings has ranged between $2\frac{1}{2}$ and 4 percent on these accounting farms. If they averaged about two percent more on their investments than the rank and file of all farmers as we have found to be true in other cases the average farmer must have earned from one to two percent during these years.



Comparative Earnings on Farms in the Vicinity of Ford
County, 1923 to 1926

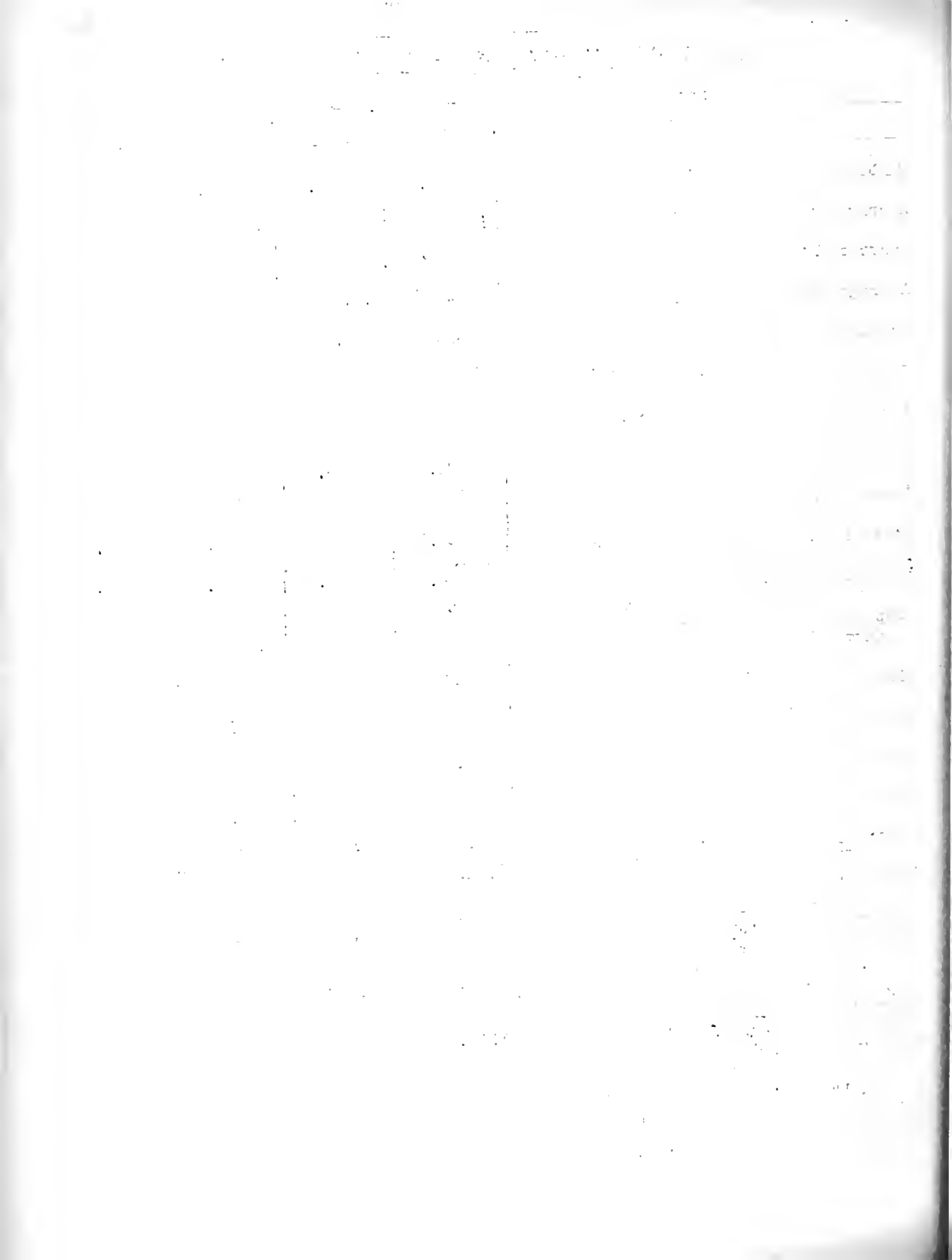
Item	1923 ⁽¹⁾	1924 ⁽²⁾	1925 ⁽¹⁾	1926 ⁽³⁾
Number of farm records	9	52	31	31
Average size of farm, acres	231	223	251	231
Average rate earned	4.1%	7.4%	2.5%	3.9%
Average value of land per acre	\$ 207	\$ 198	\$ 200	\$ 199
Average investment per acre	260	242	253	245
Investment in livestock per farm	3,371	2,210	2,461	2,181
Investment in cattle per farm	1,266	675	734	778
Investment in hogs per farm	886	548	581	484
Investment in poultry per farm	166	151	165	184
Gross income per acre	21.15	29.44	17.45	20.96
Operating costs per acre	8.40	11.43	11.12	11.39
Crop sales less feed purchases per farm	2,318	4,620	2,293	2,819
Miscellaneous income per farm	28	83	66	73
Livestock income per farm	2,545	1,873	2,032	1,953
Gross income per farm	4,892	6,576	4,391	4,845
Cattle income per farm	736	358	327	228
Dairy sales per farm	157	268	327	391
Hog income per farm	1,299	886	1,003	966
Poultry income per farm	278	233	302	330

Some points of strength and some of weakness may be found in your business by comparing the factors from your own record in the following tables with the same factors on the average farm as well as with these factors for the farms in high and low profit groups.

(1) All records from Ford County 1923 and 1925.

(2) Reports include records from Champaign and Ford Counties and from the eastern half of McLean County.

(3) Includes records from Ford and Iroquois Counties.



Ford and Iroquois Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of 31 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.90%	5.42%	2.10%
Labor and management wage	\$	\$ 53	\$ 980	\$- 935
Size of farm - acres	A	231.2 A	266.5 A	226.6 A
Percent of land area tillable	%	94.9 %	95.3 %	93.1 %
Acres in Corn	A	96.6 A	117.1 A	89.9 A
Oats	A	60.9 A	65.4 A	63.1 A
Wheat	A	12.0 A	20.0 A	8.3 A
Crop yields - Corn	bu.	52.1 bu.	56.3 bu.	49.5 bu.
Oats	bu.	34.4 bu.	37.4 bu.	31.9 bu.
Wheat	bu.	25.5 bu.	25.9 bu.	28.7 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 121	\$ 133	\$ 99
For \$100 in Cattle	\$	\$ 78	\$ 86	\$ 53
Hogs	\$	\$ 172	\$ 208	\$ 149
Poultry	\$	\$ 172	\$ 148	\$ 160
Investment per acre in productive livestock	\$	\$ 6.99	\$ 8.25	\$ 5.55
Receipts per acre in productive livestock	\$	\$ 8.45	\$ 10.99	\$ 5.48
Man labor cost per acre	\$	\$ 5.62	\$ 5.50	\$ 5.45
Crop acres per man	A	109.4 A	115.3 A	104.0 A
Crop acres per horse (with tractor)	A	30.9 A	34.3 A	29.4 A
(wwithout tractor)	A	21.7 A	20.9 A	20.3 A
Expense per \$100 gross income	\$	\$ 54	\$ 45	\$ 69
Machinery cost per acre	\$	\$ 1.62	\$ 1.61	\$ 1.65
Building and fencing cost per acre	\$	\$.93	\$.77	\$ 1.35
Gross receipts per acre	\$	\$ 20.96	\$ 24.15	\$ 16.68
Total expenses per acre	\$	\$ 11.39	\$ 10.93	\$ 11.50
Net receipts per acre	\$	\$ 9.57	\$ 13.22	\$ 5.18
Farms with tractor	%	67.7 %	80 %	80 %
Value of land per acre	\$	\$ 199	\$ 201	\$ 193
Total investment per acre	\$	\$ 245	\$ 244	\$ 246

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Ford and Iroquois Counties, 1926

Item	Your farm	Average of 31 farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$56,731	\$65,049	\$55,715
2 Land		45,985	53,540	43,780
3 Farm improvements		4,086	4,023	5,474
4 Machinery and equipment		1,547	1,681	1,566
5 Feed and supplies		2,932	3,113	3,050
6 Livestock		2,181	2,692	1,845
7 Horses		672	776	598
8 Cattle		778	984	720
9 Hogs		484	608	376
10 Sheep		63	110	12
11 Poultry		184	214	139
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 4,845	\$ 6,437	\$ 3,779
13 Feed and grain		2,819	3,448	2,528
14 Miscellaneous		73	61	9
15 Livestock - Total		1,953	2,928	1,242
16 Horses		-	-	-
17 Cattle		228	348	211
18 Hogs		966	1,566	666
19 Sheep		38	69	12
20 Poultry		162	156	94
21 Egg sales		168	181	112
22 Dairy sales		391	608	147
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 1,666	\$ 1,866	\$ 1,695
24 Farm improvements		215	206	306
25 Livestock		32	14	48
26 Horses		32	14	48
27 Cattle		-	-	-
28 Hogs		-	-	-
29 Sheep		-	-	-
30 Poultry		-	-	-
31 Machinery and equipment		374	430	375
32 Feed and supplies		-	-	-
33 Livestock expense other than feed		35	36	32
34 Crop expense		189	218	139
35 Labor hired		333	420	324
36 Taxes, insurance, etc.		465	520	451
37 Miscellaneous		23	22	20
38 <u>Receipts less Expenses</u>	\$ _____	\$ 3,179	\$ 4,571	\$ 2,084
39 Operator's and unpaid family labor		967	1,047	911
40 Net income from investment		2,212	3,524	1,173

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Find Your Farm Leaks

Ford and Iroquois Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in			Invest. per acre in L. S.	Receipts per acre from I.S.	Man labor cost per acre	Crop acres per		Expenses per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle	Hogs				Poultry	Man				Tractor	No	tor
10.9	80	55	39	148	312	312	15.45	2.12	145	45	36	35	371			
9.9	76	52	37	138	292	292	14.45	2.62	140	43	34	33	351			
8.9	72	49	35	128	272	272	13.45	3.12	135	41	32	31	331			
7.9	68	46	33	118	252	252	12.45	3.62	130	39	30	29	311			
6.9	64	43	31	108	232	232	11.45	4.12	125	37	28	27	291			
5.9	60	40	29	98	212	212	10.45	4.62	120	35	26	25	271			
4.9	56	37	27	88	192	192	9.45	5.12	115	33	24	23	251			
3.9	52	34	25	78	172	172	8.45	5.62	110	31	22	21	231			
2.9	48	31	23	68	152	152	7.45	6.12	105	29	20	19	211			
1.9	44	28	21	58	132	132	6.45	6.62	100	27	18	17	191			
0.9	40	25	19	48	112	112	5.45	7.12	95	25	16	15	171			
-0.1	36	22	17	38	92	92	4.45	7.62	90	23	14	13	151			
-1.1	32	19	15	28	72	72	3.45	8.12	85	21	12	11	131			
-2.1	28	16	13	18	52	52	2.45	8.62	80	19	10	9	111			
-3.1	24	13	11	8	32	32	1.45	9.12	75	17	8	7	91			

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ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

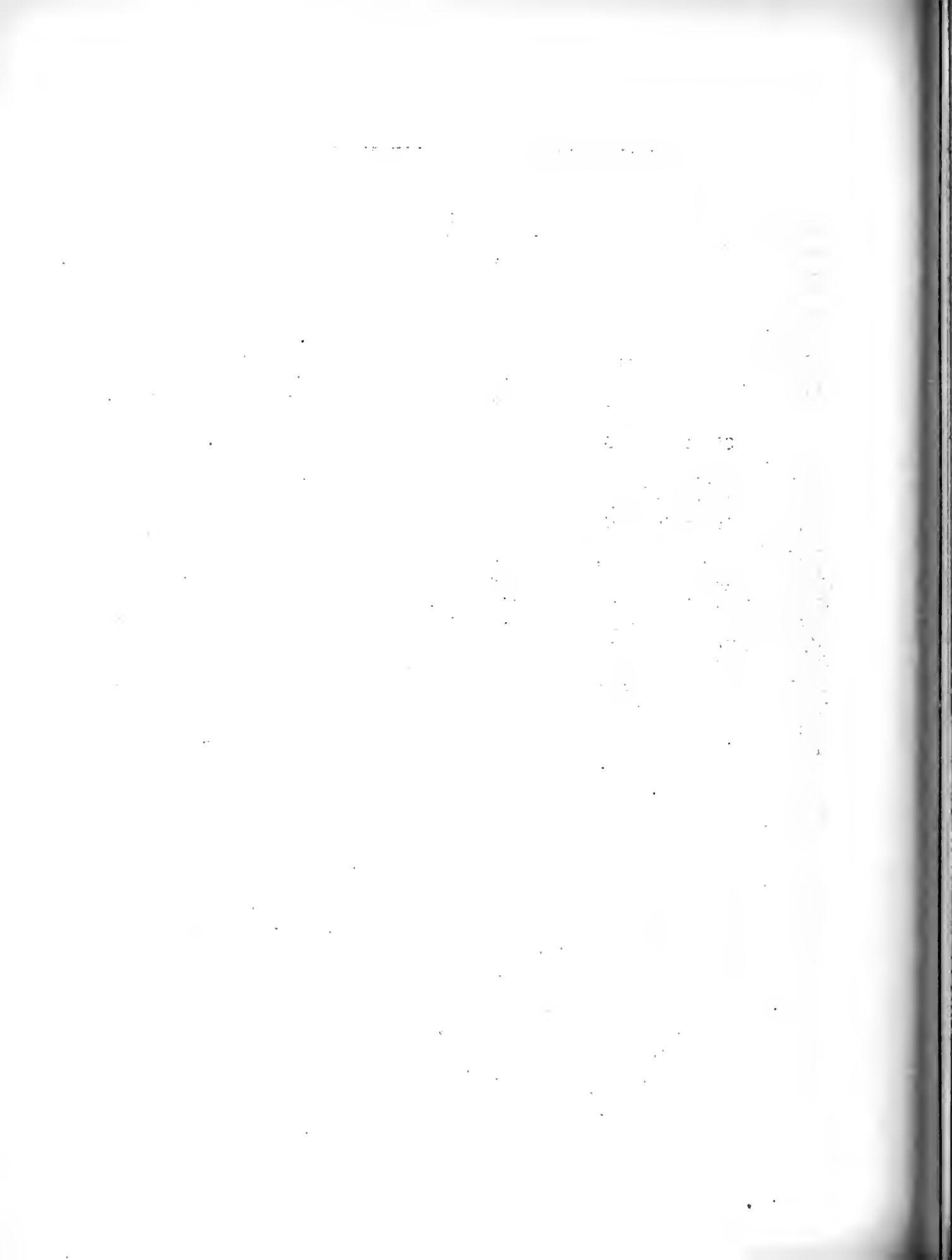
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest



conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the various methods used to collect and analyze the data. This includes both manual and automated processes, as well as the use of specialized software tools. The goal is to ensure that the data is both reliable and easy to interpret.

The third part of the document provides a detailed breakdown of the results. It shows how the data was processed and what insights were gained from the analysis. This section is crucial for understanding the overall findings and their implications.

The fourth section discusses the challenges encountered during the data collection and analysis process. It highlights the importance of having a clear plan and a strong understanding of the data being collected. This helps to avoid common pitfalls and ensures that the data is of high quality.

The fifth part of the document provides a summary of the key findings. It highlights the most important results and discusses their potential impact. This section is designed to provide a clear and concise overview of the entire study.

Finally, the document concludes with a series of recommendations for future research. It suggests areas where further investigation is needed and provides guidance on how to approach these areas. This helps to ensure that the study is a valuable contribution to the field.

The sixth section of the document provides a detailed discussion of the limitations of the study. It acknowledges the potential weaknesses of the data and the methods used, and discusses how these limitations might affect the results. This is an important part of any scientific study, as it helps to provide context for the findings.

The seventh part of the document provides a detailed discussion of the ethical considerations of the study. It discusses the importance of protecting the privacy of the data and ensuring that the study is conducted in a fair and unbiased manner. This is a critical part of any research involving human subjects.

The eighth section of the document provides a detailed discussion of the future directions of the study. It discusses the potential for further research and the importance of continuing to explore these areas. This helps to ensure that the study is a valuable contribution to the field.

The final part of the document provides a detailed discussion of the conclusions of the study. It summarizes the key findings and discusses their implications for the field. This is the final and most important part of the study, as it provides a clear and concise overview of the entire research project.

end of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The text notes that without reliable records, it would be difficult to track the flow of funds and identify any irregularities.

2. The second part of the document focuses on the role of internal controls in ensuring the accuracy of financial reporting. It describes how internal controls are designed to minimize the risk of errors and misstatements. Key elements of internal control include the segregation of duties, the use of standardized procedures, and the implementation of a strong internal audit function. The document stresses that these controls are not just administrative tasks but are fundamental to the trustworthiness of the organization's financial statements.

3. The third part of the document addresses the challenges of managing financial data in a complex and rapidly changing environment. It highlights the need for effective communication and collaboration between different departments to ensure that all relevant information is captured and analyzed. The text also discusses the importance of staying up-to-date with the latest accounting standards and regulations to ensure compliance and the reliability of the financial information provided.

4. The fourth part of the document discusses the impact of technology on financial reporting and internal control. It notes that while technology offers significant advantages in terms of efficiency and accuracy, it also introduces new risks and challenges. For example, the use of automated systems can reduce the risk of human error but may also be vulnerable to cyber threats. The document suggests that organizations should invest in robust IT infrastructure and implement strong security measures to protect their financial data.

5. The fifth part of the document concludes by emphasizing the overall importance of a strong financial reporting system. It states that a well-designed and effectively implemented system is crucial for the success of any organization, as it provides the reliable financial information needed for strategic decision-making and for maintaining the confidence of investors and other stakeholders.

6. The sixth part of the document provides a detailed overview of the various components of a financial reporting system. It covers the process of data collection, the use of accounting software, and the preparation of financial statements. The text also discusses the importance of regular reviews and reconciliations to ensure that the data is accurate and up-to-date. Additionally, it touches upon the role of external auditors in providing an independent assessment of the organization's financial health.

7. The seventh part of the document discusses the importance of transparency and disclosure in financial reporting. It notes that providing clear and concise information about the organization's financial performance is essential for building trust and credibility. The text emphasizes that organizations should be open about their financial challenges and opportunities, and should provide detailed explanations for any significant changes in their financial position.

8. The eighth part of the document discusses the role of the board of directors and senior management in overseeing the financial reporting process. It states that they have a responsibility to ensure that the financial statements are prepared in accordance with applicable accounting standards and regulations. The text also discusses the importance of establishing a clear line of responsibility and accountability for the financial reporting process, and of providing regular updates to the board and management on the status of the system.

9. The ninth part of the document discusses the importance of ongoing monitoring and improvement of the financial reporting system. It notes that the system should be regularly reviewed and updated to reflect changes in the organization's operations and the external environment. The text suggests that organizations should establish a process for identifying and addressing any weaknesses or areas for improvement, and should seek input from all relevant stakeholders in the process.

10. The tenth part of the document provides a final summary of the key points discussed throughout the document. It reiterates the importance of accurate record-keeping, strong internal controls, effective communication, and the use of technology in financial reporting. The text concludes by stating that a strong financial reporting system is not just a technical requirement but a fundamental part of an organization's overall success and integrity.

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support effective decision-making.

3. The third part of the document focuses on the role of technology in modern data management. It discusses how advanced software solutions can streamline data collection, storage, and analysis, leading to more efficient and accurate results.

4. The fourth part of the document addresses the challenges associated with data security and privacy. It stresses the importance of implementing robust security measures to protect sensitive information from unauthorized access and breaches.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It reiterates the importance of a data-driven approach and encourages the organization to continue investing in data management capabilities to stay competitive in the market.

6. The sixth part of the document provides a detailed overview of the data collection process, including the identification of data sources, the design of data collection instruments, and the implementation of data collection protocols.

7. The seventh part of the document discusses the various methods used for data analysis, such as descriptive statistics, inferential statistics, and regression analysis. It explains how these methods are used to interpret the data and draw meaningful conclusions.

8. The eighth part of the document focuses on the importance of data visualization in presenting complex information in a clear and concise manner. It discusses various visualization techniques, such as bar charts, line graphs, and pie charts.

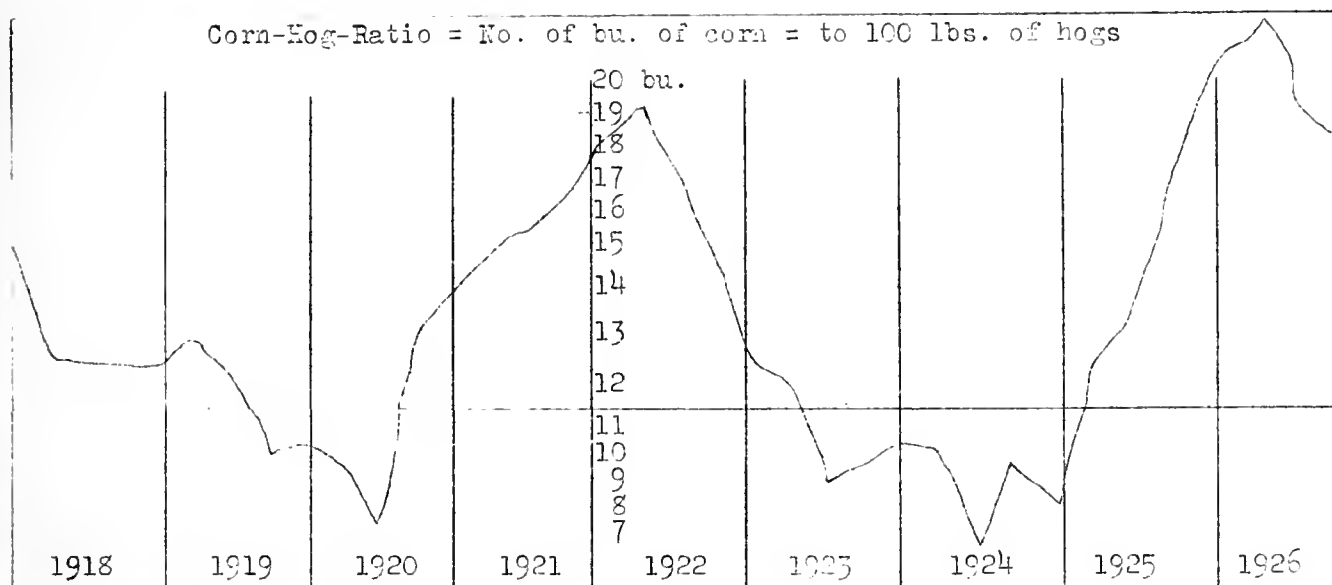
9. The ninth part of the document addresses the ethical considerations surrounding data collection and analysis. It emphasizes the need for transparency, informed consent, and the protection of individual privacy throughout the data management process.

10. The tenth part of the document provides a comprehensive overview of the data management process, from data collection to data analysis and reporting. It highlights the interconnected nature of these various stages and the importance of a holistic approach to data management.

11. The eleventh part of the document discusses the role of data in strategic decision-making. It explains how data-driven insights can help organizations identify opportunities, assess risks, and make informed choices that align with their long-term goals.

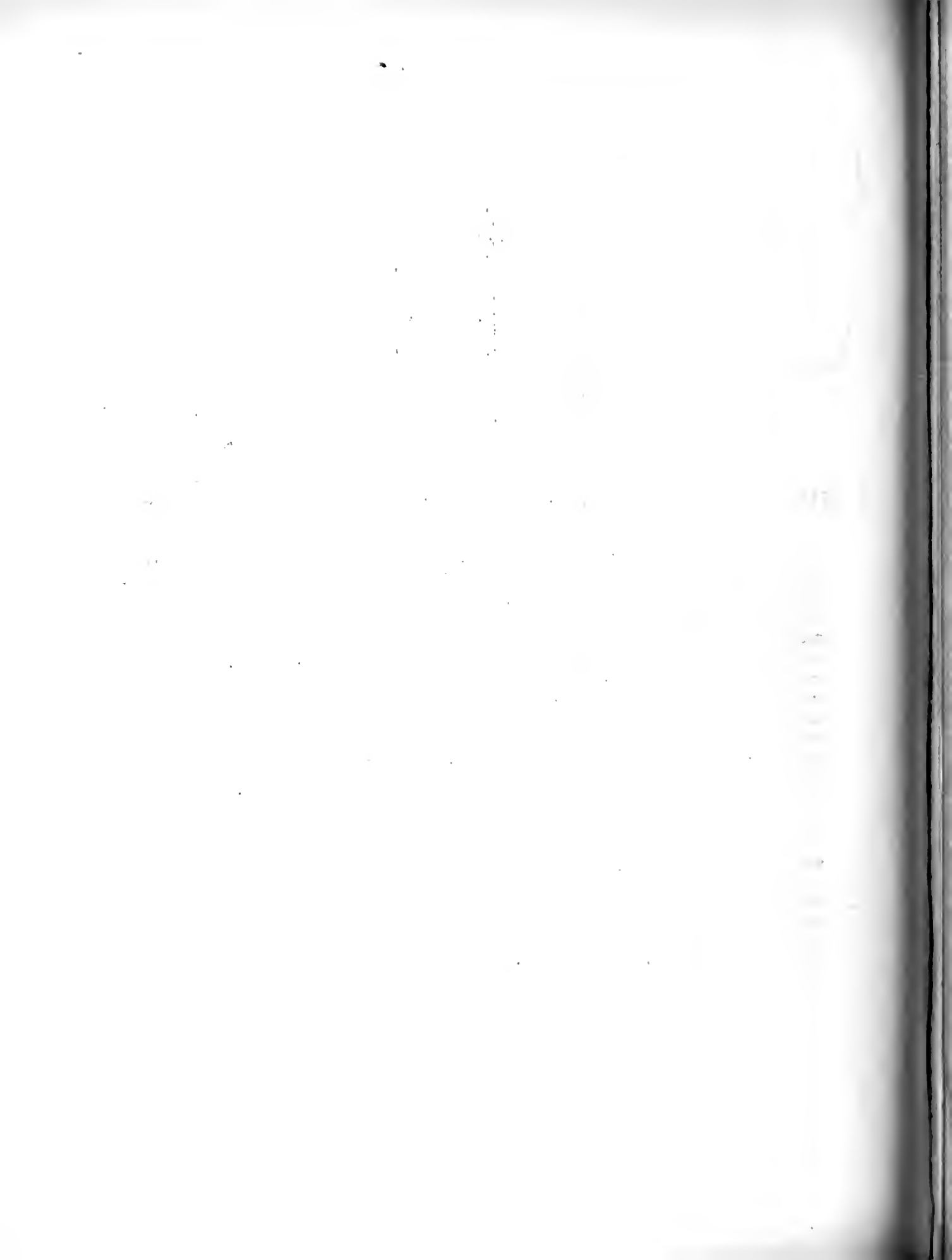
12. The twelfth part of the document concludes by emphasizing the ongoing nature of data management. It notes that as technology and data sources continue to evolve, organizations must remain agile and adaptable in their data management practices.

13. The thirteenth part of the document provides a final summary of the key points discussed throughout the document. It reiterates the importance of data management and encourages the organization to embrace a data-driven culture for sustained success.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

HENDERSON, KNOX AND WARREN COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-two Farms

for

1926

Farm Account keepers say:

"Farm accounts are more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

M56

THE UNITED STATES OF AMERICA

DEPARTMENT OF JUSTICE

OFFICE OF THE ATTORNEY GENERAL

WASHINGTON, D. C.

MEMORANDUM FOR THE ATTORNEY GENERAL

DATE: [illegible]

TO: [illegible]

FROM: [illegible]

SUBJECT: [illegible]

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ANNUAL FARM BUSINESS REPORT

Henderson, Knox and Warren Counties, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. A. Berg, H. C. M. Case*

The 32 farmers in Henderson, Knox and Warren counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$60 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$196 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,881, while the one-third who were least successful lacked an average of \$1,962 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$3,843 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 32 farmers earned 3.7 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 7.5 percent and the least successful third 0.3 percent. The average investment on the 32 farms was \$49,198, which amounts to \$196 an acre. The higher profit third had an average investment of \$190 and the lower profit third \$188 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$138 an acre as an average for all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The farms covered by this report averaged rather large in size, the average for all of them being about 250 acres. Those of the low profit group averaged 304 acres, compared with 246 acres for the higher profit group. Either group was large enough for efficient organization and it is not likely that the extra acres were any handicap to the low profit farms. It is more probable, judging from comparative studies in other areas, that difference in size had little if any influence on relative earnings of the two groups. The low profit farms had more non-tillable land, which, if deducted, leaves them an average of only 22 more acres of tillable land than the higher profit farms. The less successful farms had about 6 acres more corn, 3 acres more oats, and 4 acres more wheat per farm than the more successful farms.

*E. D. Walker, L. R. Marchant, and A. A. Olsen, farm advisers in Henderson, Knox and Warren counties respectively, cooperated in supervising and collecting the records used in this report.

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY
5708 SOUTH CAMPUS DRIVE
CHICAGO, ILLINOIS 60637

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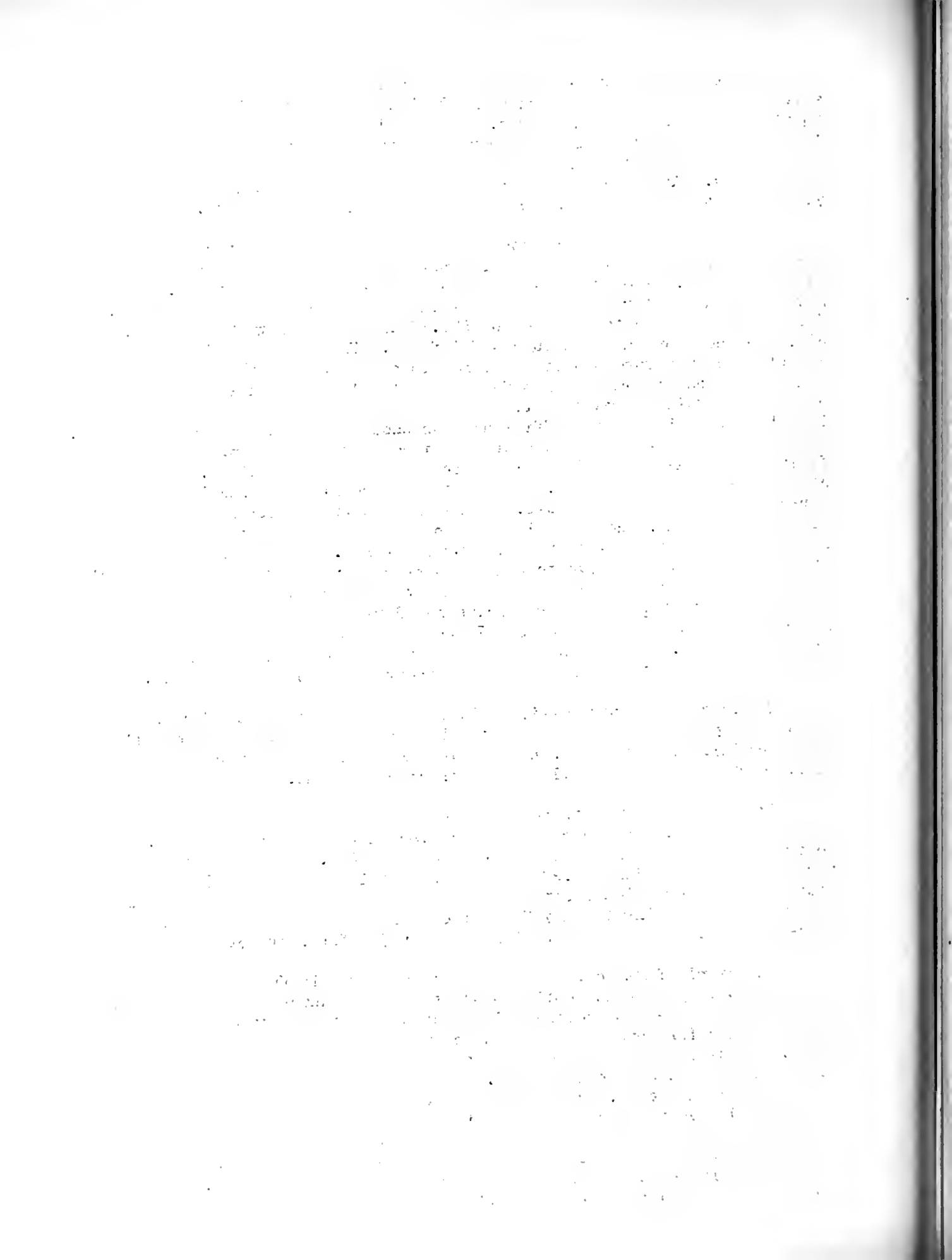
As to yields, the operators of the more successful farms raised an average of 7 bushels more corn and 2 bushels more oats. Wheat yields were equal on the two groups of farms. This is less difference in crop yields than we have usually found in accounting studies of this type. As a rule, one of the chief differences between the high and low profit groups is in crop yields. As a rule, operating costs increase only slightly with higher yields and the extra produce per acre goes to improve profits.

The biggest single advantage of the more successful farm operators whose records are included in this report was in their greater efficiency with livestock. They had a livestock investment per acre of \$14.34 compared with a similar investment of \$17.35 on the less successful farms. They secured a livestock income of \$25.15 an acre as compared with only \$14.30 an acre on the less successful farms. The greater efficiency of livestock on the more profitable farms is also shown by the fact that they had a livestock income of \$175 for every \$100 invested in livestock, while on the low profit farms the livestock income was only \$85 for each \$100 of investment. This greater efficiency was shown for each class of livestock. Hogs constituted the largest source of income on the more profitable farms followed in order by beef cattle, dairy products, and poultry. Two-thirds of the income was from hogs. Beef cattle stood first on the low profit farms followed closely by hogs. Dairy and poultry products were minor sources of income. Hogs furnished 45 percent of the income on the low profit farms and 67 percent on the high profit farms. Further evidence of the greater efficiency of livestock management on farms of the more profitable group is shown in the fact that although they averaged smaller in size they realized about 40 percent more income per farm from livestock and still had a little income from crop sales. In this case feed purchases were deducted from crop sales. The low profit farms had less livestock income and still spent \$965 more per farm for feed than their crop sales amounted to.

Labor was used more efficiently on the more profitable farms. Their labor cost per acre was only slightly higher and they produced more livestock products than the less profitable farms. The more successful operators also cared for slightly more crop acres per man.

Total operating costs per acre were lower on the more profitable farms amounting to \$11.34 as compared with \$14.26 on the low profit farms. In contrast to this the gross income per acre was \$25.58 on the more profitable farms as compared with \$14.90 on the less profitable farms. It is relative costs and incomes which count, and the more successful operators had operating costs amounting to only \$44 out of each \$100 income, while their less successful neighbors had operating costs of \$96 for every \$100 income.

The simple farm accounting project was begun in Knox and Warren counties in 1926. A cost accounting project had been under way in those counties for three years preceding. It is of some interest to compare 1926 farm earnings for this area with the corresponding figures for previous years. Allowance must be made for the fact that only a few of the farms included are the same identical ones. In 1925 sixteen cost accounting farms earned an average of 4.8 percent on their investments compared with 3.7 percent for 1926 on the farms included in this report. For 1924 eighteen cost accounting farms earned an average rate of 6.3 percent. These data agree with those from other sections of west central Illinois in showing less favorable conditions on farms for 1926 than for 1925 or for 1924. Some causes for lower farm profits were lower yields of corn, lower quality of grains

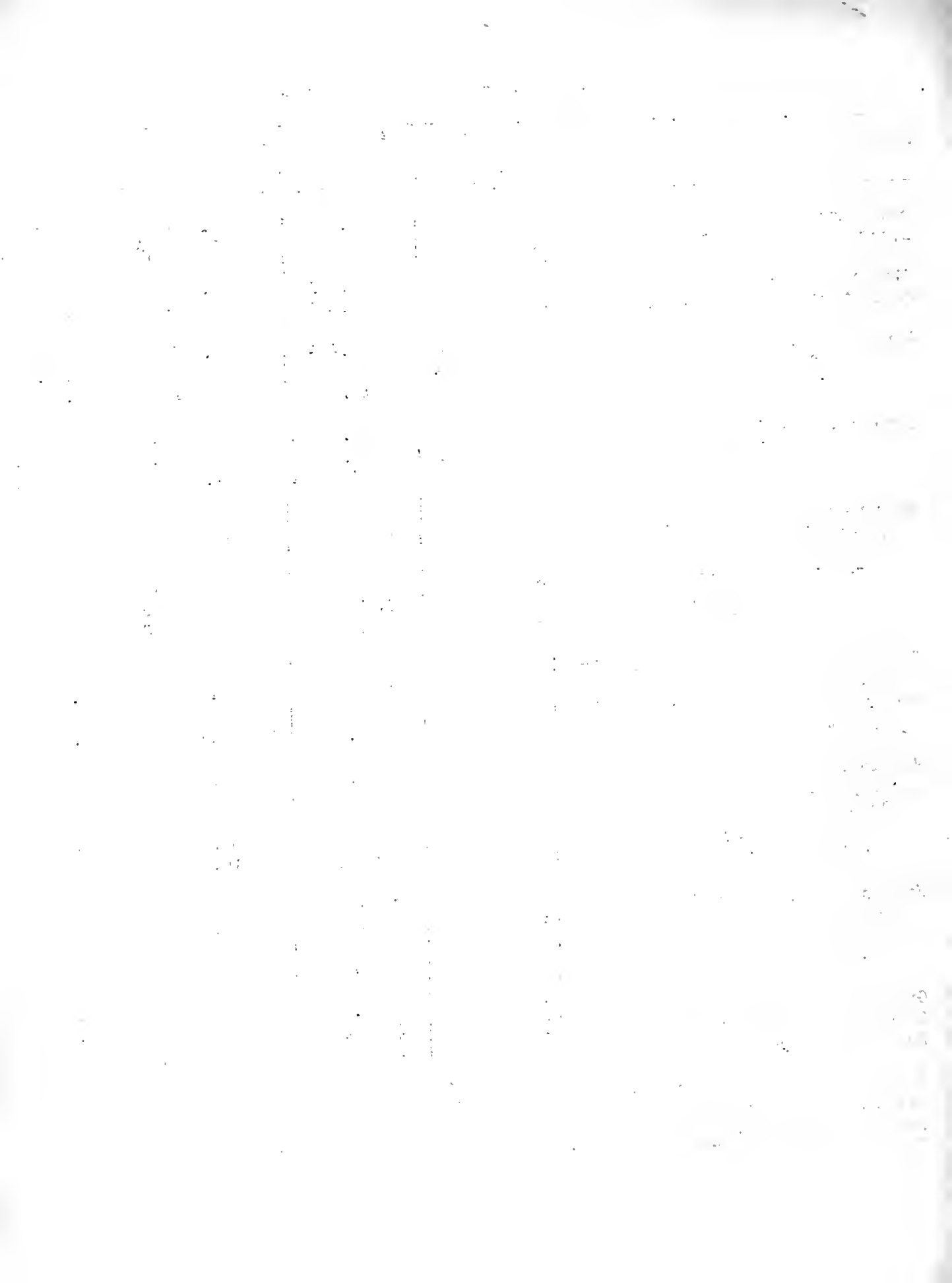


due to wet weather, an outbreak of hog cholera, less favorable markets for heavy cattle, and somewhat lower prices for corn and wheat. Records for Henderson County for 1925 were included in a report for Whiteside, Henderson, Rock Island, and Mercer counties. The average rate of interest earned by the farms included in that report for 1925 was 5.3 percent as compared with 3.7 percent on the farms covered by this report for 1926.

Some points of strength and some of weakness in your own farm business may be found by comparing the factors from your own record in the following tables with the same factors for the average farm, as well as for farms of the high and low profit groups.

Henderson, Knox and Warren Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of 32 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.72%	7.51%	.34%
Labor and management wage	\$	\$ 60	\$1,881	\$-1,962
Size of farm - acres	A	251.6 A	246.5 A	304 A
Percent of land area tillable	%	79.2 %	82.5 %	74.2 %
Acres in Corn	A	87.4 A	88.6 A	94.2 A
Oats	A	37.4 A	37.6 A	40.3 A
Wheat	A	11.8 A	13.9 A	17.7 A
Crop yields - Corn	bu.	47.8 bu.	50.4 bu.	43.6 bu.
Oats	bu.	30.4 bu.	29.4 bu.	27.6 bu.
Wheat	bu.	12.9 bu.	11.3 bu.	11.9 bu.
Returns per \$100 invested in all productive livestock	\$	\$130	\$ 175	\$ 82
For \$100 in Cattle	\$	\$ 88	\$ 102	\$ 63
Swine	\$	\$182	\$ 253	\$ 107
Poultry	\$	\$169	\$ 177	\$ 153
Investment per acre in productive livestock	\$	\$ 15.56	\$ 14.34	\$ 17.35
Receipts per acre from productive livestock	\$	\$ 20.18	\$ 25.15	\$ 14.30
Man labor cost per acre	\$	\$ 5.90	\$ 5.98	\$ 5.32
Crop acres per man	A	85 A	91 A	87 A
Crop acres per horse (with tractor)	A	28.1 A	30.4 A	29.3 A
Crop acres per horse (without tractor)	A	20.2 A	18.9 A	21.4 A
Expense per \$100 gross income	\$	\$ 65	\$ 44	\$ 96
Machinery cost per acre	\$	\$ 1.92	\$ 1.56	\$ 2.14
Building and fencing cost per acre	\$	\$ 1.15	\$.77	\$.89
Gross receipts per acre	\$	\$ 20.66	\$ 25.58	\$ 14.90
Total expenses per acre	\$	\$ 13.39	\$ 11.34	\$ 14.26
Net receipts per acre	\$	\$ 7.27	\$ 14.24	\$.64
Farms with tractor - percent	%	69 %	50 %	70 %
Value of land per acre	\$	\$138	\$ 140	\$ 128
Total investment per acre	\$	\$196	\$ 190	\$ 188

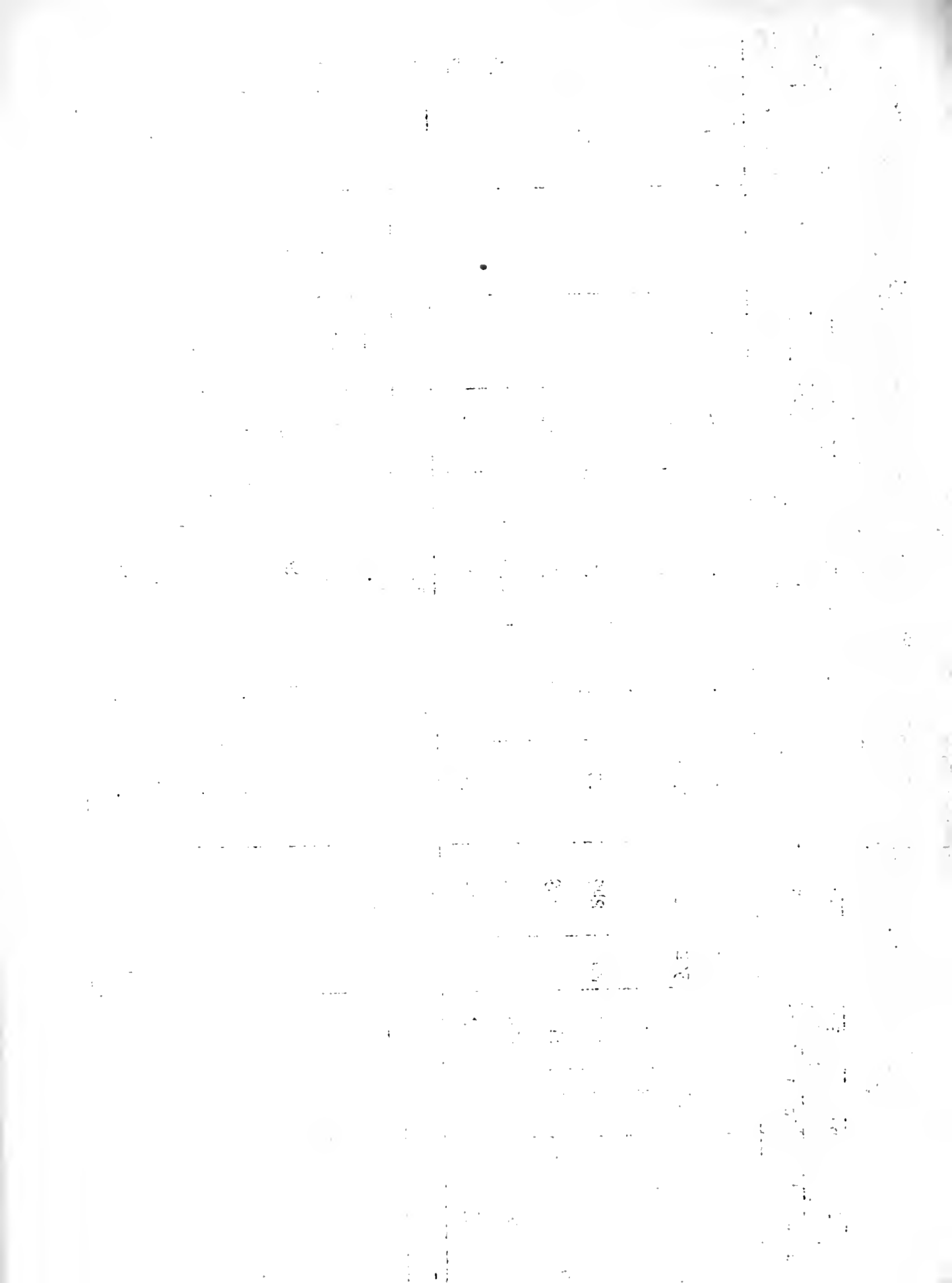


Henderson, Knox, and Warren Counties, 1926

Items	Your farm	Average of 32 farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$49,198	\$46,788	\$57,103
2 Land		34,825	34,596	38,922
3 Farm improvements		5,064	4,250	5,834
4 Machinery and equipment		1,649	1,237	2,147
5 Feed and supplies		2,920	2,808	3,263
6 Livestock		4,740	3,897	6,937
7 Horses		687	666	882
8 Cattle		2,223	1,783	3,845
9 Swine		1,625	1,315	1,989
10 Sheep		88	13	108
11 Poultry		117	120	113
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 5,199	\$ 6,308	\$ 4,531
13 Feed and grain		--	40	--
14 Miscellaneous		77	69	95
15 Livestock - Total		5,122	6,199	4,436
16 Horses		45	--	88
17 Cattle		1,507	1,256	2,069
18 Swine		3,028	4,226	1,891
19 Sheep		55	2	39
20 Poultry		105	132	87
21 Egg sales		98	81	103
22 Dairy sales		284	502	159
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 2,500	\$ 1,840	\$ 3,408
24 Farm improvements		289	190	272
25 Livestock		--	10	--
26 Horses		--	10	--
27 Cattle		--	--	--
28 Swine		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		482	385	652
32 Feed and supplies		386	--	965
33 Livestock expense other than feed		68	64	69
34 Crop expense		195	207	214
35 Labor hired		615	517	687
36 Taxes, insurance, etc.		434	438	517
37 Miscellaneous		31	29	32
38 <u>Receipts less Expenses</u>	\$ _____	\$ 2,699	\$ 4,468	\$ 1,123
39 Operator's and unpaid family labor		869	956	929
40 Net income from investment		1,830	3,512	194

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of			Returns per \$100 invested in		Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per Horse			Expense per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle	Hogs				Poultry	Man	Tractor				No	trac-	tor
10.7	77	51	27	158	322	309	34.18	2.40	120	42	34	30	41	390			
9.7	73	48	25	148	302	289	32.18	2.90	115	40	32	35	38	370			
8.7	69	45	23	138	282	269	30.18	3.40	110	38	30	40	35	350			
7.7	65	42	21	128	262	249	28.18	3.90	105	36	28	45	32	330			
6.7	61	39	19	118	242	229	26.18	4.40	100	34	26	50	29	310			
5.7	57	36	17	108	222	209	24.18	4.90	95	32	24	55	26	290			
4.7	53	33	15	98	202	189	22.18	5.40	90	30	22	60	23	270			
3.7	49	30	13	88	182	169	20.18	5.90	85	28	20	65	20	250			
2.7	45	27	11	78	162	149	18.18	6.40	80	26	18	70	17	230			
1.7	41	24	9	68	142	129	16.18	6.90	75	24	16	75	14	210			
0.7	37	21	7	58	122	109	14.18	7.40	70	22	14	80	11	190			
-0.3	33	18	5	48	102	89	12.18	7.90	65	20	12	85	8	170			
-1.3	29	15	-	38	82	69	10.18	8.40	60	18	10	90	5	150			
-2.3	25	12	--	28	62	49	8.18	8.90	55	16	8	95	-	130			
-3.3	21	9	--	18	42	29	6.18	9.40	50	14	6	100	-	110			



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

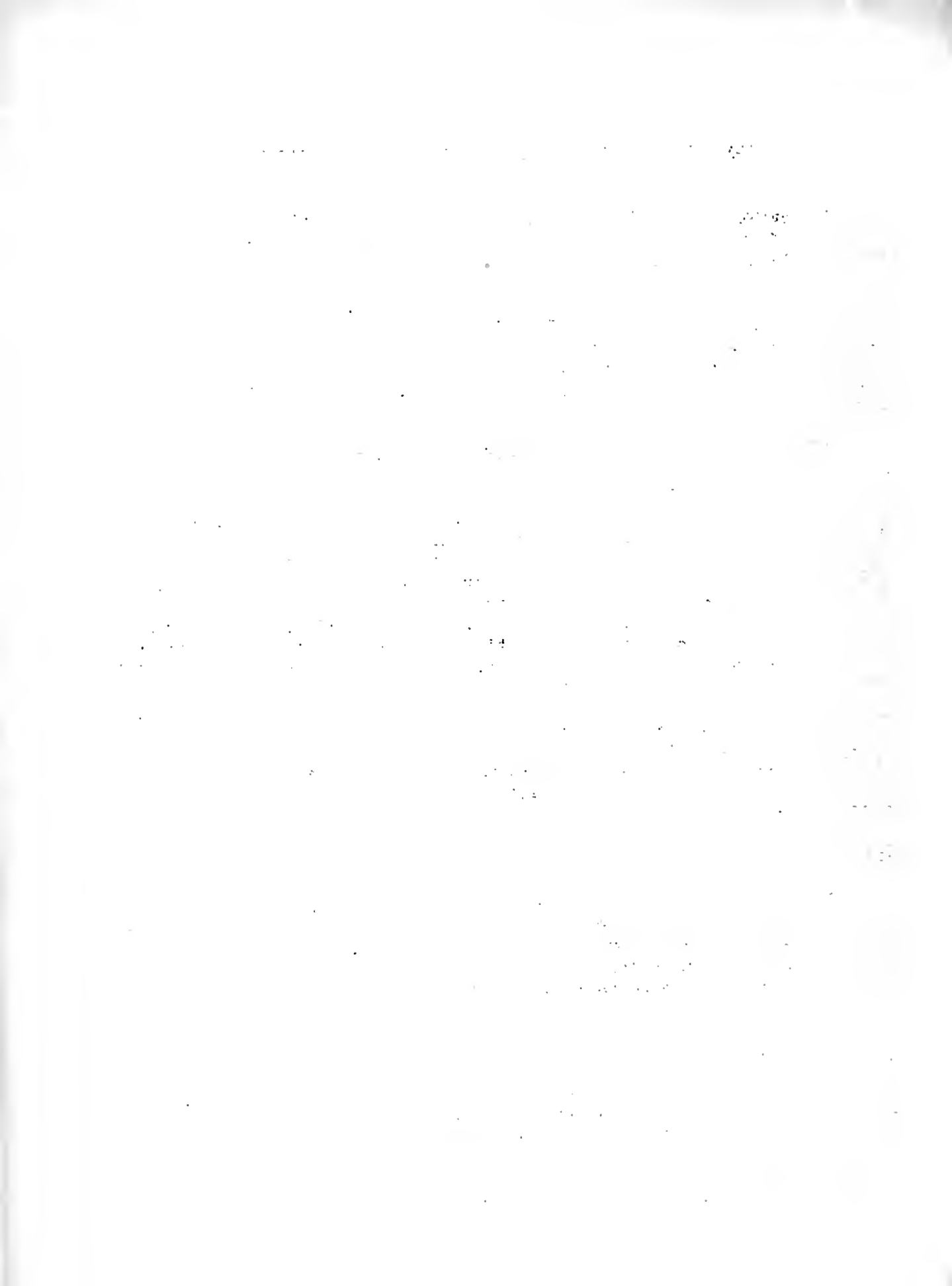
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest



conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

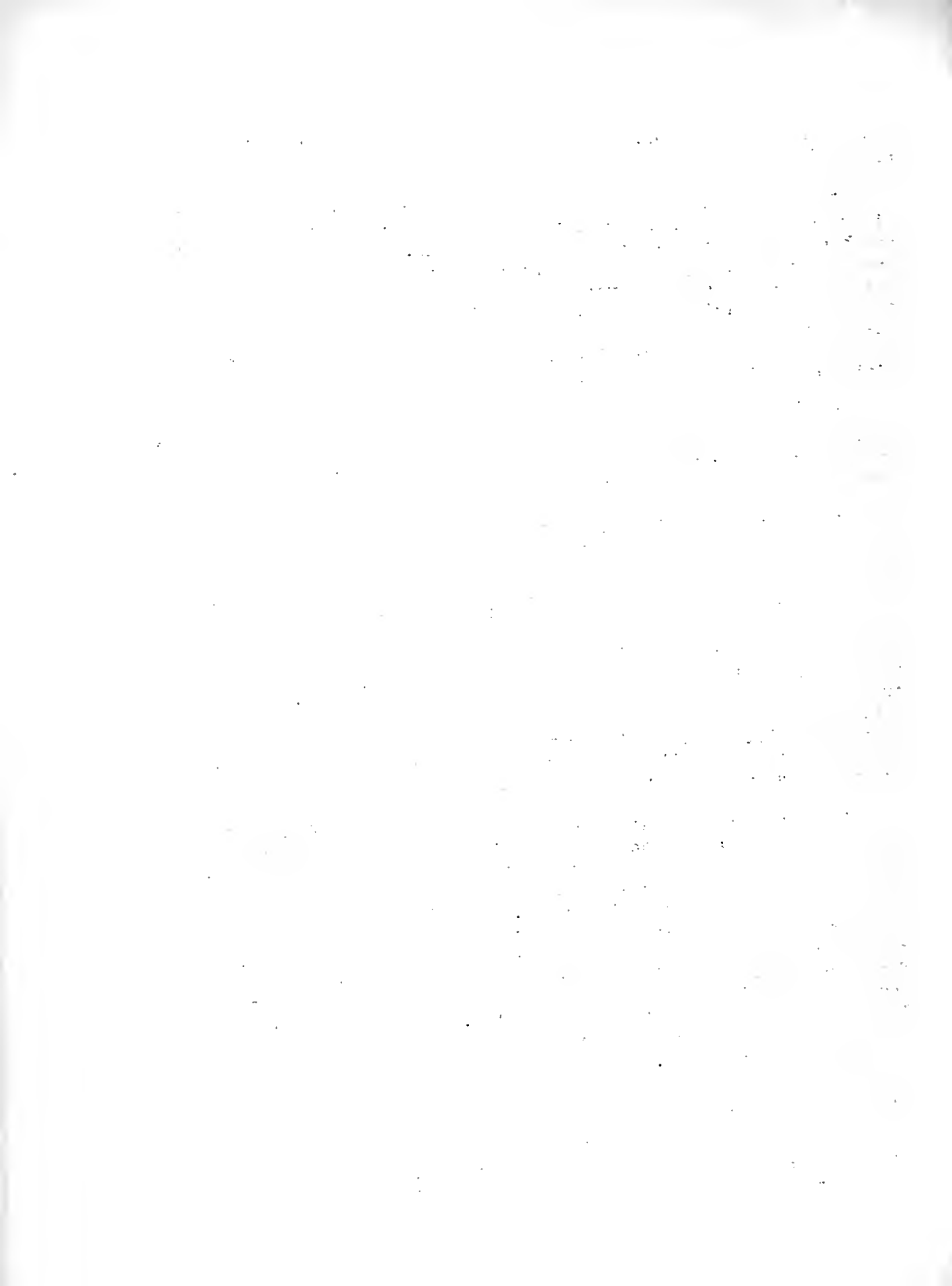
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. The second part outlines the procedures for handling discrepancies and errors, stating that any such issues should be reported immediately to the relevant department. The third part details the process for auditing the accounts, ensuring that all entries are reviewed and verified. The final part concludes with a statement on the commitment to transparency and accountability in all financial matters.

The second section of the report provides a detailed analysis of the current market conditions. It notes that while there is a general upward trend in the economy, there are still significant challenges, particularly in the manufacturing sector. The report also highlights the impact of recent policy changes and the need for continued monitoring and adjustment. The third section discusses the role of government intervention in stabilizing the market and supporting growth. The fourth section offers recommendations for future actions, including the implementation of new regulatory frameworks and the promotion of innovation and entrepreneurship.

The third part of the document focuses on the implementation of the proposed reforms. It details the timeline for each phase of the project and the responsibilities of the various stakeholders involved. It also addresses the potential risks and challenges that may arise during the implementation process and provides strategies to mitigate them. The fourth part discusses the expected outcomes and the long-term benefits of the reforms. The fifth part concludes with a call to action, urging all parties to work together to ensure the successful completion of the project.

The fourth section of the report examines the impact of the reforms on different segments of the population. It notes that while the reforms are expected to create new job opportunities and improve living standards, there is a risk of increased inequality if not properly managed. The report also discusses the need for social safety nets and targeted support for vulnerable groups. The fifth section discusses the role of education and training in preparing the workforce for the new economy. The sixth section concludes with a summary of the key findings and a final call to action.

The final part of the document provides a comprehensive overview of the project's progress to date. It highlights the achievements made and the challenges that remain. It also discusses the next steps and the timeline for the remaining phases of the project. The document concludes with a statement of appreciation for the support and cooperation of all stakeholders and a commitment to continued communication and collaboration.

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

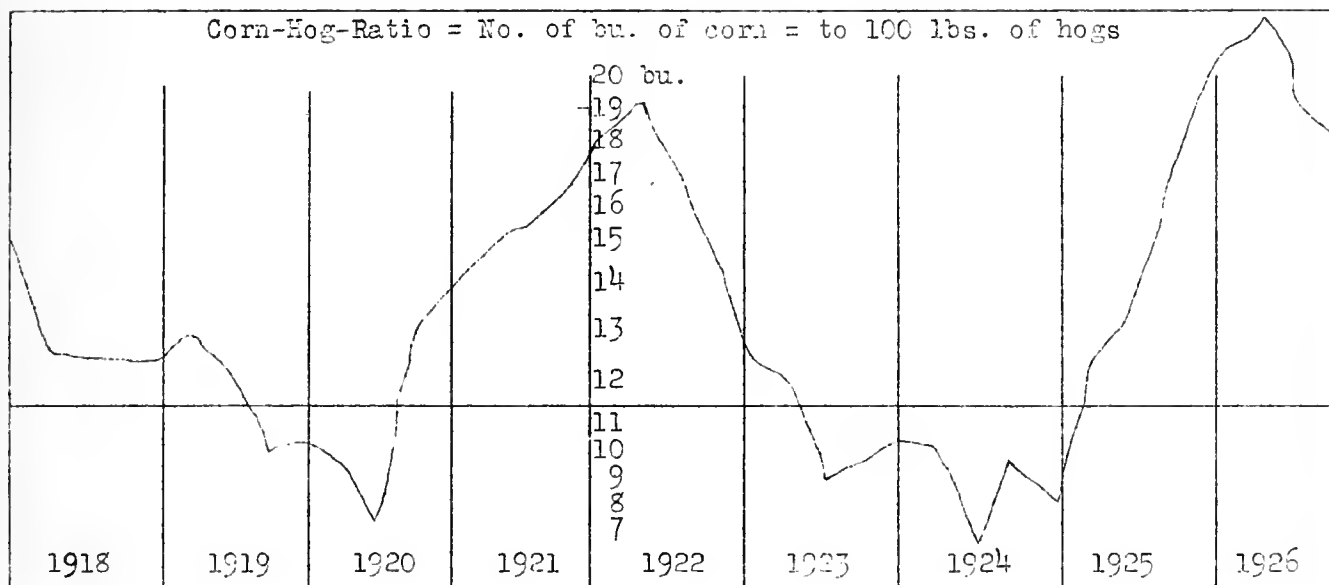
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

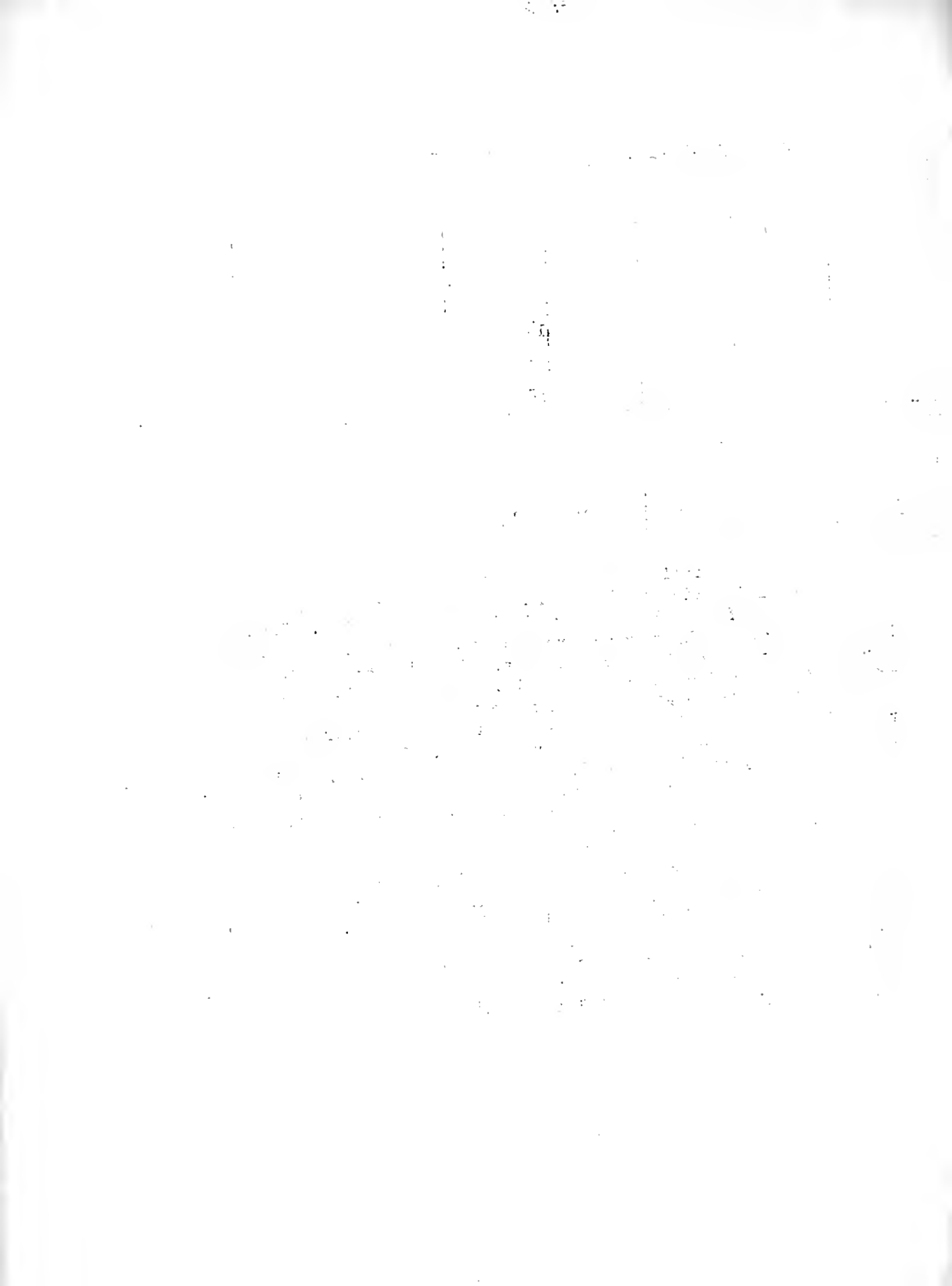
In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

MASON, PEORIA, AND TAZEWELL COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-six Farms

for

1926

Farm Account keepers say:

"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

May, 1927

M59

ANNUAL FARM BUSINESS REPORT

MASON, PEORIA, AND TAZEWELL COUNTIES, ILLINOIS 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. C. M. Case*

The 26 farmers in Mason, Peoria, and Tazewell counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$207 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$181 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,433 while the one-third who were least successful lacked an average of \$891 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,324 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 26 farmers earned 3.6 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 6.5 percent and the least successful third lost 1.0 percent. The average investment on the 26 farms was \$35,795, which amounts to \$181 an acre. The higher profit third had an average investment of \$196 and the lower profit third \$166 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$133 an acre as an average for all farms.

In addition to the above earnings, each farm family secures certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The ten most profitable farms covered by this report averaged about 240 acres in size compared with an average of about 160 acres for the 10 least profitable farms. This difference in size probably gave some advantage to the more profitable farms but similar studies in other areas and for other years indicate that difference in size is not one of the biggest factors in determining farm profits. A farm of 240 acres can be somewhat more efficiently organized for general farming than one of 160 acres. Overhead costs for improvements and equipment are less per acre and with 240 acres two men can be profitably employed throughout the year. In the case of this particular study however improvement and equipment costs were about the same for the two groups of farms. The operators of the larger farms did handle about 9 more crop acres per man. The more profitable group of farms averaged about 28 acres more corn, 3 acres more oats and 33 acres more wheat per farm than the less

* T. R. Isaacs, Wilfred Shaw and R. E. Arnett, farm advisers in Mason, Peoria and Tazewell counties respectively, cooperated in supervising and collecting the records used in this report.

IN THE DEPARTMENT OF AGRICULTURE

FOR THE YEAR ENDING 1900

BY THE CHIEF OF BUREAU

AND THE ASSISTANT CHIEF OF BUREAU

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profitable farms. This gave them some advantage in having a small percentage of land in oats which is a relatively low profit crop.

As to yields the more profitable farms had an advantage of about 6 bushels of corn, 18 bushels of oats and 5 bushels of wheat per acre. As operating costs per acre usually do not increase in proportion to yield, higher yields are one of the most important factors in better profits.

In this area as in most areas of the state for which 1926 farm business reports are being made, the biggest single advantage of the more profitable farms was in handling livestock more efficiently. The more profitable farms also had more livestock which was an advantage. They had a livestock investment of \$9.90 an acre compared with a similar investment of \$5.50 on the low profit group. The more successful farm operators realized a livestock income of \$13.18 an acre as compared with \$5.54 for the less successful operators. Greater livestock efficiency on the higher profit farms is shown in the fact that they had \$133 of livestock income for each \$100 of livestock investment compared with \$101 income per \$100 of livestock investment on the low profit farms.

Operating costs on an acre basis were about equal for the high and low profit groups of farms, but the cost items were used in such a way as to bring greater returns on the more profitable farms. With equal operating costs per acre the more successful farmers realized \$14.40 larger gross receipts per acre. Expressing this relationship in a different way the more profitable farms had operating costs of \$47 for every \$100 of income while the less profitable farms had operating costs of \$117 for every \$100 income.

Most of the records included in this report were for Mason County. We do not have an exactly comparable report for 1925 but it is of interest to note that farm earnings for Central and West Central Illinois were on a somewhat lower level for 1926 than for 1925. A report covering approximately the same area for 1925 showed an average rate earned of 4.1 percent as compared with 3.6 percent for this report.

Some points of strength and some of weakness in your own farm business may be found by comparing the factors from your own record in the following tables with the same factors for the average farm as well as for farms of the high and low profit groups.

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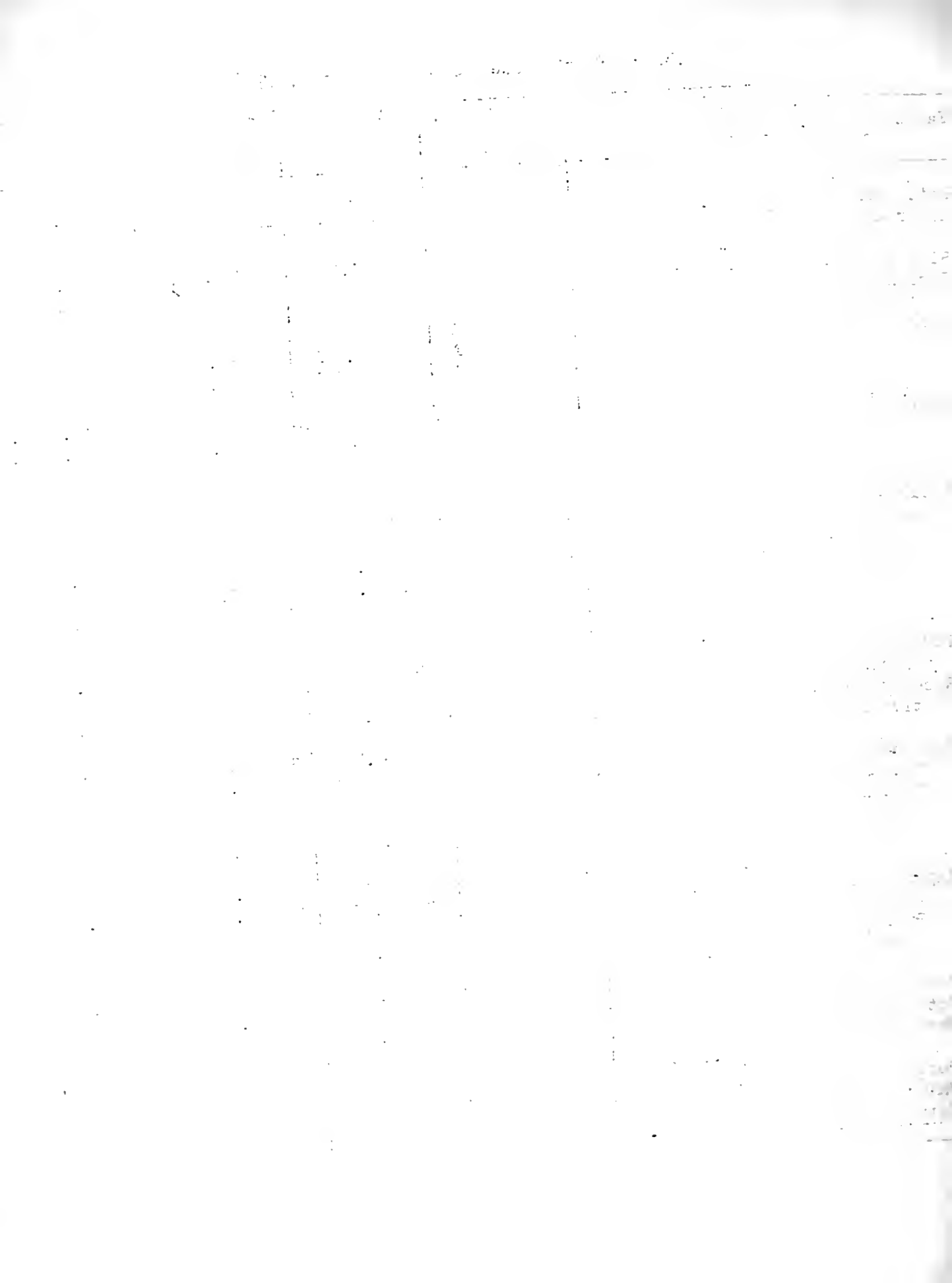
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Mason, Peoria, and Tazewell Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of 25 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.61%	6.52%	-.98%
Labor and management wage	\$	\$ 207	\$1,433	\$ -891
Size of farm - acres	A	197.8 A	239.7 A	159.4 A
Percent of land area tillable	%	85.9 %	87.0 %	79.8 %
Acres in Corn	A	63.4 A	78.6 A	51.1 A
Oats	A	16.4 A	19.5 A	16.7 A
Wheat	A	54.5 A	68.4 A	35.6 A
Yield of Corn	bu.	38.2 bu.	42.2 bu.	35.8 bu.
Oats	bu.	32.1 bu.	42.6 bu.	24.4 bu.
Wheat	bu.	17.8 bu.	20.1 bu.	15.3 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 124.00	\$ 133.00	\$ 101.00
For \$100 in Cattle	\$	\$ 74.00	\$ 75.00	\$ 47.00
Swine	\$	\$ 193.00	\$ 205.00	\$ 180.00
Poultry	\$	\$ 163.00	\$ 177.00	\$ 149.00
Investment per acre in productive livestock	\$	\$ 7.57	\$ 9.90	\$ 5.50
Receipts per acre from productive livestock	\$	\$ 9.35	\$ 13.18	\$ 5.54
Man labor cost per acre	\$	\$ 5.60	\$ 5.63	\$ 5.79
Crop acres per man	A	101 A	99.3 A	90.5 A
Crop acres per horse (with tractor)	A	27.6 A	28.0 A	20.4 A
(without tractor)	A	26.0 A	27.1 A	24.5 A
Expense per \$100 gross income	\$	\$ 63.00	\$ 47.00	\$ 117.00
Machinery cost per acre	\$	\$ 1.75	\$ 1.78	\$ 1.81
Building and fencing cost per acre	\$	\$.84	\$.87	\$.97
Gross receipts per acre	\$	\$ 17.60	\$ 24.06	\$ 9.66
Total expenses per acre	\$	\$ 11.08	\$ 11.30	\$ 11.29
New receipts per acre	\$	\$ 6.52	\$ 12.76	\$ -1.63
Percent of farms with tractor	%	42.3 %	60 %	20 %
Value of land per acre	\$	\$ 133.00	\$ 145.00	\$ 119.00
Total investment per acre	\$	\$ 121.00	\$ 196.00	\$ 166.00



Mason, Peoria and Tazewell Counties, 1926

Item	Your farm	Average of 26 farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$35,795	\$46,952	\$26,542
2 Land		25,403	34,781	19,003
3 Land improvements		3,108	3,835	2,857
4 Machinery and equipment		1,521	2,143	1,075
5 Feed and supplies		2,617	3,123	2,222
6 Livestock		2,146	3,070	1,285
7 Horses		654	801	468
8 Cattle		865	1,276	511
9 Swine		506	851	289
10 Sheep		8	3	18
11 Poultry		113	139	99
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 3,482	\$ 5,768	\$ 1,540
13 Feed and grain		1,527	2,396	627
14 Miscellaneous		106	212	29
15 Livestock - Total		1,849	3,160	884
16 Horses		--	--	--
17 Cattle		242	392	51
18 Swine		1,029	1,917	489
19 Sheep		4	-	9
20 Poultry		101	131	81
21 Egg sales		100	135	82
22 Dairy sales		373	585	172
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 1,383	\$ 1,851	\$ 1,035
24 Farm improvements		166	208	154
25 Livestock		43	29	47
26 Horses		43	29	47
27 Cattle		--	--	--
28 Swine		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		347	426	288
32 Feed and supplies		--	--	--
33 Livestock expense other than feed		43	50	41
34 Crop expense		151	195	99
35 Labor hired		300	492	158
36 Taxes, insurance, etc.		313	421	236
37 Miscellaneous		20	30	12
38 <u>Receipts less expenses</u>	\$ _____	\$ 2,099	\$ 3,917	\$ 505
39 Operator's and unpaid family labor		808	857	765
40 Net income from investment		1,291	3,060	-260

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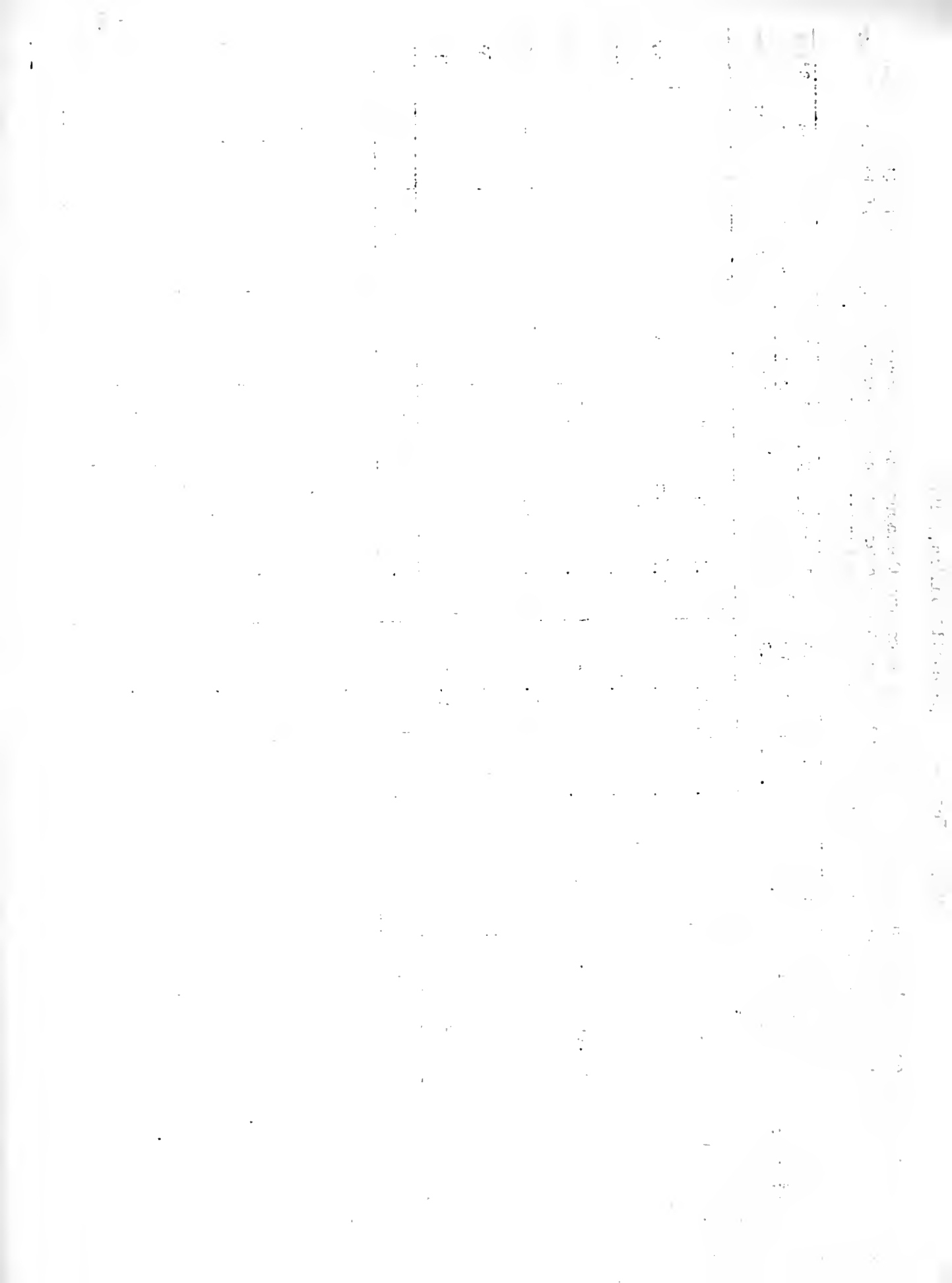
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Mason, Peoria and Tazewell Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per		Expense per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle				Hogs	Poultry				Man	Tractor	No tractor
10.6	66	53	32	144	333	303	14.57	16.35	2.10	135	42	40	28	32	338
9.6	62	50	30	134	313	283	13.57	15.35	2.60	130	40	38	33	30	318
8.6	58	47	28	124	293	263	12.57	14.35	3.10	125	38	36	38	28	298
7.6	54	44	26	114	273	243	11.57	13.35	3.60	120	36	34	43	26	278
6.6	50	41	24	104	253	223	10.57	12.35	4.10	115	34	32	48	24	258
5.6	46	38	22	94	233	203	9.57	11.35	4.60	110	32	30	53	22	238
4.6	42	35	20	84	213	183	8.57	10.35	5.10	105	30	28	58	20	218
3.6	38	32	18	74	193	163	7.57	9.35	5.60	100	28	26	63	18	198
2.6	34	29	16	64	173	143	6.57	8.35	6.10	95	26	24	68	16	178
1.6	30	26	14	54	153	123	5.57	7.35	6.60	90	24	22	73	14	158
0.6	26	23	12	44	133	103	4.57	6.35	7.10	85	22	20	78	12	138
-0.4	22	20	10	34	113	83	3.57	5.35	7.60	80	20	18	83	10	118
-1.4	18	17	8	24	93	63	2.57	4.35	8.10	75	18	16	88	8	98
-2.4	14	14	6	14	73	43	1.57	3.35	8.60	70	16	14	93	6	78
-3.4	10	11	--	--	53	23	--	2.35	9.10	65	14	12	98	4	58



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

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conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

Additionally, it is noted that the records should be kept in a secure and accessible format. Regular backups are recommended to prevent data loss in the event of a system failure or disaster.

The second section focuses on the process of reconciling accounts. This involves comparing the internal records with the bank statements to identify any discrepancies. Common causes for these differences include timing differences, such as deposits in transit or outstanding checks.

It is stressed that any identified errors should be investigated immediately and corrected. This process is crucial for maintaining the integrity of the financial statements and ensuring that the books are balanced.

The third part of the document addresses the role of internal controls. These are designed to prevent and detect errors or fraud within the organization. Key elements include segregation of duties, where no single individual has control over all aspects of a transaction.

Another important control is the requirement for proper authorization. All significant transactions should be approved by a designated manager or board member before being recorded. This helps to ensure that the organization's resources are used responsibly.

Finally, the document concludes by highlighting the overall importance of financial discipline. Consistent adherence to these practices is essential for the long-term success and stability of any business.

By following these guidelines, organizations can ensure that their financial records are accurate, reliable, and compliant with applicable regulations. This not only protects the organization's assets but also provides a clear picture of its financial health to stakeholders.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

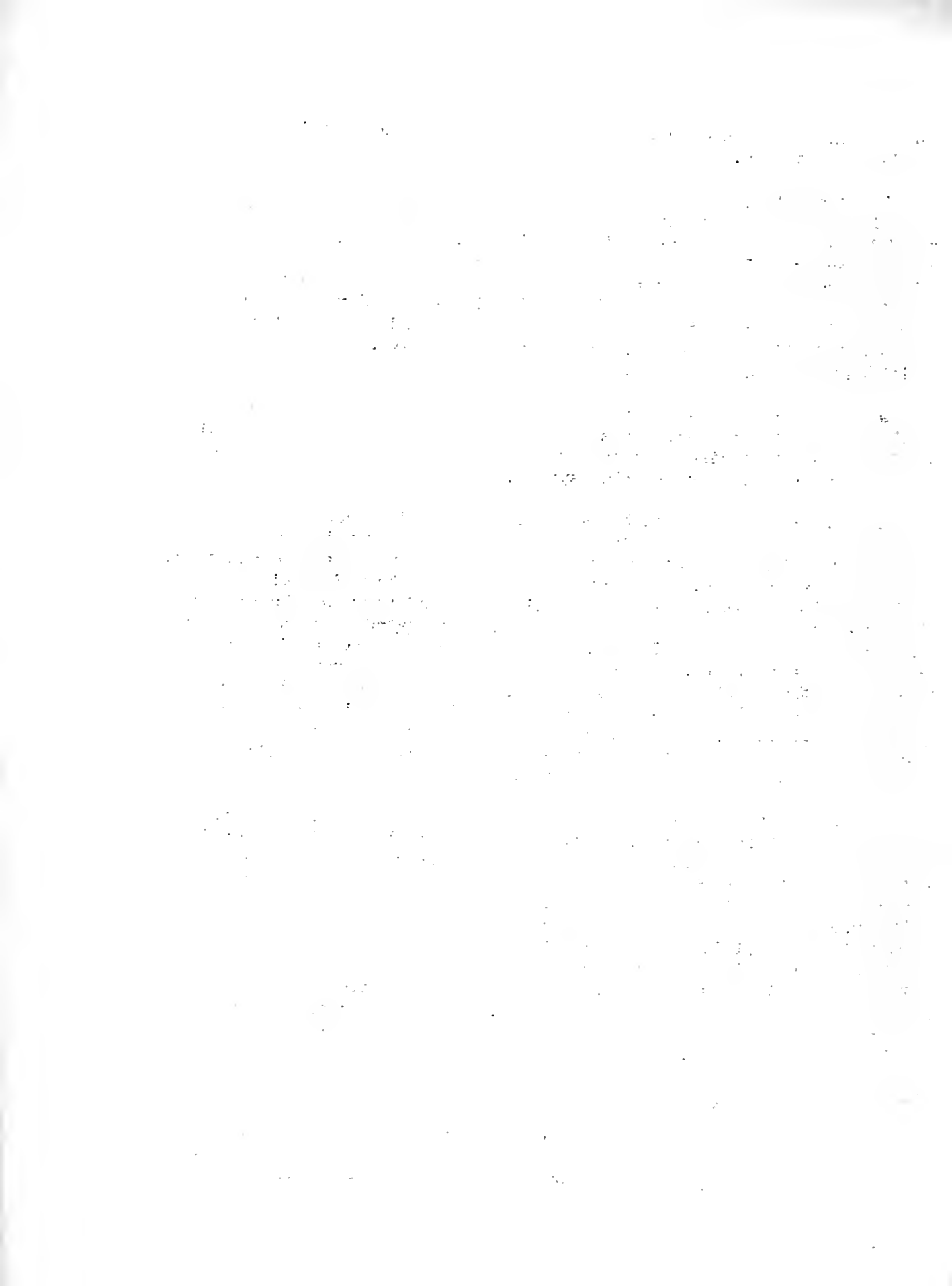
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

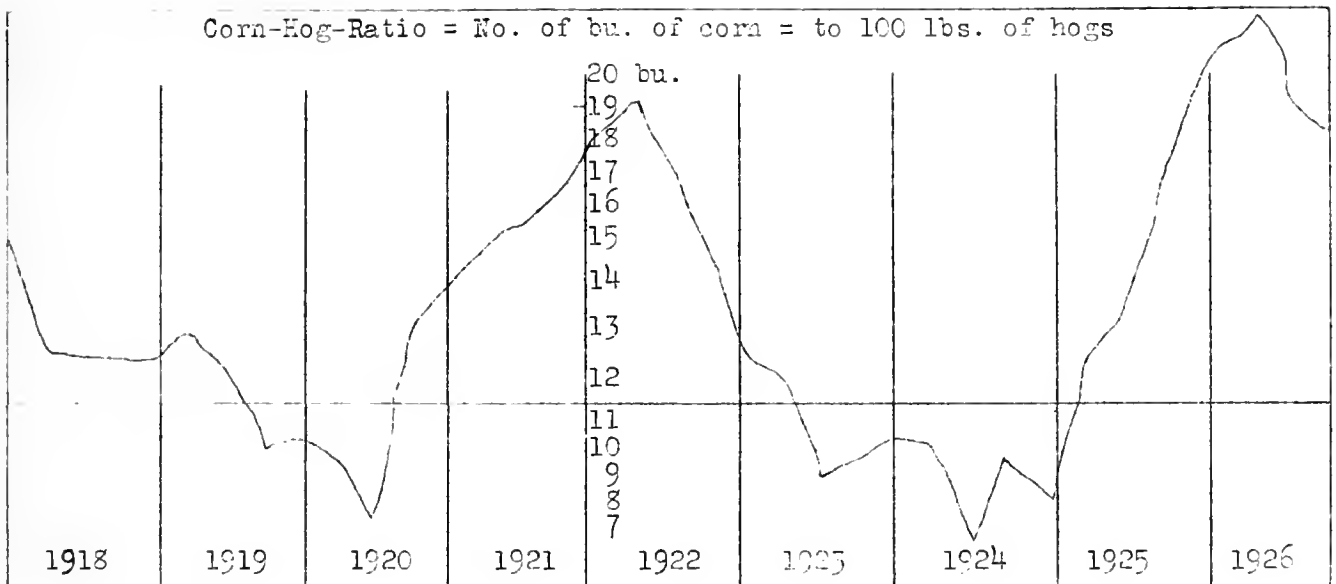
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|--|--|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of income |

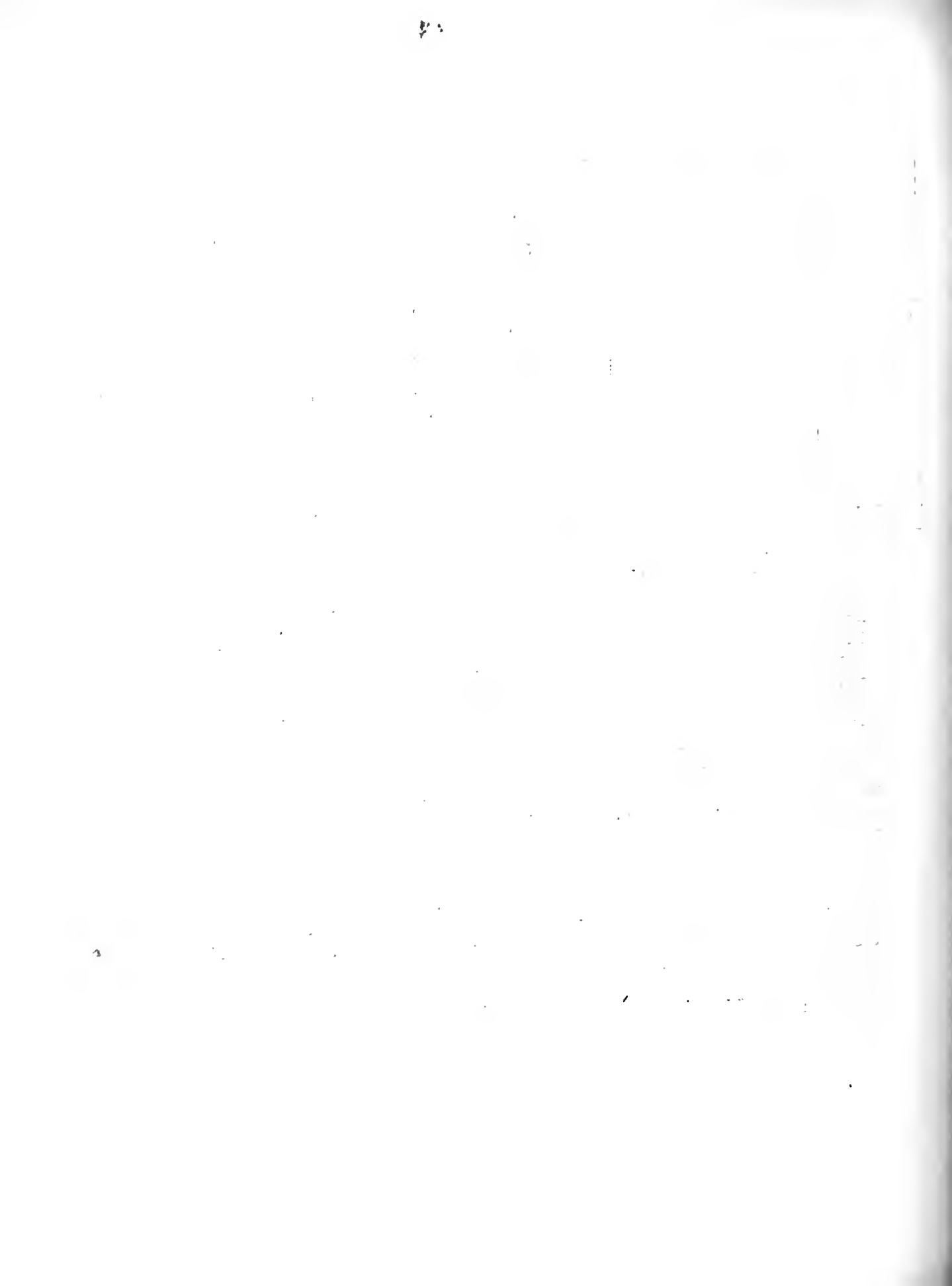
In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE
Department of Farm Organization and Management
and
MC DONOUGH COUNTY FARM BUREAU
Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-six Farms

for

1926

Farm Account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

June, 1927

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ANNUAL FARM BUSINESS REPORT

McDonough County, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. C. M. Case*

The 26 farmers in McDonough county who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$212 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$236 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,638, while the one-third who were least successful lacked an average of \$1,140 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,778 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 26 farmers earned 3.8 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 7.5 percent and the least successful third 1.2 percent. The average investment on the 26 farms was \$42,610, which amounts to \$236 an acre. The higher profit third had an average investment of \$221 and the lower profit third \$243 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$176 an acre as an average for all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The ten most profitable farms averaged 36 acres smaller than the ten least profitable farms. This difference in size probably had little to do with the difference in net earnings, since we have found for other years and for other areas in 1926 that the high and low profit groups usually average about the same number of acres. If there was any advantage in size it was in favor of the 200 acre farms instead of the 164 acre farms. The more profitable farms had about 10 percent more of their land tillable, which was slightly in their favor.

The more profitable farms had considerable advantage in yields of corn and oats. They produced about 9 bushels more corn and 7 bushels more oats per acre than the less profitable farms. There was little difference in the

*R. C. Doneghue, farm adviser in McDonough county, cooperated in supervising and collecting the records used in this report.

LAND REVENUE

IN THE YEAR 1881

The following table shows the amount of land revenue received in the year 1881, compared with the amount received in the year 1880, and the amount received in the year 1882, compared with the amount received in the year 1881. The total amount of land revenue received in the year 1881 was £1,000,000, compared with £950,000 in the year 1880, and £1,050,000 in the year 1882.

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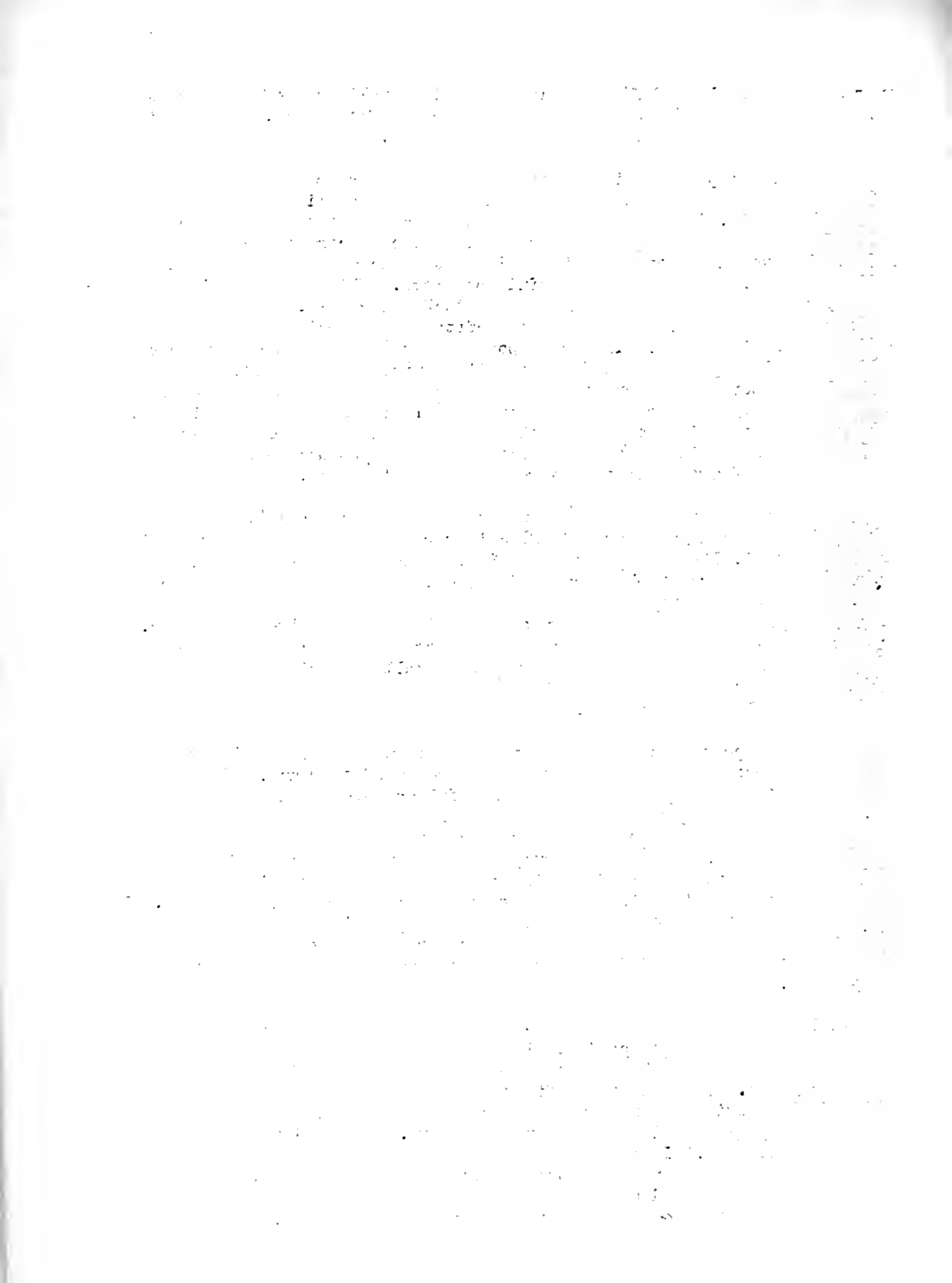
average wheat yield. Difference in yields is usually one of the largest differences between farms of the high and low profit groups. These differences were smaller than usual, however, for 1926.

The most important single advantage of the more profitable farms for 1926 was in having more livestock per acre and in handling their livestock more efficiently. The ten most successful farm operators whose records are included in this report secured \$173 of livestock income for each \$100 of livestock investment compared with a livestock income of \$99 for each \$100 of investment for the less successful operators. This advantage in efficiency was shown also with each kind of livestock separately. The more profitable farms returned \$111 and the less profitable ones \$61 income for each \$100 invested in cattle. The corresponding amounts of income from hogs were \$206 and \$128 for the high and low profit groups. Hog production was much the largest source of income on these farms and any advantage in handling hogs efficiently had a correspondingly large influence on the net income. Good methods of sanitation and balanced economical feeding have been found to have a large influence on the relative cost of producing pork and hence on the margin of profit in the hog production enterprise.

It is of interest to note that the ten most profitable farms had a livestock investment per acre of \$2.23 larger than that of the low profit group, but their livestock income was \$13.50 larger than that of the latter group. The more profitable farms had twice as much livestock income per farm. About 59 percent of the income from the more profitable farms and 50 percent of that from the less profitable farms was derived from hogs. Greater efficiency in feeding by the more successful farmers is indicated by the fact that, although their farms were smaller in size, they fed off and marketed more livestock and still had about as much grain to sell as the less successful farm operators.

On the expense side of the business there was little difference in labor cost per acre between the higher and lower profit groups. With the same labor cost, however, the more successful operators managed to secure \$30.96 gross income per acre against an average of \$17.48 on the low profit farms. Total operating costs per acre did not differ much between the two groups of farms. Machinery and equipment costs were somewhat higher per acre on the less profitable farms in spite of their larger size, which should give them some advantage in keeping expenses per acre at a lower level. With a much higher gross income and about the same operating costs per acre, the more profitable farms had a net income per acre over five times as large as on the low profit farms. It is for the net income that the farm business is operated.

Although there has been a steady increase in the number of farms included in this accounting project, it is interesting to note the comparative earnings, investments and costs for these McDonough farms during the past four years. In using these figures it is best to keep in mind the shifting in individual farms included from year to year. A number of the farms have been included each of the four years. The following table brings out this comparison. It is interesting to note the larger income from grain sales in 1924 when grain prices were at their best since 1920. Hog incomes were highest in 1925 and fell back in 1926, probably on account of hog cholera. Operating costs per acre evidently are not decreasing.



Comparative Earnings on Some McDonough County Farms

	1923	1924*	1925	1926
Number of farms included	18	51	30	26
Average size of farm in acres	202	202	180	180
Average rate earned	2.7%	5.3%	5.7%	3.8%
Average value of land per acre	\$ 182	\$ 165	\$ 179	\$ 176
Average investment per acre	227	216	238	236
Investment in livestock per farm	3,037	2,765	2,858	3,118
Investment in cattle per farm	936	957	760	957
Investment in hogs per farm	1,237	1,034	1,266	1,287
Investment in poultry per farm	150	143	134	155
Gross income per acre	19.86	23.66	28.91	23.24
Operating cost per acre	13.72	12.14	15.16	14.23
Grain sales less feed purchases per farm	357	1,342	908	495
Miscellaneous income per farm	213	123	130	61
Livestock income per farm	2,799	3,319	4,166	3,641
Gross income per farm	3,369	4,784	5,204	4,197
Cattle income per farm	726	693	456	488
Dairy sales per farm	163	170	330	291
Hog income per farm	1,568	2,139	3,040	2,493
Poultry income per farm	295	238	266	325

Some points of strength and some of weakness in your own business may be found by comparing the factors from your own record in the following tables with the same factors for the average farm as well as for farms of the high and low profit groups.

*Records for Adams and Hancock Counties were included for 1924.

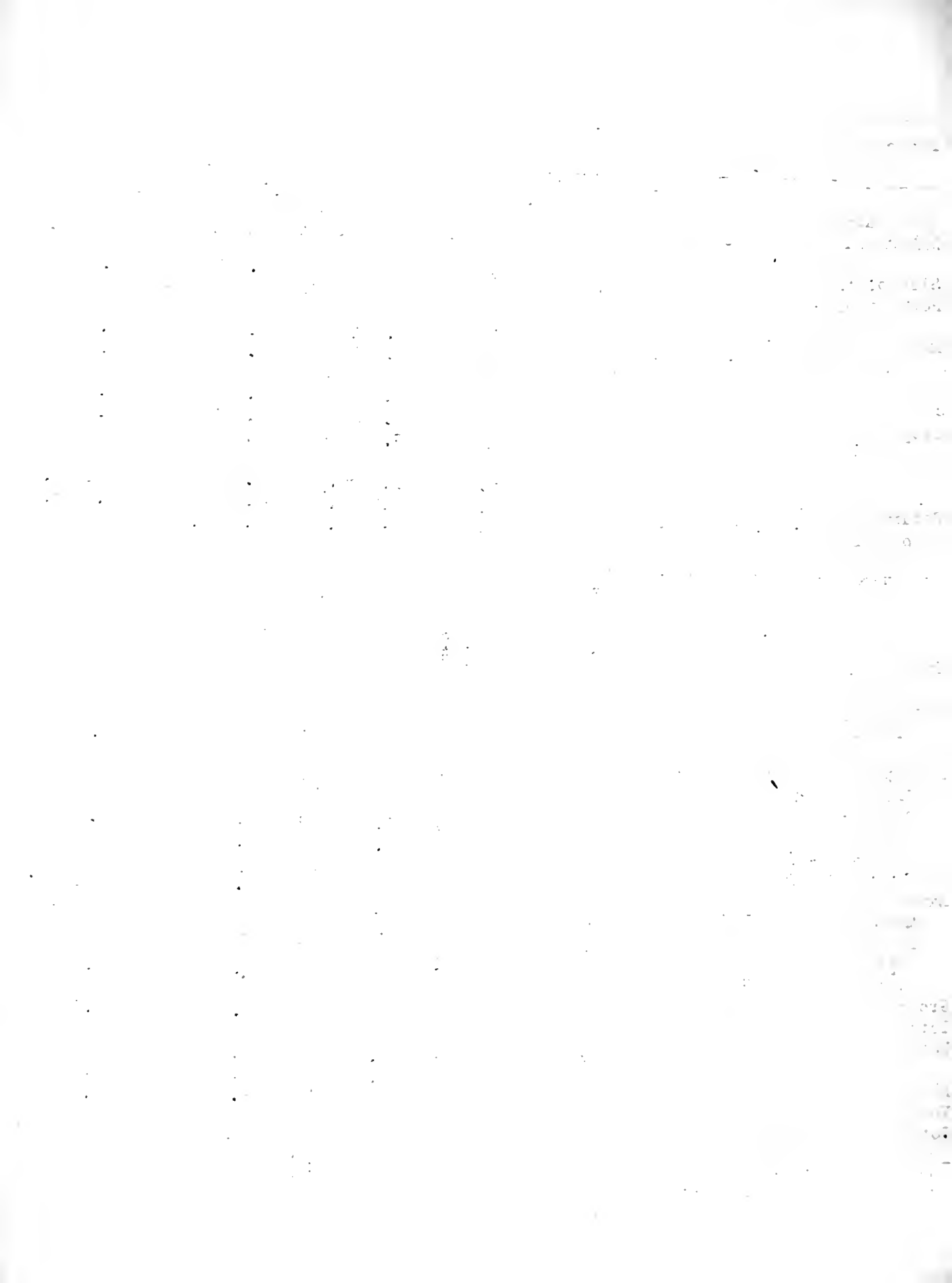
Department of Mathematics

Year	Subject	Grade	Score	Remarks
1958	Calculus	A	92	Excellent work
1959	Calculus	B	85	Good progress
1960	Calculus	C	78	Needs improvement
1961	Calculus	D	70	Below average
1962	Calculus	F	62	Unsatisfactory
1963	Calculus	F	60	Unsatisfactory
1964	Calculus	F	60	Unsatisfactory
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2019	Calculus	F	60	Unsatisfactory
2020	Calculus	F	60	Unsatisfactory

Department of Mathematics
 123 University Street
 City, State 12345
 Phone: (555) 123-4567
 Email: math@university.edu

McDonough County

Factors helping to analyze the farm business	Your farm	Average of 26 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.82%	7.52%	1.20%
Labor and management wage	\$	\$ 212	\$1,638	\$-1,140
Size of farm - acres	A	180.6 A	164.3 A	200.1 A
Percent of land area tillable	%	84.3 %	89.1 %	80.6 %
Acres in Corn	A	65.1 A	52.0 A	72.2 A
Oats	A	25.1 A	26.3 A	28.0 A
Wheat	A	19.8 A	20.7 A	21.7 A
Crop yields - Corn	bu.	49.4 bu.	55.9 bu.	47.1 bu.
Oats	bu.	37.0 bu.	42.6 bu.	35.2 bu.
Wheat	bu.	20.6 bu.	19.6 bu.	21.8 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 139	\$ 173	\$ 99
For \$100 in Cattle	\$	\$ 82	\$ 111	\$ 61
Hogs	\$	\$ 177	\$ 206	\$ 128
Poultry	\$	\$ 206	\$ 201	\$ 190
Investment per acre in productive livestock	\$	\$ 14.49	\$ 15.45	\$ 13.22
Receipts per acre from productive livestock	\$	\$ 20.14	\$ 26.65	\$ 13.10
Man labor cost per acre	\$	\$ 7.39	\$ 7.13	\$ 7.50
Crop acres per man	A	73.1 A	76.6 A	75.7 A
Crop acres per horse (with tractor)	A	21.1 A	28.8 A	22.1 A
(wwithout tractor)	A	17.1 A	18.7 A	16.5 A
Expense per \$100 gross income	\$	\$ 61	\$ 46	\$ 83
Machinery cost per acre	\$	\$ 1.95	\$ 1.76	\$ 2.38
Building and fencing cost per acre	\$	\$ 1.29	\$ 1.24	\$ 1.33
Gross receipts per acre	\$	\$ 23.24	\$ 30.96	\$ 17.48
Total expenses per acre	\$	\$ 14.23	\$ 14.32	\$ 14.55
Net receipts per acre	\$	\$ 9.01	\$ 16.64	\$ 2.93
Percent of farms with tractor	%	42.3 %	30%	50%
Value of land per acre	\$	\$ 176	\$ 166	\$ 181
Total investment per acre	\$	\$ 236	\$ 221	\$ 243

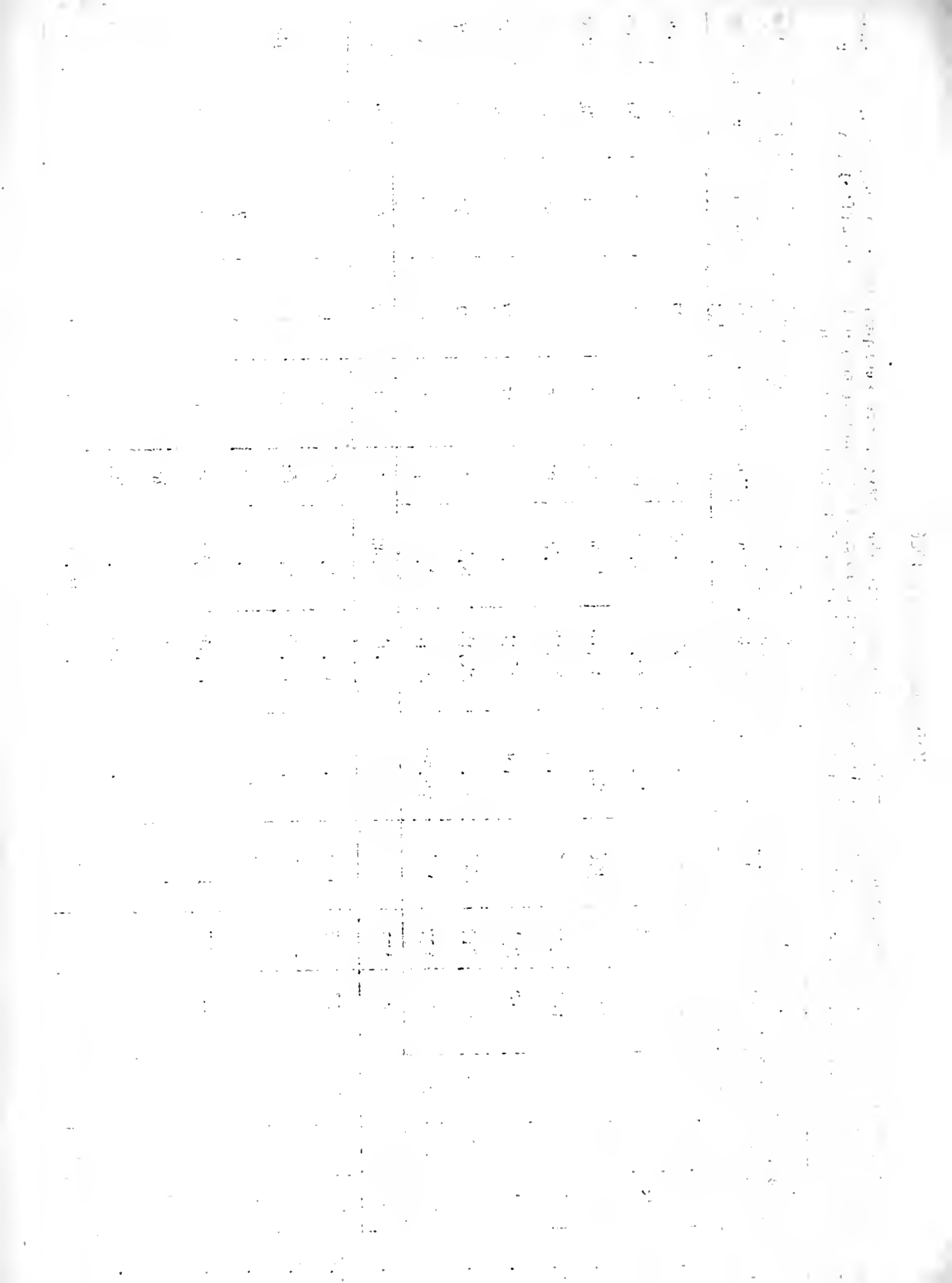


McDonough County

Items	Your farm	Average of 26 farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$42,610	\$36,328	\$48,704
2 Land		31,743	27,195	36,199
3 Farm improvements		3,742	3,198	4,322
4 Machinery and equipment		1,446	1,198	1,613
5 Feed and supplies		2,561	1,934	3,232
6 Livestock		3,118	2,803	3,338
7 Horses		559	474	553
8 Cattle		957	859	883
9 Swine		1,287	1,225	1,432
10 Sheep		160	43	349
11 Poultry		155	202	121
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 4,197	\$ 5,086	\$ 3,498
13 Feed and grain		495	652	824
14 Miscellaneous		61	54	52
15 Livestock - Total		3,641	4,380	2,622
16 Horses		4	1	--
17 Cattle		488	542	364
18 Swine		2,493	2,996	1,770
19 Sheep		40	40	49
20 Poultry		161	182	161
21 Egg sales		164	237	69
22 Dairy sales		291	382	209
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 1,561	\$ 1,488	\$ 1,785
24 Farm improvements		253	203	266
25 Livestock		---	---	24
26 Horses		---	---	24
27 Cattle		---	---	--
28 Swine		---	---	--
29 Sheep		---	---	--
30 Poultry		---	---	--
31 Machinery and equipment		352	289	477
32 Feed and supplies		---	---	---
33 Livestock expenses other than feed		73	87	45
34 Crop expense		199	223	216
35 Labor hired		326	308	375
36 Taxes, insurance, etc.		355	355	359
37 Miscellaneous		23	23	23
38 <u>Receipts less Expenses</u>	\$ _____	\$ 2,636	\$ 3,598	\$ 1,713
39 Operator's and unpaid family labor		1,009	864	1,126
40 Net income from investment		1,327	2,734	587

The numbers between the lines across the middle of the page are the approximate averages for your county of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your county.

Rate earned	Bushels of		Returns per \$100 invested in			Invest. per acre in I.S.	Receipts per acre from I.S.	Man labor cost per acre	Crop acres per		Expense per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle	Hogs				Poultry	Man				Tractor	No	tor
10.8	77	58	34	152	317	346	28.50	34.14	3.90	108	35	31	33	44	320	
9.8	73	55	32	142	297	326	26.50	32.14	4.40	103	33	29	37	41	300	
8.8	69	52	30	132	277	306	24.50	30.14	4.90	98	31	27	41	38	280	
7.8	65	49	28	122	257	286	22.50	28.14	5.40	93	29	25	45	35	260	
6.8	61	46	26	112	237	266	20.50	26.14	5.90	88	27	23	49	32	240	
5.8	57	43	24	102	217	246	18.50	24.14	6.40	83	25	21	53	29	220	
4.8	53	40	22	92	197	226	16.50	22.14	6.90	78	23	19	57	26	200	
3.8	49	37	20	82	177	206	14.50	20.14	7.40	73	21	17	61	23	180	
2.8	45	34	18	72	157	186	12.50	18.14	7.90	68	19	15	65	20	160	
1.8	41	31	16	62	137	166	10.50	16.14	8.40	63	17	13	69	17	140	
0.8	37	28	14	52	117	146	8.50	14.14	8.90	58	15	11	73	14	120	
-0.2	33	25	12	42	97	126	6.50	12.14	9.40	53	13	9	77	11	100	
-1.2	29	22	10	32	77	106	4.50	10.14	9.90	48	11	7	81	8	80	
-2.2	25	19	8	22	57	86	2.50	8.14	10.40	43	9	5	85	5	60	
-3.2	21	16	6	12	37	66	----	6.14	10.90	38	7	3	89	2	40	



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

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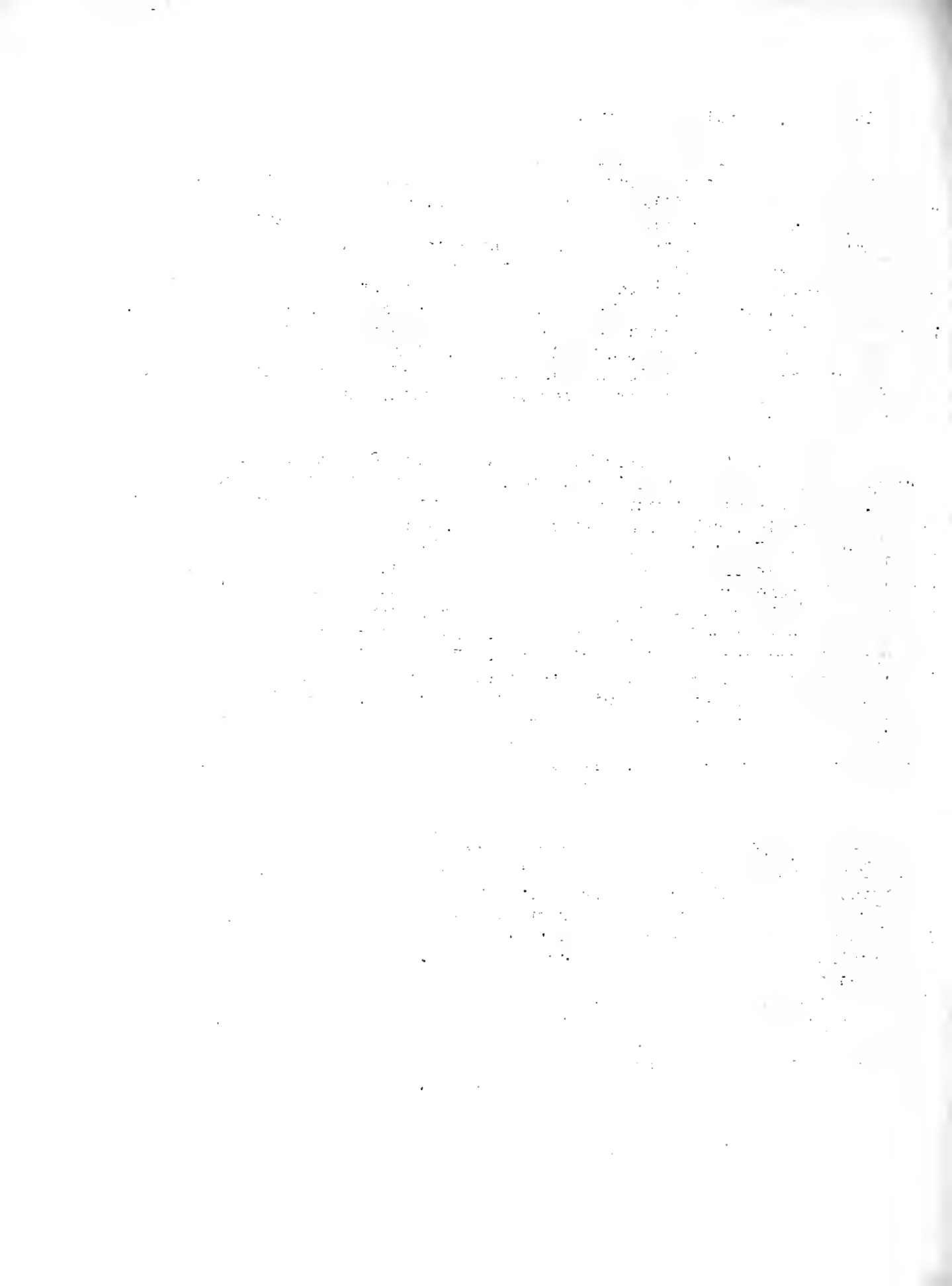
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conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,



and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

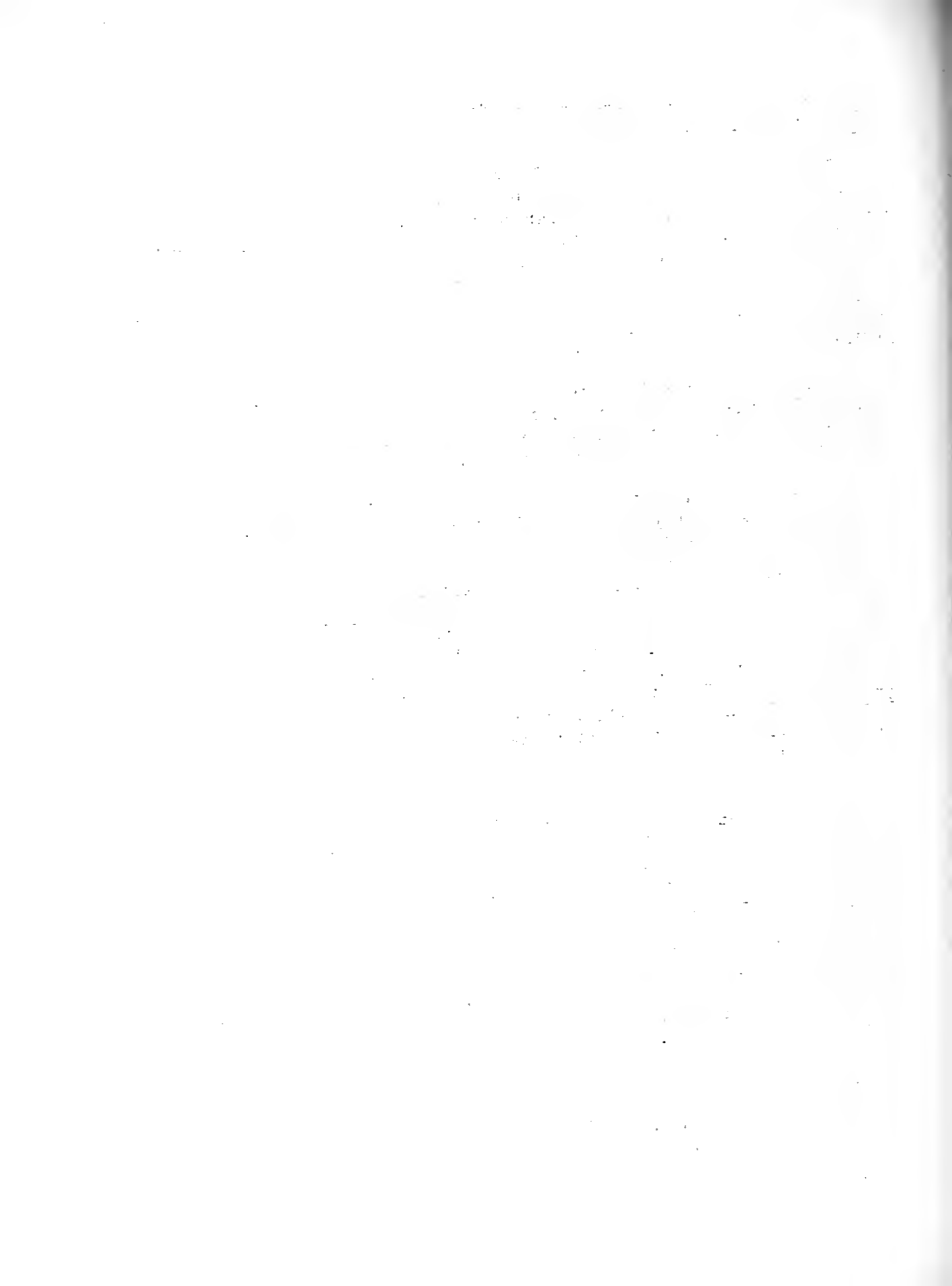
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

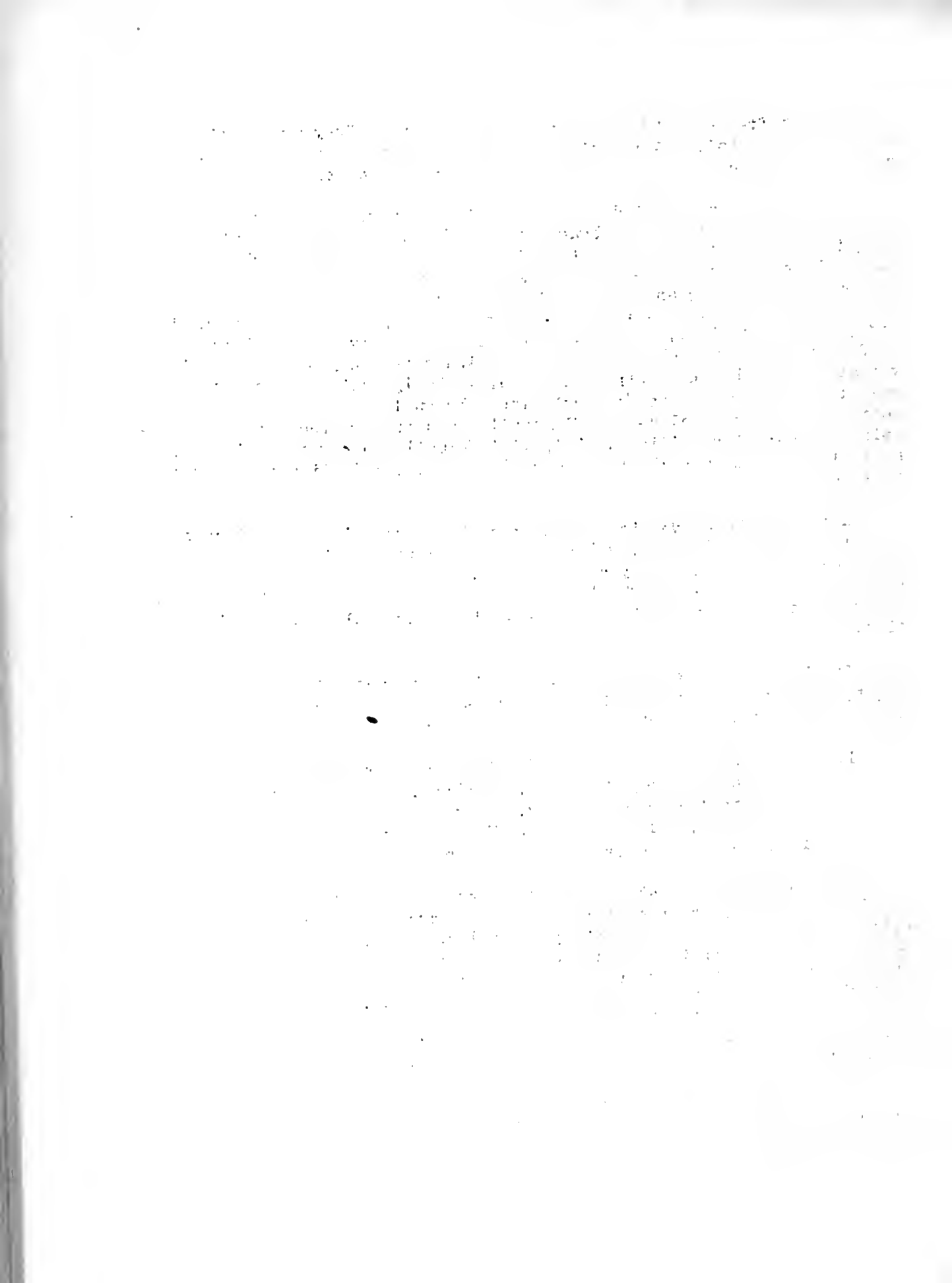
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

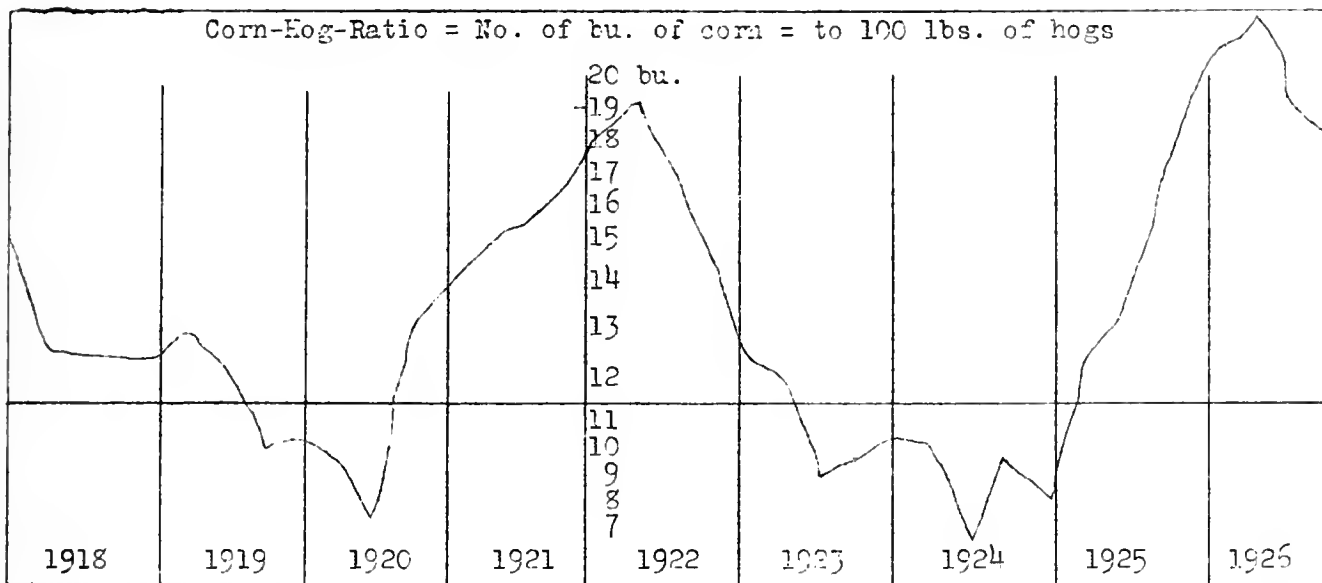
It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

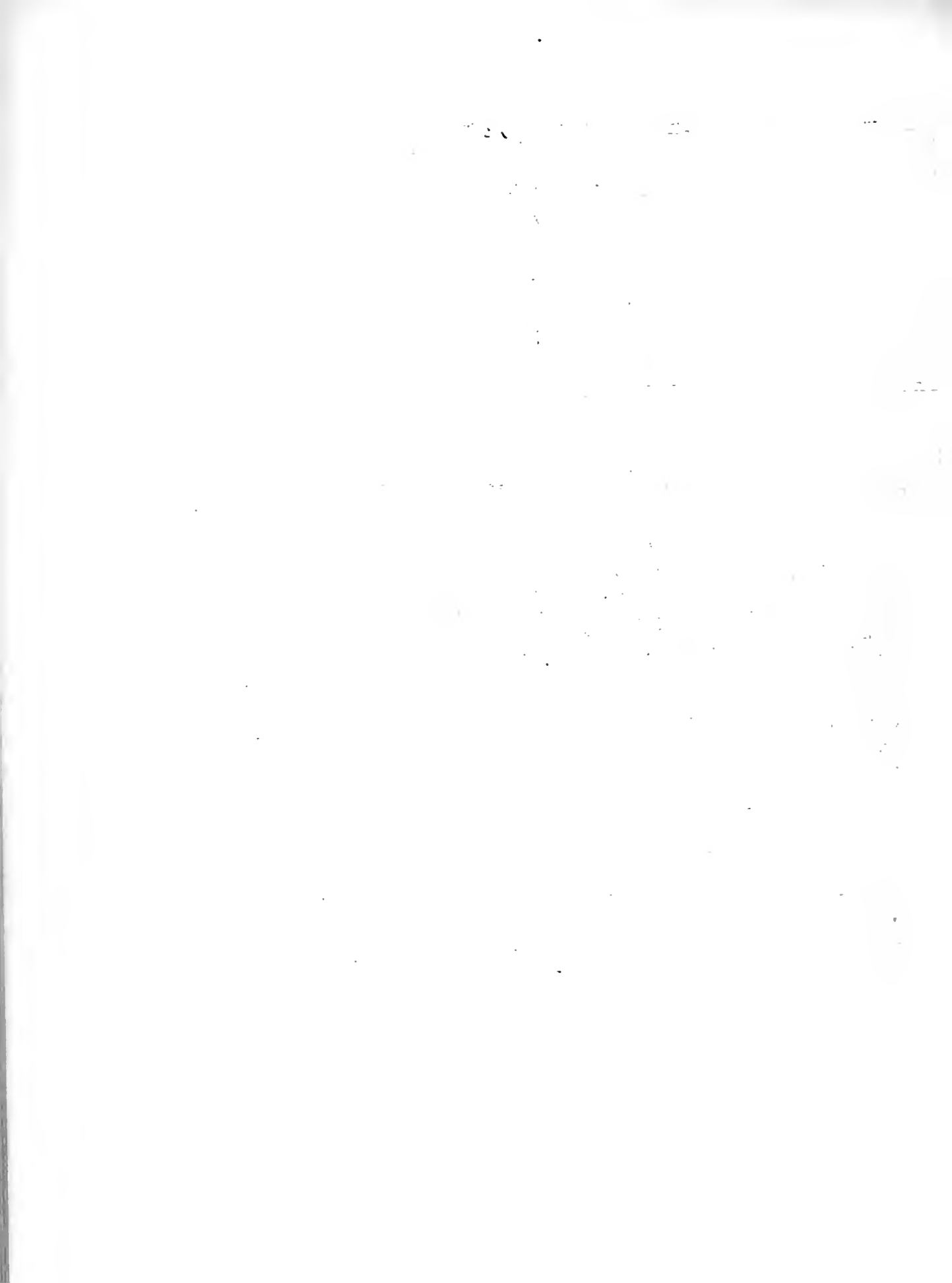
The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.





The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

CHAMPAIGN COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1926

Farm Account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

May, 1927

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REPUBLIC OF SOUTH AFRICA

MINISTER OF EDUCATION

1996/1997 School Year

and

TECHNICAL EDUCATION

1996/1997

TECHNICAL EDUCATION

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These regulations apply to all technical education institutions in the Republic of South Africa.

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ANNUAL FARM BUSINESS REPORT

Champaign County, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. C. M. Case*

The 30 farmers in Champaign county who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$185 to pay for their labor, management, and risk after paying expenses and allowing 5 percent interest on their average investment of \$246 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,141 while the one-third who were least successful lacked an average of \$876 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,017 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 30 farmers earned 4.1 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 5.93 percent and the least successful third 1.83 percent. The average investment on the 30 farms was \$55,343, which amounts to \$246 an acre. The higher profit third had an average investment of \$249 and the lower profit third \$243 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$203 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

There was no important difference in average size of farm between the high and low profit groups. Their total investment per farm was also about the same. The average farm in each group contained a little over 200 acres and nearly all of it was tillable land. The entire 30 farms averaged 44 percent of their land in corn, 20 percent in oats, and 9 percent in wheat. The ten most profitable farms had 18 acres less oats and 15 acres

*C. C. Burns, farm adviser in Champaign County, cooperated in supervising and collecting the records used in this report.

Washington, D. C. 20535

TO : DIRECTOR, FBI (100-441100)

FROM : SAC, NEW YORK (100-100000)

SUBJECT: [Illegible]

RE: [Illegible]

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more wheat per farm than the ten least profitable farms. Since wheat is a more profitable crop than oats under present conditions, this advantage in wheat acreage helped to increase net earnings.

The more successful farms raised 5 bushels more corn, 7 bushels more oats, and 2 bushels more wheat per acre than the less successful farms. This is less difference in yield than was shown between these groups in previous reports. Since the cost of operating an acre of land increases very little with increasing yields, any advantage in yield usually helps to increase profits.

Although the Champaign county farms included in the farm accounting project show a smaller livestock investment per acre than farms of most other sections of the state, the amount and efficiency of livestock had some influence on relative profits. The high profit farms averaged almost \$600 more livestock income per farm than the low profit farms. This larger income was derived from dairy products, poultry products, and hogs. The more successful farm operators had about one dollar an acre more livestock investment but they received about \$2.60 an acre more livestock income than their less successful neighbors.

Operating costs including man labor, equipment, improvements, etc., differed only slightly between the two groups of farms. Higher earnings on the more successful farms were a result of larger gross income rather than smaller expenses. Economy in costs appears to be more in using each unit of labor, power, equipment, and cash expense so as to bring the largest increase in gross income than in actually cutting down the amounts of these cost items per farm.

Although there has been some shifting in the individual farms covered by these reports, it is interesting to compare earnings and investments in the following table. It should be noted that in 1924 the records from Champaign county were combined with the records from Ford county and eastern McLean county. This is responsible for some of the differences shown in results such as the amount of livestock per farm. The influence of higher grain prices in 1924 is strikingly brought out in net earnings and in gross income from crops. The figures showing gross income from different farm enterprises emphasize the extent to which these Champaign county farms depend on crop sales for their income. Allowing for changes in inventory values the inventory figures for these farms show little inclination to shift to livestock under pressure of low grain prices. There does appear to be some increase in the poultry enterprise.

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Comparative Earnings on Champaign County Farms

Item	1924*	1925	1926
Number of farm records	52	30	30
Average size of farm in acres	223	214	225
Average rate earned	7.4%	3.5%	4.1%
Average value of land per acre	\$ 198	\$ 201	\$ 203
Average investment per acre	242	251	246
Investment in livestock per farm	2,210	1,654	1,949
Investment in cattle per farm	675	572	656
Investment in hogs per farm	548	256	318
Investment in poultry per farm	151	148	203
Gross income per acre	29.44	20.67	22.50
Operating cost per acre	11.43	11.82	12.42
Grain sales less feed purchases per farm	4,620	2,841	3,379
Miscellaneous income per farm	83	115	74
Livestock income per farm	1,873	1,482	1,609
Gross income per farm	6,576	4,438	5,062
Cattle income per farm	358	182	196
Dairy income per farm	268	371	317
Hog income per farm	886	609	724
Poultry income per farm	233	287	356

Some points of strength and some of weakness in your farm business may be found by comparing the factors from your own record in the following tables with the same factors on the average farm as well as on farms of the high and low profit groups.

*Records for Champaign and Ford counties and the eastern part of McLean county were included for 1924.

Champaign County - 1926

Factors helping to analyze the farm business	Your farm	Average of thirty farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	4.10%	5.93%	1.83%
Labor and management wage	\$	\$ 185	\$ 1,141	\$ -876
Size of farm - acres	A	225 A	216.3 A	209.7 A
Percent of land area tillable	%	95.5 %	96.0 %	96.7 %
Acres in Corn	A	99.6 A	92.3 A	94.6 A
Oats	A	43.7 A	26.2 A	44.6 A
Wheat	A	19.9 A	25.8 A	11.2 A
Crop yields - Corn	bu.	49.9bu.	52.4bu.	47.2bu.
Oats	bu.	38.7bu.	40.3bu.	33.3bu.
Wheat	bu.	26.3bu.	26.8bu.	24.8bu.
Returns per \$100 invested in all productive livestock	\$	\$ 132.00	\$ 145.00	\$ 123.00
For \$100 in Cattle	\$	\$ 82.00	\$ 85.00	\$ 70.00
Hogs	\$	\$ 202.00	\$ 242.00	\$ 207.00
Poultry	\$	\$ 169.00	\$ 158.00	\$ 179.00
Investment per acre in productive livestock	\$	\$ 5.42	\$ 5.95	\$ 4.92
Receipts per acre from productive livestock	\$	\$ 7.15	\$ 8.64	\$ 6.05
Man labor cost per acre	\$	\$ 5.84	\$ 5.79	\$ 6.22
Crop acres per man	A	98.3 A	98.8 A	87.7 A
Crop acres per horse (with tractor)	A	28.6 A	31.1 A	25.1 A
(wwithout tractor)	A	18.1 A	18.9 A	18.2 A
Expense per \$100 gross income	\$	\$ 55.00	\$ 46.00	\$ 74.00
Machinery cost per acre	\$	\$ 2.10	\$ 2.33	\$ 2.01
Building and fencing cost per acre	\$	\$.91	\$.86	\$.78
Gross receipts per acre	\$	\$ 22.50	\$ 27.24	\$ 17.16
Total expenses per acre	\$	\$ 12.42	\$ 12.50	\$ 12.71
Net receipts per acre	\$	\$ 10.08	\$ 14.74	\$ 4.45
Percent of farms with tractor	%	70 %	50 %	60 %
Value of land per acre	\$	\$ 203.00	\$ 208.00	\$ 196.00
Total investment per acre	\$	\$ 246.00	\$ 249.00	\$ 243.00

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Champaign County - 1926

Item	Your farm	Average of thirty farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$55,343	\$53,785	\$50,885
2 Land		45,675	44,957	41,084
3 Farm improvements		3,310	3,229	3,440
4 Machinery and equipment		1,583	1,468	1,577
5 Feed and supplies		2,826	2,217	2,971
6 Livestock		1,949	1,914	1,813
7 Horses		748	722	765
8 Cattle		656	628	617
9 Hogs		318	238	266
10 Sheep		24	---	28
11 Poultry		203	326	137
12 <u>Receipts-Net Increases-Total</u>	\$	\$ 5,062	\$ 5,892	\$ 3,599
13 Feed and grain		3,379	3,960	2,272
14 Miscellaneous		74	65	58
15 Livestock - Total		1,609	1,867	1,269
16 Horses		--	13	--
17 Cattle		196	154	176
18 Hogs		724	737	580
19 Sheep		16	--	19
20 Poultry		214	344	143
21 Egg sales		142	214	123
22 Dairy sales		317	405	228
23 <u>Expenses-Net Decreases-Total</u>	\$	\$ 1,883	\$ 1,781	\$ 1,704
24 Farm improvements		204	186	164
25 Livestock		3	--	21
26 Horses		3	--	21
27 Cattle		--	--	--
28 Hogs		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		472	505	422
32 Feed and supplies		--	--	--
33 Livestock expense other than feed		41	72	22
34 Crop expense		215	145	228
35 Labor hired		403	329	342
36 Taxes, insurance, etc.		515	509	478
37 Miscellaneous		30	35	27
38 <u>Receipts less Expenses</u>	\$	\$ 3,179	\$ 4,111	\$ 1,895
39 Operator's and unpaid family labor		912	923	962
40 Net income from investment		2,267	3,188	933

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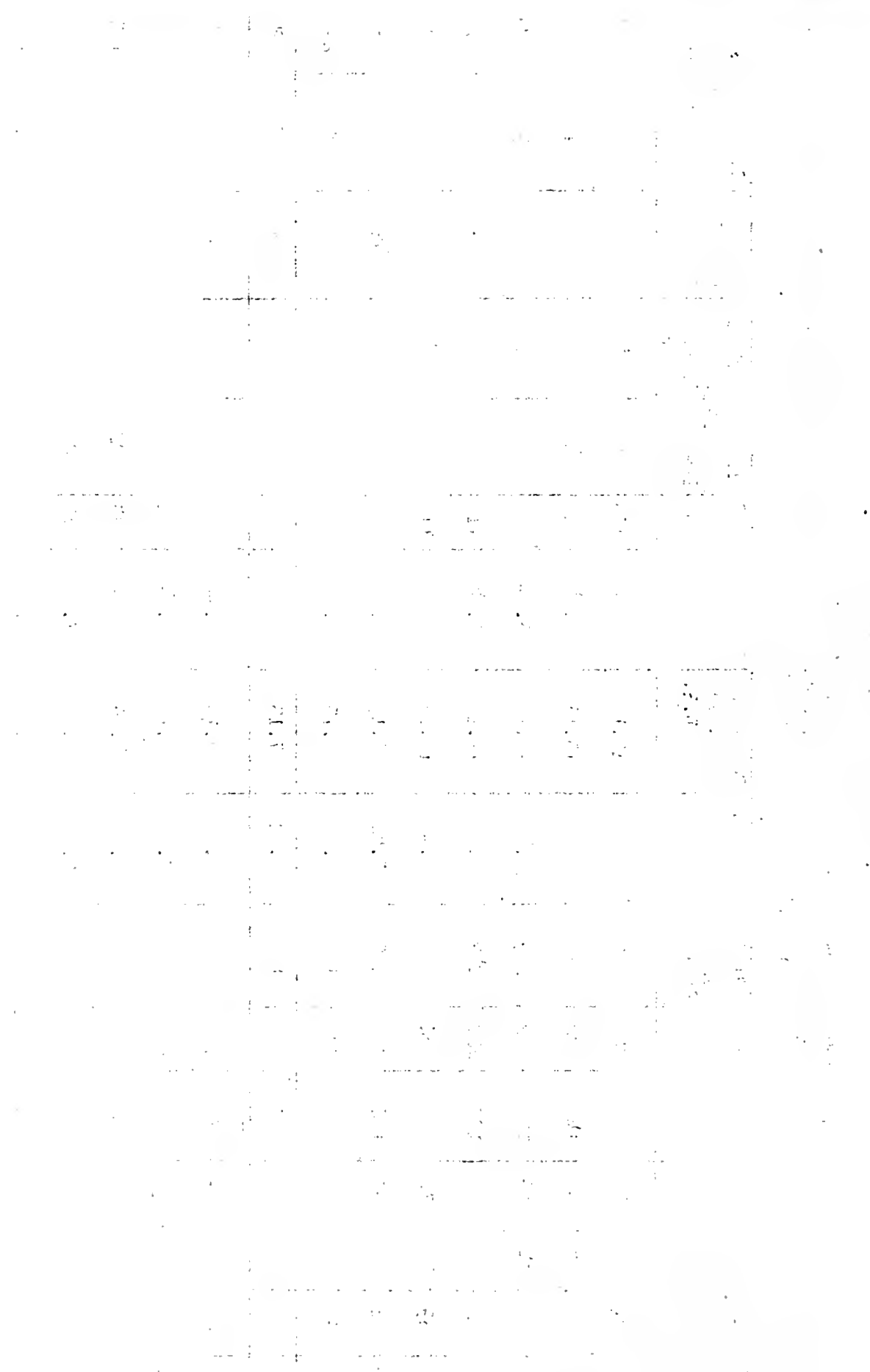
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Find Your Farm Leaks

Champaign County, 1926

The numbers between the lines across the middle of the page are the approximate averages for your county of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per acre in L. S.	Receipts per acre from L. S.	Man labor cost per acre	Crop acres per		Expense per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Cattle	Hogs				Poultry	Man				Tractor	No	tor
11.10	71	60	40	342	309	12.42	14.15	2.34	133	42	32	20	43	365	
10.10	68	57	38	322	289	11.42	13.15	2.84	128	40	30	25	40	345	
9.10	65	54	36	302	269	10.42	12.15	3.34	123	38	28	30	37	325	
8.10	62	51	34	282	249	9.42	11.15	3.84	118	36	26	35	34	305	
7.10	59	48	32	262	229	8.42	10.15	4.34	113	34	24	40	31	285	
6.10	56	45	30	242	209	7.42	9.15	4.84	108	32	22	45	28	265	
5.10	53	42	28	222	189	6.42	8.15	5.34	103	30	20	50	25	245	
4.10	50	39	26	202	169	5.42	7.15	5.84	98	28	18	55	22	225	
3.10	47	36	24	182	149	4.42	6.15	6.34	93	26	16	60	19	205	
2.10	44	33	22	162	129	3.42	5.15	6.84	88	24	14	65	16	185	
1.10	41	30	20	142	109	2.42	4.15	7.34	83	22	12	70	13	165	
0.10	38	27	18	122	89	0.42	3.15	7.84	78	20	10	75	10	145	
-0.90	35	24	15	102	69	--	2.15	8.34	73	18	8	80	7	125	
-1.90	32	21	14	82	49	--	1.15	8.84	68	16	6	85	4	105	
-2.90	29	18	12	62	29	--	--	9.34	63	14	4	90	--	85	



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

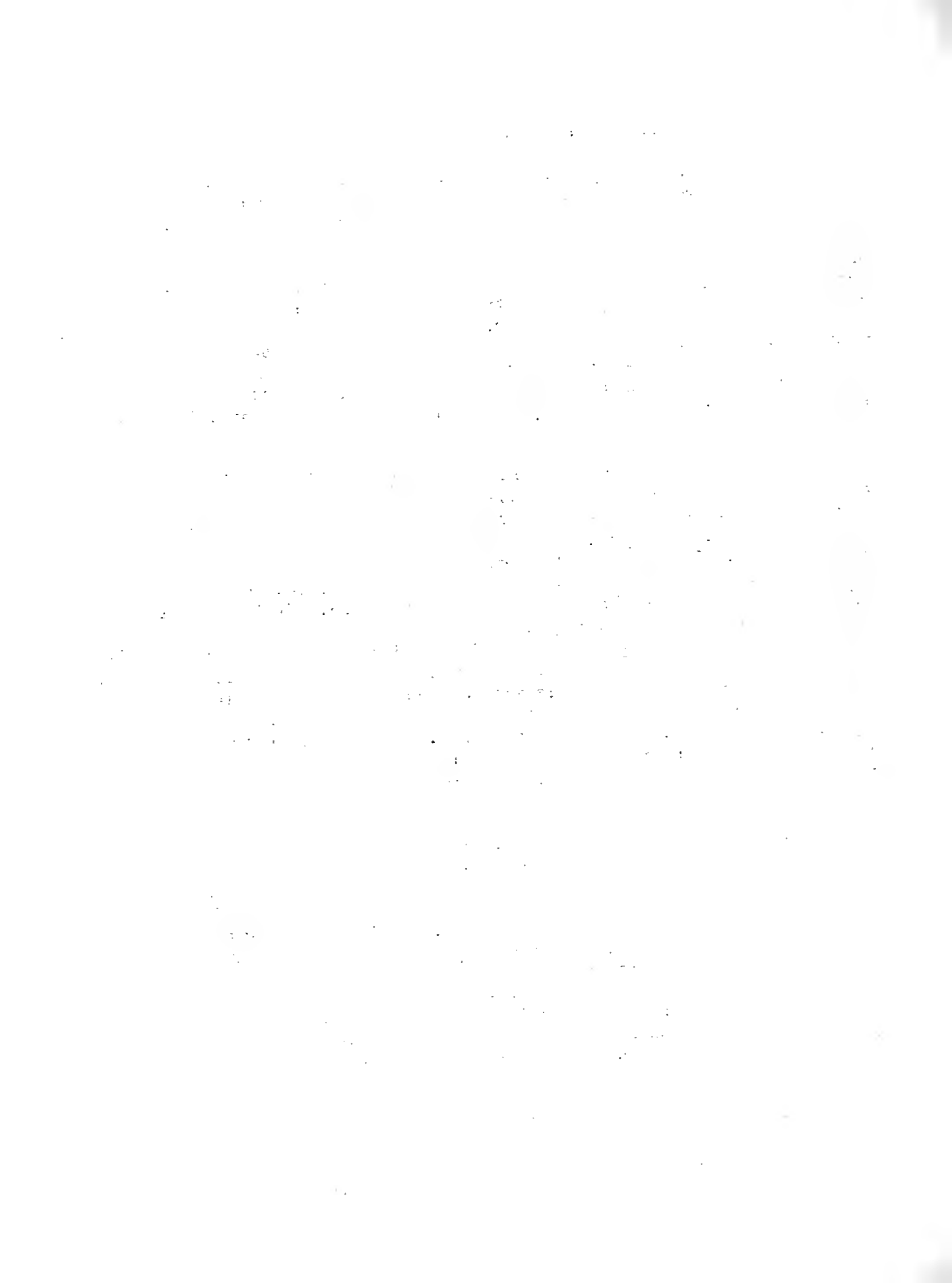
It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,



end of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

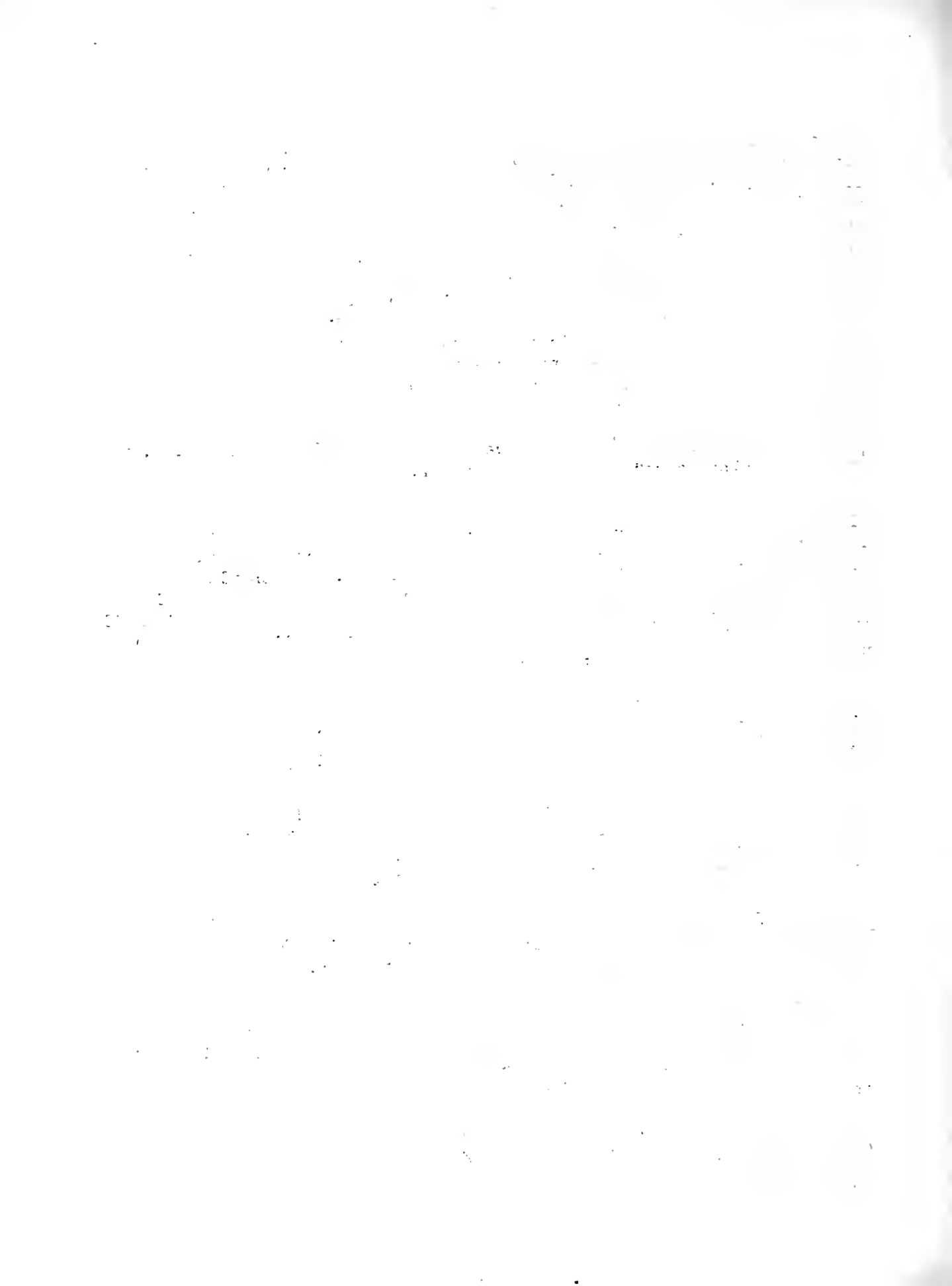
as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in



supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

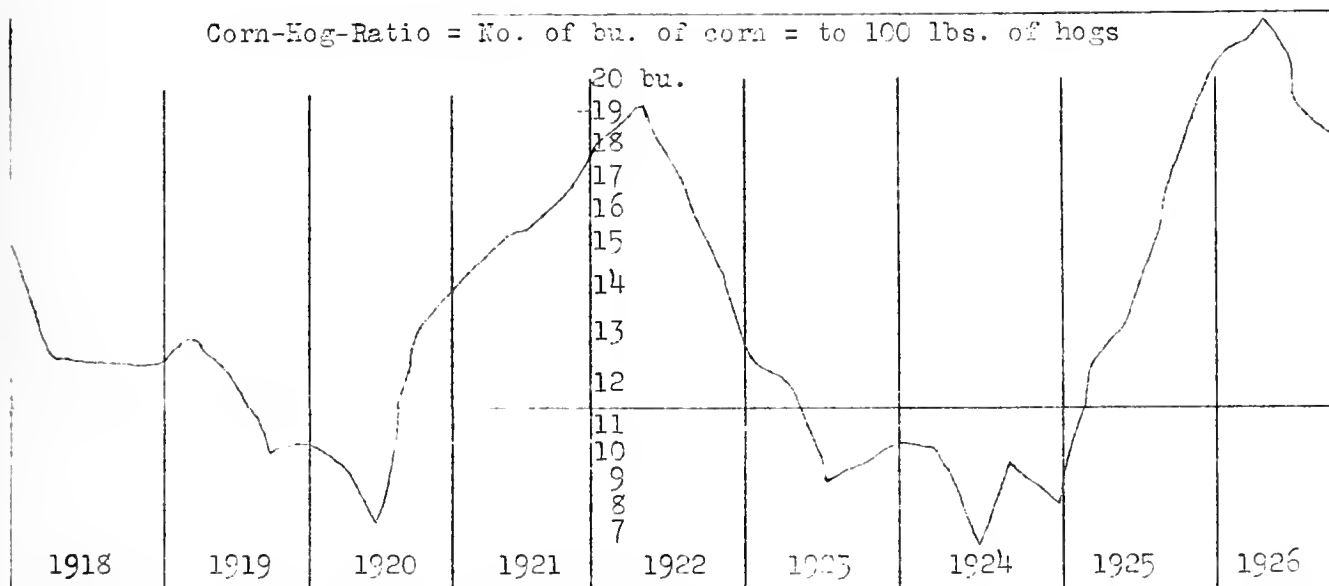
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|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

The following table shows the results of the experiment. The first column is the number of trials, the second column is the number of correct responses, and the third column is the percentage of correct responses.

Number of trials	Number of correct responses	Percentage of correct responses
10	7	70%
20	14	70%
30	21	70%
40	28	70%
50	35	70%
60	42	70%
70	49	70%
80	56	70%
90	63	70%
100	70	70%



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

MACON, LOGAN, PIATT COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-eight Farms

for

1926

Farm Account keepers say:

"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

May, 1927

M47

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C. 20535

MEMORANDUM FOR THE DIRECTOR, FBI
FROM: SAC, NEW YORK (100-100000)

RE: [REDACTED]

DATE: 1/15/68

NY

NY

Enclosed for the Bureau are two copies of a letterhead memorandum
dated and captioned as above. A copy of this memorandum is being
retained in the New York file.

Very truly yours,

[REDACTED]

NY

ANNUAL FARM BUSINESS REPORT

Macon, Logan, Piatt Counties, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. C. M. Case*

The 28 farmers in Macon, Logan, and Piatt counties who kept financial records in the Illinois Farm Account Project for 1926 lacked an average of \$265 of having enough income to pay operating costs and 5 percent interest on their average investment of \$244 an acre, allowing nothing for their labor, management, and risk. The one-third of these farmers who made the best profits had an average labor and management wage of \$783 in addition to paying operating costs and 5 percent interest, while the one-third who were least successful lacked an average of \$1,254 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,037 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 28 farmers earned 3.27 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 5.18 percent and the least successful third 0.82 percent. The average investment on the 28 farms was \$55,312, which amounts to \$244 an acre. The higher profit third had an average investment of \$252 and the lower profit third \$240 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at \$190 an acre as an average for all farms. The average farm contained 227 acres.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The ten most profitable farms average about fifty acres larger in size than the ten least profitable farms. This, however, is usually a minor consideration in determining relative profits when both groups average around 200 acres or more as they did in this case. Both groups had nearly all tillable land. The more profitable farms averaged about 20 acres more corn and 15 acres more wheat than the less profitable farms but there was little difference in oat acreage. From this it is clear that the more successful farms had a smaller percentage of their land in oats.

*E. H. Welworth, J. H. Checkley, and S. S. Davis, farm advisers in Macon, Logan and Piatt counties respectively, cooperated in supervising and collecting the records used in this report.

MEMORANDUM FOR THE DIRECTOR, FBI
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As to crop yields the more successful farmers raised about 3 bushels more corn, 8 bushels more oats, and 2 bushels more wheat to the acre than their less successful neighbors. Usually we find a larger difference than this between the high and low profit groups but any increase in yield goes directly to improve profits since the cost of operating an acre usually increases but slightly with an increased yield.

The 10 most profitable farms had about twice as large gross incomes per farm as the 10 least profitable farms. This is accounted for in both larger grain and larger livestock incomes. The greater acreage of wheat was a factor in the larger grain sales.

The more successful farm operators had 65 percent larger livestock investments per acre but there appeared to be little difference in the efficiency with which the two groups handled their livestock. With livestock prices more favorable than grain prices for 1926, however, it was a distinct advantage to feed larger numbers of livestock. The more profitable farms had much larger sales of beef cattle and hogs.

Labor was used much more efficiently on the more profitable farms. The operators of these farms worked 18 more crop acres per man, had better yields and more livestock, and a man labor cost per acre about \$1.50 lower than on the less profitable farms.

Other operating costs were also handled with good judgment for the more profitable farms had \$1.70 less operating costs per acre, while their gross income exceeded that of the less profitable farms by \$9.41 an acre. There was a net operating income of \$13.08 an acre for the more successful operators against \$1.97 an acre for their less successful neighbors. It is net income that goes to pay interest and profits.

Some farm records from Mason and McLean counties were included in the report covering Macon, Logan, and Piatt counties for 1925 and this report is, therefore, not strictly comparable with the one for 1925. It is of interest to note, however, that the average rate of interest earned by the farms included for 1925 was 4.1 percent and for those included for 1926, a number of which were the same farms, the rate was 3.27 percent. This reduction in earnings is similar to that experienced in other sections of the state. The excessively wet weather beginning about the middle of August and extending through the fall and winter was a factor in reducing earnings. The outbreak of hog cholera added its toll and grain prices were certainly no better. Operating costs were slightly higher for 1926 but reduced gross incomes had a larger influence on the reduced earnings.

Some points of strength and some of weakness in your own business may be found by comparing the factors from your own record in the following tables with the same factors on the average farm, as well as on farms of the high and low profit groups.

Macon, Logan and Piatt Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of twenty-eight farms	Ten most profitable farms	Ten least profitable farms
Rate earned	\$	3.27%	5.18%	.82%
Labor and management wage	\$	\$ -265	\$ 783	\$-1,254
Size of farm - acres	A	226.8 A	245.0 A	194.9 A
Percent of land area tillable	%	95.1 %	96.4 %	91.1 %
Acres in Corn	A	91.0 A	95.0 A	75.0 A
Oats	A	39.1 A	36.7 A	35.9 A
Wheat	A	24.3 A	29.9 A	15.6 A
Crop yields - Corn	bu.	49.7bu.	51.1bu.	47.9bu.
Oats	bu.	39.0bu.	42.8bu.	34.1bu.
Wheat	bu.	27.8bu.	30.5bu.	28.8bu.
Returns per \$100 invested in all productive livestock	\$	\$ 123.00	\$ 124.00	\$ 122.00
For \$100 in Cattle	\$	\$ 90.00	\$ 107.00	\$ 65.00
Swine	\$	\$ 166.00	\$ 157.00	\$ 201.00
Poultry	\$	\$ 164.00	\$ 151.00	\$ 177.00
Investment per acre in productive livestock	\$	\$ 9.38	\$ 12.56	\$ 7.58
Receipts per acre from productive livestock	\$	\$ 11.54	\$ 15.60	\$ 9.25
Man labor cost per acre	\$	\$ 6.32	\$ 5.87	\$ 7.34
Crop acres per man	A	96.7 A	101.7 A	83.5 A
Crop acres per horse (with tractor)	A	29.4 A	26.3 A	31.0 A
(without tractor)	A	17.4 A	18.7 A	19.9 A
Expense per \$100 gross income	\$	\$ 62.00	\$ 49.00	\$ 88.00
Machinery cost per acre	\$	\$ 1.86	\$ 1.87	\$ 1.98
Building and fencing cost per acre	\$	\$ 1.09	\$.91	\$ 1.59
Gross receipts per acre	\$	\$ 20.95	\$ 25.62	\$ 16.21
Total expenses per acre	\$	\$ 12.97	\$ 12.54	\$ 14.24
Net receipts per acre	\$	\$ 7.98	\$ 13.08	\$ 1.97
Farms with tractor (percent)	%	64.3 %	80 %	60 %
Value of land per acre	\$	\$ 190.00	\$ 193.00	\$ 186.00
Total investment per acre	\$	\$ 244.00	\$ 252.00	\$ 240.00

Date	Description	Amount	Balance
1912	Jan 1		100.00
	Jan 15	50.00	50.00
	Feb 1	25.00	25.00
	Feb 15	10.00	15.00
	Mar 1	30.00	15.00
	Mar 15	15.00	0.00
	Apr 1	20.00	20.00
	Apr 15	10.00	10.00
	May 1	15.00	25.00
	May 15	5.00	20.00
	Jun 1	10.00	10.00
	Jun 15	5.00	5.00
	Jul 1	15.00	20.00
	Jul 15	10.00	10.00
	Aug 1	20.00	30.00
	Aug 15	15.00	15.00
	Sep 1	10.00	5.00
	Sep 15	5.00	0.00
	Oct 1	15.00	15.00
	Oct 15	10.00	5.00
	Nov 1	20.00	25.00
	Nov 15	15.00	10.00
	Dec 1	10.00	0.00
	Dec 15	5.00	5.00
	1913		
	Jan 1		5.00
	Jan 15	10.00	15.00
	Feb 1	5.00	10.00
	Feb 15	15.00	25.00
	Mar 1	10.00	15.00
	Mar 15	5.00	10.00
	Apr 1	20.00	30.00
	Apr 15	15.00	15.00
	May 1	10.00	5.00
	May 15	5.00	0.00
	Jun 1	15.00	15.00
	Jun 15	10.00	5.00
	Jul 1	20.00	25.00
	Jul 15	15.00	10.00
	Aug 1	10.00	0.00
	Aug 15	5.00	5.00
	Sep 1	15.00	20.00
	Sep 15	10.00	10.00
	Oct 1	20.00	30.00
	Oct 15	15.00	15.00
	Nov 1	10.00	5.00
	Nov 15	5.00	0.00
	Dec 1	15.00	15.00
	Dec 15	10.00	5.00
	1914		
	Jan 1		5.00
	Jan 15	10.00	15.00
	Feb 1	5.00	10.00
	Feb 15	15.00	25.00
	Mar 1	10.00	15.00
	Mar 15	5.00	10.00
	Apr 1	20.00	30.00
	Apr 15	15.00	15.00
	May 1	10.00	5.00
	May 15	5.00	0.00
	Jun 1	15.00	15.00
	Jun 15	10.00	5.00
	Jul 1	20.00	25.00
	Jul 15	15.00	10.00
	Aug 1	10.00	0.00
	Aug 15	5.00	5.00
	Sep 1	15.00	20.00
	Sep 15	10.00	10.00
	Oct 1	20.00	30.00
	Oct 15	15.00	15.00
	Nov 1	10.00	5.00
	Nov 15	5.00	0.00
	Dec 1	15.00	15.00
	Dec 15	10.00	5.00

1914

Macon, Logan and Piatt Counties, 1926

Items	Your farm	Average of twenty-eight farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$55,312	\$61,838	\$46,728
2 Land		43,069	47,326	36,277
3 Farm improvements		4,243	4,829	3,992
4 Machinery and equipment		1,594	1,780	1,551
5 Feed and supplies		3,521	3,941	2,990
6 Livestock		2,885	3,962	1,918
7 Horses		744	730	623
8 Cattle		1,012	1,677	654
9 Swine		885	1,361	437
10 Sheep		90	59	55
11 Poultry		154	135	149
12 <u>Receipts-Net Increases-Total</u>	\$	\$ 4,752	\$ 6,277	\$ 3,160
13 Feed and grain		2,074	2,373	1,298
14 Miscellaneous		51	83	59
15 Livestock - Total		2,617	3,821	1,803
16 Horses		--	--	--
17 Cattle		666	1,600	141
18 Swine		1,384	1,791	1,005
19 Sheep		39	65	12
20 Poultry		143	126	153
21 Egg sales		123	92	134
22 Dairy sales		262	147	358
23 <u>Expenses-Net Decreases-Total</u>	\$	\$ 2,002	\$ 2,231	\$ 1,738
24 Farm improvements		248	223	309
25 Livestock		15	22	5
26 Horses		15	22	5
27 Cattle		-	-	-
28 Swine		-	-	-
29 Sheep		-	-	-
30 Poultry		-	-	-
31 Machinery and equipment		421	458	385
32 Feed and supplies		-	-	-
33 Livestock expense other than feed		58	63	54
34 Crop expense		248	259	163
35 Labor hired		494	596	392
36 Taxes, insurance, etc.		494	589	407
37 Miscellaneous		24	21	23
38 <u>Receipts less Expenses</u>	\$	\$ 2,750	\$ 4,046	\$ 1,422
39 Operator's and unpaid family labor		940	842	1,038
40 Net income from investment		1,810	3,204	384

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Find Your Farm Leaks

Macon, Logan and Piatt Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of			Returns per \$100 invested in		Invest. per acre in U.S.	Receipts per acre from U.S.	Man labor cost per acre	Crop acres per			Expense per \$100 income	Gross receipts per acre	Size of farm		
	Corn	Oats	Wheat	Cattle	Hogs				Poultry	Man	Horse				Tractor	
											No					trac-
10.27	85	60	42	160	306	304	23.38	25.54	2.82	132	44	31	27	42	367	
9.27	80	57	40	150	286	284	21.38	23.54	3.32	127	42	29	32	39	347	
8.27	75	54	38	140	266	264	19.38	21.54	3.82	122	40	27	37	36	327	
7.27	70	51	36	130	246	244	17.38	19.54	4.32	117	38	25	42	33	307	
6.27	65	48	34	120	226	224	15.38	17.54	4.82	112	36	23	47	30	287	
5.27	60	45	32	110	206	204	13.38	15.54	5.32	107	34	21	52	27	267	
4.27	55	42	30	100	186	184	11.38	13.54	5.82	102	32	19	57	24	247	
3.27	50	39	28	90	166	164	9.38	11.54	6.32	97	30	17	62	21	227	
2.27	45	36	26	80	146	144	7.38	9.54	6.82	92	28	15	67	18	207	
1.27	40	33	24	70	126	124	5.38	7.54	7.32	87	26	13	72	15	187	
0.27	35	30	22	60	106	104	3.38	5.54	7.82	82	24	11	77	12	167	
-0.73	30	27	20	50	86	84	1.38	3.54	8.32	77	22	9	82	9	147	
-1.73	25	24	18	40	66	64	----	1.54	8.82	72	20	7	87	6	127	
-2.73	20	21	16	30	46	44	----	----	9.32	67	18	5	92	3	107	
----	15	18	14	20	26	24	----	----	9.82	62	16	3	97	-	87	

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the problem and the objectives of the research.

2. The second part of the report is a detailed description of the methods used in the study. This includes a discussion of the experimental design, the data collection procedures, and the statistical methods used for data analysis.

3. The third part of the report is a presentation of the results of the study. This includes a discussion of the findings, a comparison of the results with previous research, and a discussion of the implications of the findings.

4. The fourth part of the report is a conclusion and a discussion of the limitations of the study. This includes a summary of the main findings, a discussion of the strengths and weaknesses of the study, and suggestions for future research.

5. The fifth part of the report is a list of references. This includes a list of all the books, articles, and other sources that were consulted during the course of the study.

6. The sixth part of the report is an appendix. This includes any additional information that is relevant to the study but that does not fit into the main body of the report.

7. The seventh part of the report is a list of figures and tables. This includes a list of all the figures and tables that are included in the report, along with a brief description of each.

8. The eighth part of the report is a list of abbreviations. This includes a list of all the abbreviations that are used in the report, along with their full names.

9. The ninth part of the report is a list of symbols. This includes a list of all the symbols that are used in the report, along with their meanings.

ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

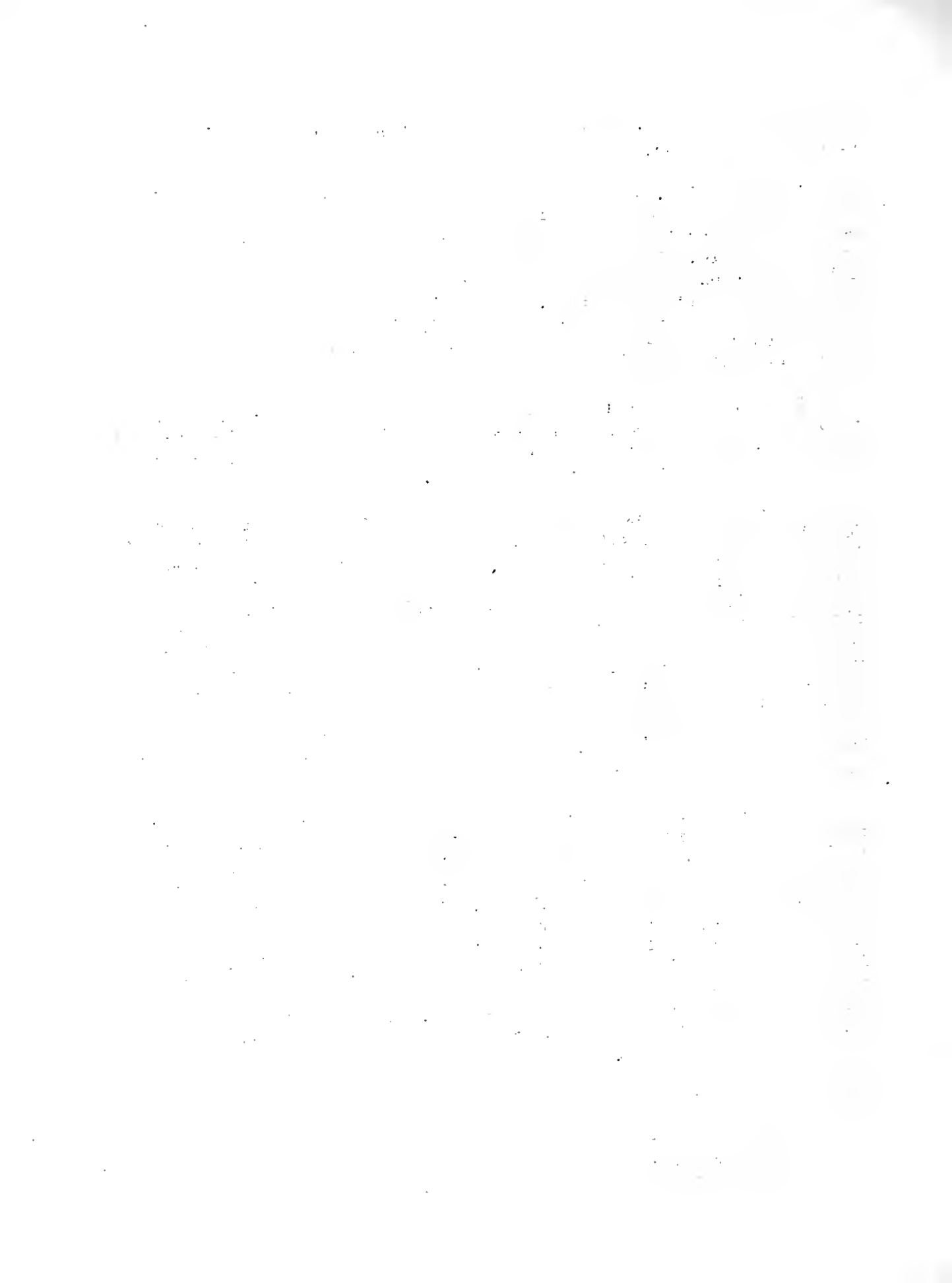
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in



supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

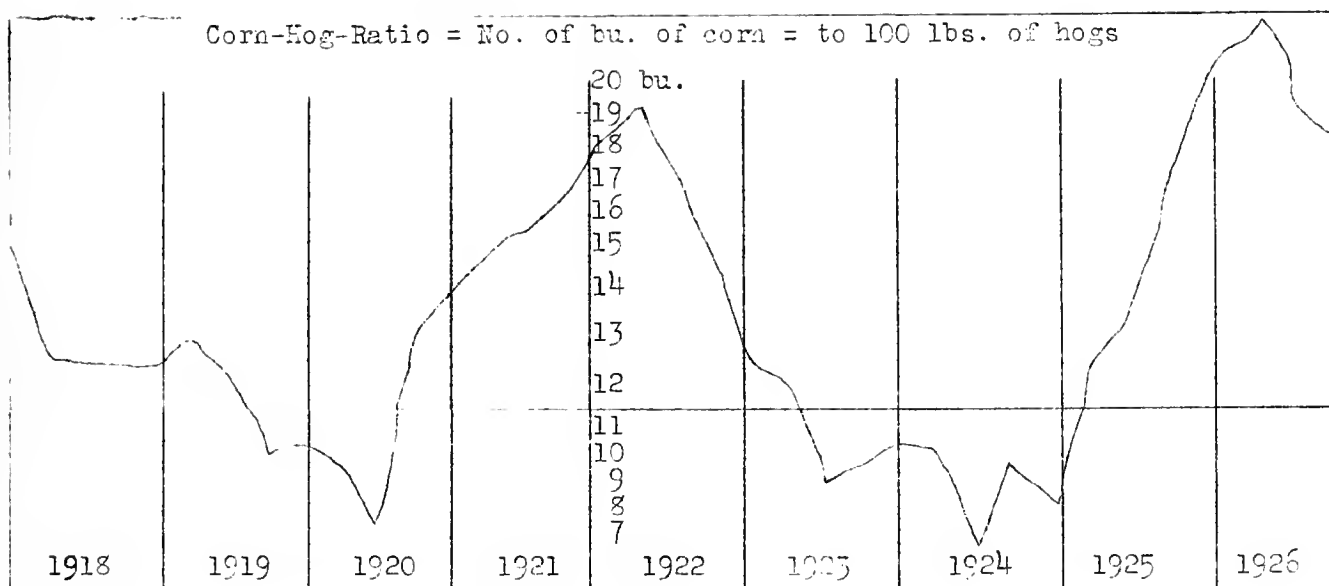
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

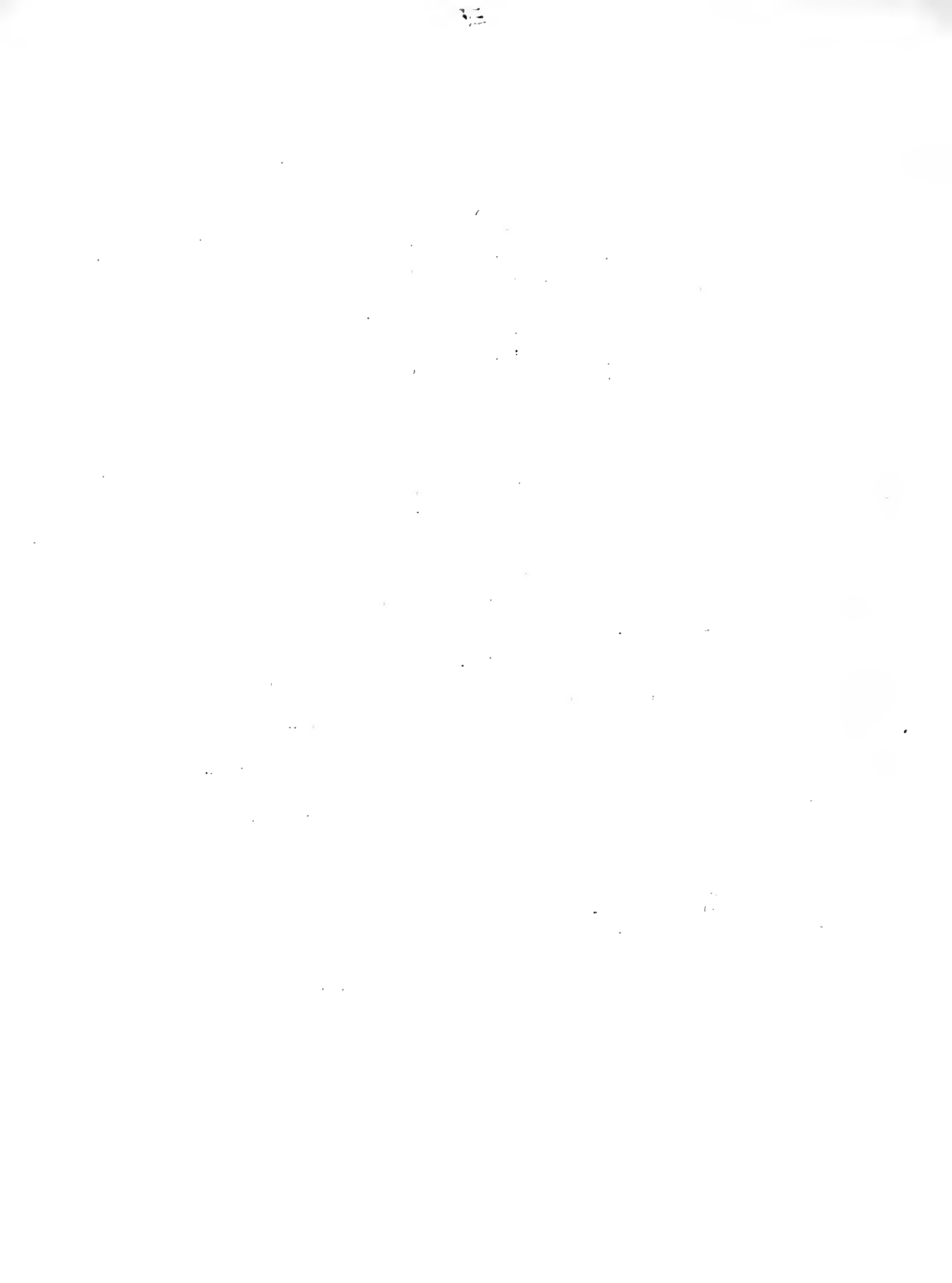
In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE
Department of Farm Organization and Management
and
HANCOCK AND ADAMS COUNTY FARM BUREAUS
Cooperating

ANNUAL FARM BUSINESS REPORT

on
Thirty-two Farms
for
1926

Farm Account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

April 20, 1927

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ANNUAL FARM BUSINESS REPORT

Hancock and Adams Counties, Illinois-1926

Prepared by R. R. Hudelson, P. E. Johnston, G. W. Kuhlman, H. C. M. Case*

The 32 farmers in Hancock and Adams counties who kept financial records in the Illinois Farm Account Project for 1925 lacked an average of \$122 each of having enough income to pay operating costs and 5 percent interest on their average investment of \$190 an acre, allowing nothing for their labor, management, and risk. The one-third of these farmers who made the best profits paid operating expenses and 5 percent on the investment and had left an average labor and management wage of \$1,032, while the one-third who were least successful lacked an average of \$964 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$1,996 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 32 farmers earned 3.41 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 5.91 percent and the least successful third 1.33 percent. The average investment on the 32 farms was \$45,034, which amounts to \$190 an acre. The higher profit third had an average investment of \$185 and the lower profit third \$188 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops listed in the table on page 4. The land alone was valued at \$137 an acre on the average farm.

In addition to the above earnings, each family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The 10 most profitable farms had only about 14 acres more land but with a higher percentage of tillable land they had 39 more potential crop acres than the 10 least profitable farms. The average farm in either group was large enough to farm efficiently. The average size of all farms keeping accounts was 236 acres. There was little difference between groups in the number of acres of the chief grain crops.

*J. H. Lloyd, and Ray E. Miller, farm advisers in Hancock and Adams Counties, respectively, cooperated in supervising and collecting the records used in this report.

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As to crop yields the higher profit group raised 2 bushels more corn and one bushel less oats. The number of acres of wheat was so small that a difference in yield had little effect on earnings. Difference in crop yields was, therefore, of little significance between the high and low profit groups in this case. Reports for other years and for other sections of Illinois in 1926 show a greater advantage in yield for the high profit group of farms.

The biggest difference between the high and low profit groups was in their livestock efficiency. The low profit group had three dollars an acre more livestock investment but secured \$8.15 an acre less income from livestock. The more successful farmers secured \$185 of livestock income for every \$100 of investment in livestock, while the less successful group secured only \$99 income for every \$100 of livestock investment. This greater efficiency of the more successful farmers in livestock management is uniform for all classes of productive livestock. They received \$52 more cattle income, \$97 more hog income, and \$78 more poultry income per \$100 invested than was received by the farmers of the less successful group. This with the relatively large investment in livestock on these farms constituted a great advantage in favor of the more profitable farms. Both groups spent more for feed than they received from crop sales, but the amounts were small on the average as compared with their livestock income. The net feed purchases of the higher profit group amounted to \$464 per farm and those of the low profit group to \$198 per farm.

The more successful group of farmers had a man labor cost of 61 cents an acre smaller than the less successful group in spite of the fact that they secured \$2,133 more livestock income per farm, indicating better care of livestock. They also worked five more crop acres per man. As to power efficiency they handled more crop acres per horse than the less successful group both on the tractor and the non-tractor farms. Machinery and farm improvement costs were both somewhat smaller on the more profitable farms, and the total operating costs per acre were 40 cents an acre smaller than on the low profit farms. The big difference was not in operating costs but in gross income. Gross receipts amounted to \$24.25 an acre for the more profitable group as compared with \$16.22 for the low profit group.

Although there has been considerable shift in farms included due to the growth of the farm account project, it is of some interest to compare earnings from this report with the corresponding reports for 1924 and 1925. For 1924 fifty-one farms in Adams, McDonough and Hancock counties earned 5.3 percent on an investment of \$216 an acre. For 1925 thirty-eight farms in Hancock, Adams, Brown, Schuyler, and Pike counties earned 6.0 percent on an investment of \$188 an acre. For 1926 thirty-two farms in Hancock and Adams counties earned 3.4 percent on an investment of \$190 an acre. Lower corn yields, less acres of wheat, and higher operating costs all seem to have had an influence in reducing earnings for 1926. All kinds of livestock showed less income per \$100 investment, also, than in 1925. Hog incomes fell most, the apparent cause being losses from hog cholera.

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm, as well as on the farms of the group making the best profits and the group making the least profits.

Hancock and Adams Counties - 1926

Factors helping to analyze the farm business	Your farm	Average of thirty-two farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.41%	5.91%	1.33%
Labor and management wage	\$	\$ -122.	\$ 1,032	\$ -964.
Size of farm - acres	A	236.6 A	233.3 A	219.6 A
Percent of land area tillable	%	81.9 %	84.6 %	72.2 %
Acres in Corn	A	76.1 A	70.8 A	67.4 A
Oats	A	30.4 A	26.7 A	24.9 A
Wheat	A	5.4 A	8.6 A	8.9 A
Crop yields - Corn	bu.	39.0bu.	41.2 bu.	39.2bu.
Oats	bu.	31.9bu.	33.4 bu.	34.6bu.
Wheat	bu.	12.9bu.	10.1 bu.	15.9bu.
Returns per \$100 invested in all productive livestock	\$	\$ 135.00	\$ 185.00	\$ 99.00
For \$100 in Cattle	\$	\$ 78.00	\$ 111.00	\$ 59.00
Hogs	\$	\$ 191.00	\$ 252.00	\$ 155.00
Poultry	\$	\$ 173.00	\$ 214.00	\$ 136.00
Investment per acre in productive livestock	\$	\$ 14.37	\$ 12.78	\$ 15.66
Receipts per acre from productive livestock	\$	\$ 19.43	\$ 23.62	\$ 15.47
Man labor cost per acre	\$	\$ 5.59	\$ 5.54	\$ 6.15
Crop acres per man	A	79.8 A	75.3 A	70.0 A
Crop acres per horse				
(with tractor)	A	25.1 A	27.0 A	18.9 A
(without tractor)	A	20.5 A	19.0 A	17.9 A
Expense per \$100 gross income	\$	\$ 67.00	\$ 55.00	\$ 85.00
Machinery cost per acre	\$	\$ 2.08	\$ 2.07	\$ 2.56
Building and fencing cost per acre	\$	\$ 1.03	\$.95	\$ 1.41
Gross receipts per acre	\$	\$ 19.91	\$ 24.25	\$ 16.22
Total expenses per acre	\$	\$ 13.42	\$ 13.31	\$ 13.71
Net receipts per acre	\$	\$ 6.49	\$ 10.94	\$ 2.51
Farms with tractor (percent)	%	59.0%	50.0%	40.0%
Value of land per acre	\$	\$ 137.00	\$ 133.00	\$ 133.00
Total investment per acre	\$	\$ 190.00	\$ 185.00	\$ 188.00

Hancock and Adams Counties - 1926

Item	Your farm	Average of thirty-two farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$45,034	\$43,145	\$41,355
2 Land		32,473	31,085	29,303
3 Farm improvements		4,625	4,731	4,309
4 Machinery and equipment		1,523	1,382	1,534
5 Feed and supplies		2,554	2,824	2,001
6 Livestock		3,859	3,123	4,208
7 Horses		604	591	687
8 Cattle		1,528	1,012	2,010
9 Hogs		1,483	1,297	1,305
10 Sheep		95	91	71
11 Poultry		149	132	135
12 <u>Receipts-Net Increases-Total</u>	_____	4,711	5,657	3,561
13 Feed and grain		--	--	--
14 Miscellaneous		112	126	163
15 Livestock - Total		4,599	5,531	3,398
16 Horses		3	20	--
17 Cattle		958	993	1,022
18 Hogs		3,078	3,752	2,020
19 Sheep		89	83	65
20 Poultry		105	138	73
21 Egg sales		156	147	107
22 Dairy sales		210	398	111
23 <u>Expenses-Net Decreases-Total</u>	_____	2,410	2,239	2,270
24 Farm improvements		244	222	309
25 Livestock		--	--	8
26 Horses		--	--	8
27 Cattle		--	--	--
28 Hogs		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		491	484	562
32 Feed and supplies		402	464	198
33 Livestock expense other than feed		112	133	93
34 Crop expense		231	179	186
35 Labor hired		558	426	609
36 Taxes, insurance, etc.		344	324	279
37 Miscellaneous		28	7	26
38 <u>Receipts less expenses</u>		2,301	3,418	1,291
39 Operator's and unpaid family labor		764	867	741
40 Net income from investment		1,537	2,551	550

Date	Description	Debit	Credit	Balance
1/1/20	Opening Balance			1000.00
1/5/20	Bank of America	50.00		950.00
1/10/20	Wells Fargo	75.00		875.00
1/15/20	Chase	100.00		775.00
1/20/20	Bank of America	25.00		750.00
1/25/20	Wells Fargo	50.00		700.00
1/30/20	Chase	75.00		625.00
2/5/20	Bank of America	100.00		525.00
2/10/20	Wells Fargo	125.00		400.00
2/15/20	Chase	150.00		250.00
2/20/20	Bank of America	175.00		75.00
2/25/20	Wells Fargo	200.00		(125.00)
2/30/20	Chase	225.00		(350.00)
3/5/20	Bank of America	250.00		(600.00)
3/10/20	Wells Fargo	275.00		(875.00)
3/15/20	Chase	300.00		(1175.00)
3/20/20	Bank of America	325.00		(1500.00)
3/25/20	Wells Fargo	350.00		(1850.00)
3/30/20	Chase	375.00		(2225.00)
4/5/20	Bank of America	400.00		(2625.00)
4/10/20	Wells Fargo	425.00		(3050.00)
4/15/20	Chase	450.00		(3500.00)
4/20/20	Bank of America	475.00		(3975.00)
4/25/20	Wells Fargo	500.00		(4475.00)
4/30/20	Chase	525.00		(5000.00)
5/5/20	Bank of America	550.00		(5550.00)
5/10/20	Wells Fargo	575.00		(6125.00)
5/15/20	Chase	600.00		(6725.00)
5/20/20	Bank of America	625.00		(7350.00)
5/25/20	Wells Fargo	650.00		(7975.00)
5/30/20	Chase	675.00		(8600.00)
6/5/20	Bank of America	700.00		(9200.00)
6/10/20	Wells Fargo	725.00		(9875.00)
6/15/20	Chase	750.00		(10575.00)
6/20/20	Bank of America	775.00		(11275.00)
6/25/20	Wells Fargo	800.00		(11975.00)
6/30/20	Chase	825.00		(12675.00)
7/5/20	Bank of America	850.00		(13375.00)
7/10/20	Wells Fargo	875.00		(14075.00)
7/15/20	Chase	900.00		(14775.00)
7/20/20	Bank of America	925.00		(15475.00)
7/25/20	Wells Fargo	950.00		(16175.00)
7/30/20	Chase	975.00		(16875.00)
8/5/20	Bank of America	1000.00		(17575.00)
8/10/20	Wells Fargo	1025.00		(18275.00)
8/15/20	Chase	1050.00		(18975.00)
8/20/20	Bank of America	1075.00		(19675.00)
8/25/20	Wells Fargo	1100.00		(20375.00)
8/30/20	Chase	1125.00		(21075.00)
9/5/20	Bank of America	1150.00		(21775.00)
9/10/20	Wells Fargo	1175.00		(22475.00)
9/15/20	Chase	1200.00		(23175.00)
9/20/20	Bank of America	1225.00		(23875.00)
9/25/20	Wells Fargo	1250.00		(24575.00)
9/30/20	Chase	1275.00		(25275.00)
10/5/20	Bank of America	1300.00		(25975.00)
10/10/20	Wells Fargo	1325.00		(26675.00)
10/15/20	Chase	1350.00		(27375.00)
10/20/20	Bank of America	1375.00		(28075.00)
10/25/20	Wells Fargo	1400.00		(28775.00)
10/30/20	Chase	1425.00		(29475.00)
11/5/20	Bank of America	1450.00		(30175.00)
11/10/20	Wells Fargo	1475.00		(30875.00)
11/15/20	Chase	1500.00		(31575.00)
11/20/20	Bank of America	1525.00		(32275.00)
11/25/20	Wells Fargo	1550.00		(32975.00)
11/30/20	Chase	1575.00		(33675.00)
12/5/20	Bank of America	1600.00		(34375.00)
12/10/20	Wells Fargo	1625.00		(35075.00)
12/15/20	Chase	1650.00		(35775.00)
12/20/20	Bank of America	1675.00		(36475.00)
12/25/20	Wells Fargo	1700.00		(37175.00)
12/30/20	Chase	1725.00		(37875.00)
1/5/21	Bank of America	1750.00		(38575.00)
1/10/21	Wells Fargo	1775.00		(39275.00)
1/15/21	Chase	1800.00		(40000.00)

Find Your Farm Leaks
(Hancock and Adams Counties - 1926)

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per A. in L.S.	Receipts per acre from L.S.	Man lab- or cost per acre	Crop acres per			Expense per \$100	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle				Hogs	Poultry	Man				Horse		Tractor
														Tractor	No tractor	
10.4	60	53	27	218	331	313	28.37	33.43	2.10	115	39	34	32	41	376	
9.4	57	50	25	198	311	293	26.37	31.43	2.60	110	37	32	37	38	356	
8.4	54	47	23	178	291	273	24.37	29.43	3.10	105	35	30	42	35	336	
7.4	51	44	21	158	271	253	22.37	27.43	3.60	100	33	28	47	32	316	
6.4	48	41	19	138	251	233	20.37	25.43	4.10	95	31	26	52	29	296	
5.4	45	38	17	118	231	213	18.37	23.43	4.60	90	29	24	57	26	276	
4.4	42	35	15	98	211	193	16.37	21.43	5.10	85	27	22	62	23	256	
3.4	39	32	13	78	191	173	14.37	19.43	5.60	80	25	20	67	20	236	
2.4	36	29	11	58	171	153	12.37	17.43	6.10	75	23	18	72	17	216	
1.4	33	26	9	38	151	133	10.37	15.43	6.60	70	21	16	77	14	196	
0.4	30	23	7	18	131	113	8.37	13.43	7.10	65	19	14	82	11	176	
-0.6	27	20	5	--	111	93	6.37	11.43	7.60	60	17	12	87	8	156	
-1.6	24	17	--	--	91	73	4.37	9.43	8.10	55	15	10	92	5	136	
-2.6	21	14	--	--	71	53	2.37	7.43	8.60	50	13	8	97	--	116	
-3.6	18	11	--	--	51	33	0.37	5.43	9.10	45	11	6	102	--	96	

Year	Month	Day	Time	Location	Remarks	Temperature	Wind	Clouds	Humidity	Pressure	Other
1917	10	1	08:00	...	...	...	...	...	...	...	...
1917	10	2	08:00	...	...	...	...	...	...	...	...
1917	10	3	08:00	...	...	...	...	...	...	...	...
1917	10	4	08:00	...	...	...	...	...	...	...	...
1917	10	5	08:00	...	...	...	...	...	...	...	...
1917	10	6	08:00	...	...	...	...	...	...	...	...
1917	10	7	08:00	...	...	...	...	...	...	...	...
1917	10	8	08:00	...	...	...	...	...	...	...	...
1917	10	9	08:00	...	...	...	...	...	...	...	...
1917	10	10	08:00	...	...	...	...	...	...	...	...
1917	10	11	08:00	...	...	...	...	...	...	...	...
1917	10	12	08:00	...	...	...	...	...	...	...	...
1917	10	13	08:00	...	...	...	...	...	...	...	...
1917	10	14	08:00	...	...	...	...	...	...	...	...
1917	10	15	08:00	...	...	...	...	...	...	...	...
1917	10	16	08:00	...	...	...	...	...	...	...	...
1917	10	17	08:00	...	...	...	...	...	...	...	...
1917	10	18	08:00	...	...	...	...	...	...	...	...
1917	10	19	08:00	...	...	...	...	...	...	...	...
1917	10	20	08:00	...	...	...	...	...	...	...	...
1917	10	21	08:00	...	...	...	...	...	...	...	...
1917	10	22	08:00	...	...	...	...	...	...	...	...
1917	10	23	08:00	...	...	...	...	...	...	...	...
1917	10	24	08:00	...	...	...	...	...	...	...	...
1917	10	25	08:00	...	...	...	...	...	...	...	...
1917	10	26	08:00	...	...	...	...	...	...	...	...
1917	10	27	08:00	...	...	...	...	...	...	...	...
1917	10	28	08:00	...	...	...	...	...	...	...	...
1917	10	29	08:00	...	...	...	...	...	...	...	...
1917	10	30	08:00	...	...	...	...	...	...	...	...

The following table shows the results of the observations made during the month of October 1917. The observations were made at the station of the U.S. Army Signal Corps, Fort Belknap, Montana. The observations were made at the following times: 08:00, 12:00, 16:00, and 20:00. The observations were made at the following locations: Fort Belknap, Montana; Great Falls, Montana; and Helena, Montana. The observations were made at the following altitudes: 4,000 feet; 5,000 feet; and 6,000 feet. The observations were made at the following latitudes: 46° 30' N; 47° 00' N; and 47° 30' N. The observations were made at the following longitudes: 108° 00' W; 108° 30' W; and 109° 00' W. The observations were made at the following distances: 10 miles; 20 miles; and 30 miles. The observations were made at the following directions: North; South; East; and West. The observations were made at the following heights: 100 feet; 200 feet; and 300 feet. The observations were made at the following depths: 10 feet; 20 feet; and 30 feet. The observations were made at the following angles: 0 degrees; 45 degrees; and 90 degrees. The observations were made at the following bearings: 0 degrees; 45 degrees; and 90 degrees. The observations were made at the following distances: 10 miles; 20 miles; and 30 miles. The observations were made at the following directions: North; South; East; and West. The observations were made at the following heights: 100 feet; 200 feet; and 300 feet. The observations were made at the following depths: 10 feet; 20 feet; and 30 feet. The observations were made at the following angles: 0 degrees; 45 degrees; and 90 degrees. The observations were made at the following bearings: 0 degrees; 45 degrees; and 90 degrees.

ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest



conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

The first part of the report deals with the general situation of the country. It is noted that the population is increasing rapidly, and that the government is making every effort to improve the living conditions of the people. The report also mentions the progress made in the various branches of industry and agriculture.

In the second part of the report, the author discusses the financial situation of the country. It is stated that the government has managed to maintain a balanced budget, and that the public debt is being gradually reduced. The report also mentions the progress made in the various branches of industry and agriculture.

The third part of the report deals with the social and cultural life of the country. It is noted that the government is making every effort to improve the living conditions of the people, and that there has been a general improvement in the standard of living. The report also mentions the progress made in the various branches of industry and agriculture.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and marmoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

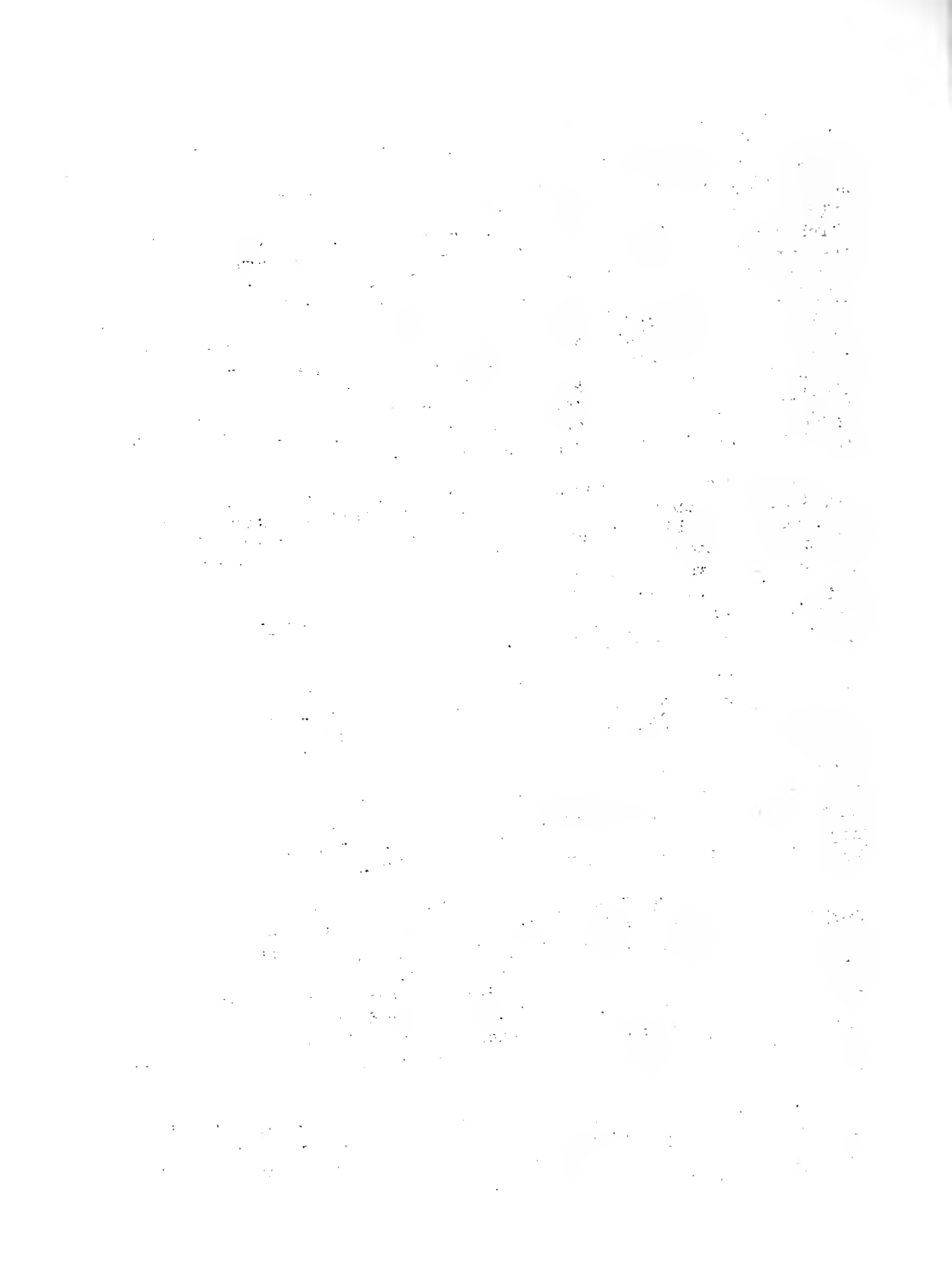
as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in



supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

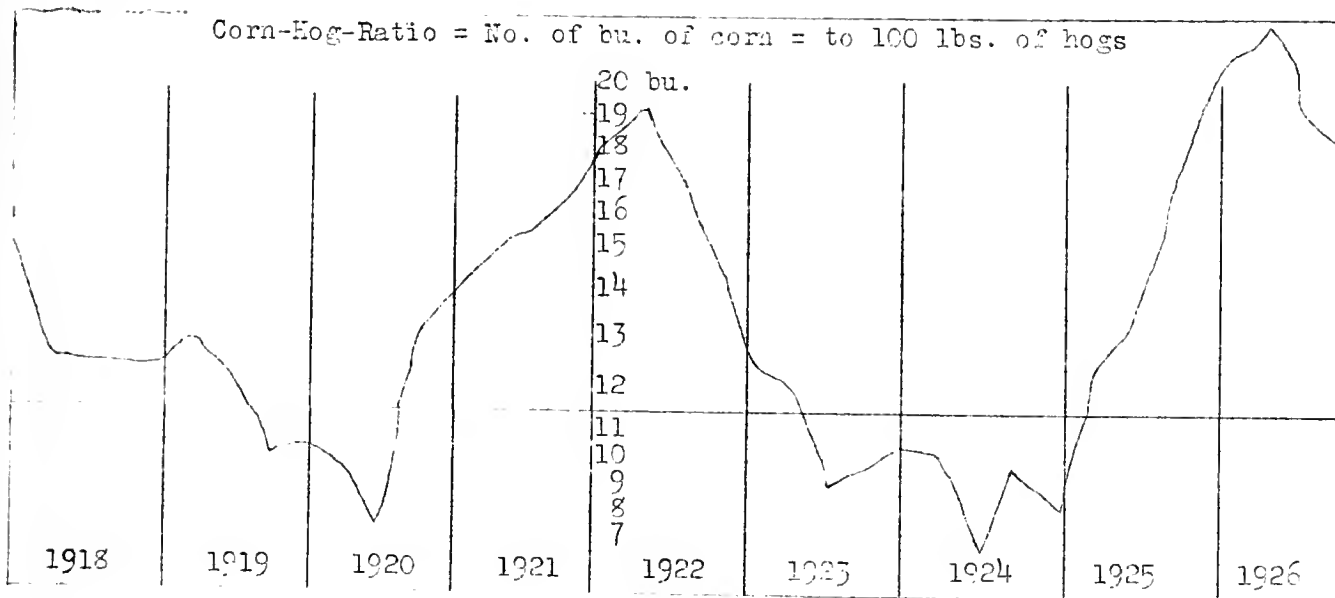
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

SCHUYLER, MORGAN, PIKE, AND BROWN COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-six Farms

for

1926

Farm account keepers say:
"Farm accounts are more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

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ANNUAL FARM BUSINESS REPORT

Schuyler, Morgan, Pike, Brown Counties, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. A. Berg, H. C. M. Case*

The 26 farmers in Schuyler, Morgan, Pike and Brown counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$13 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$180 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,291, while the one-third who were least successful lacked an average of \$1,376 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,667 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 26 farmers earned 3.4 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 6.9 percent and the least successful third 1.0 percent. The average investment on the 26 farms was \$40,270, which amounts to \$180 an acre. The higher profit third had an average investment of \$173 and the lower profit third \$182 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$130 an acre as an average for all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The low profit group of farms averaged about 73 acres per farm larger than the high profit group. They had only about 36 acres more tillable land, however. This difference in size probably had little influence on relative earnings. We have found that as a rule the high and low profit groups average about the same size in most areas where comparisons are made. The less profitable farms averaged 31 acres more corn and 21 acres more wheat per farm than the more profitable farms, but there was little difference in the average acreage of oats.

Crop yields averaged practically the same on farms of the high and low profit groups. This is unusual. In nearly all areas studied we find

*L. E. McKinzie, F. A. Fisher, F. N. Barrett, and W. P. Miller, farm advisers in Schuyler, Morgan, Pike and Brown counties respectively, cooperated in supervising and collecting the records used in this report.

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higher average yields on the higher profit farms. Operating costs per acre usually do not increase much with increased yields and the higher yields go directly to improve profits.

The one big difference between the 10 most profitable farms and the 10 least profitable farms covered by this report is that of greater numbers of livestock which were handled more efficiently on the more profitable farms. The more profitable farms had an average investment in livestock amounting to \$16.76 an acre, while the low profit group had a livestock investment less than half this amount, their average being \$7.55 an acre. In livestock income the difference was even greater. The operators of the more successful farms secured a livestock income amounting to \$25.64 an acre, while their less successful neighbors secured only \$8.46 an acre from livestock. Hogs were the chief source of income on both groups of farms, beef cattle being next in order on the higher profit farms and grain sales on the lower profit farms. The more successful operators spent an average of \$662 more for feed than their crop sales amounted to. Greater efficiency with livestock on the more profitable farms is shown by the fact that their operators secured \$153 of livestock income for every \$100 of livestock investment, while on the less profitable farms the livestock income only amounted to \$111 for every \$100 of investment.

The greater efficiency with livestock on the more profitable farms is a factor that will tend to hold them above the average under any price conditions. The raising and feeding of more livestock per acre was an advantage in 1926 when prices favored livestock products in comparison with grains. This advantage promises to hold for 1927 but cannot be depended on indefinitely. It should be noted, however, that the area covered by this report is primarily a livestock farming section. Most farms in it have some non-tillable land more suitable for pasture than for harvested crops. The majority of farms find it profitable to feed their corn and oats, although a good many of them raise and sell some wheat.

Man labor and most other operating costs expressed on the acre basis were slightly higher on the more profitable farms. This was due to the additional labor and other expense required in handling more livestock. Equipment costs, however, were higher on the low profit farms.

A farm business report similar to this one was issued for 1925, covering Hancock, Brown, Schuyler, Adams and Pike counties. It is interesting to note that the average rate earned on the farms included in that report for 1925 was 6 percent as compared with 3.4 percent for 1926 on the farms included in this report. Hancock and Adams were covered by a separate report for 1926 and the average rate earned as shown in that report was 3.4 percent. These figures agree with those from other areas in Western Illinois in showing that 1926 was considerably less favorable for farm profits than 1925. Some of the underlying causes were lower corn yields and poorer quality of grains, less favorable markets for heavy beef cattle, and a severe outbreak of hog cholera. Wheat and corn prices ranged lower for 1926, also.

Some points of strength and some of weakness in your own farm business may be found by comparing the factors from your own records in the following tables with the same factors on the average farm as well as on farms of the high and low profit groups.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

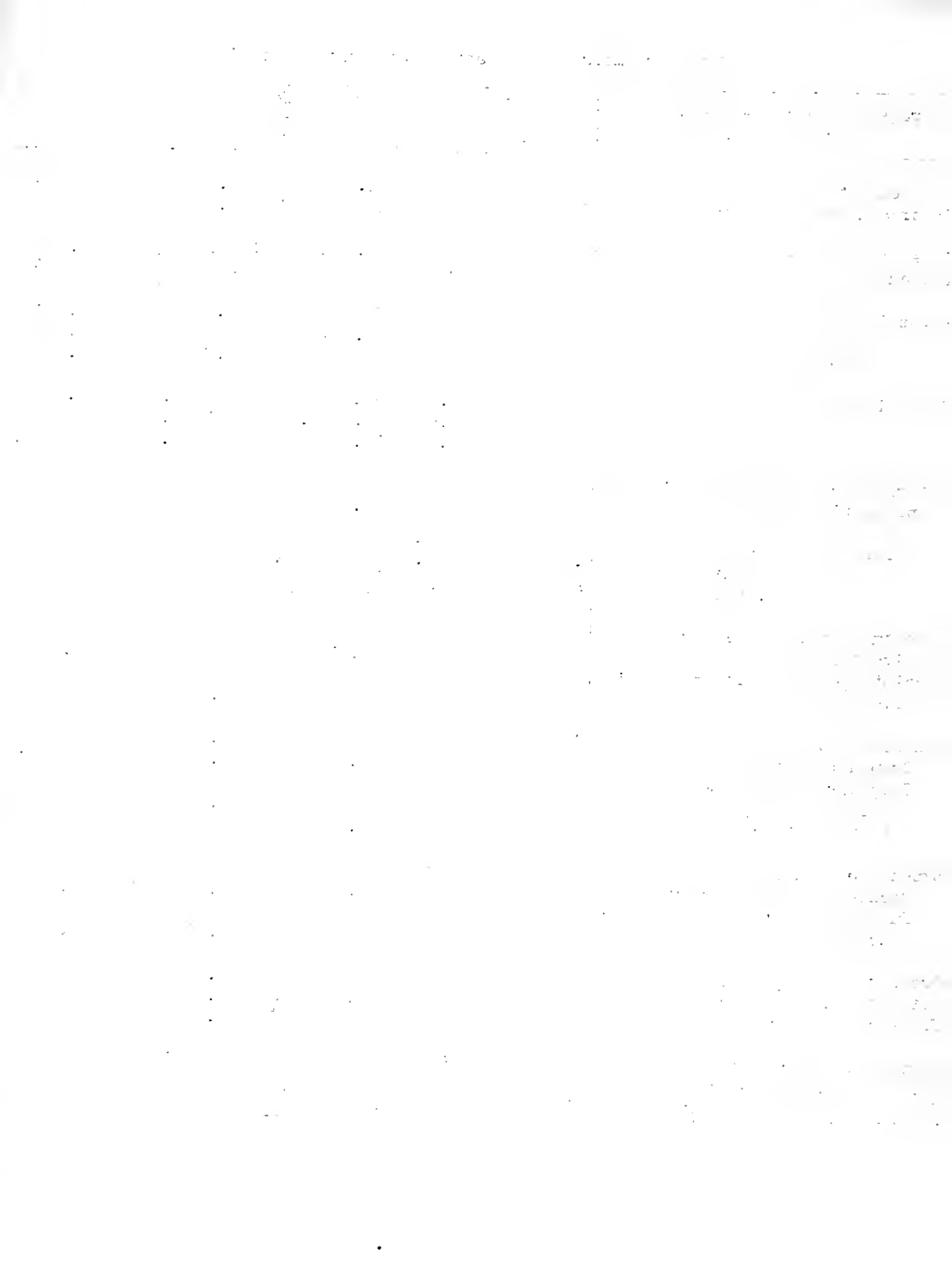
2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for a systematic approach to data collection, ensuring that all relevant information is captured and analyzed thoroughly. This includes the use of surveys, interviews, and data analysis software.

3. The third part of the document focuses on the interpretation and application of the collected data. It discusses how the data can be used to identify trends, patterns, and areas for improvement. It also emphasizes the importance of communicating the findings effectively to the relevant stakeholders, ensuring that they understand the implications and can take appropriate action.

4. The final part of the document provides a summary of the key findings and conclusions. It reiterates the importance of ongoing monitoring and evaluation to ensure that the organization remains effective and responsive to changing circumstances. It also offers recommendations for future research and practice, highlighting the need for continued collaboration and innovation in the field.

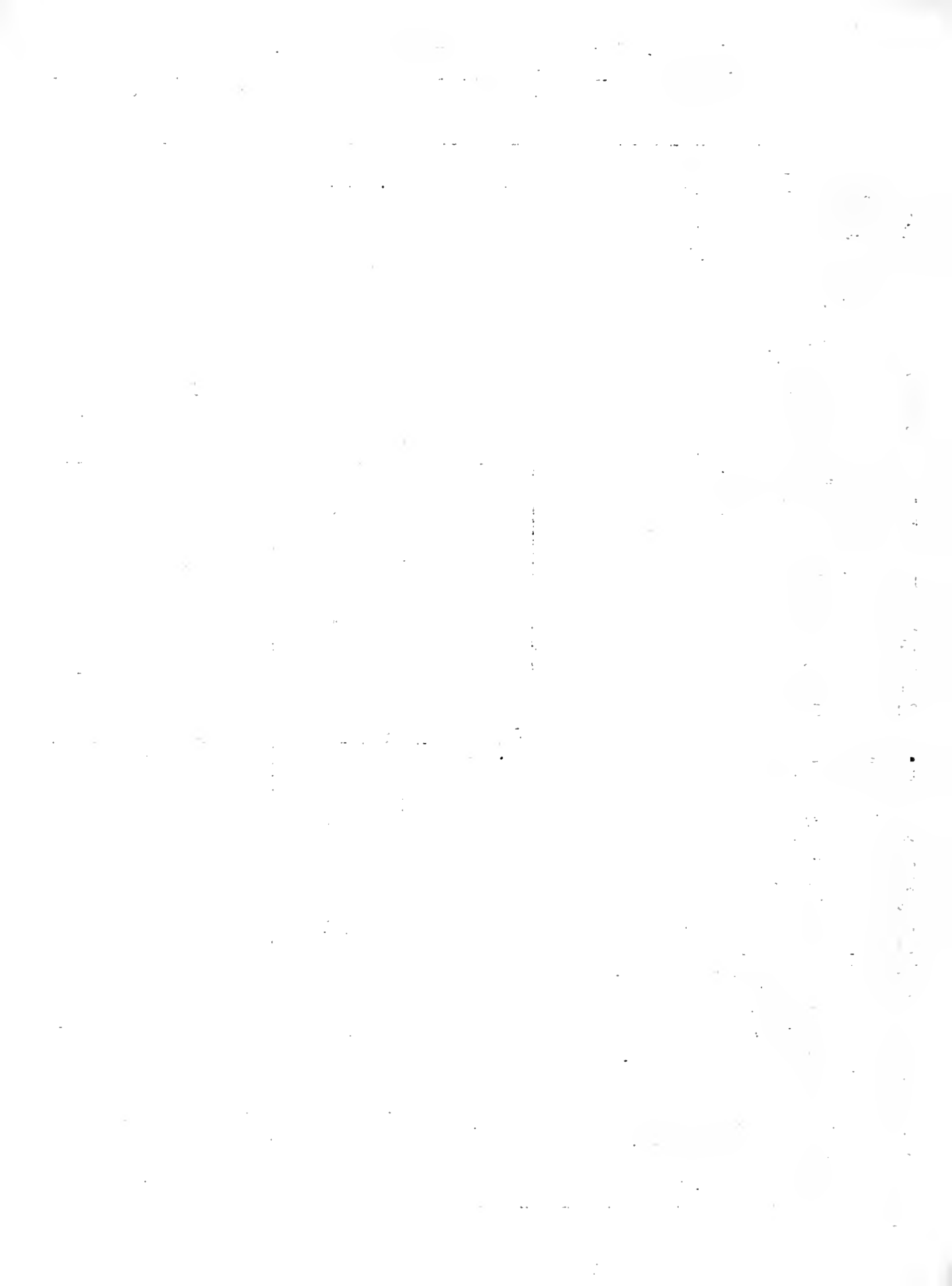
Schuyler, Morgan, Pike and Brown Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of 25 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.45%	6.86%	.97%
Labor and management wage	\$	\$ 13.	\$1,291.	\$-1,376.
Size of farm - acres	A	223.7 A	200.9 A	273.2 A
Percent of land area tillable	%	72 %	73 %	67 %
Acres in Corn	A	60.0 A	45.2 A	76.3 A
Oats	A	22.2 A	24.3 A	19.7 A
Wheat	A	24.0 A	13.7 A	34.9 A
Crop yields - Corn	bu.	42.1 bu.	41.7 bu.	41.3 bu.
Oats	bu.	29.7 bu.	30.7 bu.	30.6 bu.
Wheat	bu.	20.1 bu.	15.1 bu.	23.0 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 141.	\$ 153.	\$ 111.
For \$100 in Cattle	\$	\$ 77	\$ 97	\$ 53
Swine	\$	\$ 220	\$ 229	\$ 188
Poultry	\$	\$ 163	\$ 153	\$ 172
Investment per acre in productive livestock	\$	\$ 11.37	\$ 16.76	\$ 7.65
Receipts per acre from productive livestock	\$	\$ 16.08	\$ 25.64	\$ 8.46
Man labor cost per acre	\$	\$ 5.30	\$ 5.57	\$ 4.81
Crop acres per man	A	70.4 A	62.6 A	72.9 A
Crop acres per horse (with tractor)	A	24.8 A	19.4 A	28.1 A
(wwithout tractor)	A	13.9 A	14.5 A	11.6 A
Expense per \$100 gross income	\$	\$ 63	\$ 54	\$ 85
Machinery cost per acre	\$	\$ 1.70	\$ 1.46	\$ 1.89
Building and fencing cost per acre	\$	\$ 1.09	\$ 1.00	\$ 1.08
Gross receipts per acre	\$	\$ 16.98	\$ 25.87	\$ 12.10
Total expenses per acre	\$	\$ 10.77	\$ 13.99	\$ 10.33
Net receipts per acre	\$	\$ 6.21	\$ 11.88	\$ 1.77
Farms with tractor (percent)	%	61 %	50 %	80 %
Value of land per acre	\$	\$ 130	\$ 122	\$ 132
Total investment per acre	\$	\$ 180	\$ 173	\$ 182



Schuyler, Morgan, Pike, Brown Counties, 1926

Items	Your farm	Average of 26 farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$40,270	\$34,756	\$49,686
2 Land		28,997	24,608	35,984
3 Farm improvements		4,596	3,651	5,983
4 Machinery and equipment		1,233	1,035	1,487
5 Feed and supplies		2,428	1,897	3,240
6 Livestock		5,016	3,565	2,992
7 Horses		528	369	732
8 Cattle		1,204	1,286	1,295
9 Swine		1,037	1,584	747
10 Sheep		120	223	60
11 Poultry		127	103	158
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 3,798	\$ 5,198	\$ 3,306
13 Feed and grain		150	--	920
14 Miscellaneous		52	43	71
15 Livestock - Total		3,596	5,155	2,315
16 Horses		--	4	5
17 Cattle		760	1,319	429
18 Swine		2,449	3,589	1,413
19 Sheep		34	22	41
20 Poultry		86	69	103
21 Egg sales		118	48	167
22 Dairy sales		149	104	157
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 1,652	\$ 1,995	\$ 2,095
24 Farm improvements		244	201	296
25 Livestock		3	--	--
26 Horses		3	--	--
27 Cattle		-	--	--
28 Swine		-	--	--
29 Sheep		-	--	--
30 Poultry		-	--	--
31 Machinery and equipment		381	294	516
32 Feed and supplies		--	662	--
33 Livestock expense other than feed		72	98	57
34 Crop expense		161	109	225
35 Labor hired		431	301	587
36 Taxes, insurance, etc.		325	281	384
37 Miscellaneous		35	49	30
38 <u>Receipts less expenses</u>	\$ _____	\$ 2,146	\$ 3,203	\$ 1,211
39 Operator's and unpaid family labor		756	817	727
40 Net income from investment		1,390	2,386	484



Find Your Farm Leaks

Schuyler, Morgan, Pike and Brown Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of			Returns per \$100 invested in		Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expenses per \$100 income	Gross receipts per acre	Size of farm		
	Corn	Oats	Wheat	Cattle	Hogs				Poultry	Man	Tractor				tor	
											No					
10.4	70	51	34	147	360	303	25.37	30.08	1.80	105	39	28	28	31	364	
9.4	66	48	32	137	340	283	23.37	28.08	2.30	100	37	26	33	29	344	
8.4	62	45	30	127	320	263	21.37	26.08	2.80	95	35	24	38	27	324	
7.4	58	42	28	117	300	243	19.37	24.08	3.30	90	33	22	43	25	304	
6.4	54	39	26	107	280	223	17.37	22.08	3.80	85	31	20	48	23	284	
5.4	50	36	24	97	260	203	15.37	20.08	4.30	80	29	18	53	21	264	
4.4	46	33	22	87	240	183	13.37	18.08	4.80	75	27	16	58	19	244	
3.4	42	30	20	77	220	163	11.37	16.08	5.30	70	25	14	63	17	224	
2.4	38	27	18	67	200	143	9.37	14.08	5.80	65	23	12	68	15	204	
1.4	34	24	16	57	180	123	7.37	12.08	6.30	60	21	10	73	13	184	
0.4	30	21	14	47	160	103	5.37	10.08	6.80	55	19	8	78	11	164	
-0.6	26	18	12	37	140	83	3.37	8.08	7.30	50	17	6	83	9	144	
-1.6	22	15	10	27	120	63	1.37	6.08	7.80	45	15	4	88	7	124	
-2.6	18	12	8	17	100	43	--	4.08	8.30	40	13	--	93	5	104	
-3.6	--	--	--	7	80	23	--	2.08	8.80	35	11	--	98	--	84	

ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

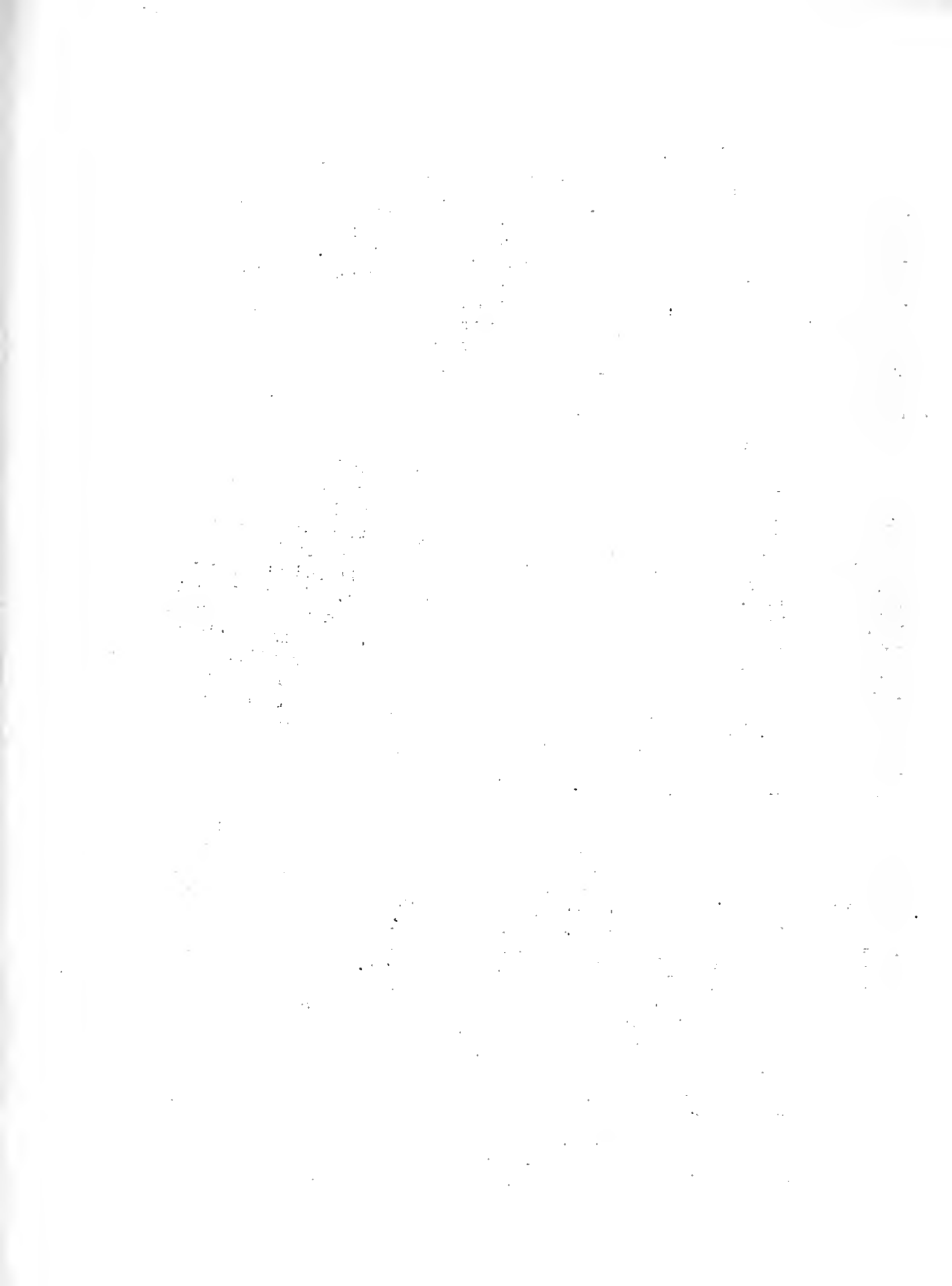
It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,



end of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

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as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

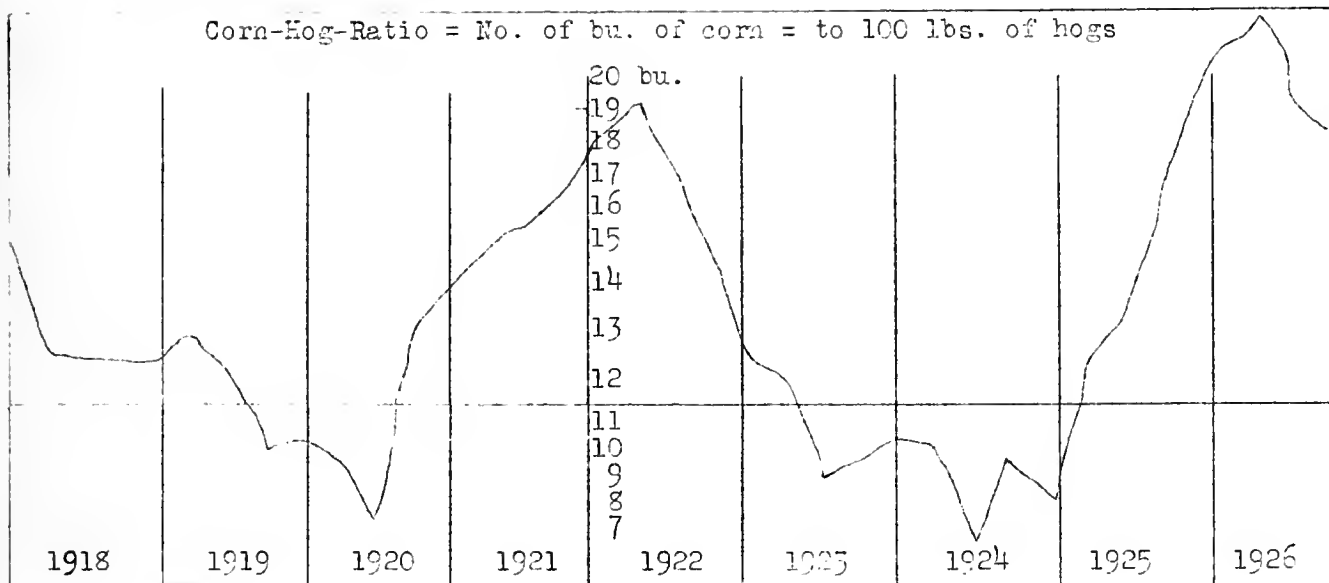
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

COLES AND DOUGLAS COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-nine Farms

for

1926

Farm account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

May, 1927

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ANNUAL FARM BUSINESS REPORT

Coles and Douglas Counties, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston, Peter Nelson, H. C. M. Case*

The 39 farmers in Coles and Douglas counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$275 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$224 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,289, while the one-third who were least successful lacked an average of \$961 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,250 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 39 farmers earned 4.24 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 6.57 percent and the least successful third 1.49 percent. The average investment on the 39 farms was \$44,030, which amounts to \$224 an acre. The higher profit third had an average investment of \$219 and the lower profit third \$213 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$176 an acre as an average for all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home, not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County for 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The high and low profit groups averaged within four acres of the same size. Size of farm was clearly not a factor in determining the relative earnings of these groups. The more profitable farms did have about 20 acres more tillable land but they were valued \$14 an acre higher than the less profitable farms. The more successful operators had 10 acres more corn and 10 acres more wheat than the less successful group.

*Melvin Thomas and F. W. Garrett, farm advisers in Coles and Douglas counties respectively cooperated in supervising and collecting the records used in this report.

PHILOSOPHY 101: INTRODUCTION TO PHILOSOPHY

LECTURE 1: THE FOUNDATIONS OF PHILOSOPHY

LECTURE 2: THE PHILOSOPHY OF LANGUAGE

LECTURE 3: THE PHILOSOPHY OF MIND

LECTURE 4: THE PHILOSOPHY OF ACTION

LECTURE 5: THE PHILOSOPHY OF SCIENCE

LECTURE 6: THE PHILOSOPHY OF ETHICS

As a rule we have found that one of the big differences between the high and low profit groups of farms is in crop yields but the difference is unusually small between them in this report. The more profitable farms did raise an average of about 8 bushels more oats and 3 bushels more wheat but they raised about 4 bushels less corn per acre than the less profitable farms. However, the more successful operators did realize over twice as much gross income from crops as did their less successful neighbors. Part of this may be due to better marketing but some of it, at least, is due to the less successful operators having fed too much unprofitable livestock. They fed more of their crops to livestock which failed to bring a corresponding increase in livestock sales.

The greatest single advantage of the more profitable farms was in their more efficient handling of livestock. With \$1.35 an acre less livestock investment these farms realized nearly \$3.00 an acre more livestock income. At the same time, as noted above, less of their crops were fed than on the less profitable farms. The more successful farmers secured \$171 income for each \$100 invested in livestock while the less successful farmers only secured \$114. This is a great advantage considering their economy in feeding.

There was not a large difference between the two groups in operation cost per acre although the more successful farm operators did have slightly lower labor and equipment costs. They handled about 11 more crop acres per man than the less successful operators.

The big difference in earnings came from larger gross receipts on the more profitable farms. They took in \$10 more income per acre with about the same operating cost per acre. It is net earnings that go to pay interest and profits. The more successful farmers spent \$44 and the less successful farmers \$79 out of each \$100 income in paying operating costs.

It is interesting to compare farm earnings for the past few years in the locality covered by this report. We must, however, make allowance for the fact that there has been considerable shifting in individual farms included. Coles and Douglas counties have contributed most of the accounts for each of the years covered by the following tables. It is probable that the lower land value and lower investment in livestock for 1924 are due to the inclusion of some accounts from Clark County. It is interesting to note that the rate earned on these farms has kept close to 4 percent except for 1924 when higher grain prices and fair yields pushed the rate up to 8 percent. In any one of these years it is safe to assume from careful studies along this line that the average farmer earned about 2 percent less on his capital than the farms on which these accounts were kept. This indicates that the average farmer has earned about 2 percent on his capital through this period except in 1924. Operating costs have remained rather stable if we allow for the variation in the number of farms included. Hogs and grain sales have been the chief sources of income on these farms.

Comparative Earnings on Coles and Douglas County Farms

Item	1922 ⁽¹⁾	1924 ⁽²⁾	1925 ⁽¹⁾	1926 ⁽³⁾
Number of farms included	7	32	30	39
Average size of farm in acres	174	200	184	196
Average rate earned	4.7%	8.2%	4.2%	4.2%
Average value of land per acre	\$ 194	\$ 164	\$ 185	\$ 176
Average investment per acre	246	202	243	224
Investment in livestock per farm	2,411	1,909	2,384	2,013
Investment in cattle per farm	966	696	920	785
Investment in hogs per farm	485	408	784	585
Investment in poultry per farm	117	105	144	127
Gross income per acre	24.66	27.64	22.03	21.92
Operating cost per acre	13.05	11.06	11.98	12.42
Crop sales less feed purchases per farm	1,666	3,503	974	1,970
Miscellaneous income per farm	60	66	67	52
Livestock income per farm	2,573	1,959	3,023	2,287
Cattle income per farm	999*	292	546	368
Dairy income per farm	-	338	416	237
Hog income per farm	1,369	1,122	1,769	1,414
Poultry income per farm	142	172	271	220
Gross income per farm	4,299	5,528	4,064	4,309

Some points of strength and some of weakness in your own business may be found by comparing the factors from your own record in the following tables with the same factors on the average farm and with those farms of the more profitable and less profitable groups.

*Includes dairy income.

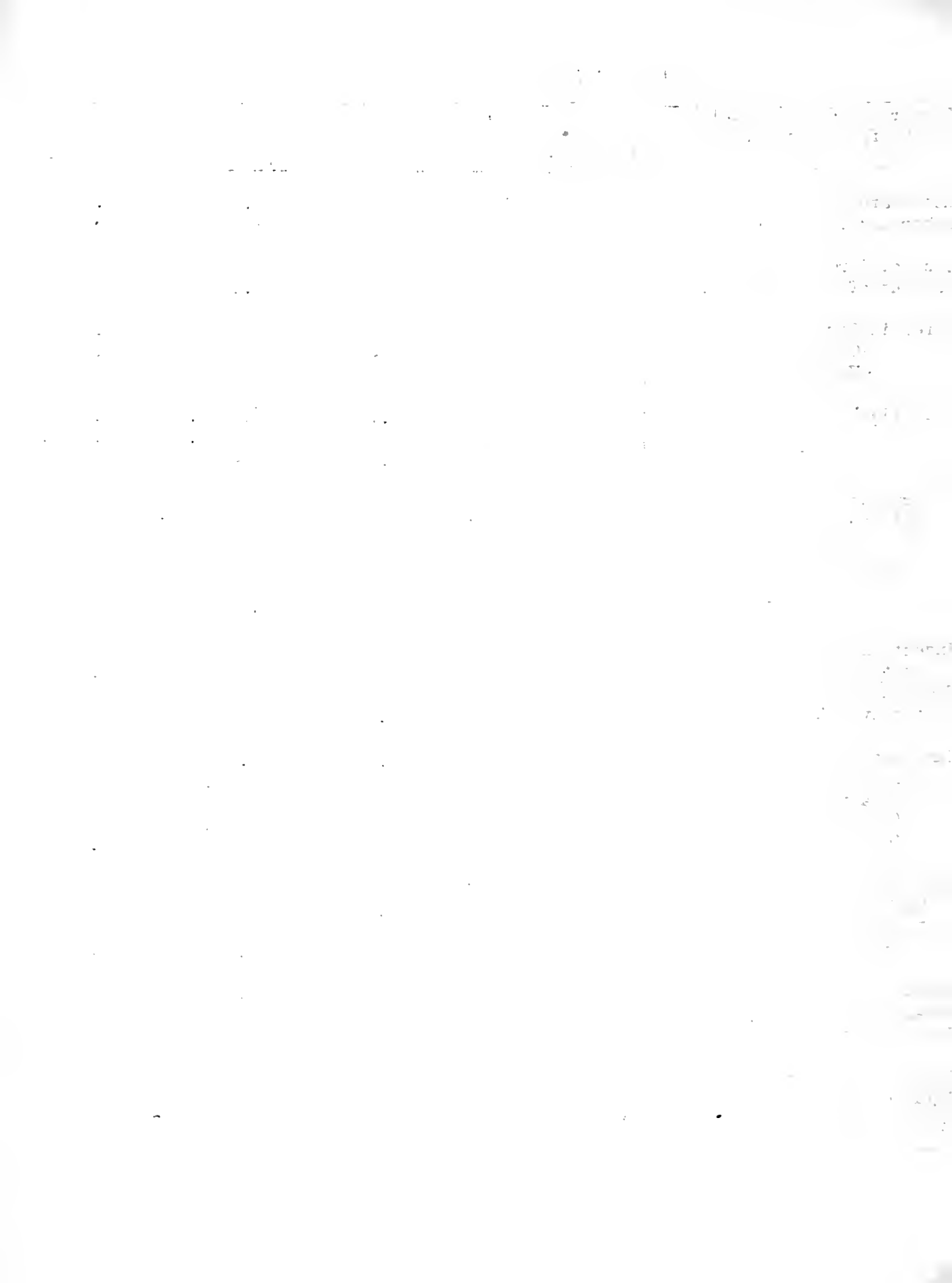
(1) Only Coles County farms included.

(2) Farms in Coles, Douglas, Moultrie and Clark counties included.

(3) Coles and Douglas county farms included.

Coles and Douglas Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of 39 farms	Thirteen most profitable farms	Thirteen least profitable farms
Rate earned	%	4.24%	6.57%	1.49%
Labor and management wage	\$	\$ 275	\$1,289	\$ -961
Size of farm - acres	A	196.6 A	205 A	209.2 A
Percent of land area tillable	%	89.3 %	91.8 %	82.5 %
Acres in Corn	A	75.6 A	80.1 A	69.5 A
Oats	A	29.4 A	31.3 A	28.1 A
Wheat	A	28.9 A	33.7 A	23.6 A
Crop yields - Corn	bu.	49.4 bu.	46.8 bu.	50.7 bu.
Oats	bu.	39.0 bu.	41.6 bu.	33.1 bu.
Wheat	bu.	32.3 bu.	33.4 bu.	30.9 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 142	\$ 171	\$ 114
For \$100 in Cattle	\$	\$ 85	\$ 109	\$ 65
Swine	\$	\$ 204	\$ 217	\$ 175
Poultry	\$	\$ 165	\$ 193	\$ 129
Investment per acre in productive livestock	\$	\$ 8.17	\$ 7.59	\$ 8.94
Receipts per acre from productive livestock	\$	\$ 11.53	\$ 12.96	\$ 10.18
Man labor cost per acre	\$	\$ 5.95	\$ 5.47	\$ 5.65
Crop acres per man	A	87.3 A	93.6 A	82.3 A
Crop acres per horse (with tractor)	A	28.6 A	34.0 A	26.1 A
(wwithout tractor)	A	20.9 A	19.9 A	20.1 A
Expense per \$100 gross income	\$	\$ 57	\$ 44	\$ 79
Machinery cost per acre	\$	\$ 1.65	\$ 1.94	\$ 1.47
Building and fencing cost per acre	\$	\$ 1.12	\$.71	\$ 1.25
Gross receipts per acre	\$	\$ 21.92	\$ 25.66	\$ 15.21
Total expenses per acre	\$	\$ 12.42	\$ 11.28	\$ 12.04
Net receipts per acre	\$	\$ 9.50	\$ 14.38	\$ 3.17
Percent of farms with tractor	%	61.5 %	77 %	61.5 %
Value of land per acre	\$	\$ 176	\$ 175	\$ 161
Total investment per acre	\$	\$ 224	\$ 219	\$ 213



Coles and Douglas Counties, 1926

Item	Your farm	Average of 39 farms	Thirteen most profitable farms	Thirteen least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$44,030	\$44,900	\$44,485
2 Land		34,556	35,879	33,606
3 Farm improvements		4,000	3,821	4,703
4 Machinery and equipment		1,229	1,291	1,311
5 Feed and supplies		2,232	2,128	2,664
6 Livestock		2,013	1,781	2,201
7 Horses		442	371	445
8 Cattle		785	574	926
9 Swine		585	647	581
10 Sheep		74	71	110
11 Poultry		127	118	139
12 <u>Receipts-Net Increases-Total</u>	\$	\$ 4,309	\$ 5,261	\$ 3,182
13 Feed and grain		1,970	2,560	988
14 Miscellaneous		52	44	65
15 Livestock - Total		2,287	2,657	2,129
16 Horses		--	--	--
17 Cattle		368	283	494
18 Swine		1,414	1,786	1,280
19 Sheep		48	51	79
20 Poultry		115	142	87
21 Egg sales		105	92	90
22 Dairy sales		237	303	99
23 <u>Expenses-Net Decreases-Total</u>	\$	\$ 1,731	\$ 1,650	\$ 1,871
24 Farm improvements		221	146	262
25 Livestock		43	7	44
26 Horses		43	7	44
27 Cattle		-	-	-
28 Swine		-	-	-
29 Sheep		-	-	-
30 Poultry		-	-	-
31 Machinery and equipment		324	398	307
32 Feed and supplies		-	-	-
33 Livestock expense other than feed		48	50	62
34 Crop expense		219	215	239
35 Labor hired		459	459	533
36 Taxes, insurance, etc.		392	342	403
37 Miscellaneous		25	33	21
38 <u>Receipts less expenses</u>	\$	\$ 2,578	\$ 3,611	\$ 1,311
39 Operator's and unpaid family labor		710	662	648
40 Net income from investment		1,868	2,949	663

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BY

JOHN BURNET

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SCOTLAND

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SEVEN VOLUMES

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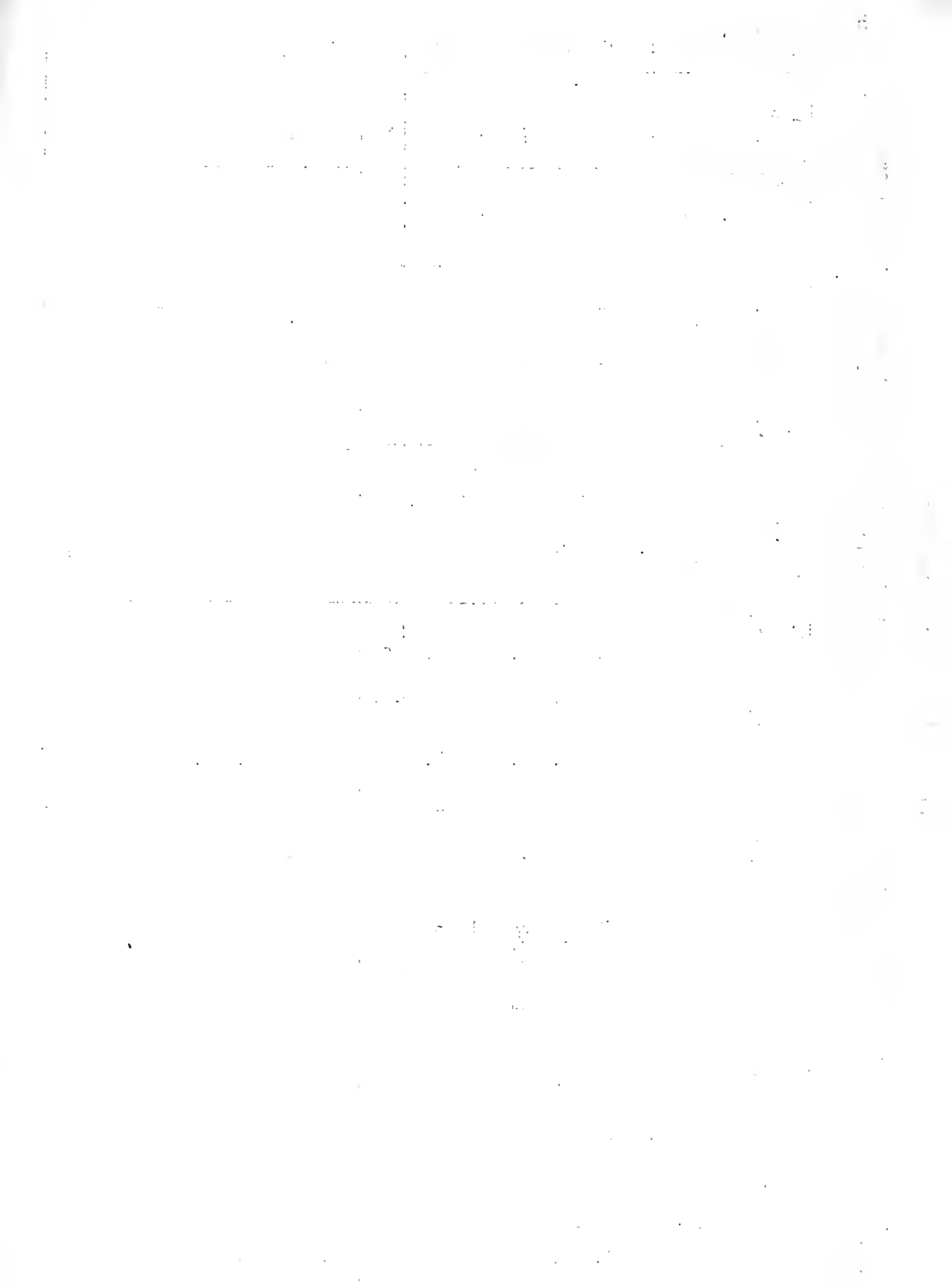
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Coles and Douglas Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Receipts per acre from L.S.	Invest. per acre in L.S.	Man labor cost per acre	Crop acres per		Expenses per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Cattle	Hogs				Poultry	Man				Tractor	No	trac-tor
11.2	71	60	46	155	344	305	25.63	22.17	2.50	122	43	35	22	43	336
10.2	68	57	44	145	324	285	23.63	20.17	3.00	117	41	33	27	40	316
9.2	65	54	42	135	304	265	21.63	18.17	3.50	112	39	31	32	37	296
8.2	62	51	40	125	284	245	19.63	16.17	4.00	107	37	29	37	34	276
7.2	59	48	38	115	264	225	17.63	14.17	4.50	102	35	27	42	31	256
6.2	56	45	36	105	244	205	15.63	12.17	5.00	97	33	25	47	28	236
5.2	53	42	34	95	224	185	13.63	10.17	5.50	92	31	23	52	25	216
4.2	50	39	32	85	204	165	11.63	8.17	6.00	87	29	21	57	22	196
3.2	47	36	30	75	184	145	9.63	6.17	6.50	82	27	19	62	19	176
2.2	44	33	28	65	164	125	7.63	4.17	7.00	77	25	17	67	16	156
1.2	41	30	26	55	144	105	5.63	2.17	7.50	72	23	15	72	13	136
0.2	38	27	24	45	124	85	3.63	0.17	8.00	67	21	13	77	10	116
-0.8	35	24	22	35	104	65	1.63	---	8.50	62	19	11	82	7	96
-1.8	32	21	20	25	84	45	---	---	9.00	57	17	9	87	-	76
-2.8	29	18	18	15	64	25	---	---	9.50	52	15	7	92	-	56



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

The first part of the report discusses the overall situation in the country, including the political and economic context. It notes that the country has made significant progress in recent years, particularly in the areas of economic growth and social development. However, there are still several challenges that need to be addressed, such as the need for further reforms in the legal system and the judiciary.

The second part of the report focuses on the specific issues related to the rule of law and the judiciary. It highlights the importance of an independent and impartial judiciary in ensuring the protection of human rights and the maintenance of the rule of law. The report also discusses the need for the strengthening of the legal system, including the improvement of the legal profession and the establishment of an effective system of judicial review.

The third part of the report provides a detailed analysis of the current state of the judiciary. It examines the composition of the judiciary, the quality of the judges, and the efficiency of the judicial process. The report also discusses the impact of the current legal system on the protection of human rights and the maintenance of the rule of law.

The fourth part of the report offers recommendations for the reform of the legal system and the judiciary. These recommendations include the need for the establishment of an independent judicial council, the improvement of the legal profession, and the strengthening of the system of judicial review. The report also emphasizes the importance of the promotion of the rule of law and the protection of human rights.

The fifth part of the report discusses the role of the judiciary in the promotion of the rule of law and the protection of human rights. It notes that the judiciary has a crucial role to play in ensuring that the government and other public bodies are held accountable for their actions. The report also discusses the need for the judiciary to be transparent and accessible to the public.

The sixth part of the report provides a summary of the findings of the report and offers conclusions. It concludes that the current state of the legal system and the judiciary is a cause for concern, and that significant reforms are needed to ensure the protection of human rights and the maintenance of the rule of law.

The seventh part of the report contains a list of references and a list of abbreviations. The references include a range of international and national sources, including the United Nations Human Rights Commission, the European Commission on Human Rights, and various national human rights organizations. The abbreviations include a list of the acronyms used throughout the report.

The eighth part of the report contains a list of annexes. These annexes include a list of the names of the judges who have served on the Constitutional Court since its establishment in 1995, a list of the names of the judges who have served on the Supreme Court since its establishment in 1995, and a list of the names of the judges who have served on the Administrative Tribunal since its establishment in 1995.

The ninth part of the report contains a list of footnotes. These footnotes provide further information on the sources cited in the report and on the legal principles discussed in the report.

The tenth part of the report contains a list of appendices. These appendices include a list of the names of the members of the Commission on the Rule of Law and the Protection of Human Rights, a list of the names of the members of the Advisory Committee on the Rule of Law and the Protection of Human Rights, and a list of the names of the members of the Working Group on the Rule of Law and the Protection of Human Rights.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

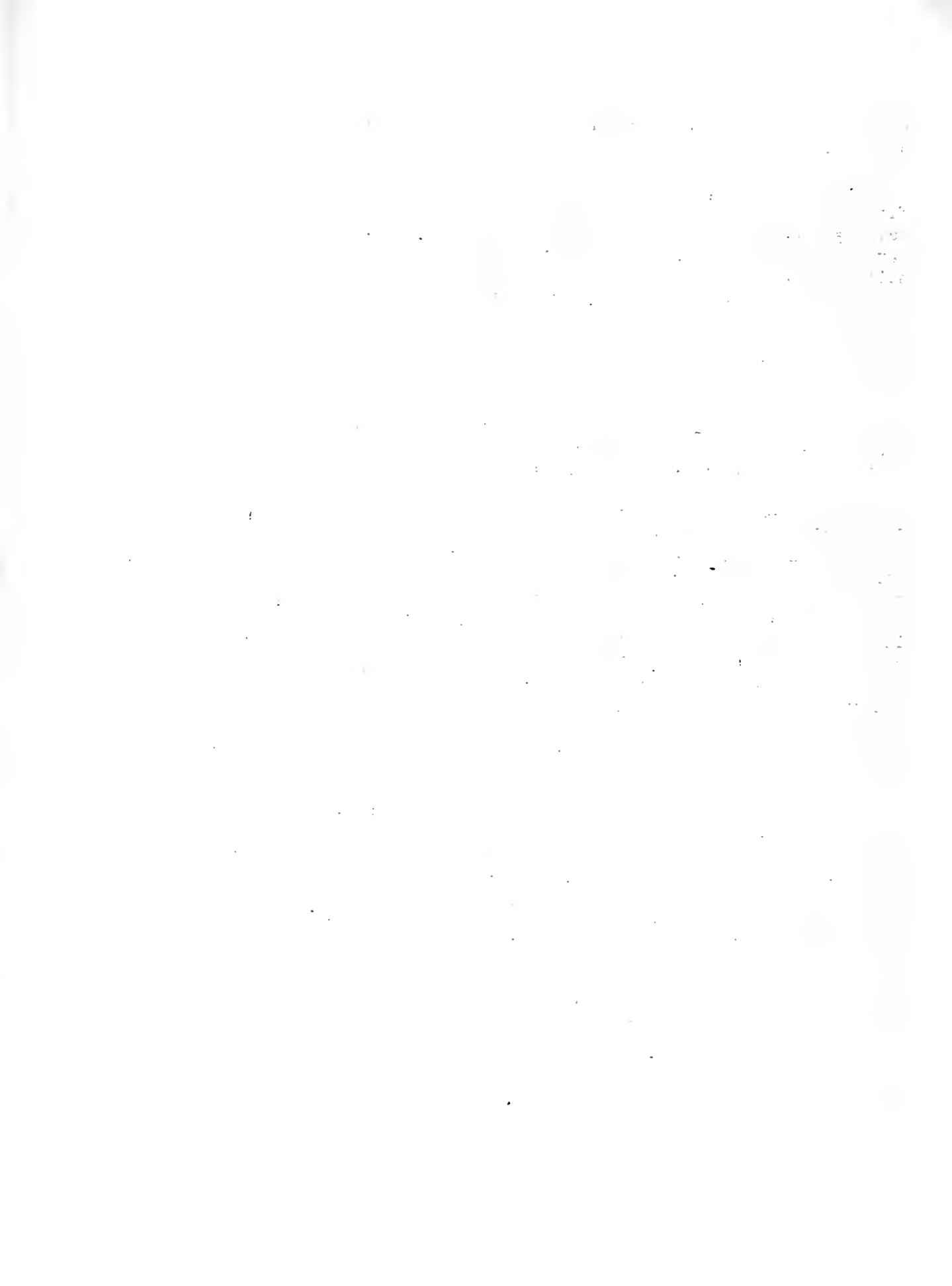
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

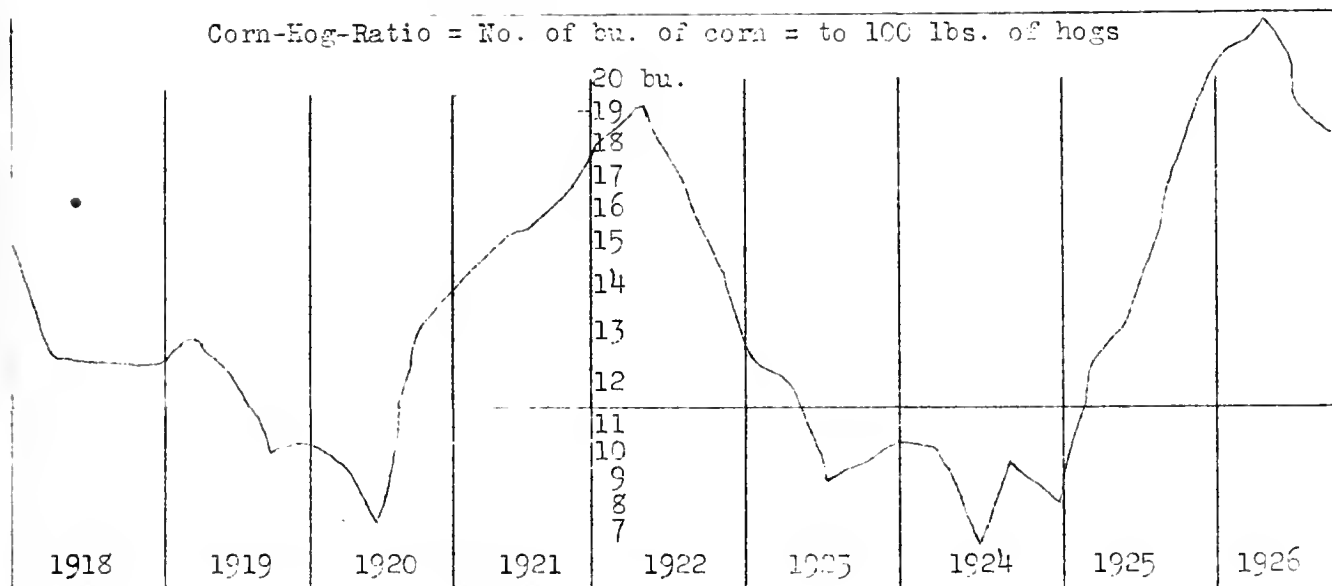
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

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UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

SCOTT COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-seven Farms

for

1926

Farm Account keepers say:

"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

April, 1927

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ANNUAL FARM BUSINESS REPORT

Scott County, Illinois-1926

Prepared by R. R. Hudelson, H. A. Berg, P. E. Johnston, H. C. M. Case*

The 27 farmers in Scott county who kept financial records in the Illinois Farm Account Project for 1926 lacked an average of \$123 of having enough income to pay operating expenses and 5 percent on their investments amounting to \$163 an acre, allowing nothing for their labor, management and risk. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave \$1,007 each to pay for labor, management, and risk. This is called their labor and management wage. The one-third who were least successful lacked an average of \$1,384 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,391 in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 27 farmers earned 2.79 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 6.34 percent and the least successful third lost .49 percent. The average investment on the 27 farms was \$33,387 which amounts to \$163 an acre. The higher profit third had an average investment of \$162 and the lower profit third \$154 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at \$118 on the average farm.

In addition to the above earnings, each family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

Size of farm had little influence on the relative earnings of the 10 most profitable farms and the 10 least profitable farms. The latter group averaged about 40 acres per farm larger and had a slightly higher percentage of tillable land. These lower profit farms averaged 24 acres more corn, 7 acres more oats, and 5 acres more wheat per farm than their more successful neighbors. The average farm raised 71 acres of corn, 17 acres of oats, and 44 acres of wheat. This indicates more wheat and less oats than on the average central Illinois farm.

As to crop yields the more profitable farms had an advantage of 4 bushels of corn and nearly 7 bushels of wheat per acre. As the cost of operating an acre of land does not increase much with higher yields, as a rule, these higher yields had an important effect on profits.

*Alfred Tate, farm adviser in Scott County, cooperated in supervising and collecting the records used in this report.

PHYSICS 311 - QUANTUM MECHANICS

1. The wave function $\psi(x)$ is a complex-valued function of position x . It is normalized such that the total probability of finding the particle somewhere is 1. The probability density is given by $|\psi(x)|^2$. The expectation value of an observable A is given by $\langle A \rangle = \int \psi^* A \psi dx$.

2. The Schrödinger equation is a partial differential equation that governs the time evolution of the wave function. For a stationary state, it reduces to the time-independent Schrödinger equation: $\nabla^2 \psi + (E - V)\psi = 0$.

3. In the case of a particle in a potential well, the wave function must satisfy boundary conditions. For a finite well, the wave function is continuous and has a continuous derivative. For an infinite well, the wave function must be zero at the boundaries.

4. The uncertainty principle states that the product of the uncertainties in position and momentum is bounded by $\Delta x \Delta p \geq \frac{\hbar}{2}$. This is a fundamental property of quantum mechanics.

The biggest advantage of the more profitable farms was in their larger amount of livestock and in the fact that their livestock was more efficiently handled. They had an investment of \$10.72 an acre in livestock, while the corresponding investment on the low profit farms was \$6.02. The more successful farms averaged \$22.62 an acre from livestock income, while the less successful group only averaged \$6.27. The detailed figures show that this advantage was maintained for all classes of productive livestock, including cattle, hogs, and poultry. The more profitable farms received over twice as much income per \$100 invested in livestock as the low profit group. Hogs made up the larger part of the livestock business especially on the high profit farms where they brought in nearly three-fourths of the livestock income.

The more profitable farms had a labor cost per acre about \$1.30 higher than on the low profit farms. This evidently was caused by the larger amount of livestock and the larger gross income more than justified this additional expense. The more successful farms worked 13 less crop acres per man but they handled more crop acres per horse than the less successful farms. At the same time they had fewer tractors indicating a more efficient use of farm power.

The more profitable farms had about \$2.00 an acre higher operating costs per acre but their gross income per acre was over twice as large as on the less profitable farms. This gave a big advantage in net earnings. The first group had \$44 left out of every \$100 income after paying all costs including depreciation and their own labor but not including interest on their investments. The second group, if they had paid all costs including depreciations and their own labor, would have spent \$107 for every \$100 they took in with no allowance for interest.

The year 1926 was the first year for the farm accounting project in Scott County but records from other sections in the same vicinity indicate that farm earnings for 1926 were lower than for the two years just preceding. The project has been in progress for over ten years in certain sections of the state but few if any counties have shown better first year progress in farm account keeping than Scott.

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm as well as on farms of the group making the best profits and the group making the least profits.

Scott County-1926

Factors helping to analyze the farm business	Your farm	Average of twenty-seven farms	Ten Most Profitable Farms	Ten Least Profitable Farms
Rate earned	%	2.79%	6.34%	-.49%
Labor and management wage	\$	\$ -128	\$1,007	\$-1,384
Size of farm - acres	A	209.9 A	193.7 A	237.3 A
Percent of land area tillable	%	84.4 %	79.2 %	84.5 %
Acres in Corn	A	70.8 A	58.1 A	82.1 A
Oats	A	16.9 A	13.9 A	20.3 A
Wheat	A	44.2 A	40.5 A	45.6 A
Crop yields - Corn	Bu	40 Bu	44.2Bu	40.0Bu
Oats	Bu	22.4Bu	22 Bu	22.2Bu
Wheat	Bu	17.2Bu	21.7Bu	15.0Bu
Returns per \$100 invested in all productive livestock	\$	\$ 171	\$ 211	\$ 104
For \$100 in Cattle	\$	\$ 99	\$ 163	\$ 55
Swine	\$	\$ 230	\$ 248	\$ 160
Poultry	\$	\$ 176	\$ 202	\$ 128
Investment per acre in productive livestock	\$	\$ 7.76	\$ 10.72	\$ 6.02
Receipts per acre in productive livestock	\$	\$ 13.27	\$ 22.62	\$ 6.27
Man labor cost per acre	\$	\$ 5.77	\$ 6.60	\$ 5.32
Crop acres per man	A	75.3 A	65.3 A	78.5 A
Crop acres per horse (with tractor)	A	23.8 A	27.6 A	23.5 A
(wwithout tractor)	A	18.8 A	14.4 A	12.2 A
Expense per \$100 gross income	\$	\$ 73	\$ 56	\$ 107
Machinery cost per acre	\$	\$ 1.90	\$ 1.97	\$ 1.95
Building & fencing cost per A.	\$	\$.99	\$ 1.05	\$.85
Gross receipts per acre	\$	\$ 16.43	\$ 23.48	\$ 10.34
Total expenses per acre	\$	\$ 11.99	\$ 13.23	\$ 11.10
Net receipts per acre	\$	\$ 4.44	\$ 10.25	\$ -.75
Farms with tractor		46 %	50 %	60 %
Value of land per acre	\$	\$ 118	\$ 117	\$ 114
Total investment per acre	\$	\$ 163	\$ 162	\$ 154



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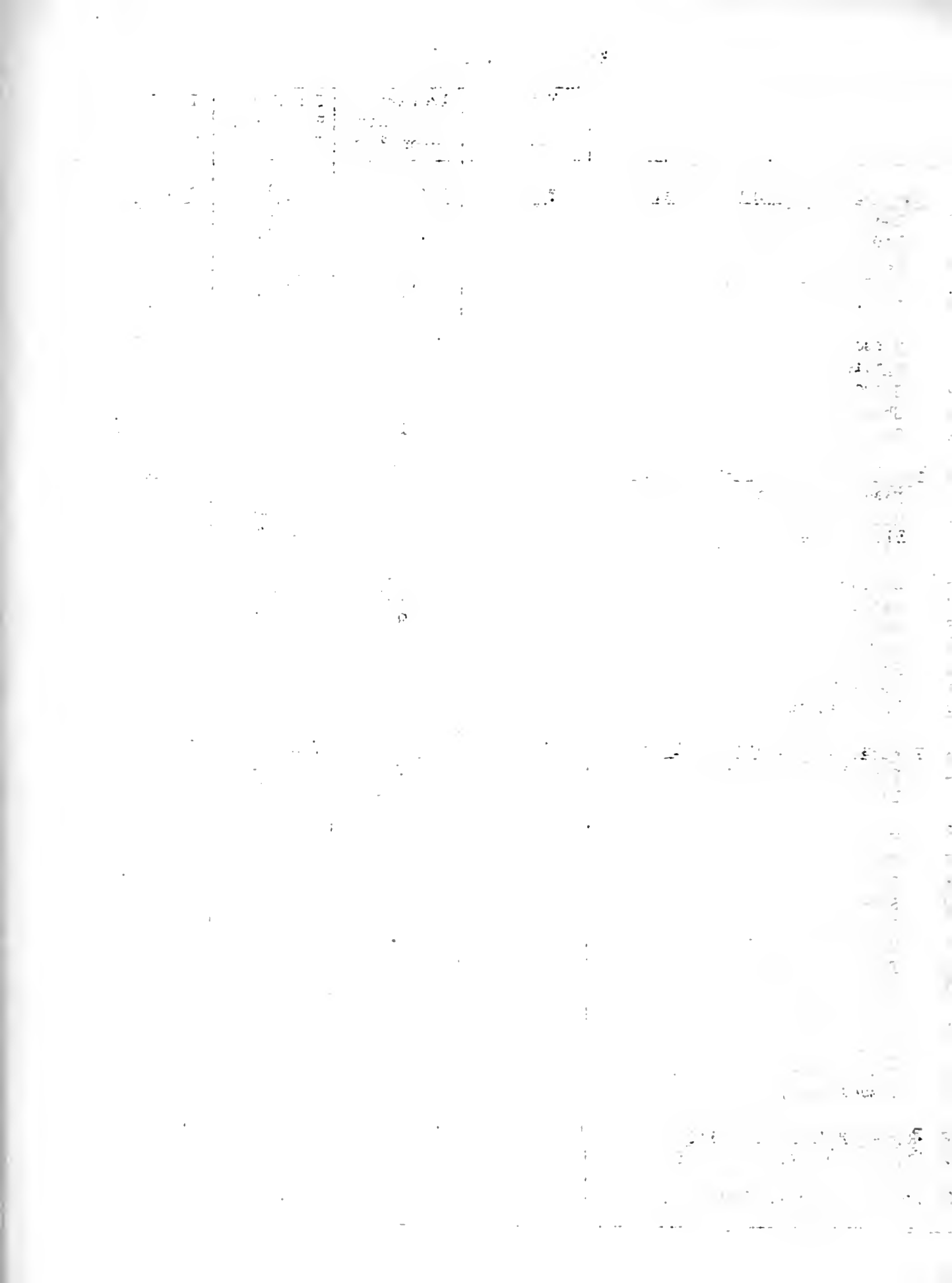
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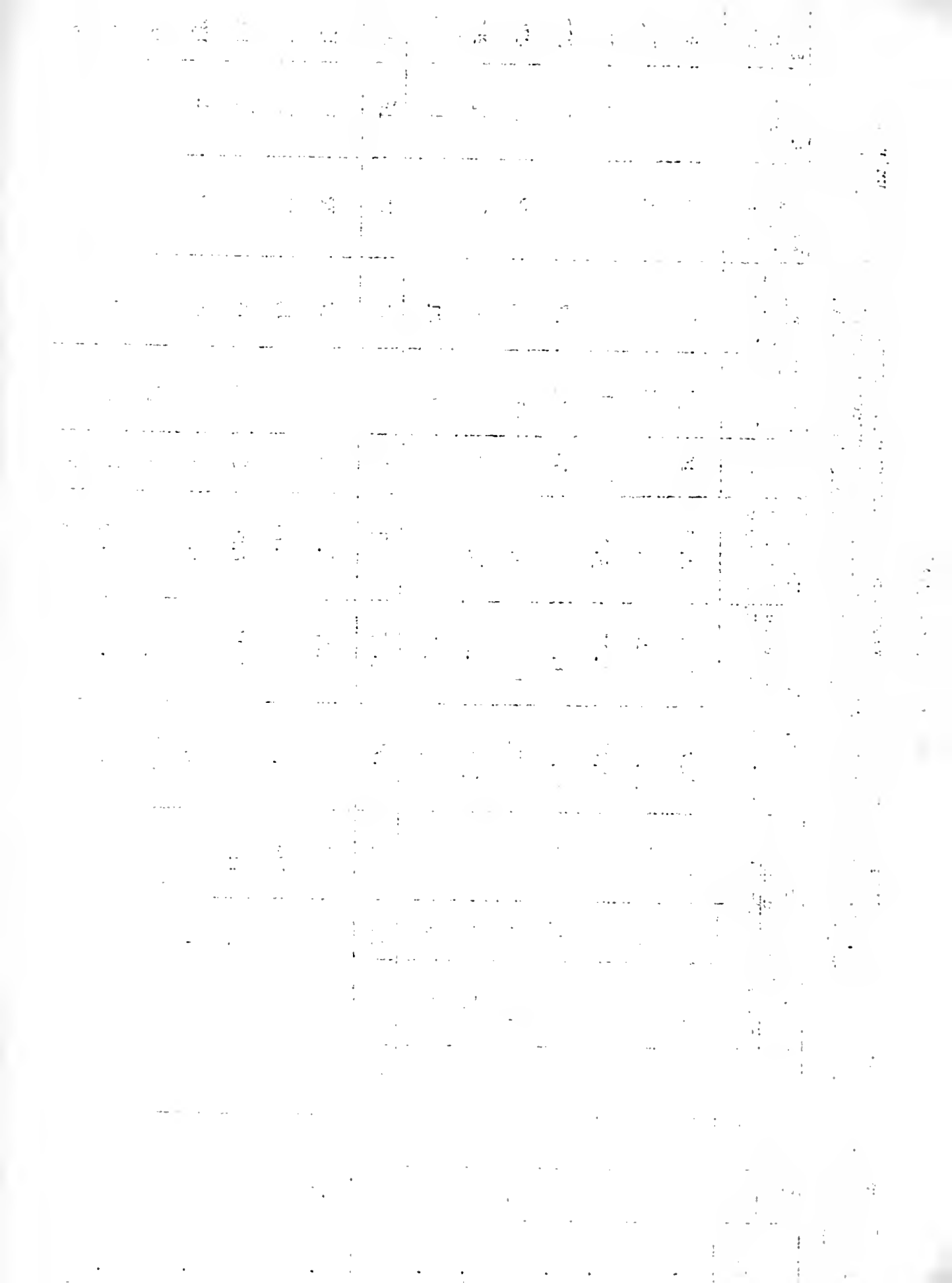
Scott County-1926

	Your Farms	Average of twenty-seven Farms	Ten Most Profitable Farms	Ten Least Profitable Farms
1 <u>Capital Investment - Total</u>	\$ _____	\$33,387	\$31,346	\$ 36,551
2 Land		24,575	22,604	26,985
3 Farm improvements		3,540	3,644	3,651
4 Machinery and equipment		1,178	1,139	1,443
5 Feed and supplies		1,861	1,602	2,189
6 Livestock		2,133	2,357	2,283
7 Horses		582	421	845
8 Cattle		584	565	708
9 Swine		754	1,151	571
10 Sheep		67	90	23
11 Poultry		146	130	136
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 3,448	\$ 4,548	\$ 2,456
13 Feed and grain		622	123	922
14 Miscellaneous		41	43	47
15 Livestock-Total		2,785	4,382	1,487
16 Horses		--	--	--
17 Cattle		449	793	271
18 Swine		1,901	3,127	905
19 Sheep		42	62	12
20 Poultry		115	134	82
21 Egg sales		169	153	110
22 Dairy sales		109	113	107
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 1,756	\$ 1,712	\$ 1,906
24 Farm improvements		207	204	201
25 Livestock		51	36	73
26 Horses		51	36	73
27 Cattle		--	--	--
28 Swine		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		398	382	463
32 Feed and supplies		--	--	--
33 Livestock expense other than feed		70	98	44
34 Crop expense		151	151	168
35 Labor hired		452	428	532
36 Taxes, insurance, etc.		397	390	398
37 Miscellaneous		30	23	27
38 <u>Receipts less Expenses</u>	\$ _____	\$ 1,692	\$ 2,836	\$ 550
39 Operator's and unpaid family labor		750	850	730
40 Net income from investment		932	1,986	-180



The numbers between the lines across the middle of the page are the approximate average for your county of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your county.

Rate earned	Bushels per acre of			Returns per \$100 invested in		Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle	Hogs				Poultry	Man	Tractor				No	trac-	tor
9.8	61	43	31	169	370	316	27.27	2.25	110	38	33	38	37	350			
8.8	58	40	29	159	350	296	25.27	2.75	105	36	31	43	34	330			
7.8	55	37	27	149	330	276	23.27	3.25	100	34	29	48	31	310			
6.8	52	34	25	139	310	256	21.27	3.75	95	32	27	53	28	290			
5.8	49	31	23	129	290	236	19.27	4.25	90	30	25	58	25	270			
4.8	46	28	21	119	270	216	17.27	4.75	85	28	23	63	22	250			
3.8	43	25	19	109	250	196	15.27	5.25	80	26	21	68	19	230			
2.8	40	22	17	99	230	176	13.27	5.75	75	24	19	73	16	210			
1.8	37	19	15	89	210	156	11.27	6.25	70	22	17	78	13	190			
0.8	34	16	13	79	190	136	9.27	6.75	65	20	15	83	10	170			
-0.2	31	13	11	69	170	116	7.27	7.25	60	18	13	88	7	150			
-1.2	28	10	9	59	150	96	5.27	7.75	55	16	11	93	4	130			
-2.2	25	7	7	49	130	76	3.27	8.25	50	14	9	98	-	110			
-3.2	22	-	5	39	110	56	1.27	8.75	45	12	7	103	-	90			
-4.2	19	-	-	29	90	36	---	9.25	40	10	5	108	-	70			



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

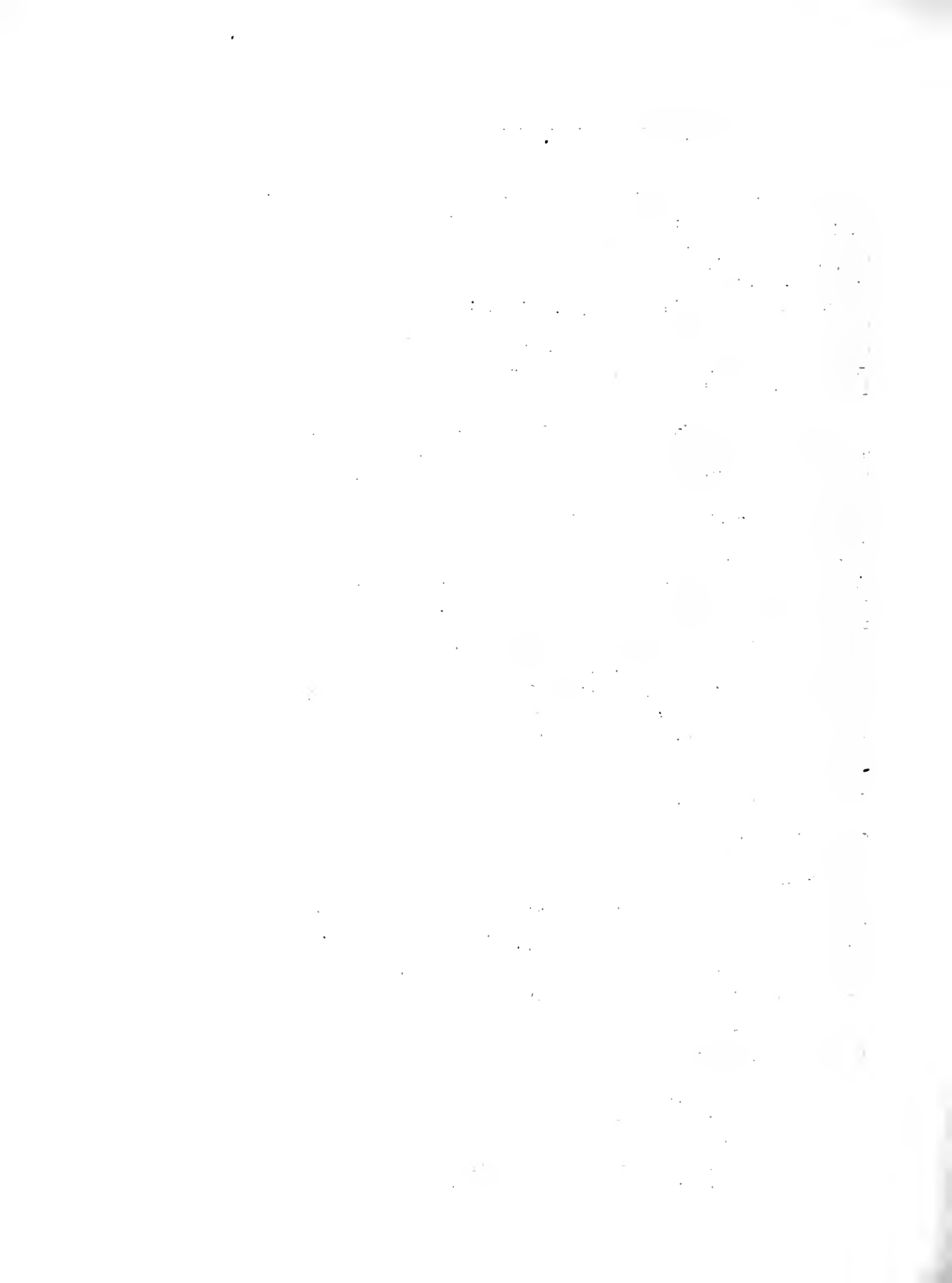
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest



conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

The first part of the report deals with the general situation in the country. It is noted that the economy is still in a state of depression, and that the government has been unable to carry out its program of reconstruction. The report also mentions the political situation, which is described as unstable and uncertain.

The second part of the report discusses the social conditions in the country. It is noted that the population is still suffering from the effects of the war, and that there is a widespread feeling of despair and hopelessness. The report also mentions the state of the education system, which is described as being in a state of collapse.

The third part of the report deals with the foreign relations of the country. It is noted that the country is still isolated and that it has been unable to establish any meaningful relations with other countries. The report also mentions the attitude of the international community towards the country, which is described as being one of indifference and neglect.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

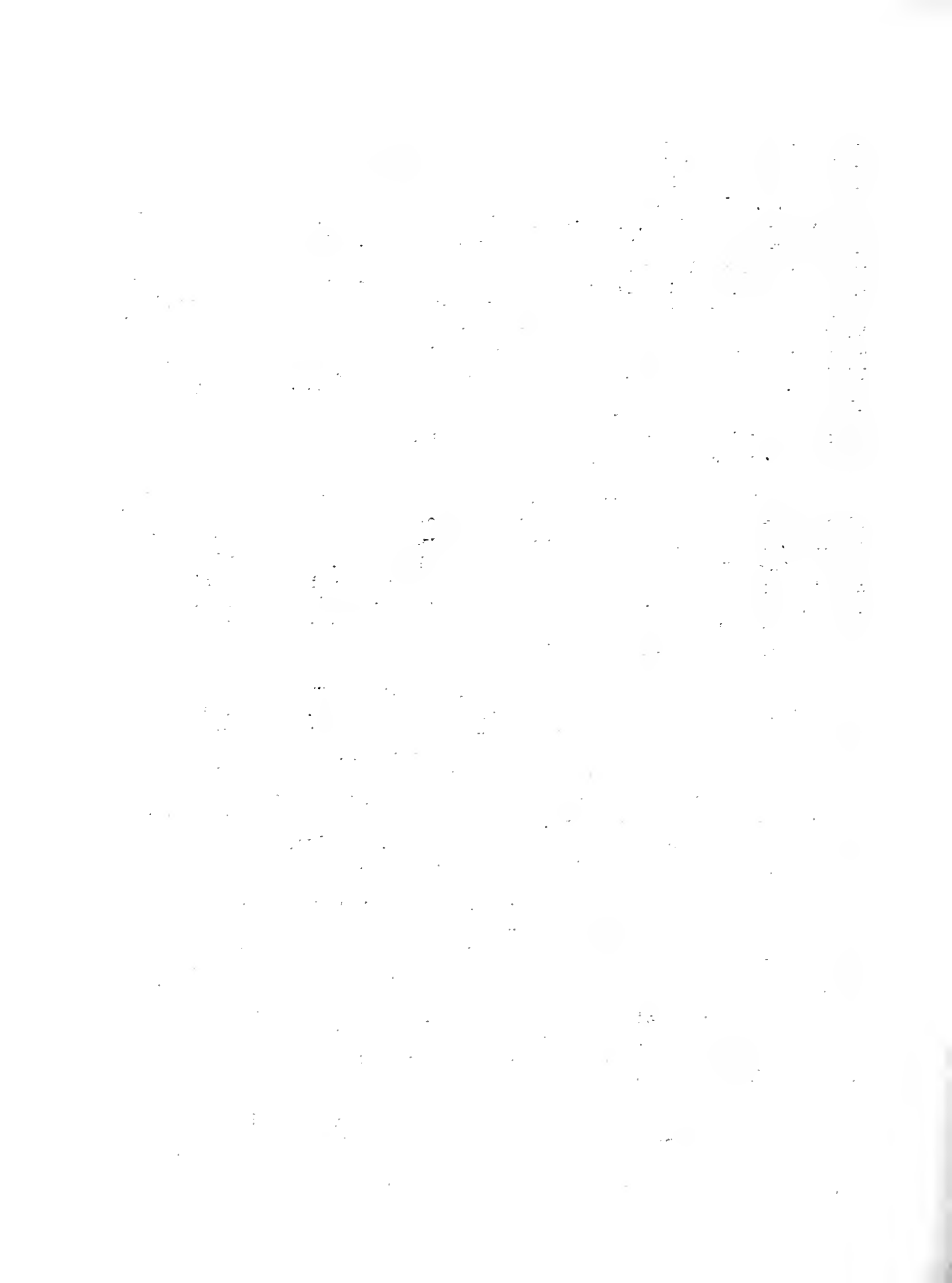
as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in



supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

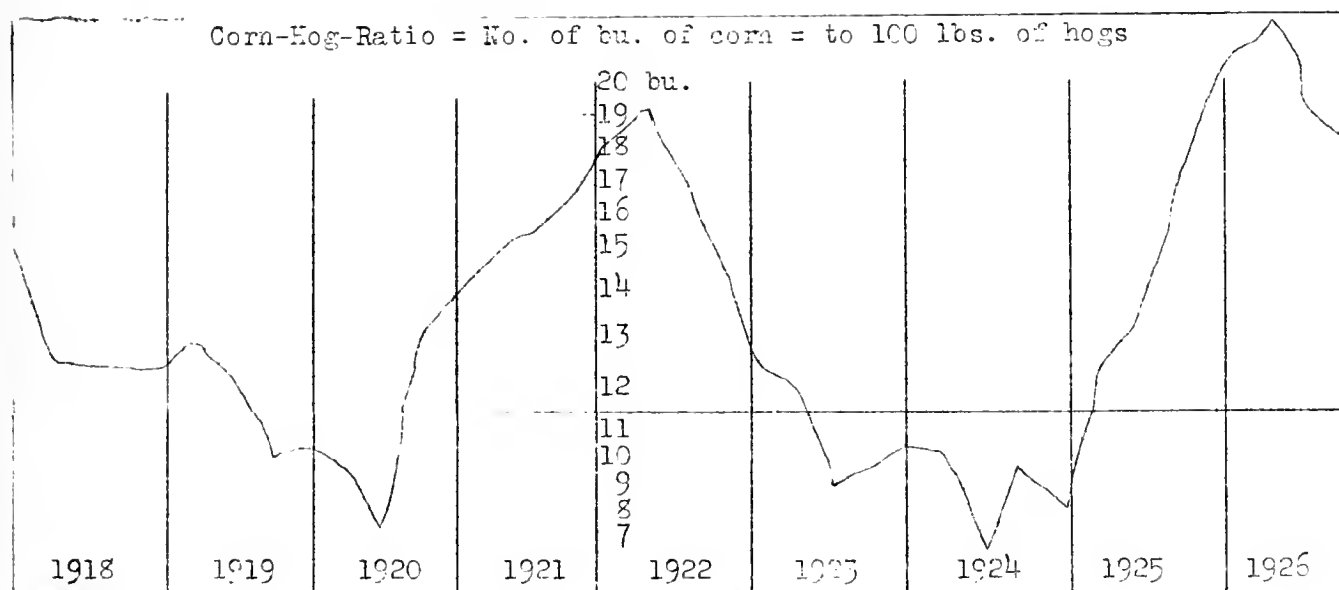
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

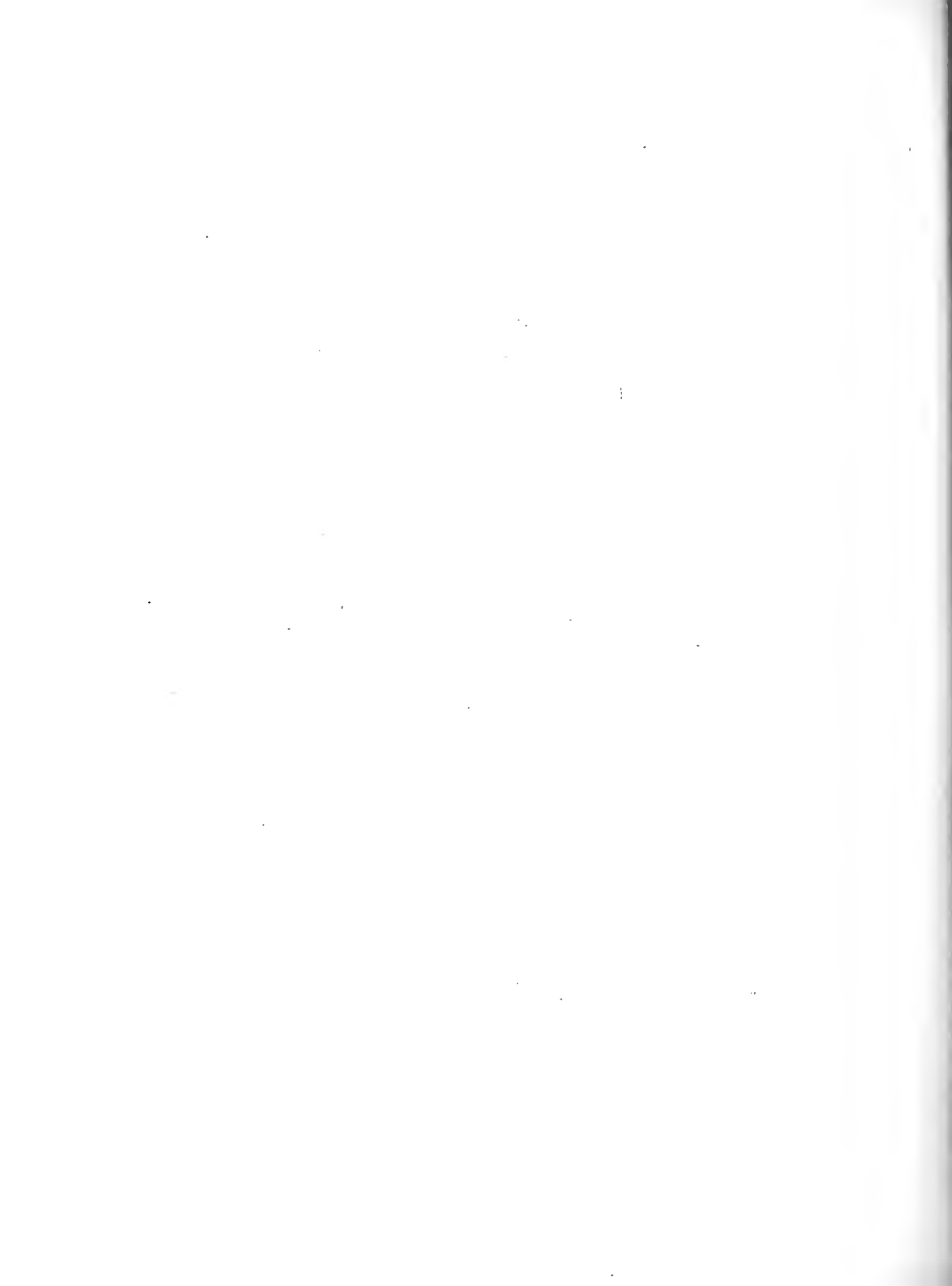
In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

CHRISTIAN, SHELBY, CUMBERLAND AND CLARK COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty Farms

for

1926

Farm Account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

June, 1927

M62

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

PHYSICAL CHEMISTRY LABORATORY

REPORT ON THE RESEARCH OF THE PHYSICAL CHEMISTRY LABORATORY

1954-1955

REPORT ON THE RESEARCH OF THE PHYSICAL CHEMISTRY LABORATORY

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REPORT ON THE RESEARCH OF THE PHYSICAL CHEMISTRY LABORATORY
1958-1959

1960-1961

1962-1963

1964

ANNUAL FARM BUSINESS REPORT

Christian, Shelby, Cumberland and Clark Counties, Illinois, 1926

Prepared by R. R. Hudelson, H. A. Berg, P. E. Johnston, H. C. M. Case*

The 20 farmers in Christian, Shelby, Cumberland and Clark counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$124 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$139 an acre. This is called their labor and management wage. The one-half of these farmers who made the best profits had an average labor and management wage of \$809, while the one-half who were least successful lacked an average of \$562 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$1,371 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 20 farmers earned 3.3 percent on their investments after allowing \$600 each to pay for his own labor. On the same basis the most successful third earned 6.1 percent and the least successful third 0.9 percent. The average investment on the 20 farms was \$28,148, which amounts to \$139 an acre. The higher profit third had an average investment of \$117 and the lower profit third \$165 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$100 an acre as an average for all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The more profitable farms averaged about 32 acres larger than the less profitable farms although records for other areas and other years indicate that this is a minor factor when even the smaller group averaged 186 acres per farm. There was little difference in the percentage of tillable land. Owing to the small number of farm accounts kept in the counties covered by this report and to the large area included it seems that there may be some difference in inventory values placed on land which is not justified by the difference in productivity of the land. This difficulty in getting representative figures is much reduced where 30 or more accounts are kept in one county and the report can be made on the basis of a single county.

*C. E. Hay, C. J. Robinson, E. A. Whalin and W. W. Merritt, farm advisers in Christian, Shelby, Cumberland and Clark counties respectively, cooperated in supervising and collecting the records used in this report.

1. The wave function $\psi(x)$ is a complex-valued function of position x . It is normalized so that the total probability of finding the particle somewhere is 1. The probability density is given by $|\psi(x)|^2$.

2. The wave function satisfies the Schrödinger equation, which is a second-order differential equation. For a particle of mass m in a potential $V(x)$, the time-independent Schrödinger equation is

$$-\frac{\hbar^2}{2m} \frac{d^2 \psi}{dx^2} + V(x) \psi = E \psi$$

where E is the energy of the particle.

3. The wave function is continuous and its first derivative is also continuous, except at points where the potential is infinite. At such points, the wave function must be zero.

4. The wave function is real-valued for stationary states, which are eigenstates of the Hamiltonian. For these states, the probability density is constant in time.

5. The wave function is complex-valued for non-stationary states. In this case, the probability density is not constant in time, and the wave function oscillates in phase.

6. The wave function is a superposition of stationary states. This is the case for any wave function that is not an eigenstate of the Hamiltonian. The stationary states are the eigenstates of the Hamiltonian, and they form a complete set of orthonormal functions.

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The more profitable farms had some advantage in their cropping system since they had a larger proportion of their land in wheat which under 1926 price and yield conditions was more profitable than corn or oats.

As a rule for other areas and for other years we have found that the more profitable group of farms produced distinctly larger yields of crops than the less profitable farms. For 1926 the difference in yield between these groups was generally smaller than usual and for this area we find the difference reversed. Other differences such as that of having more hogs and putting a lower price on land tended to cover up the yield difference in this case.

Apparently the greatest single advantage of the more profitable farms covered by this report was in their larger numbers of hogs per farm. For 1926 the hog production enterprise was the largest and most profitable one on the average farm of this section. The less successful farm operators included in this report actually handled their livestock a little more efficiently than the more successful farmers but for 1926 having more hogs was the thing which set the more profitable farms ahead. As indicated on the last page of this report this situation is not so likely to prevail in 1927. Through a period of years we have found it more important for the average farm to have a well balanced crop and livestock system than to be highly specialized on one enterprise. For the farms covered by this report the larger livestock investment per acre on the more profitable farms was due primarily to a larger investment in hogs.

On the expense side of the business we find that the more profitable farms show a higher efficiency with man labor and horse power and since these are the largest items of operating cost on most farms this was a distinct advantage. A combination of crops and livestock selected so as to use as near the same amount of labor throughout the year as possible is a great help in securing labor and power efficiency. Other helps consist in having large fields as conveniently located as possible and in using as large machinery and equipment as the size and type of farm will justify. It may be noted that the less profitable farms had a higher cost per acre for equipment. Part of this was caused by the smaller average size of these farms. The larger farms have some advantage in equipment and farm improvement costs. It may be noted on page four that the total operating costs for the average farm in each group run fairly near the same amount but the higher profit farms being larger have more acres over which to spread these costs. They have about \$3.40 more gross income per acre which, taken with their lower costs, gives them a net income per acre \$5.64 larger than on the less profitable farms. This advantage is not in any way dependent on a difference in land values since no interest charges are included in these operating costs.

Some points of strength and some of weakness in your own business may be found by comparing the factors from your own record in the following tables with the same factors for the average farm as well as for farms of the higher and lower profit groups.

Christian, Shelby, Cumberland and Clark Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of 20 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.31%	6.15%	.94%
Labor and management wage	\$	\$ 124	\$ 809	\$-562
Size of farm - acres	A	202.2 A	218.4 A	186.0 A
Percent of land area tillable	%	86.0 %	85.3 %	86.8 %
Acres in Corn	A	53.6 A	48.1 A	58.9 A
Oats	A	20.3 A	18.7 A	21.9 A
Wheat	A	9.9 A	13.7 A	6.2 A
Crop yields - Corn	bu.	36.1 bu.	35.2 bu.	36.8 bu.
Oats	bu.	31.1 bu.	22.6 bu.	37.6 bu.
Wheat	bu.	19.4 bu.	17.6 bu.	23.5 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 141	\$ 136	\$ 150
For \$100 in Cattle	\$	\$ 82	\$ 86	\$ 77
Swine	\$	\$ 217	\$ 186	\$ 285
Poultry	\$	\$ 197	\$ 201	\$ 192
Investment per acre in productive livestock	\$	\$ 10.19	\$ 11.24	\$ 8.94
Receipts per acre from productive livestock	\$	\$ 14.42	\$ 15.24	\$ 13.45
Man labor cost per acre	\$	\$ 5.09	\$ 4.51	\$ 5.77
Crop acres per man	A	72.5 A	76.0 A	69.1 A
Crop acres per horse (with tractor)	A	27.3 A	27.6 A	26.9 A
(w without tractor)	A	19.7 A	20.7 A	18.7 A
Expense per \$100 gross income	\$	\$ 70	\$ 58	\$ 88
Machinery cost per acre	\$	\$ 2.04	\$ 1.75	\$ 2.38
Building and fencing cost per acre	\$	\$.74	\$.75	\$.73
Gross receipts per acre	\$	\$ 15.33	\$ 17.26	\$ 13.83
Total expenses per acre	\$	\$ 10.73	\$ 10.06	\$ 12.27
Net receipts per acre	\$	\$ 4.60	\$ 7.20	\$ 1.56
Percent of farms with tractor	%	30%	30%	30%
Value of land per acre	\$	\$ 100	\$ 78	\$ 125
Total investment per acre	\$	\$ 139	\$ 117	\$ 165

MEMORANDUM FOR THE RECORD

DATE	TIME	LOCATION	REMARKS
1954-01-15	08:00	OFFICE	Arrived office, checked mail.
1954-01-15	14:30	FIELD	Conducted survey at site X.
1954-01-16	07:00	FIELD	Left office for field work.
1954-01-16	12:00	FIELD	Lunch break at site Y.
1954-01-17	09:00	FIELD	Continued survey at site Z.
1954-01-18	10:00	FIELD	Sample collection at site A.
1954-01-19	11:00	FIELD	Data recording at site B.
1954-01-20	13:00	FIELD	Equipment maintenance.
1954-01-21	08:00	FIELD	Arrived field site early.
1954-01-22	14:00	FIELD	Site inspection and notes.
1954-01-23	09:00	FIELD	Weather report and planning.
1954-01-24	11:00	FIELD	Final data entry for day.
1954-01-25	10:00	FIELD	Departed field site.

Christian, Shelby, Cumberland and Clark Counties, 1926

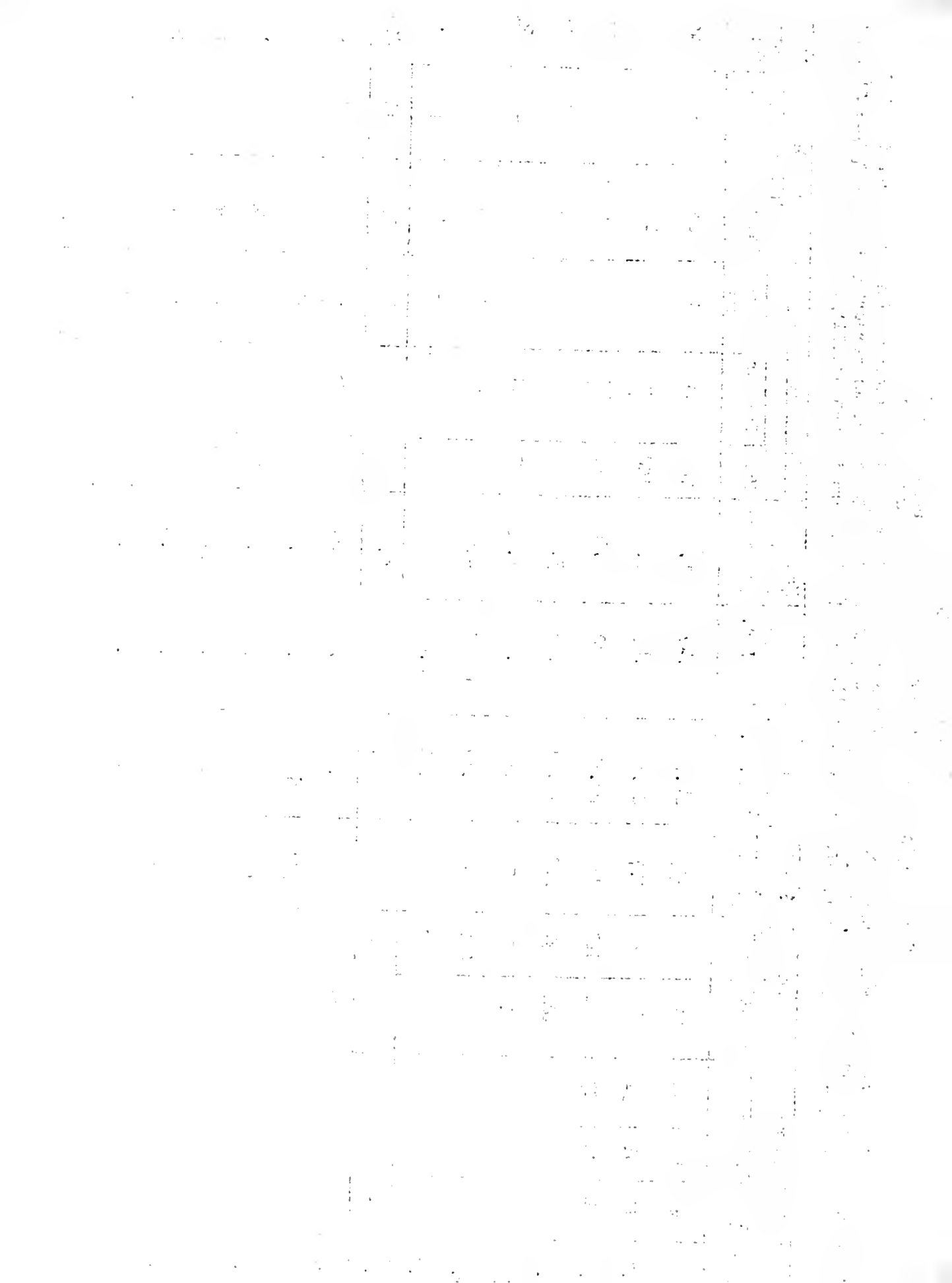
Item	Your farm	Average of 20 farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$28,148	\$25,577	\$30,718
2 Land		20,129	16,953	23,306
3 Farm improvements		2,902	2,802	3,002
4 Machinery and equipment		1,013	1,162	864
5 Feed and supplies		1,464	1,582	1,345
6 Livestock		2,640	3,078	2,201
7 Horses		631	634	628
8 Cattle		921	977	864
9 Swine		746	1,062	430
10 Sheep		189	253	125
11 Poultry		153	152	154
12 <u>Receipts - Net Increases - Total</u>	\$ _____	\$ 3,101	\$ 3,769	\$ 2,572
13 Feed and grain		9	156	--
14 Miscellaneous		119	187	51
15 Livestock - Total		2,973	3,426	2,521
16 Horses		57	96	19
17 Cattle		490	556	424
18 Swine		1,727	2,007	1,447
19 Sheep		116	158	73
20 Poultry		159	166	153
21 Egg sales		158	164	151
22 Dairy sales		266	279	254
23 <u>Expenses - Net Decreases - Total</u>	\$ _____	\$ 1,415	\$ 1,500	\$ 1,469
24 Farm improvements		150	163	136
25 Livestock		--	--	--
26 Horses		--	--	--
27 Cattle		--	--	--
28 Swine		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		413	383	443
32 Feed and supplies		--	--	138
33 Livestock expense other than feed		86	110	62
34 Crop expense		179	209	149
35 Labor hired		275	290	260
36 Taxes, insurance, etc.		279	303	256
37 Miscellaneous		33	42	25
38 <u>Receipts less Expenses</u>	\$ _____	\$ 1,686	\$ 2,269	\$ 1,103
39 Operator's and unpaid family labor		755	696	813
40 Net income from investment		931	1,573	290

Find Your Farm Leaks

Christian, Shelby, Cumberland and Clark Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of			Returns per \$100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per \$100 income	Gross receipts per acre	Size of farm			
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Horse					Tractor	No	tor
											No	tor						
10.3	82	41	33	152	357	337	24.19	28.42	1.50	107	41	34	42	29	340			
9.3	78	38	31	142	337	317	22.19	26.42	2.00	102	39	32	46	27	320			
8.3	74	35	29	132	317	297	20.19	24.42	2.50	97	37	30	50	25	300			
7.3	70	32	27	122	297	277	18.19	22.42	3.00	92	35	28	54	23	280			
6.3	66	29	25	112	277	257	16.19	20.42	3.50	87	33	26	58	21	260			
5.3	62	26	23	102	257	237	14.19	18.42	4.00	82	31	24	62	19	240			
4.3	58	23	21	92	237	217	12.19	16.42	4.50	77	29	22	66	17	220			
3.3	54	20	19	82	217	197	10.19	14.42	5.00	72	27	20	70	15	200			
2.3	50	17	17	72	197	177	8.19	12.42	5.50	67	25	18	74	13	180			
1.3	46	14	15	62	177	157	6.19	10.42	6.00	62	23	16	78	11	160			
0.3	42	11	13	52	157	137	4.19	8.42	6.50	57	21	14	82	9	140			
-0.7	38	8	11	42	137	117	2.19	6.42	7.00	52	19	12	86	7	120			
-1.7	34	-	9	32	117	97	-	4.42	7.50	47	17	10	90	5	100			
-2.7	30	-	7	22	97	77	-	2.42	8.00	42	15	8	94	-	80			
-3.7	26	-	-	12	77	57	-	-	8.50	37	13	6	98	-	60			



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

The history of the United States of America is a complex and multifaceted story that spans centuries. It begins with the early Native American civilizations, such as the Mayans, Aztecs, and Incas, who developed sophisticated societies in the Americas. The arrival of European explorers, including Christopher Columbus and John Cabot, marked the beginning of a new era of discovery and colonization. The United States was founded in 1776, and its early years were characterized by a struggle for independence from British rule. The American Revolution led to the signing of the Declaration of Independence and the establishment of a new nation. The early years of the United States were marked by westward expansion, the Louisiana Purchase, and the War of 1812. The mid-19th century saw the rise of the Industrial Revolution, which transformed the economy and society. The Civil War (1861-1865) was a pivotal moment in American history, as it resolved the issue of slavery and preserved the Union. The Reconstruction era followed, and the United States emerged as a more unified and powerful nation. The late 19th and early 20th centuries saw the rise of the Progressive Era, which focused on social reform and the expansion of government power. The United States entered World War I in 1917, and World War II (1941-1945) was a defining moment in the 20th century. The Cold War era (1945-1991) was characterized by a rivalry between the United States and the Soviet Union. The end of the Cold War led to a new era of globalization and technological advancement. The United States continues to play a significant role in the world, and its history remains a source of inspiration and reflection for people around the globe.

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

The first part of the report deals with the general situation in the country. It is noted that the economy is still in a state of depression, and that the government has been unable to carry out its program of reconstruction. The report also mentions the political situation, which is described as unstable and uncertain.

The second part of the report discusses the social conditions in the country. It is noted that the population is still suffering from the effects of the war, and that there is a widespread feeling of despair and hopelessness. The report also mentions the state of the education system, which is described as being in a state of collapse.

The third part of the report deals with the foreign relations of the country. It is noted that the country is still isolated and that it has been unable to establish any meaningful relations with other countries. The report also mentions the attitude of the international community towards the country, which is described as being one of indifference and neglect.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

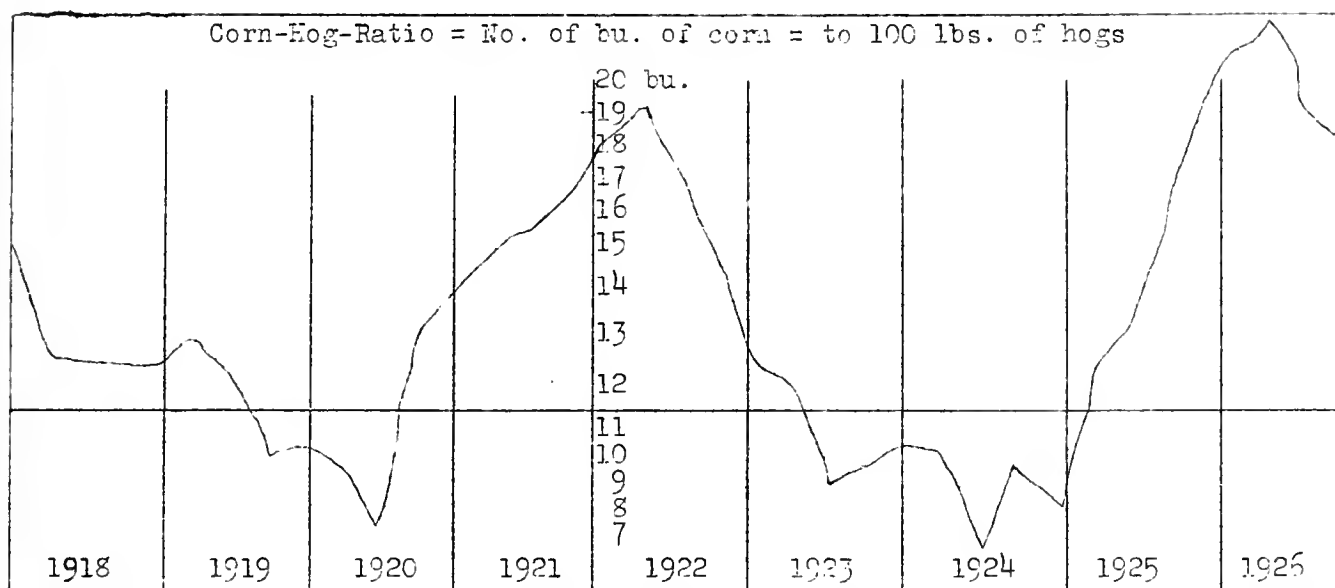
It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.





The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

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THE UNIVERSITY OF CHICAGO

1950

Dear Mr. [Name]:

I have your letter of [Date] regarding [Subject].

I am sorry that I cannot give you a more definite answer at this time.

The [Department] is currently [Status] and we are [Action].

I will be glad to discuss this with you further if you wish.

Sincerely,
[Name]

Very truly yours,
[Name]

[Additional text or signature block]

UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE
Department of Farm Organization and Management
and
JERSEY AND GREENE COUNTY FARM BUREAUS
Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-one Farms

for

1926

Farm Account keepers say:
"Farm accounts are more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

M57

1. The first part of the document is a list of names.

2. The second part is a list of dates.

3. The third part is a list of locations.

4.

5. The fifth part is a list of names.

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ANNUAL FARM BUSINESS REPORT

Jersey and Green Counties, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. A. Berg, H. C. M. Case*

The 31 farmers in Jersey and Green counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$861 to pay for their labor, management and risk after paying expenses and allowing 5 percent on their average investment of \$161 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$2,436, while the one-third who were least successful lacked an average of \$615 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$3,051 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 31 farmers earned 6 percent on their investments after allowing \$720 each to pay for his own labor. On the same basis the most successful third earned 11 percent and the least successful third 1.9 percent. The average investment on the 31 farms was \$33,294, which amounts to \$161 an acre. The higher profit third had an average investment of \$165 and the lower profit third \$150 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4. The land alone was valued at \$111 an acre as an average for all farms.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The 10 least profitable farms averaged about 40 acres larger in size than the 10 most profitable farms. They did a smaller average business, however, as shown in gross income. The farms of the more profitable group although smaller in area had within 4 acres of as much tillable land and they had 13 acres more corn and 5 acres more wheat per farm than the low profit farms. As to volume of business the more successful farms had an average gross income per farm of \$6,136 compared with \$3,525 on the less successful farms. From this it is evident that size of business is not de-

*F. H. Shuman and R. J. Laible, farm advisers in Jersey and Greene counties respectively cooperated in supervising and collecting the records used in this report.

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terminated entirely by the number of acres.

The operators of the more successful farms raised an average of 10 bushels more corn and 5 bushels more wheat per acre than their less successful neighbors. This was a distinct advantage since acre costs usually do not increase much with higher yields and the margin of profit is therefore made greater by the larger amount of produce per acre.

The greatest single advantage of the more successful farm operators whose records are included in this report was in having more livestock and in handling their livestock more efficiently. The high profit group had a livestock investment of \$14.48 an acre compared with \$10.05 an acre on the low profit farms. The advantage in livestock income was even greater, it being \$28.47 an acre on the more profitable farms and about half as much or \$14.46 on the less profitable farms. Another indication of the greater efficiency of the livestock on the more profitable farms is seen in the fact that they realized \$197 of livestock income for each \$100 of livestock investment compared with \$144 of livestock income for each \$100 of livestock investment on the less profitable farms. Still another evidence of the greater livestock efficiency on the higher profit farms is seen in the fact that although they were smaller farms they fed out and sold an average of 60 percent more livestock and still had a little more income from crops than the low profit farms.

Labor and equipment costs per acre were slightly larger on the more profitable farms. This is to be expected, however, since they have less permanent pasture and more livestock per farm. That they handled their expenses judiciously is shown by the fact that they realized a little over twice as much gross income per acre at an operating expense only 77 cents an acre larger than on the low profit farms. Operating costs amounted to \$41 for every \$100 income on the more profitable farms compared with operating costs of \$80 for every \$100 income on the low profit farms. This left net receipts per acre six times as large on the more profitable farms.

If we make allowance for the fact that there has been a considerable growth in this accounting project making necessary some shifting in farms covered from year to year we can safely draw some comparisons in earnings, investments and costs during the last four years. The comparative figures are set up in the following table. Including Macoupin County records for 1924 probably accounts for the larger amount of dairy income that year. Including Morgan County records for 1925 probably helped increase the average size of the hog business. It seems from these data that farms in the locality of Greene and Jersey Counties met with more favorable conditions in 1925 than in any other year of the last four and that 1926 was only a little worse. It is interesting to note that the grain selling sections of Illinois found 1924 the best year since 1919 and that for them 1925 and 1926 have been very unsatisfactory. This illustrates the fact that changing price conditions may affect each locality differently according to the type of farming followed.

The first part of the report deals with the general situation in the country during the year 1945. It is noted that the economy was in a state of depression and that the government was unable to meet its obligations. The report also mentions the political situation and the role of the military.

The second part of the report discusses the economic situation in more detail. It notes that the government had to resort to various measures to stabilize the economy, including the imposition of price controls and the nationalization of key industries. The report also mentions the impact of the war on the economy and the need for reconstruction.

The third part of the report deals with the political situation. It notes that the government was unable to maintain a stable coalition and that there was a need for a new government. The report also mentions the role of the military and the need for a constitution.

The fourth part of the report discusses the social situation. It notes that the population was suffering from poverty and that there was a need for social reforms. The report also mentions the role of the government in providing social services and the need for a new social policy.

Comparative Earnings on Farms in Jersey and Greene
and Adjoining Counties

Item	1923 ⁽¹⁾	1924 ⁽²⁾	1925 ⁽³⁾	1926 ⁽⁴⁾
Number of farms included	11	41	40	31
Average size of farms in acres	166	174	185	207
Average rate earned on investment	3.7%	4.6%	7.1%	6.0%
Average value of land per acre	\$ 98	\$ 104	\$ 115	\$ 111
Average investment per acre	128	146	159	161
Investment in livestock per farm	1,810	2,037	2,142	3,281
Investment in cattle per farm	552	993	819	1,478
Investment in hogs per farm	477	410	618	981
Investment in poultry per farm	102	130	114	130
Gross income per acre	16.24	18.61	23.35	22.38
Operating cost per acre	11.47	11.87	12.08	12.63
Grain sales less feed purchases per farm	835	783	1,087	351
Miscellaneous income per farm	19	151	117	63
Livestock income per farm	1,829	2,311	3,128	4,218
Gross income per farm	2,683	3,245	4,332	4,632
Cattle income per farm	145	232	415	987
Dairy products income per farm	421	802	559	600
Hog income per farm	952	913	1,845	2,271
Poultry income per farm	161	274	234	306

Some points of strength and some of weakness in your own farm business may be found by comparing the factors from your own record in the following tables with the same factors for the average farm as well as for farms of the high and low profit groups.

(1) Only Jersey County records included in 1923.

(2) Records from Macoupin, Jersey and Greene counties included for 1924.

(3) Records from Jersey, Greene and Morgan counties included for 1925.

(4) Records from Jersey and Greene counties included for 1926.

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Total \$ _____

Subscribed and sworn to before me this _____ day of _____ 19____

Notary Public in and for the State of Texas

STATE OF TEXAS
COUNTY OF _____

Total \$ _____

Subscribed and sworn to before me this _____ day of _____ 19____

Notary Public in and for the State of Texas

Jersey and Greene Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of 31 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	6.06%	11.04%	1.93%
Labor and management wage	\$	\$ 861	\$2,436	\$-615
Size of farm - acres	A	207 A	198.8 A	238.5 A
Percent of land area tillable	%	79.5 %	84.0 %	71.8 %
Acres in Corn	A	58.9 A	68.7 A	55.9 A
Oats	A	16.1 A	13.9 A	17.4 A
Wheat	A	32.4 A	36.3 A	33.5 A
Crop yields - Corn	bu.	42.4 bu.	44.4 bu.	34.7 bu.
Oats	bu.	28.9 bu.	26.0 bu.	32.2 bu.
Wheat	bu.	19.9 bu.	21.7 bu.	16.6 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 163	\$ 197	\$ 144
For \$100 in Cattle	\$	\$ 114	\$ 132	\$ 104
Hogs	\$	\$ 250	\$ 273	\$ 264
Poultry	\$	\$ 217	\$ 233	\$ 178
Investment per acre in productive livestock	\$	\$ 12.49	\$ 14.48	\$ 10.05
Receipts per acre in productive livestock	\$	\$ 20.38	\$ 28.47	\$ 14.46
Man labor cost per acre	\$	\$ 6.15	\$ 6.18	\$ 5.39
Crop acres per man	A	66.5 A	68.8 A	69.2 A
Crop acres per horse (with tractor)	A	22.6 A	24.1 A	26.8 A
(wwithout tractor)	A	16.7 A	18.0 A	16.7 A
Expense per \$100 gross income	\$	\$ 56	\$ 41	\$ 80
Machinery cost per acre	\$	\$ 2.24	\$ 2.35	\$ 2.27
Building and fencing cost per acre	\$	\$.98	\$.70	\$ 1.06
Gross receipts per acre	\$	\$ 22.38	\$ 30.87	\$ 14.78
Total expenses per acre	\$	\$ 12.63	\$ 13.66	\$ 11.89
Net receipts per acre	\$	\$ 9.75	\$ 18.21	\$ 2.89
Percent of farms with tractor		38 %	30 %	50 %
Value of land per acre	\$	\$ 111	\$ 111	\$ 108
Total investment per acre	\$	\$ 161	\$ 165	\$ 150

Date	Description	Debit	Credit	Balance	Remarks
1912	Jan 1				Balance forward
	Jan 15	100.00		100.00	Payment
	Jan 30		50.00	150.00	Receipt
	Feb 15	200.00		350.00	Payment
	Feb 28		100.00	450.00	Receipt
	Mar 15	150.00		600.00	Payment
	Mar 31		200.00	800.00	Receipt
	Apr 15	300.00		1100.00	Payment
	Apr 30		150.00	1250.00	Receipt
	May 15	100.00		1350.00	Payment
	May 31		250.00	1600.00	Receipt
	Jun 15	250.00		1850.00	Payment
	Jun 30		100.00	1950.00	Receipt
	Jul 15	150.00		2100.00	Payment
	Jul 31		300.00	2400.00	Receipt
	Aug 15	100.00		2500.00	Payment
	Aug 31		150.00	2650.00	Receipt
	Sep 15	200.00		2850.00	Payment
	Sep 30		100.00	2950.00	Receipt
	Oct 15	150.00		3100.00	Payment
	Oct 31		200.00	3300.00	Receipt
	Nov 15	100.00		3400.00	Payment
	Nov 30		150.00	3550.00	Receipt
	Dec 15	250.00		3800.00	Payment
	Dec 31		100.00	3900.00	Receipt
	Total	2000.00	2000.00		

Jersey and Greene Counties, 1926

Item	Your farm	Average of 31 farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$33,294	\$32,781	\$35,689
2 Land		23,062	22,139	25,775
3 Farm improvements		3,305	3,080	3,392
4 Machinery and equipment		1,243	1,241	1,200
5 Feed and supplies		2,403	2,684	2,236
6 Livestock		3,281	3,637	2,086
7 Horses		507	547	415
8 Cattle		1,478	1,680	1,353
9 Hogs		981	1,254	774
10 Sheep		185	32	460
11 Poultry		130	124	84
12 <u>Receipts-Net, Increases-Total</u>	\$ _____	\$ 4,632	\$ 6,136	\$ 3,525
13 Feed and grain		351	412	26
14 Miscellaneous		63	65	50
15 Livestock - Total		4,218	5,659	3,449
16 Horses		-	-	-
17 Cattle		987	1,429	524
18 Hogs		2,271	3,306	1,866
19 Sheep		54	37	111
20 Poultry		149	210	81
21 Egg sales		157	132	78
22 Dairy sales		600	545	789
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 1,934	\$ 1,901	\$ 2,289
24 Farm improvements		203	139	254
25 Livestock		31	40	31
26 Horses		31	40	31
27 Cattle		-	-	-
28 Hogs		-	-	-
29 Sheep		-	-	-
30 Poultry		-	-	-
31 Machinery and equipment		463	468	542
32 Feed and supplies		-	-	-
33 Livestock expense other than feed		86	99	84
34 Crop expense		211	185	259
35 Labor hired		593	614	739
36 Taxes, insurance, etc.		311	305	350
37 Miscellaneous		36	51	30
38 <u>Receipts less expenses</u>	\$ _____	\$ 2,698	\$ 4,235	\$ 1,236
39 Operator's and unpaid family labor		681	615	547
40 Net income from investment		2,017	3,620	689

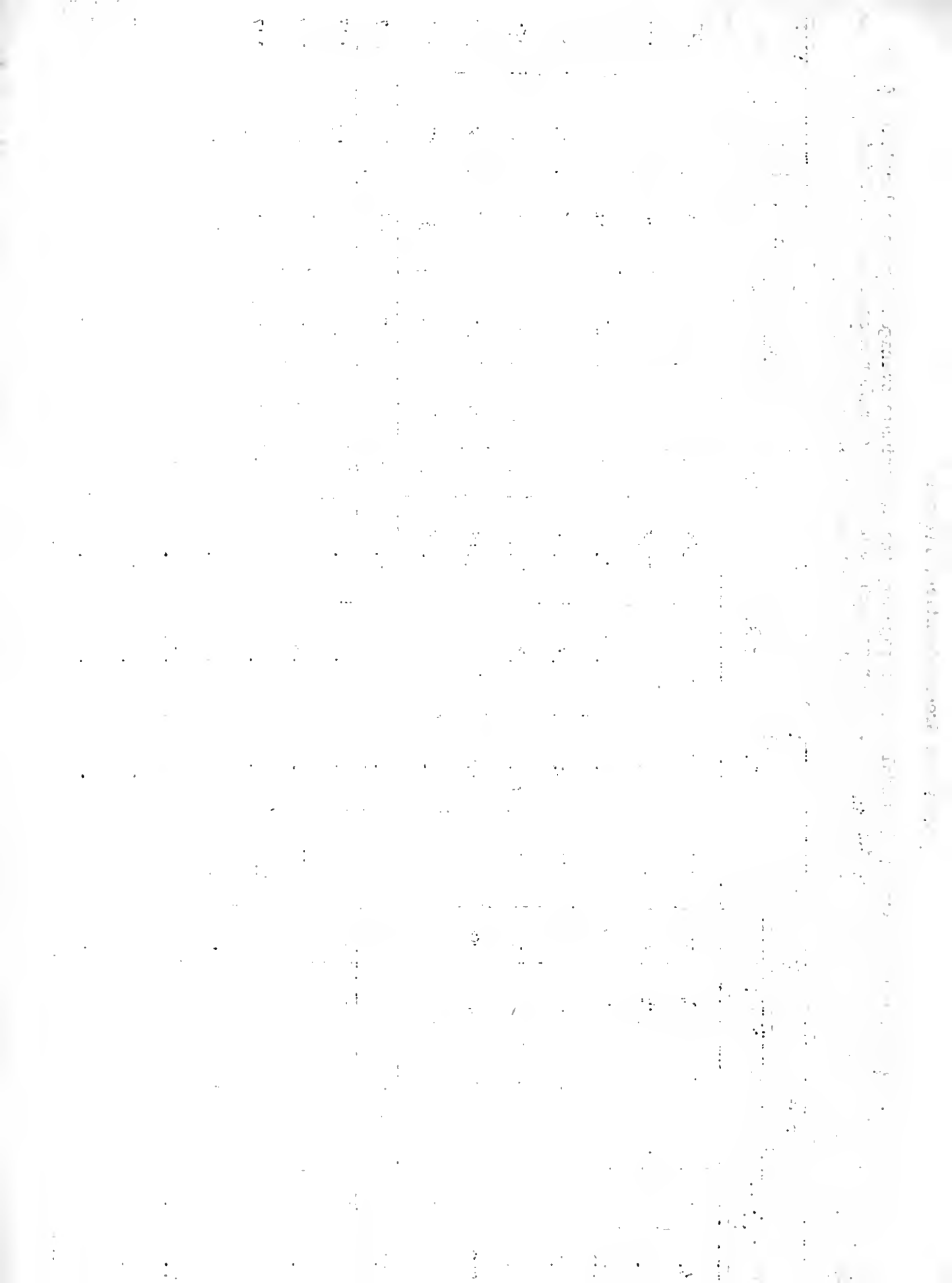
Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is arranged in several columns and appears to be a list or a set of notes.

Find Your Farm Leaks

Jersey and Greene Counties, Illinois

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expenses per \$100 income	Gross receipts per acre	Size of farm		
	Corn	Oats	Wheat	Cattle				Hogs	Poultry	Man				Horse		Tractor
					No	trac-	tor.								
13.0	70	50	34	184	390	357	26.50	34.38	2.65	101	37	31	21	43	347
12.0	66	47	32	174	370	337	24.50	32.38	3.15	96	35	29	26	40	327
11.0	62	44	30	164	350	317	22.50	30.38	3.65	91	33	27	31	37	307
10.0	58	41	28	154	330	297	20.50	28.38	4.15	86	31	25	36	34	287
9.0	54	38	26	144	310	277	18.50	26.38	4.65	81	29	23	41	31	267
8.0	50	35	24	134	290	257	16.50	24.38	5.15	76	27	21	46	28	247
7.0	46	32	22	124	270	237	14.50	22.38	5.65	71	25	19	51	25	227
6.0	42	29	20	114	250	217	12.50	20.38	6.15	66	23	17	56	22	207
5.0	38	26	18	104	230	197	10.50	18.38	6.65	61	21	15	61	19	187
4.0	34	23	16	94	210	177	8.50	16.38	7.15	56	19	13	66	16	167
3.0	30	20	14	84	190	157	6.50	14.38	7.65	51	17	11	71	13	147
2.0	26	17	12	74	170	137	4.50	12.38	8.15	46	15	9	76	10	127
1.0	22	14	10	64	150	117	2.50	10.38	8.65	41	13	7	81	7	107
0.0	18	11	8	54	130	97	--	8.38	9.15	36	11	5	86	4	87
-1.0	--	--	--	44	110	77	--	6.38	9.65	31	9	--	91	--	67



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

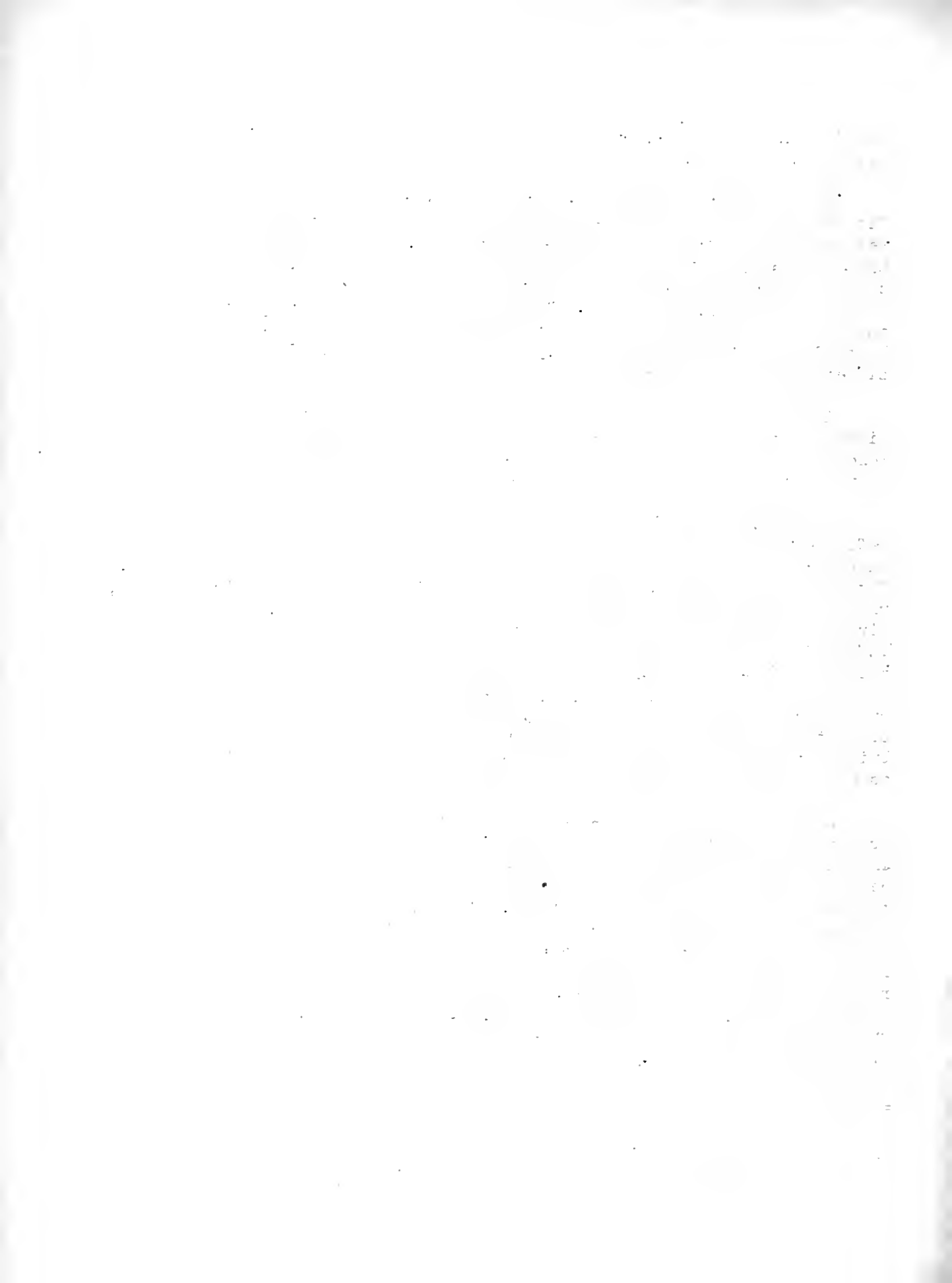
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent data collection procedures and the use of advanced analytical techniques to derive meaningful insights from the data.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and processing, thereby improving efficiency and reducing the risk of errors.

4. The fourth part of the document addresses the challenges associated with data security and privacy. It stresses the importance of implementing robust security measures to protect sensitive information and ensure compliance with relevant regulations.

5. The fifth part of the document provides a summary of the key findings and recommendations. It concludes that a comprehensive data management strategy is crucial for the organization's success and that ongoing monitoring and improvement are necessary to stay ahead of the competition.

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

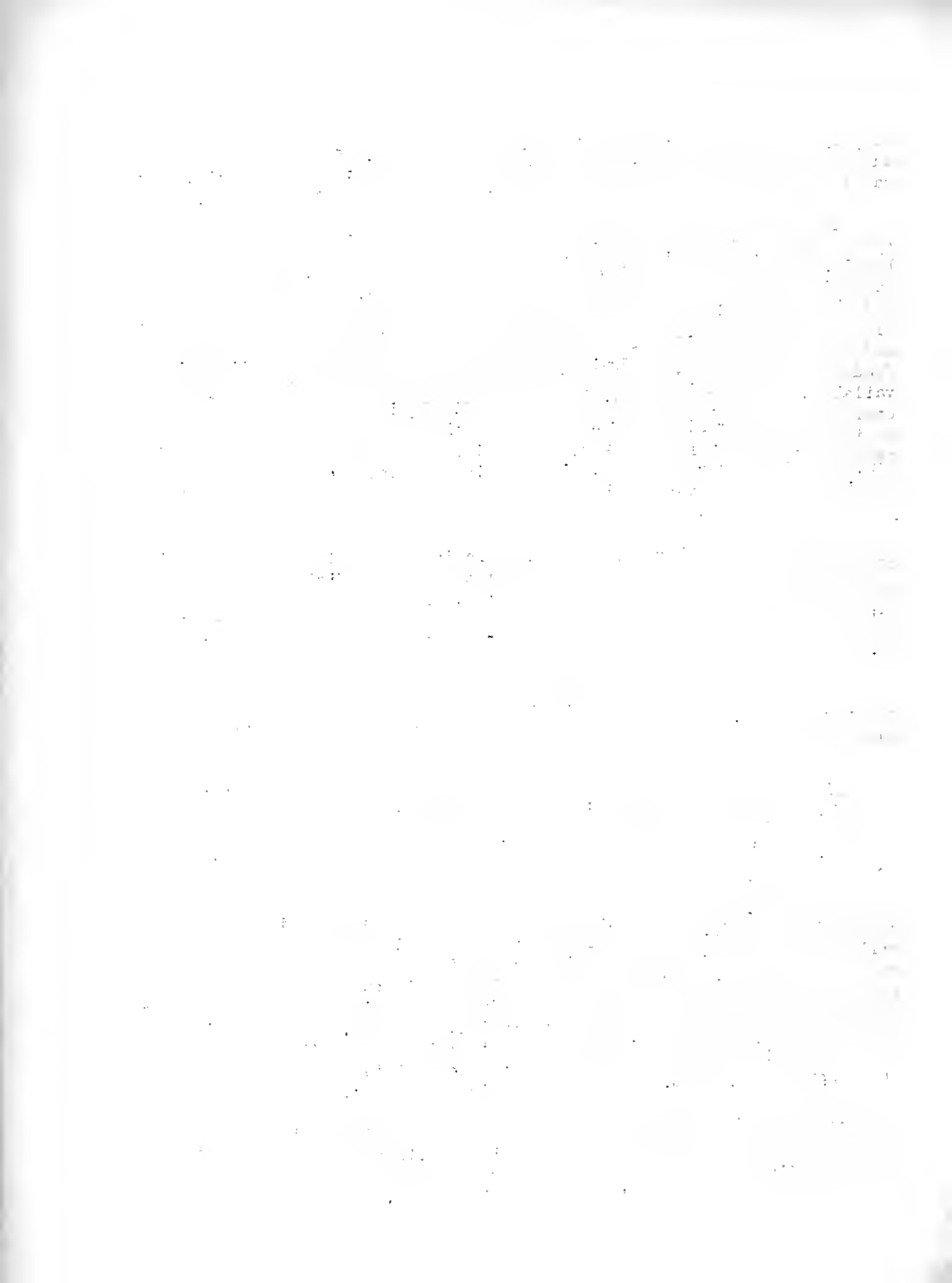
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

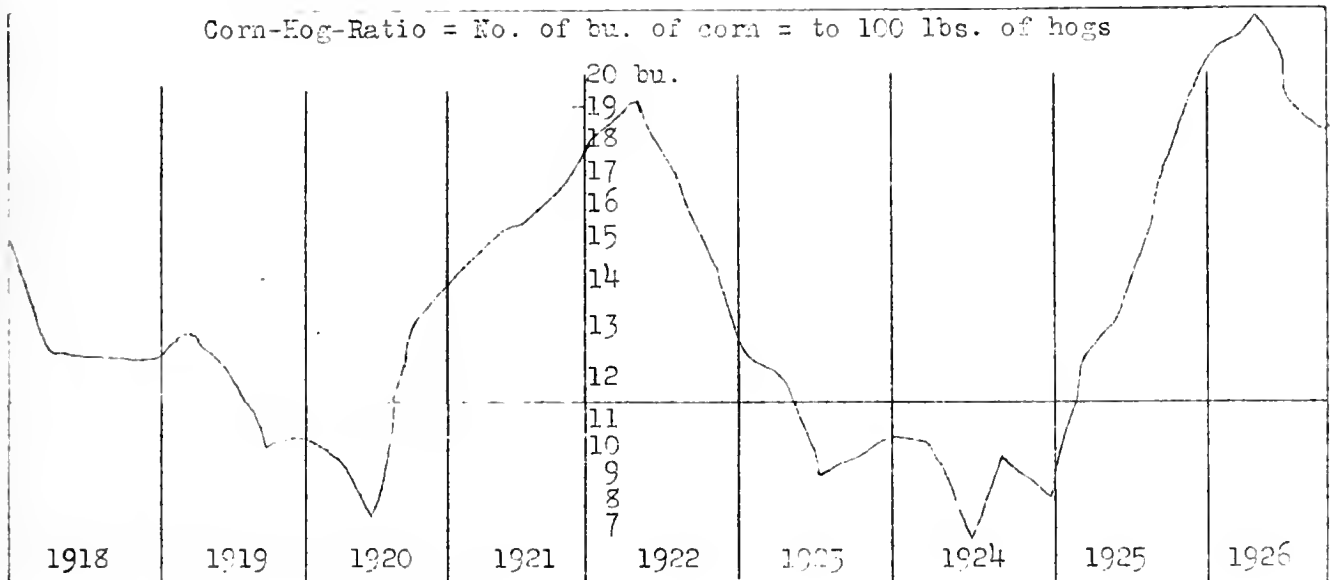
It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.





The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE

Department of Farm Organization and Management
and

MACOUPIN, MONTGOMERY, BOND and MADISON COUNTY FARM BUREAUS
Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1926

Farm Account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

April, 1927

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ANNUAL FARM BUSINESS REPORT

Macoupin, Montgomery, Bond, and Madison Counties, Illinois-1926

Prepared by R. R. Hudelson, P. E. Johnston, H. A. Berg and H. C. M. Case*

The 30 farmers in Macoupin, Montgomery, Bond, and Madison counties who kept financial records in the Illinois Farm Account Project for 1926 lacked an average of \$285 of having enough income to pay expenses and 5 percent interest on their investments, allowing nothing for their labor, management, and risk. The one-third of these farmers who made the best profits had an average of \$1,065 left to pay for their labor, management, and risk after paying expenses and 5 percent on their investments. This is called their labor and management wage. The one-third who were least successful lacked an average of \$1,757 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,822 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 30 farmers earned 1.5 percent on their investments after allowing \$600 each to pay for his own labor. On the same basis the most successful third earned 7.04 percent and the least successful third lost 3.99 percent. The average investment on the 30 farms was \$24,462 which amounts to \$109 an acre. The higher profit third had an average investment of \$136 and the lower profit third \$97 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at \$68 an acre on the average farm.

In addition to the above earnings, each family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The farms of the lower profit group averaged about 90 acres larger than the more profitable farms but they had more acres of non tillable land and their land was inventoried at about two-thirds the value per acre placed on the land of the higher profit farms. Both groups had about the same number of acres of corn, oats, and wheat per farm. The lower profit group had more pasture both on tillable and non tillable land. It seems apparent that they had too much permanent pasture of low carrying capacity. Probably some of the permanent pasture on tillable land could profitably be replaced with sweet clover where the farm operator is in a position to finance the application of limestone. This would result in pasture of greater carrying capacity and crop yields following the sweet clover would undoubtedly be improved.

E. W. Rusk, A. E. Snyder, W. E. Foard, and Alfred Raut, farm advisers in Macoupin, Montgomery, Bond, and Madison counties, cooperated in supervising and collecting the records used in this report.

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The more profitable farms raised an average of $5\frac{1}{2}$ bushels more corn and 10 bushels more wheat per acre than their less successful neighbors. Since the operating costs per acre do not increase much with higher yields this advantage in yield gave a lower cost per bushel of grain produced.

The greatest advantage of the 10 most profitable farms was in their more efficient livestock. Both the high and low profit groups had about the same livestock investment per acre but the more successful farms averaged nearly twice as much livestock income per acre. While the low profit group received \$104, the high profit group received \$200 livestock income for each \$100 invested in livestock. The more profitable farms had more income from dairy products and hogs and less from cattle sales. Their actual investment in cattle was much less than on the low profit farms. Efficient care and feeding on the more successful farms is indicated by the fact that on the average their crop sales exceeded their feed purchases by \$289 a farm, while on the less successful farms feed purchases exceeded crop sales by \$1,248 per farm. Undoubtedly the less successful farms should grow more of their own feed especially their own legume hays.

The man labor cost per acre was higher on the more profitable farms as was also the machinery cost per acre, but this is caused chiefly by the smaller size of the farms. Their total operating cost per acre was \$1.11 less and their gross income per acre was \$12.32 higher than on the less profitable farms.

It is of interest to compare earnings shown in this report with those for the same counties in 1925. The average rate earned for 1925 was 6.5 percent as compared with 1.57 percent for 1926. This decrease in earnings was evidently due both to higher operating costs and lower gross incomes. The average operating cost per acre exclusive of interest was \$8.69 for 1925 and \$11.10 for 1926. The average gross income per acre was \$20.48 for 1925 and \$12.81 for 1926. Lower corn and hay yields and larger feed purchases were factors influencing the level of earnings for 1926.

Some points of strength and some of weakness may be found in your own business by comparing the factors of your record in the following tables with the same factors on the average farm. Additional information may be secured by making a similar comparison with the more profitable and less profitable groups of farms.

Macoupin, Montgomery, Bond and Madison Counties - 1926

Factors helping to analyze the farm business	Your Farm	Average of Thirty Farms	Ten Most Profitable Farms	Ten Least Profitable Farms
Rate earned	%	1.57%	7.04%	- 3.99%
Labor and management wage	\$	\$ -285	\$1,065	\$-1,757
Size of farm - acres	A	224.1 A	171.2 A	263.9 A
Percent of land area tillable	%	78.0 %	83.8 %	76.5 %
Acres in Corn	A	48.6 A	44.0 A	49.2 A
Oats	A	31.7 A	25.0 A	25.4 A
Wheat	A	11.9 A	10.6 A	7.6 A
Crop yields - Corn	Bu	30.2 Bu	33.3 Bu	26.8 Bu
Oats	Bu	22.3 Bu	24.7 Bu	23.4 Bu
Wheat	Bu	19.0 Bu	24.8 Bu	14.1 Bu
Returns per \$100 invested in all productive livestock	\$	\$ 134	\$ 200	\$ 104
For \$100 in Cattle	\$	\$ 106	\$ 144	\$ 86
Swine	\$	\$ 208	\$ 313	\$ 169
Poultry	\$	\$ 174	\$ 157	\$ 206
Investment per acre in productive livestock	\$	\$ 9.23	\$ 10.45	\$ 10.29
Receipts per acre from productive livestock	\$	\$ 12.40	\$ 20.92	\$ 10.66
Man labor cost per acre	\$	\$ 5.11	\$ 6.37	\$ 4.50
Crop acres per man	A	75.7 A	66.9 A	77.7 A
Crop acres per horse (with tractor)	A	27.2 A	29.0 A	24.4 A
(wwithout tractor)	A	16.8 A	15.0 A	17.2 A
Expense per \$100 gross income	\$	\$ 87	\$ 59	\$ 135
Machinery cost per acre	\$	\$ 1.83	\$ 2.93	\$ 1.31
Building & Fencing cost per A.	\$	\$ 1.14	\$.98	\$ 1.49
Gross receipts per acre	\$	\$ 12.81	\$ 23.22	\$ 10.90
Total expenses per acre	\$	\$ 11.10	\$ 13.66	\$ 14.77
Net receipts per acre	\$	\$ 1.71	\$ 9.56	\$ -3.87
Farms with tractor		56 2/3%	60 %	50 %
Value of land per acre	\$	\$ 62	\$ 85	\$ 57
Total investment per acre	\$	\$ 109	\$ 136	\$ 97

1. The first part of the document discusses the importance of maintaining accurate records.

2. It then goes on to describe the various methods used to collect and analyze data.

3. The results of the study are presented in the following table:

Year	Q1	Q2	Q3	Q4
2010	12	15	18	20
2011	10	12	14	16
2012	8	10	12	14
2013	6	8	10	12
2014	4	6	8	10

4. The data shows a clear downward trend over the five-year period.

5. This suggests that the factors being studied are becoming less prevalent over time.

6. Further research is needed to identify the underlying causes of this trend.

7. The study also highlights the need for improved data collection methods.

8. In conclusion, the findings of this study are significant and warrant further investigation.

9. The authors would like to thank the funding agency for their support.

10. Finally, it is hoped that these findings will contribute to a better understanding of the issue.

11. The study was conducted in accordance with the highest standards of research ethics.

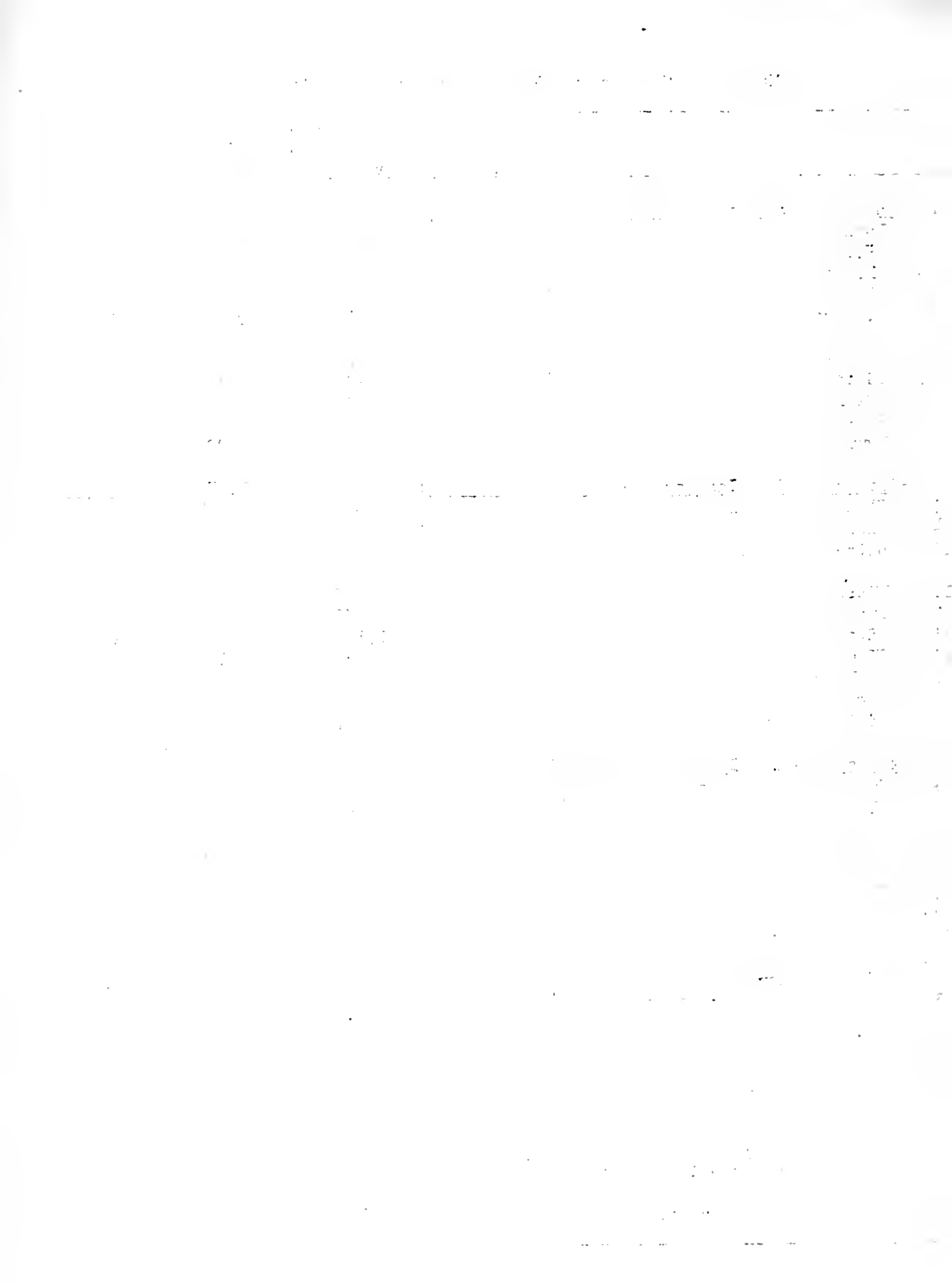
12. All participants provided informed consent before taking part in the study.

13. The data was analyzed using the most appropriate statistical methods.

14. The results are presented in the following table:

Macoupin, Montgomery, Bond and Madison Counties - 1926

	Your farm	Average of thirty farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$24,462	\$23,228	\$25,581
2 Land		15,341	14,616	15,144
3 Farm improvements		3,513	3,511	3,499
4 Machinery and equipment		1,283	1,227	1,362
5 Feed and supplies		1,782	1,775	2,045
6 Livestock		2,543	2,099	3,531
7 Horses		422	312	575
8 Cattle		1,203	861	1,732
9 Swine		519	577	618
10 Sheep		200	121	414
11 Poultry		199	228	192
12 <u>Receipts - Net Increases - Total</u>		2,871	3,975	2,877
13 Feed and grain		---	289	---
14 Miscellaneous		90	105	59
15 Livestock - Total		2,781	3,581	2,818
16 Horses		3	--	4
17 Cattle		539	154	975
18 Swine		1,174	1,935	1,033
19 Sheep		64	125	10
20 Poultry		136	108	144
21 Egg sales		204	222	249
22 Dairy sales		561	1,037	403
23 <u>Expenses - Net Decreases - Total</u>		1,647	1,573	3,104
24 Farm improvements		256	167	393
25 Livestock		--	14	--
26 Horses		--	14	--
27 Cattle		--	--	--
28 Swine		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		409	501	345
32 Feed and supplies		92	--	1,248
33 Livestock expense other than feed		77	117	86
34 Crop expense		185	224	161
35 Labor hired		304	324	395
36 Taxes, insurance, etc.		277	192	392
37 Miscellaneous		47	34	84
38 <u>Receipts less Expenses</u>		1,224	2,402	- 227
39 Operator's and unpaid family labor		840	766	793
40 Net income from investment		384	1,636	-1,020



Macoupin, Montgomery, Bond and Madison Counties-1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in			Invest. per acre in U. S.	Receipts per acre from U.S.	Man labor cost per acre	Cron acres per		Expense per \$100 income	Gross receipts per acre	Size of farm		
	Corn	Oats	Wheat	Cattle	Hogs				Poultry	Man				Horse	
														Tractor	No tractor
8.5	51	36	33	176	348	314	23.25	26.40	1.60	110	41	31	52	27	364
7.5	48	34	31	166	328	294	21.25	24.40	2.10	105	39	29	57	25	344
6.5	45	32	29	156	308	274	19.25	22.40	2.60	100	37	27	62	23	324
5.5	42	30	27	146	288	254	17.25	20.40	3.10	95	35	25	67	21	304
4.5	39	28	25	136	268	234	15.25	18.40	3.60	90	33	23	72	19	284
3.5	36	26	23	126	248	214	13.25	16.40	4.10	85	31	21	77	17	264
2.5	33	24	21	116	228	194	11.25	14.40	4.60	80	29	19	82	15	244
1.5	30	22	19	106	208	174	9.25	12.40	5.10	75	27	17	87	13	224
0.5	27	20	17	96	188	154	7.25	10.40	5.60	70	25	15	92	11	204
0.5	24	18	15	86	168	134	5.25	8.40	6.10	65	23	13	97	9	184
1.5	21	16	13	76	148	114	3.25	6.40	6.60	60	21	11	102	7	164
2.5	18	14	11	66	128	94	1.25	4.40	7.10	55	19	9	107	5	144
3.5	15	12	9	56	108	74	--	2.40	7.60	50	17	7	--	3	124
4.5	12	10	7	46	88	54	--	0.40	8.10	45	15	--	--	--	104
5.5	9	8	5	36	68	34	--	--	8.60	40	13	--	--	--	84

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy auditing of the accounts.

2. The second section covers the process of reconciling bank statements with the company's ledger. It provides a step-by-step guide on how to identify discrepancies and investigate their causes. Regular reconciliation is crucial for detecting errors and preventing fraud.

3. The third part of the document addresses the issue of budgeting and cost control. It suggests that setting a clear budget at the beginning of each period helps in monitoring expenses and staying within financial limits. This is particularly important for small businesses with limited resources.

4. The final section discusses the importance of timely payment of bills and invoices. It explains how late payments can lead to penalties, damaged relationships with suppliers, and cash flow problems. Implementing a strict payment schedule is essential for the financial health of the organization.

ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

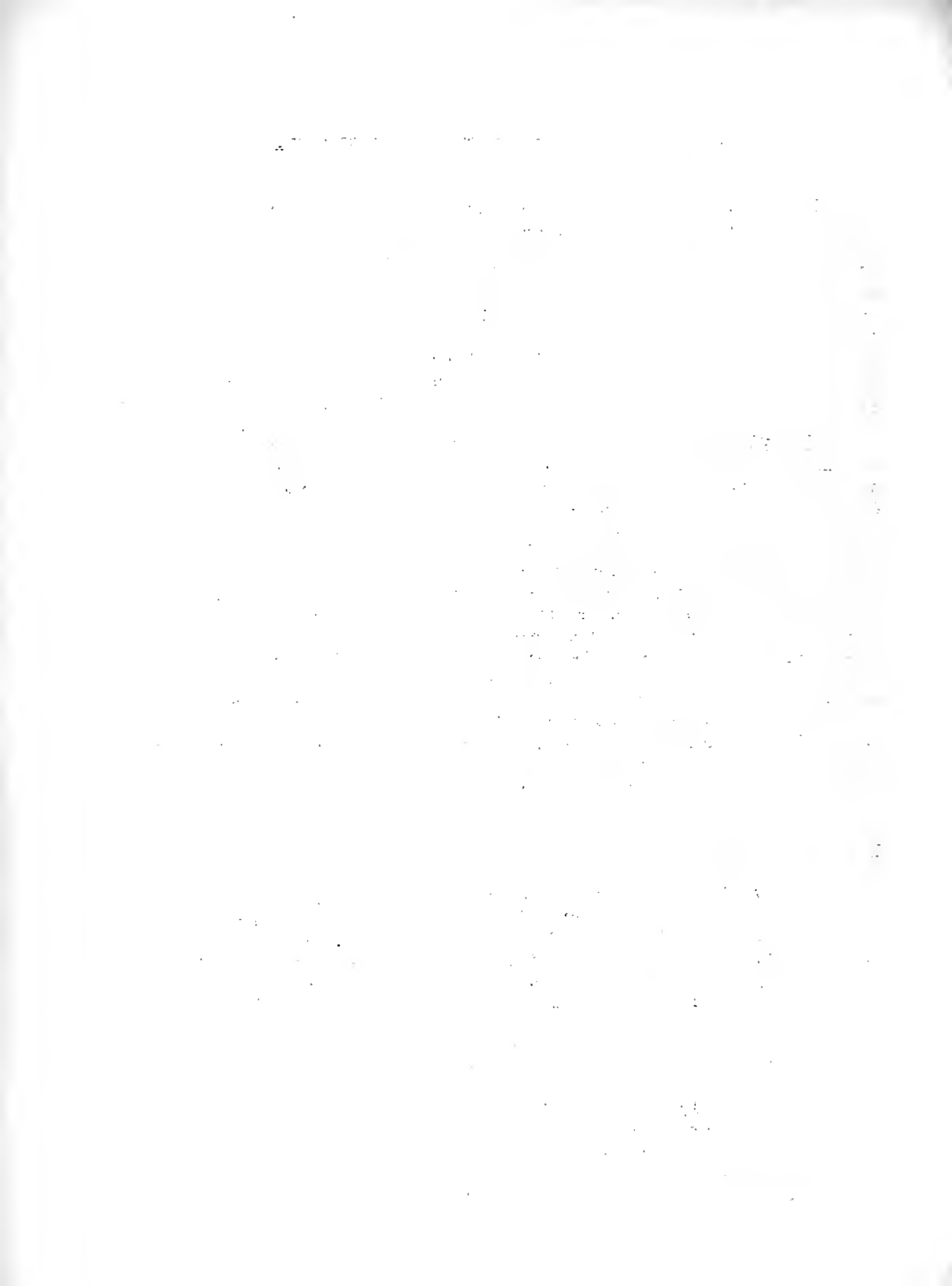
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest

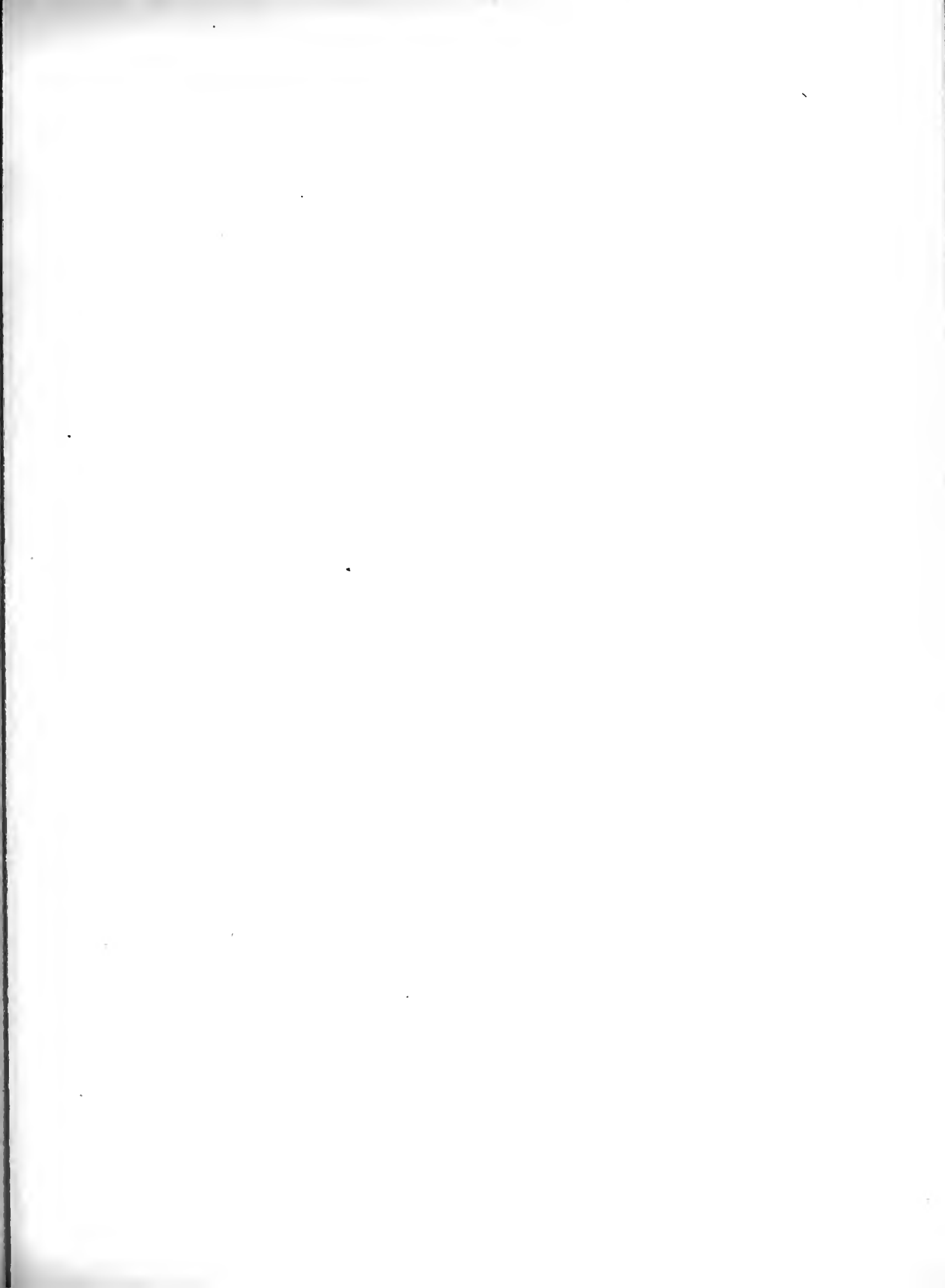


conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,



The first part of the report deals with the general situation in the country. It is noted that the economy is showing signs of recovery, but that the unemployment problem remains acute. The government has taken various measures to stimulate the economy, but more is needed. The report also discusses the state of the treasury and the need for further financial reforms.

The second part of the report deals with the social situation. It is noted that the standard of living is still low, and that the government has a duty to improve it. The report discusses the need for social reforms, particularly in the areas of housing, health, and education. It also mentions the importance of labor laws and the need to protect workers' rights.

The third part of the report deals with the political situation. It is noted that the government is working to establish a stable and democratic system. The report discusses the need for a strong and independent judiciary, and for a system of checks and balances. It also mentions the importance of a free press and the need to protect civil liberties.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

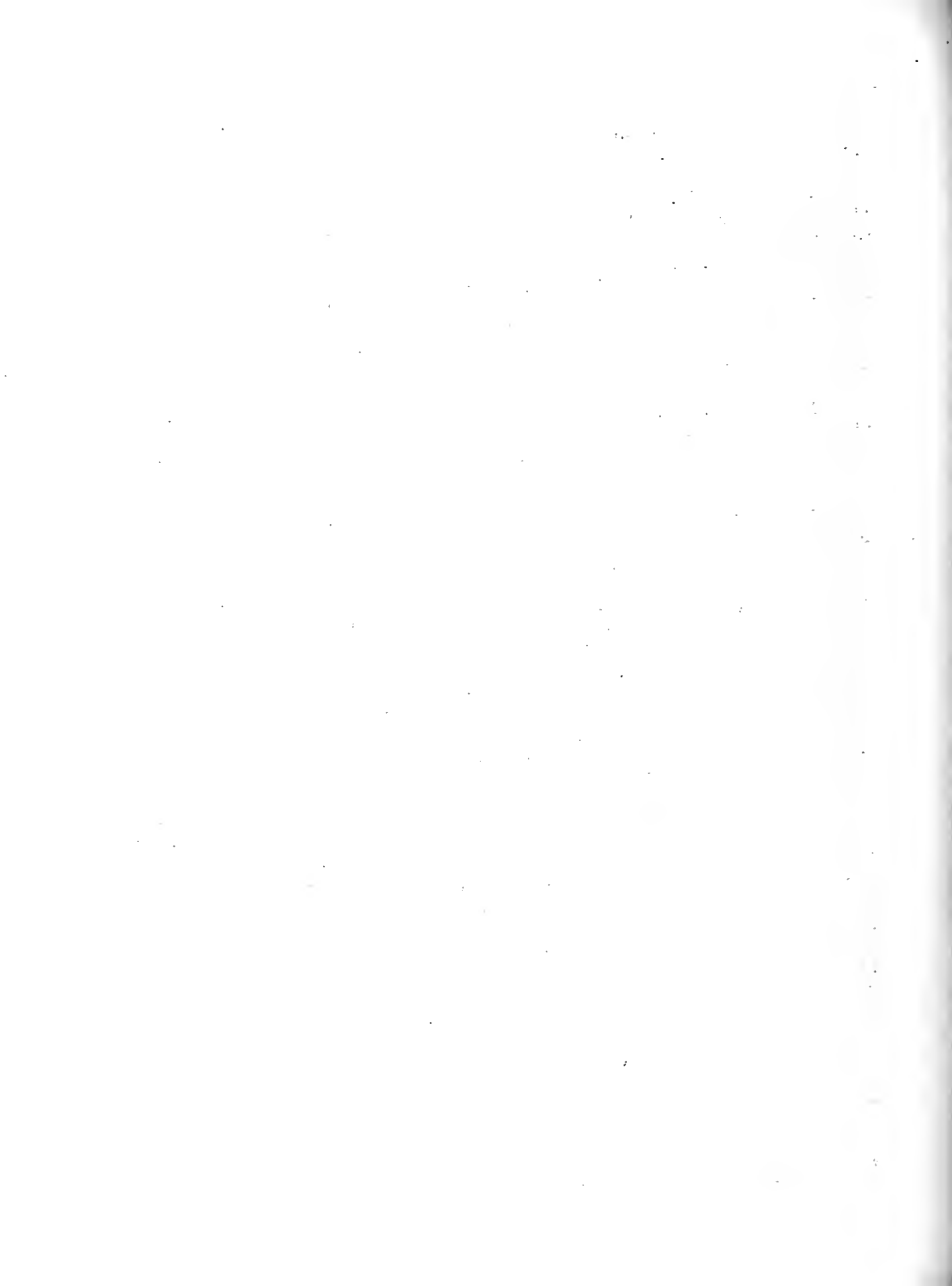
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



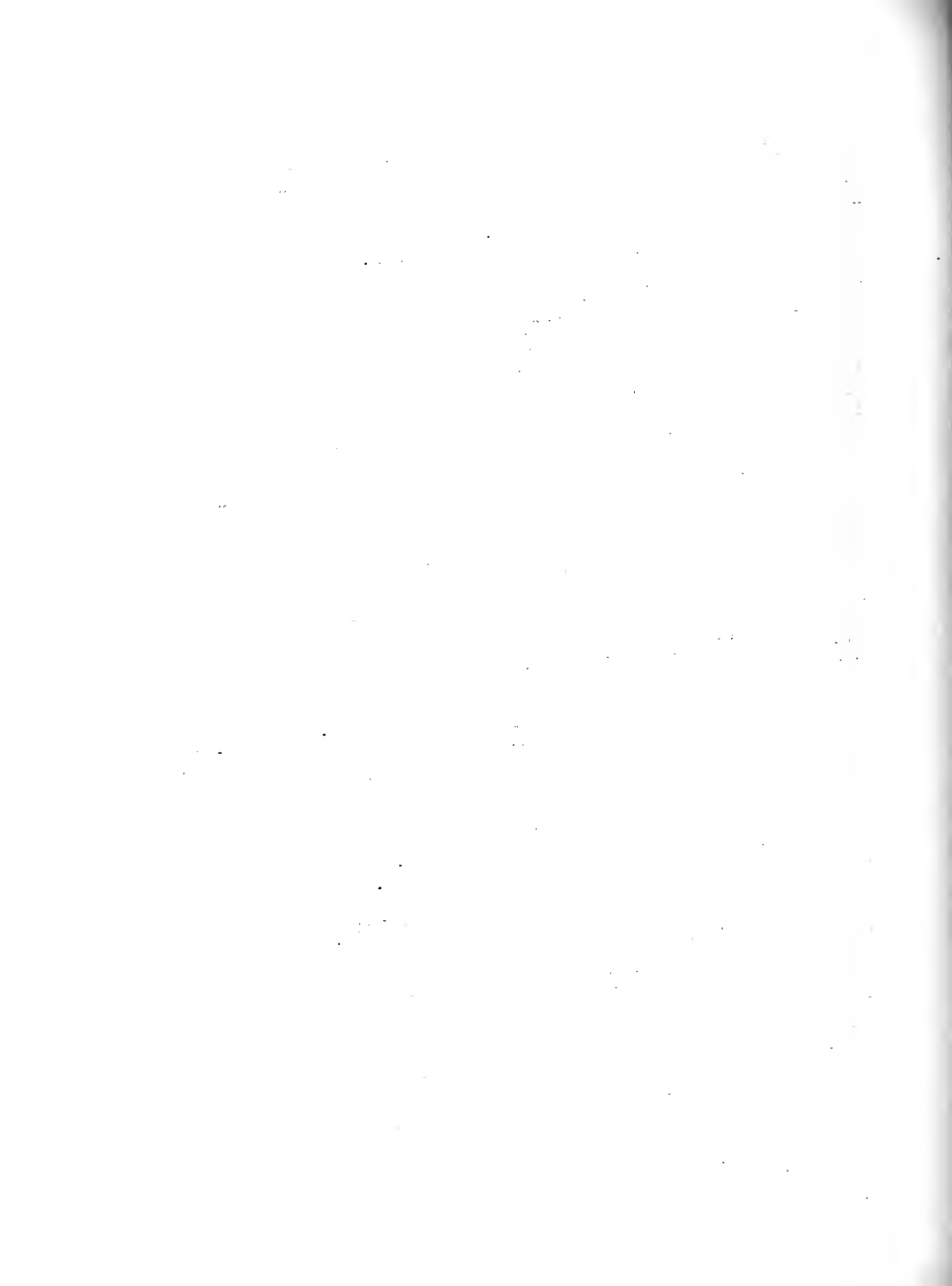
as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in



supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud.

Secondly, the document highlights the need for transparency and accountability in financial reporting. It states that all financial statements should be prepared in accordance with established accounting standards and should be subject to independent audit. This ensures that the information provided to investors and other stakeholders is reliable and trustworthy.

Thirdly, the document addresses the issue of risk management. It notes that financial institutions should identify, assess, and manage the risks they face, including credit risk, market risk, and operational risk. Effective risk management is crucial for the long-term stability and success of the organization.

Finally, the document stresses the importance of ethical conduct in the financial industry. It calls for a strong commitment to integrity, honesty, and fair dealing. Financial professionals should always act in the best interests of their clients and the public, and should avoid any conflicts of interest.

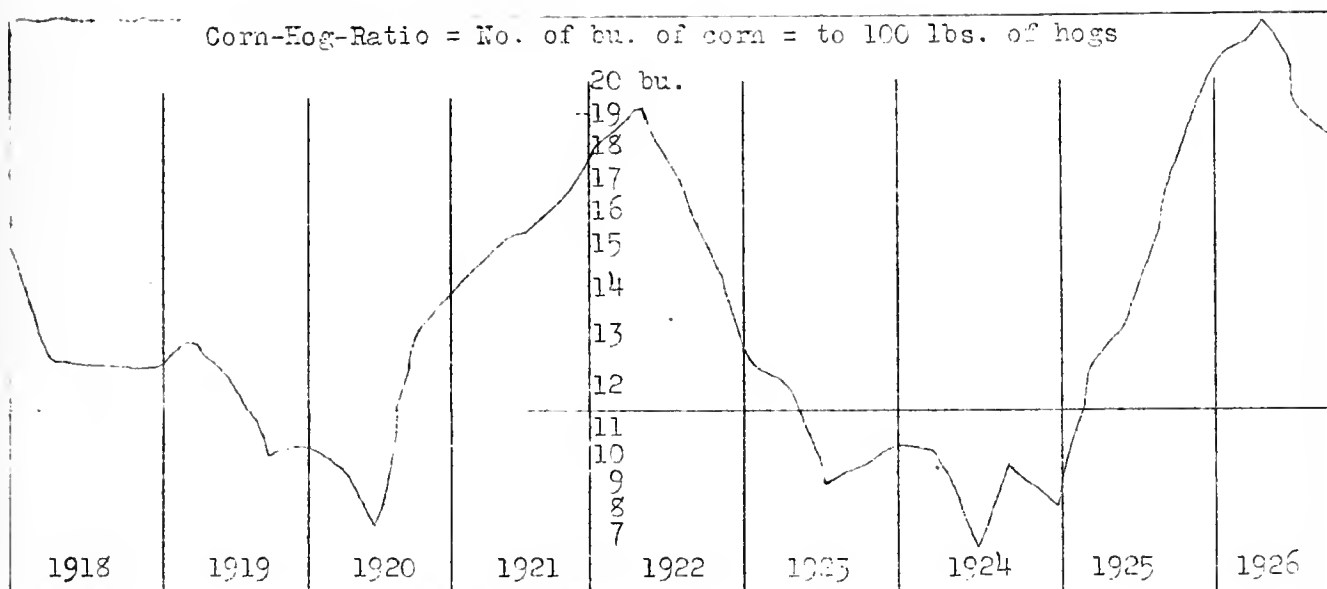
In conclusion, the document outlines a comprehensive framework for sound financial practices. By adhering to these principles, financial institutions can ensure the stability, transparency, and ethical integrity of their operations, thereby contributing to the overall health and confidence of the financial system.

The following sections provide detailed guidance on the specific requirements for each of the areas discussed above, including record-keeping, reporting, risk management, and ethical standards. These guidelines are intended to serve as a practical reference for financial professionals and organizations alike.

Record-keeping requirements include the use of standardized formats, the retention of original documents, and the implementation of robust data backup and recovery procedures. Reporting requirements specify the frequency and content of financial statements, as well as the role of external auditors in verifying the accuracy of the information.

Risk management requirements focus on the identification of potential risks, the assessment of their impact, and the implementation of appropriate mitigation strategies. Ethical requirements emphasize the need for a strong corporate culture that promotes integrity and ethical behavior at all levels of the organization.

By following these guidelines, financial institutions can ensure that they are operating in a transparent, accountable, and ethical manner, thereby maintaining the trust and confidence of their stakeholders and contributing to the overall stability and integrity of the financial system.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



SUMMARY OF FARM SURVEY RECORDS FOR
103 BOND COUNTY FARMS
FOR 1926

This report is of special interest because the farm records were secured mainly in one township and therefore the report represents average farm conditions quite accurately for that part of Illinois.

University of Illinois, College of Agriculture
Department of Farm Organization and Management
Cooperating with Bond County Farm Bureau

February 1, 1927
Urbana

SUMMARY OF FARM SURVEY RECORDS ON 108 MILLS TOWNSHIP FARMS
BOND COUNTY, ILLINOIS, FOR 1926

Prepared by H. C. M. Case and P. E. Johnston

There were 108 Bond County farmers who gave their farm records to a representative of the University or to Mr. W. E. Foard, the farm adviser, last December. All of the 108 men live south of Greenville and most of them in Mills Township. The information given us concerning the farms shows that the average farm contained 177 acres and that the entire farm investment amounted to \$11,195. After paying all expenses of operating the farms for the year 1926 and allowing \$742 to pay the operators for their own labor and labor wages for other members of the family who helped with the farm work, the remaining income paid less than two percent on the investment, or 1.86 percent. The value of all the family labor given here is the value given by the men who gave their records. The earnings might be given in another way. After deducting from the income, all of the other expenses of operating the farms and 5 percent for the capital invested in the business, there remained \$196 to pay the operator for his own time.

On pages 2 and 3 of this report you will find a statement showing the average results on the 108 farms, the average of 36 most profitable farms and the average of the 36 least profitable farms. Those who gave records may turn to the farm account book in which their record was recorded and compare the summary of their own record on pages 34 and 35 with the records of the other men shown in this report.

The part of Bond County covered by this study is located in what is sometimes called the St. Louis dairy section. It will be noted that livestock receipts make up 85 percent of the total and that dairy sales account for over half of the total livestock receipts. The soil in this area is commonly referred to as gray or brown gray silt loam on tight clay. Last year the average farm in this group raised 36 acres of corn, 29 acres of oats, and 10 acres of wheat. This wheat acreage is probably below average, due to the fact that the fall of 1925 was wet at seeding time and many acres of ground that had been prepared for wheat could not be seeded. On many farms in this area in 1926 there was tillable land lying idle due to various reasons.

Comparison for High and Low Profit Groups

This report shows the 36 most profitable farms made an average of over \$1300 more per farm than the 36 least profitable farms. The most profitable group earned 8.10 percent on an investment of \$12,971, while the least profitable group lacked 5.89 percent of making any return on an investment of \$8,417. Stated in another way, the 36 best farmers received \$943 to pay for their own labor and managing ability, while the 36 poorer farmers after paying their operating expenses lacked \$360 of earning 5 percent on the capital invested. In this connection one should note that the average farm in the better group consisted of 190 acres which carried a total investment of \$68 an acre, while the low profit group consisted of 155 acres and carried a total investment of \$54 an acre. This points out quite clearly that the higher earnings are not due to lower inventories for land on the better farms. A further comparison of the results of this report will help you to study some of the factors that were responsible for this difference. The more important things to note are the kinds and acreages of crops grown, the crop yields, returns from each kind

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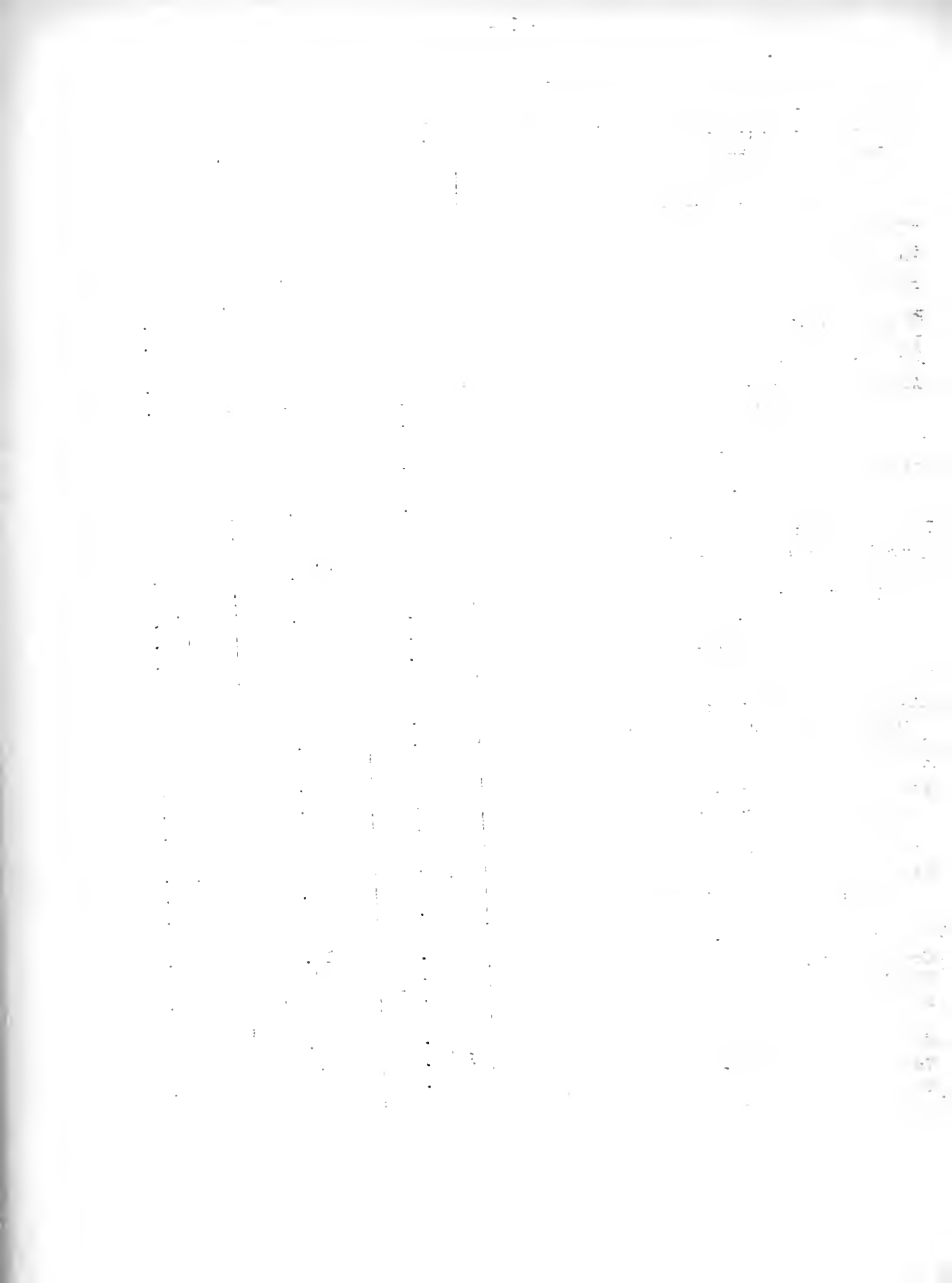
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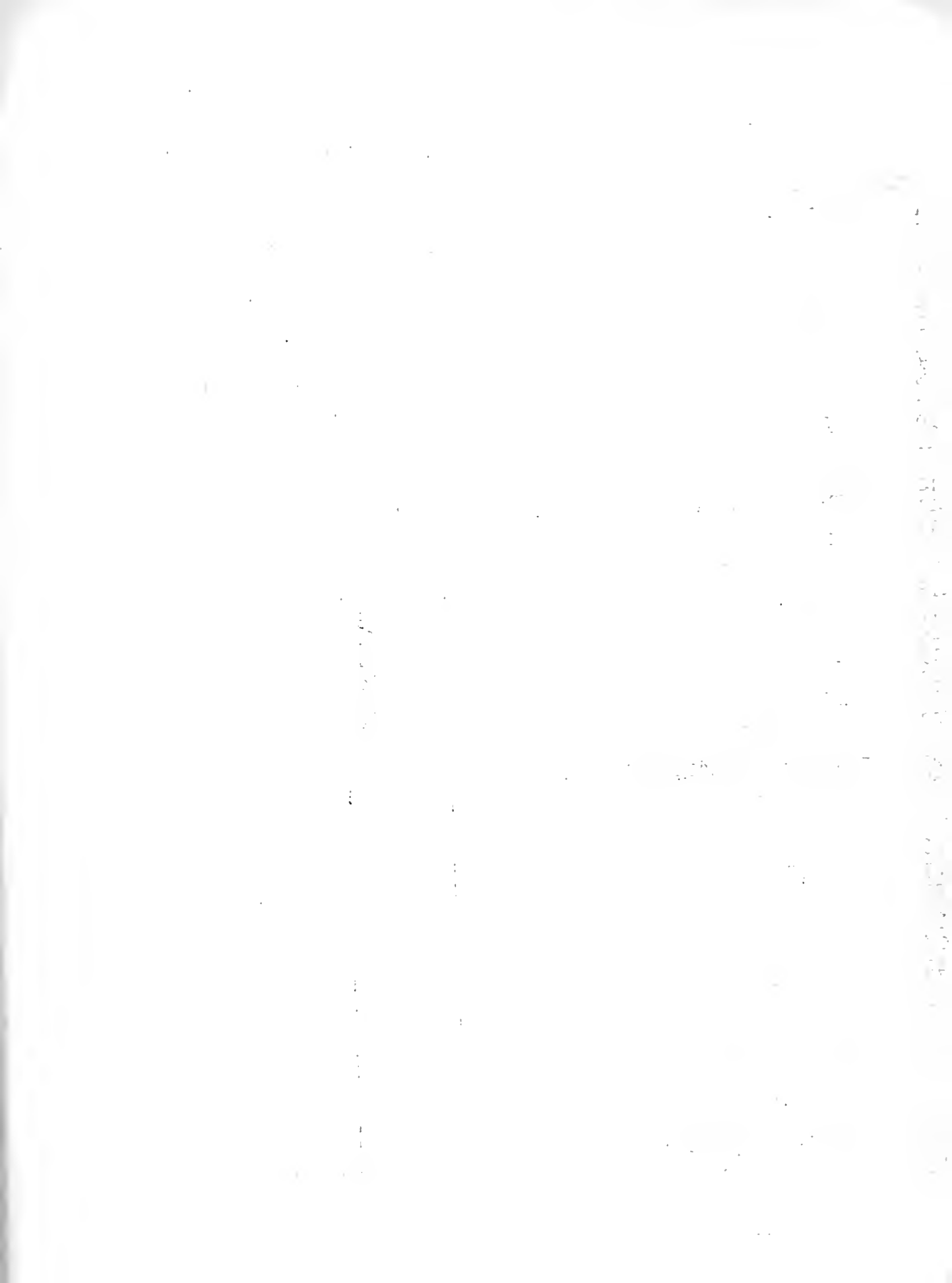
Bond County - 1926

Factors helping to analyze the farm business	Average of 108 farms	36 most profitable farms	36 least profitable farms
Rate earned	1.86%	8.10%	-5.89%
Labor and management wage	\$196.	\$943.	\$-360.
Size of farm - acres	177.1	190.0	155.2
Percent of land area tillable	89.0	88.0	89.0
Acres of - corn	35.7	36	34.5
oats	28.9	28.5	28.3
wheat	10.0	17	5
Crop yields - corn - bushels	17.0	19.8	14.2
oats - bushels	18.6	20.7	16.7
wheat- bushels	13.4	16.1	6.9
Returns per \$100 invested in all productive livestock	\$140.00	\$148.00	\$126.00
For \$100 in cattle	25.00	27.00	18.00
swine	159.00	178.00	158.00
poultry	178.00	217.00	153.00
Investment per acre in productive livestock	\$ 5.40	\$ 6.90	\$ 4.15
Income per acre from productive livestock	7.59	10.25	5.22
Man labor cost per acre	4.65	4.58	4.98
Crop acres per man	78.6	85.1	76.6
Crop acres per horse	21.1	22.4	21.0
Expense per \$100 gross income	\$ 88.00	\$ 61.00	\$152.00
Machinery cost per acre	.90	.95	.88
Building and fencing cost per acre	.60	.57	.62
Gross receipts per acre	\$ 9.03	\$ 13.45	\$ 5.32
Total expenses per acre	7.86	7.92	8.52
Net receipts per acre	1.17	5.53	-3.20
Farms with tractor - percent	10.0	8.	11.
Value of land per acre	\$ 40.00	\$43.00	\$ 33.00
Total investment per acre	63.00	68.00	54.00



Bond County - 1926

	Average of 108 farms	36 most profitable farms	36 least profitable farms
1 <u>Capital investment - total</u>	<u>611,195</u>	<u>\$12,971</u>	<u>\$2,417</u>
2 Land	7,057	2,189	5,194
3 Farm improvements	1,761	1,874	1,413
4 Machinery and equipment	593	726	497
5 Feed and supplies	584	619	465
6 Livestock	1,200	1,563	848
7 Horses	323	374	264
8 Cattle	522	860	379
9 Swine	75	114	40
10 Sheep	39	53	29
11 Poultry	141	162	136
12 <u>Receipts - net increases - total</u>	<u>1,600</u>	<u>2,555</u>	<u>827</u>
13 Feed and grain	205	496	---
14 Miscellaneous	43	101	17
15 Livestock - total	1,352	1,958	810
16 Horses	9	11	---
17 Cattle	161	242	73
18 Swine	181	316	102
19 Sheep	41	64	24
20 Poultry	99	125	82
21 Egg sales	174	257	137
22 Dairy sales	687	943	392
23 <u>Expenses - net decreases - total</u>	<u>650</u>	<u>745</u>	<u>596</u>
24 Farm improvements	105	109	96
25 Livestock	---	---	7
26 Horses	---	---	7
27 Cattle	---	---	---
28 Swine	---	---	---
29 Sheep	---	---	---
30 Poultry	---	---	---
31 Machinery and equipment	160	181	137
32 Feed and supplies	---	---	42
33 Livestock expense other than feed	21	33	16
34 Crop expense	105	124	95
35 Labor hired	82	113	47
36 Taxes, insurance, etc.	161	163	147
37 Miscellaneous	15	22	11
38 <u>Receipts, less expenses</u>	<u>950</u>	<u>1,810</u>	<u>231</u>
39 Operator's and unpaid family labor	742	759	727
40 Net income from investment	208	1,051	-496



of livestock, the use made of man and horse labor and the amounts of expenses in relation to income.

Acreage of Crops and Crop Yields

The most profitable group raised 36 acres of corn which yielded 19.8 bushels per acre, 28.6 acres of oats which yielded 20.7 bushels per acre, and 17 acres of wheat at 16.1 bushels per acre. The acreages of corn and oats were almost the same for the least profitable group, but the corn produced only 14 bushels per acre, and the oats 16.7 bushels per acre. The five acres of wheat produced only 6.9 bushels per acre. With corn at 50 cents, oats at 40 cents, and wheat at \$1.20, the difference in acreage and yield of these three crops would make a difference of \$454 per farm. Of this difference \$287 was due to a large acreage and the larger yield of wheat. The total receipts per acre of wheat were \$19.20, while the average total receipts per acre for all farms were only \$9.03.

Livestock Returns

The most profitable group of farms received \$1958 increase from livestock or a return of \$148 for \$100 invested in cattle, hogs, sheep and poultry. The least profitable group received \$810 from livestock or on the basis of productive livestock only \$126 for each \$100 invested. It is of interest to note that the most profitable group sold \$257 worth of eggs and \$943 of dairy products as compared with \$137 for eggs and \$392 for dairy products for the least profitable group. The receipts from livestock were over twice as high on the most profitable farms which accounts for much of the difference in receipts.

Use of Man and Horse Labor

The most profitable group worked 85 crop acres with a man and 22.4 crop acres per horse, as compared with 76.6 crop acres per man and 21 crop acres per horse for the least profitable group. Even though handling more livestock, the first group spent only \$4.58 per acre for man labor, while the second group spent \$4.98. Part of this difference may be due to the fact that the farms are larger which made it possible to use labor to better advantage.

Expense

The most profitable group spent \$7.92 per acre while the least profitable group spent \$8.52 during the year in operating their farms. This difference of 60 cents per acre is not one of the important reasons for the difference in income but the interesting fact is that the most profitable farms received a much larger income with less expense per acre. A study of the records indicates that in most cases expenses were being held as low as possible, and in some cases better results could have been secured if more money had been spent for limestone and clover seed.

How Profits May Be Increased

Farm profits may be increased by increasing the receipts or by decreasing expenses, or both. As was pointed out before, the most profitable group had higher profits because of larger receipts and not because of reduced expenses. However, the expenses were no larger per acre of land farmed on the farms with a much larger income.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

Furthermore, it is noted that regular audits are essential to identify any discrepancies or errors early on. This proactive approach helps in maintaining the integrity of the financial statements and prevents any potential issues from escalating.

Conclusion

In conclusion, the successful implementation of a robust financial reporting system is crucial for the long-term success of any organization. By adhering to the principles outlined in this document, companies can ensure that their financial data is accurate, reliable, and compliant with all relevant regulations.

It is recommended that management should regularly review and update these policies to reflect changes in the business environment and regulatory requirements. This continuous improvement process is key to maintaining the highest standards of financial reporting.

The following table provides a summary of the key components and their respective responsibilities within the financial reporting framework.

Component	Responsibility
Accounting Department	Record and summarize transactions
Internal Audit	Verify the accuracy of records
Finance Department	Prepare financial statements
Management	Review and approve reports

It is important to note that the information presented in this document is for informational purposes only and does not constitute an offer or recommendation. Each organization should tailor these guidelines to its specific needs and circumstances.

For further details and to request a copy of this document, please contact the Finance Department at [contact information].

This document is a confidential document and its contents should not be disclosed to any third party without the prior written consent of the Finance Department.

Date: [Date]
 Author: [Name]
 Version: [Version]

The larger receipts were due to larger acreages of more profitable crops such as corn, wheat, sweet clover and alfalfa. The use of the sweet clover and alfalfa had also caused an increase in yield of the other crops. The increase in crop yields made it possible to keep more livestock per acre, and the legume crops being better feed also produced larger receipts from the livestock which were being kept on the farms in the most profitable group. The investment in land was \$10 an acre higher on the farms in the most profitable group.

The experience of these men should indicate to the farmers in the least profitable group the desirability of investing perhaps \$10 per acre in limestone which would enable them to raise sweet clover and alfalfa and so increase the crop yields, which would enable them to keep more livestock and feed it better. In this connection they should also consider the importance of keeping livestock of better quality. A cow which will produce 8000 pounds of milk will not eat twice as much as the cow which will produce only 4000 pounds. To grow more feed per acre and to feed it to more efficient livestock should be the aim of every progressive farmer in this area. The place to begin in order to carry out this plan is to put the soil in the right condition to grow the most profitable crops.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud.

2. The second part of the document outlines the various methods used to collect and analyze data. It describes the use of statistical techniques to identify trends and anomalies in the data, and the importance of using reliable sources of information.

3. The third part of the document discusses the role of the auditor in the process. It explains that the auditor's primary responsibility is to provide an independent and objective assessment of the financial statements. This involves a thorough review of the records and a comparison of the results to the applicable accounting standards.

4. The fourth part of the document discusses the importance of communication in the auditing process. It explains that the auditor must communicate clearly and effectively with the client and other stakeholders. This includes providing regular updates on the progress of the audit and addressing any concerns or questions that may arise.

5. The fifth part of the document discusses the importance of ethics in the auditing profession. It explains that auditors must adhere to a strict code of ethics and maintain the highest standards of integrity and objectivity. This is essential for the public's confidence in the financial system and for the effectiveness of the auditing process.

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

CLINTON COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Fifty-six Farms

for

1926

Farm Account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

April, 1927

M39

Annual Farm Business Report

CLINTON COUNTY, ILLINOIS-1926

Prepared by R. R. Hudelson, P. E. Johnston,
H. A. Berg, H. C. M. Case*

The 56 farmers in Clinton County who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$320 to pay for their labor management and risk after paying expenses and allowing 5 percent interest on their average investment of \$108 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,295, while the one-third who were least successful lacked an average of \$584 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$1,879 in the relative amounts which these two groups received for their time and labor.

Expressed in another way, these 56 farmers earned 3.5 percent on their investments after allowing \$600 to pay each for his own labor. On the same basis the most successful third earned 8.4 percent and the least successful third lost 1.5 percent. The average investment on the 56 farms was \$18,604, which amounts to \$108 an acre. The higher profit third had an average investment of \$93 and the lower profit third \$130 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at \$66 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These together with the use of the farm home, not included in the above investment, amounted to \$725 on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The group of more profitable farms averaged somewhat larger than the less successful group since they had 77 acres more land, including 46 acres more tillable land per farm than the latter. Clinton County Farm Business Reports for 1924 and 1925, as well as records from other areas, indicate, however, that larger size is not one of the most important differences between these groups. The more profitable farms had 8 acres more corn, 9 acres more oats, and 23 acres more wheat per farm than the low profit group. This advantage in acres of wheat was an important one, since wheat is one of the most profitable crops in Clinton County.

The more successful group of farms had better yields of corn and wheat than the less successful group, altho the difference was not so great as in previous reports.

* C. H. Rehling, farm adviser in Clinton County, cooperated in supervising and collecting the records used in this report.

MEMORANDUM FOR THE RECORD

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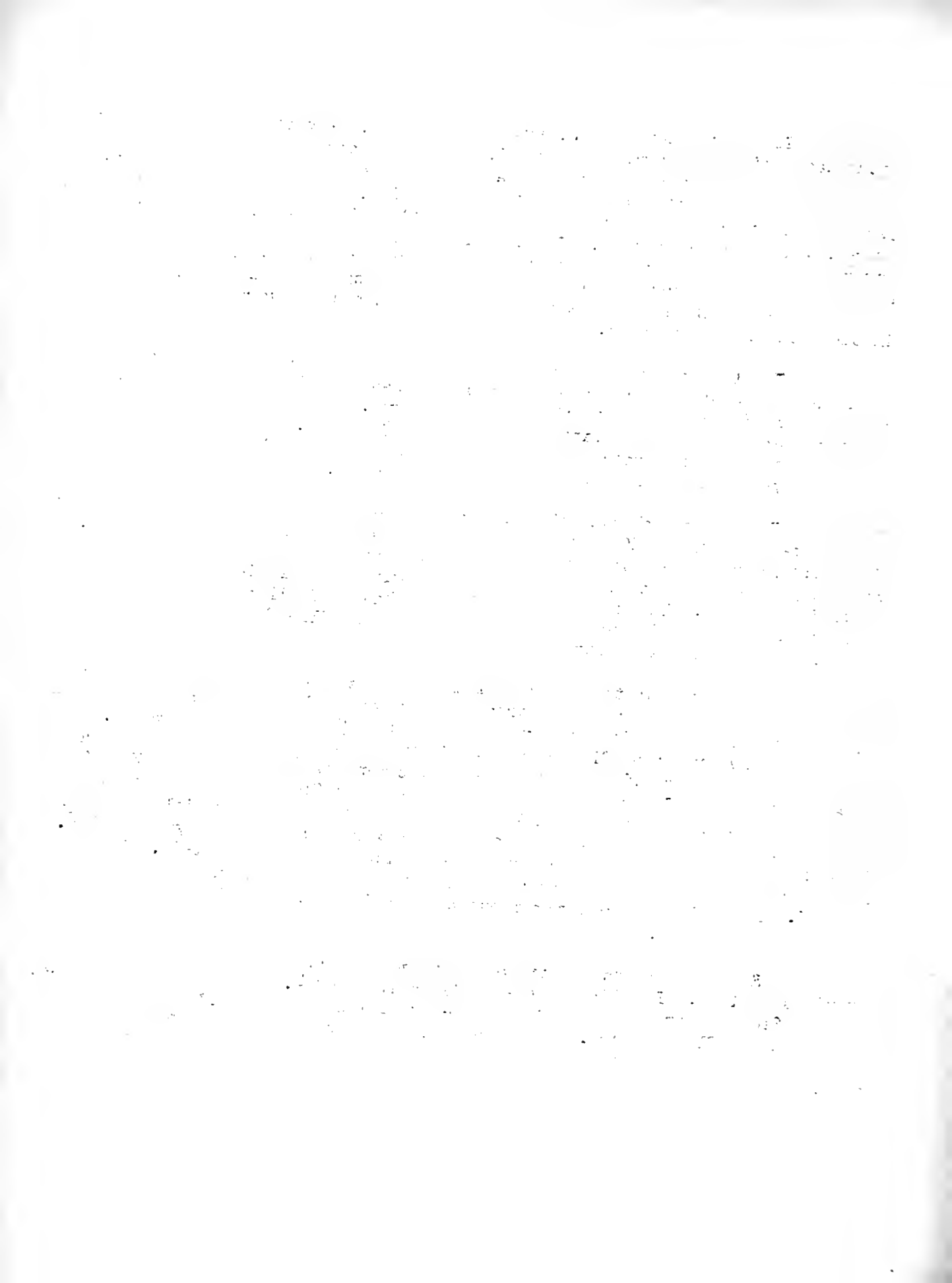
In returns per \$100 invested in productive livestock the high profit group had a big advantage. They received \$38 more per \$100 of livestock investment than the low profit group. A study of the records shows that this advantage comes chiefly from poultry and hog sales, altho the high profit group also handled their dairy cattle more efficiently. Practically all cattle on these farms are dairy cattle. The low profit farms had \$2.33 more livestock investment but only 58 cents more livestock income per acre. They had to spend for feed \$436 more per farm than their crop sales amounted to, while the more successful group fed their livestock and had an average of \$545 income left from crop sales.

The low profit farms show a 52 percent higher labor cost per acre than the high profit group, which is a severe handicap in making profits. Part but not all of this is due to their smaller farms. They handled only 47 acres of crops per man while the latter group worked 70 acres. Man labor is one of the largest operating costs on the farm and should be saved by using a good cropping system, large fields and suitable equipment.

The figures showing the expense per \$100 of income bring out the big difference between the 20 most profitable and the 20 least profitable farms. The first group had \$44 left out of every \$100 income after paying all costs, including depreciations and their own labor, but not including interest on their investments. The second group, if they had paid all costs including depreciations and their own labor, would have spent \$113 for every \$100 they took in with no allowance for interest.

Since most of the farms included in this report are the same ones covered by the Clinton County reports for 1924 and 1925, some interesting comparisons can be made. The average rate earned on 58 farms in 1924 was 4.7 percent on an investment of \$105 an acre. Sixty farms were included in 1925 and the average rate was 5.9 per cent on an investment of \$105 an acre. For 1926 an average rate of 3.5 per cent on an investment of \$108 an acre is below the level of 1924. Probably the smaller acreage of wheat, smaller yields of corn and a shortage of hay were among the chief causes of lower earnings for 1926. Gross receipts from livestock products were slightly larger in 1926. The smaller acreage of wheat was caused by a wet seeding season during the fall of 1925. The 1926 corn crop was reduced by early drought followed by an excessively wet fall.

Smaller numbers of farm accounts were analyzed for Clinton County previous to 1924. In 1923 twenty-one farms averaged 4.54 percent on an investment of \$124 an acre and in 1922 twenty-five farms averaged 1.7 percent on an investment of \$123 an acre. Eleven accounts were completed for 1921 with an average rate earned of two-tenths of one percent on an investment of \$115 an acre.



The following table of income and investment figures from five years of Clinton County records gives a good summary of farming conditions. It is interesting to note that these farms have gradually increased their incomes from dairy products, poultry products and hogs.

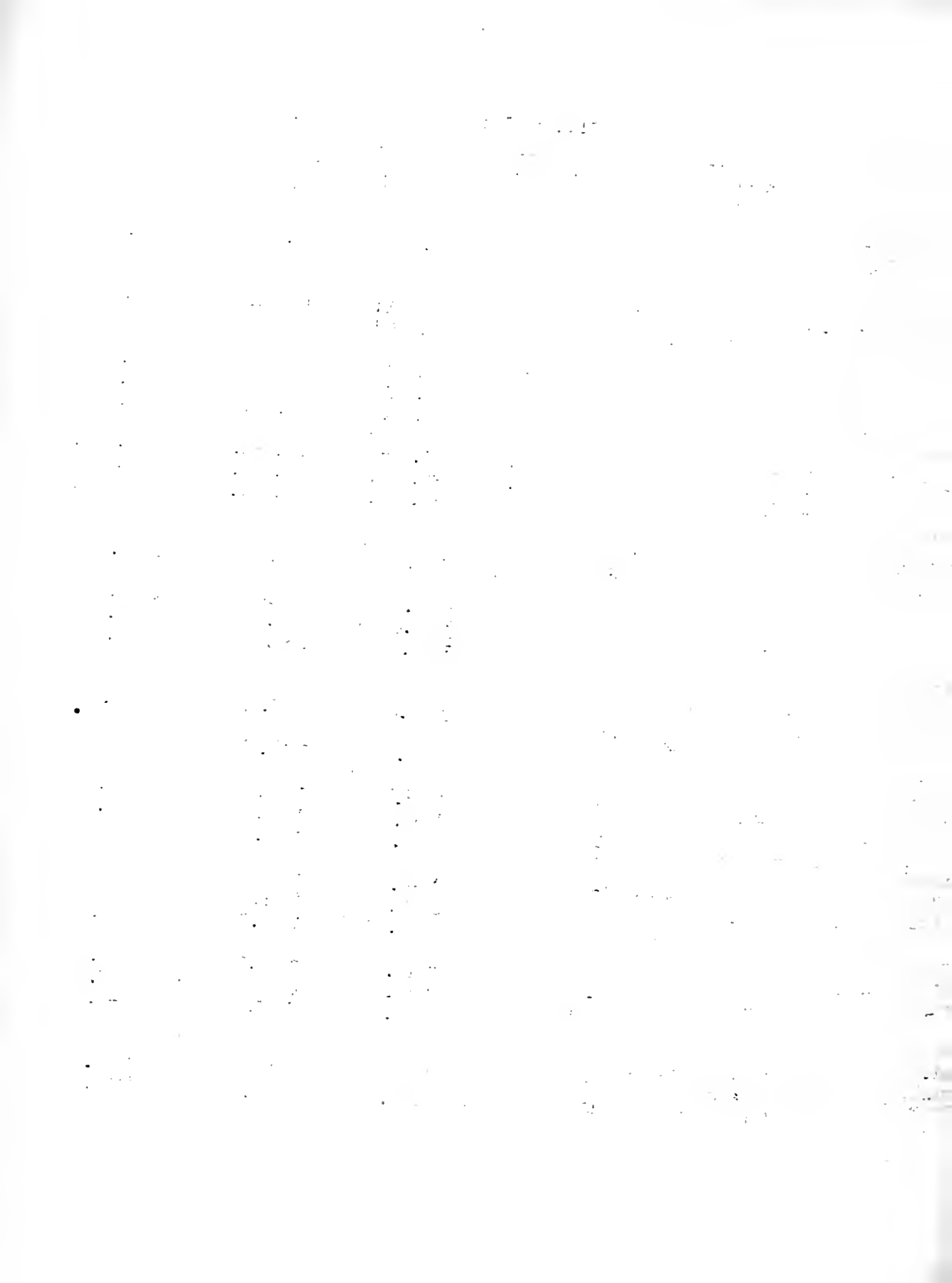
COMPARATIVE EARNINGS ON CLINTON COUNTY FARMS

Item	1922	1923	1924	1925	1926
Number of farm records	25	21	58	60	56
Av. size of farm, acres	164	163	164	165	172
Av. rate earned	1.7%	4.5%	4.7%	5.9%	3.5%
Av. value of land per acre	\$ 98	\$ 98	\$ 64	\$ 64	\$ 66
Av. investment per acre	123	124	105	105	108
Investment in livestock per farm	1832	1727	1655	1703	1884
Investment in cattle per farm	892	866	816	865	941
Investment in poultry per farm	266	255	260	264	279
Investment in hogs per farm	83	129	120	134	188
Gross income per acre	13.49	17.80	15.87	18.19	15.28
Operating cost per acre	11.50	12.14	10.91	11.94	11.51
Grain sales less feed purchases per farm	597	769	589	657	000
Misc. income per farm	116	143	114	126	139
Livestock income per farm	1499	1953	1901	2222	2494
Gross income per farm	2212	2867	2604	3005	2633
Cattle income per farm	904	1313	1213	1323	1491
Hog income per farm	114	146	159	255	358
Poultry income per farm	504	510	520	630	629

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm as well as on the farms of the group making the best profits and the group making the least profits.

Clinton County-1926

Factors helping to analyze the farm business	Your farm	Average of 56 farms	Twenty most profitable farms	Twenty least profitable farms
Rate earned	%	3.49%	8.46%	-1.51%
Labor and management wage	\$	\$320	\$1,295	-\$584
Size of farm - acres	A	172.3 A	216.6 A	139.8 A
Percent of land area tillable	%	72.4 %	67.7 %	71.7 %
Acres in Corn	A	32.8 A	36.2 A	28.2 A
Oats	A	27.3 A	31.8 A	22.2 A
Wheat	A	33.2 A	46.5 A	23.2 A
Crop yields - Corn	bu.	18.4bu.	21.4bu.	15.6bu.
Oats	bu.	20.0bu.	19.7bu.	21.4bu.
Wheat	bu.	19.2bu.	21.1bu.	18.3bu.
Returns per \$100 invested in all productive livestock	\$	\$172.00	\$188.00	\$150.00
For \$100 in Cattle	\$	\$161.00	\$165.00	\$149.00
Swine	\$	\$173.00	\$205.00	\$116.00
Poultry	\$	\$218.00	\$260.00	\$182.00
Investment per acre in productive livestock	\$	\$ 8.40	\$ 7.51	\$ 9.84
Receipts per acre from productive livestock	\$	\$ 14.47	\$ 14.14	\$ 14.72
Man labor cost per acre	\$	\$ 6.47	\$ 5.30	\$ 8.08
Crop acres per man	\$	\$ 60.9	\$ 70.6	\$ 47.3
Crop acres per horse	\$	\$ 19.4	\$ 22.0	\$ 16.7
Expense per \$100 gross income	\$	\$ 75.00	\$ 56.00	\$113.00
Machinery cost per acre	\$	\$ 1.80	\$ 1.95	\$ 1.93
Building & fencing cost per A	\$	\$.87	\$.76	\$ 1.20
Gross receipts per acre	\$	\$ 15.28	\$ 17.92	\$ 15.20
Total expenses per acre	\$	\$ 11.51	\$ 10.08	\$ 17.17
Net receipts per acre	\$	\$ 3.77	\$ 7.84	\$ -1.97
Percent of farms with tractor	%	21%	12%	5%
Value of land per acre	\$	\$ 66.00	\$ 57.00	\$ 78.00
Total investment per acre	\$	\$108.00	\$ 93.00	\$130.00



Clinton County-1926

	Your farm	Average of 55 farms	Twenty most profitable farms	Twenty least profitable farms
1 <u>Capital Investment-Total</u>	\$	\$18,604	\$ 20,044	\$ 18,189
2 Land		11,397	12,363	10,905
3 Farm improvements		2,690	2,640	2,930
4 Machinery and equipment		1,196	1,442	1,146
5 Feed and supplies		1,437	1,533	1,420
6 Livestock		1,884	2,066	1,788
7 Horses		449	477	407
8 Cattle		941	1,023	956
9 Swine		188	193	159
10 Sheep		27	42	32
11 Poultry		279	331	234
12 <u>Receipts-Net Increases-Total</u>		2,633	3,880	2,127
13 Feed and grain		---	545	---
14 Miscellaneous		139	274	68
15 Livestock-Total		2,494	3,061	2,059
16 Horses		---	---	---
17 Cattle		246	328	174
18 Swine		358	517	179
19 Sheep		16	23	21
20 Poultry		185	260	130
21 Egg sales		444	630	319
22 Dairy sales		1,245	1,303	1,236
23 <u>Expenses-Net Decreases-Total</u>		1,018	1,191	1,413
24 Farm improvements		149	165	168
25 Livestock		9	25	15
26 Horses		9	25	15
27 Cattle		---	---	---
28 Swine		---	---	---
29 Sheep		---	---	---
30 Poultry		---	---	---
31 Machinery and equipment		311	423	271
32 Feed and supplies		2	---	436
33 Livestock expense other than feed		23	17	21
34 Crop expense		193	213	177
35 Labor hired		151	155	141
36 Taxes, insurance, etc.		149	170	142
37 Miscellaneous		31	23	42
38 <u>Receipts less Expenses</u>		1,615	2,689	714
39 Operator's and unpaid family labor		965	992	989
40 Net income from investment		650	1,697	-275

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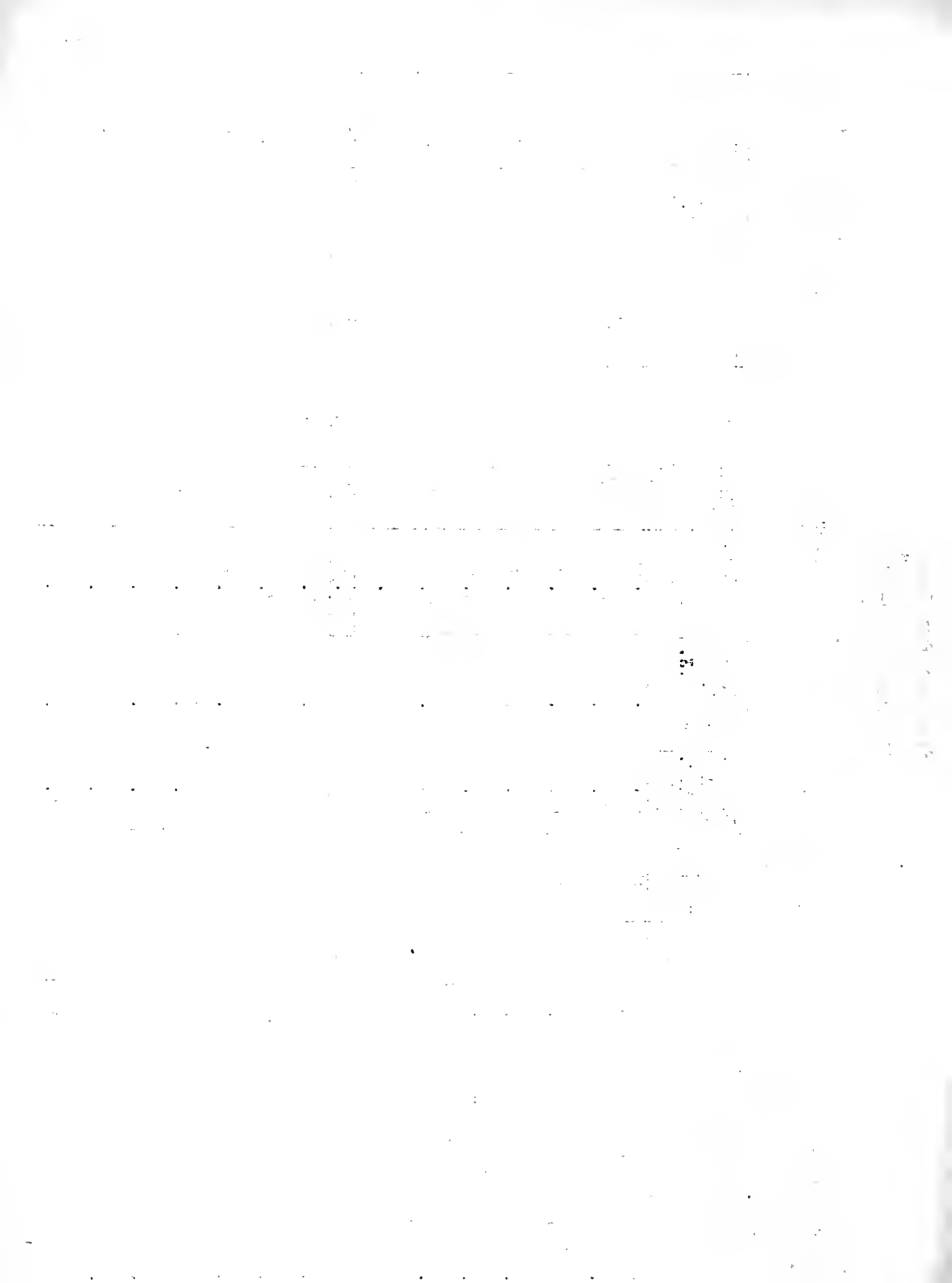
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Find Your Farm Leeks

(Clinton County-1926)

The numbers between the lines across the middle of the page are the approximate averages for your county of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your county.

Rate earned	Bushels per acre of		Returns per \$100 invested in		Invest. per A. in I.S. from I.S.	Receipts per A. from I.S.	Man Lab. cost per A.	Crop acres per Horse		Expense per \$100 income	Gross receipts per A.	Size of farm		
	Corn	Oats	Wheat	Cattle				Hogs	Poultry				Man	Horse
10.5	46	34	33	301	313	358	15.40	28.50	3.00	96	33	40	36	312
9.5	42	32	31	281	293	338	14.40	26.50	3.50	91	31	45	33	292
8.5	38	30	29	261	273	318	13.40	24.50	4.00	86	29	50	30	272
7.5	34	28	27	241	253	298	12.40	22.50	4.50	81	27	55	27	252
6.5	30	26	25	221	233	278	11.40	20.50	5.00	76	25	60	24	232
5.5	26	24	23	201	213	258	10.40	18.50	5.50	71	23	65	21	212
4.5	22	22	21	181	193	238	9.40	16.50	6.00	66	21	70	18	192
3.5	13	20	19	161	173	218	8.40	14.50	6.50	61	19	75	15	172
2.5	14	18	17	141	153	198	7.40	12.50	7.00	56	17	80	12	152
1.5	10	16	15	121	133	178	6.40	10.50	7.50	51	15	85	9	132
0.5	6	14	13	101	113	158	5.40	8.50	8.00	46	13	90	6	112
-0.5	--	12	11	81	93	138	4.40	6.50	8.50	41	11	95	3	92
-1.5	--	10	9	61	73	118	3.40	4.50	9.00	36	9	100	--	72
-2.5	--	8	7	41	53	98	2.40	2.50	9.50	31	7	105	--	52
-3.5	--	6	5	21	33	78	1.40	0.50	10.00	26	5	110	--	32



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

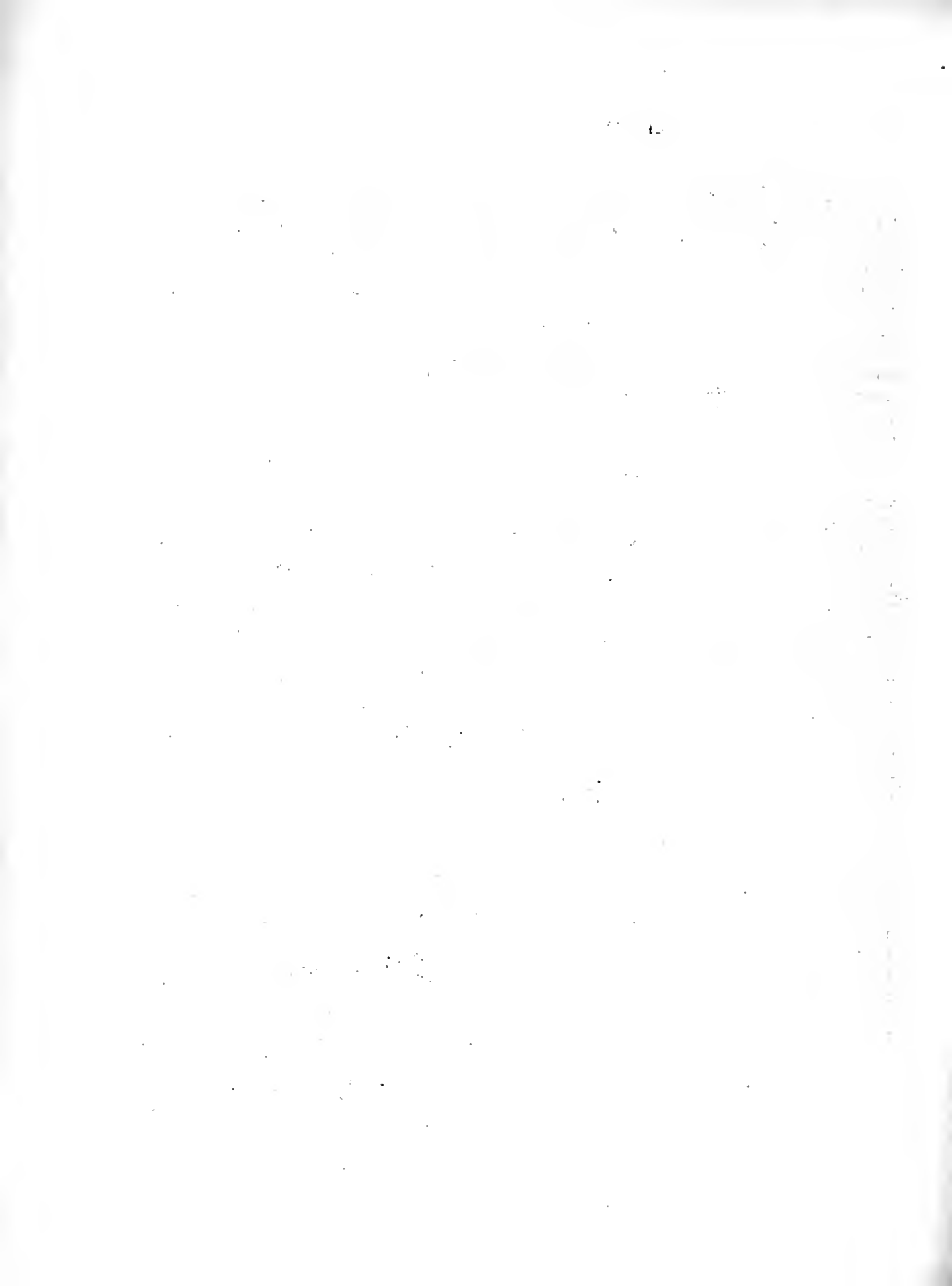
It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest .

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,



and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial reporting and compliance with regulatory requirements. The text notes that incomplete or inconsistent records can lead to significant legal and financial consequences for the organization.

2. The second section addresses the challenges associated with data management and storage. As the volume of data generated by various systems continues to grow exponentially, organizations must invest in robust infrastructure and secure storage solutions. This section highlights the need for regular data backups, disaster recovery plans, and strict access controls to protect sensitive information from unauthorized access or loss.

3. The third part of the document focuses on the integration of different data sources and systems. It explains that fragmented data can hinder the ability to gain a comprehensive view of the organization's performance and operations. By implementing data integration strategies, such as data lakes or enterprise data warehouses, companies can ensure that all relevant information is consolidated and accessible to authorized users, thereby enabling more informed decision-making.

4. The final section discusses the importance of data security and privacy. With increasing concerns about data breaches and the misuse of personal information, organizations must implement strong security protocols and adhere to relevant data protection regulations. This includes conducting regular security audits, encrypting sensitive data, and providing comprehensive training to employees on data security best practices.

as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The text notes that without reliable records, it would be difficult to verify the accuracy of financial statements and to identify any irregularities.

2. The second part of the document focuses on the role of internal controls in ensuring the reliability of financial information. It describes how internal controls are designed to prevent errors and to detect any misstatements or fraud that may occur. The text highlights that internal controls should be tailored to the specific needs of the organization and should be regularly reviewed and updated to reflect changes in the business environment.

3. The third part of the document discusses the importance of transparency and accountability in financial reporting. It notes that stakeholders, including investors, creditors, and the public, rely on financial statements to make informed decisions. Therefore, it is crucial for organizations to provide clear, accurate, and timely information about their financial performance. The text also emphasizes the need for organizations to be held accountable for their financial reporting and to take appropriate action in the event of any misstatements or fraud.

4. The fourth part of the document discusses the role of external audits in providing an independent assessment of the accuracy and reliability of financial statements. It notes that external audits are conducted by independent auditors who are not affiliated with the organization being audited. This independence is essential for the credibility of the audit and for the confidence of stakeholders in the financial statements. The text also highlights the importance of the auditor's report and the need for organizations to cooperate fully with the audit process.

5. The fifth part of the document discusses the importance of ethical behavior in financial reporting. It notes that financial reporting is not just a technical exercise; it is also a moral one. Organizations have a responsibility to provide accurate and honest information about their financial performance, and they should not engage in any practices that would mislead or deceive stakeholders. The text emphasizes the need for organizations to establish a strong ethical culture and to hold all employees accountable for their actions.

6. The sixth part of the document discusses the role of technology in financial reporting. It notes that technology has revolutionized the way financial data is collected, processed, and reported. The use of automated systems and data analytics can help organizations to improve the accuracy and efficiency of their financial reporting. However, the text also notes that technology can also be used to facilitate fraud and other illegal activities, so it is important for organizations to implement robust security measures and to stay up-to-date on the latest developments in financial reporting technology.

7. The seventh part of the document discusses the importance of international harmonization of financial reporting standards. It notes that as globalization continues to drive the growth of international trade and investment, it is essential for financial reporting standards to be consistent and comparable across different countries. This will help to reduce the cost and complexity of financial reporting for multinational corporations and will also help to increase the transparency and accountability of financial reporting on a global scale.

8. The eighth part of the document discusses the role of government in financial reporting. It notes that governments have a key role to play in ensuring the integrity and reliability of financial reporting. This includes setting and enforcing financial reporting standards, providing oversight and supervision of the auditing profession, and taking action in the event of any misstatements or fraud. The text also highlights the importance of government transparency and accountability in financial reporting, particularly in the case of public sector organizations.

9. The ninth part of the document discusses the importance of financial reporting in the context of sustainable development. It notes that financial reporting is not just about the bottom line; it is also about the long-term sustainability of the organization. This includes reporting on environmental, social, and governance (ESG) factors, which can help stakeholders to understand the organization's impact on society and the environment. The text emphasizes the need for organizations to integrate ESG factors into their financial reporting and to use this information to drive positive change.

10. The tenth part of the document discusses the future of financial reporting. It notes that financial reporting is a constantly evolving field, and it is important for organizations to stay up-to-date on the latest trends and developments. This includes the use of new technologies, the emergence of new reporting standards, and the growing importance of ESG factors. The text concludes by noting that financial reporting will continue to play a central role in the global financial system, and it is essential for organizations to embrace change and to strive for continuous improvement in their financial reporting practices.

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to ensure the validity of the results.

3. The third part of the document describes the different types of data that are collected and how they are used to inform decision-making. It notes that a combination of quantitative and qualitative data is often used to provide a comprehensive view of the organization's performance.

4. The fourth part of the document discusses the challenges associated with data collection and analysis. It identifies common issues such as data quality, consistency, and availability, and provides strategies to address these challenges.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It emphasizes the importance of ongoing monitoring and evaluation to ensure that the organization remains on track and is able to adapt to changing circumstances.

6. The sixth part of the document provides a detailed overview of the data collection process, including the selection of data sources, the design of data collection instruments, and the implementation of the data collection plan.

7. The seventh part of the document discusses the various methods used to analyze the data, including statistical analysis, content analysis, and thematic analysis. It provides a detailed explanation of each method and its strengths and limitations.

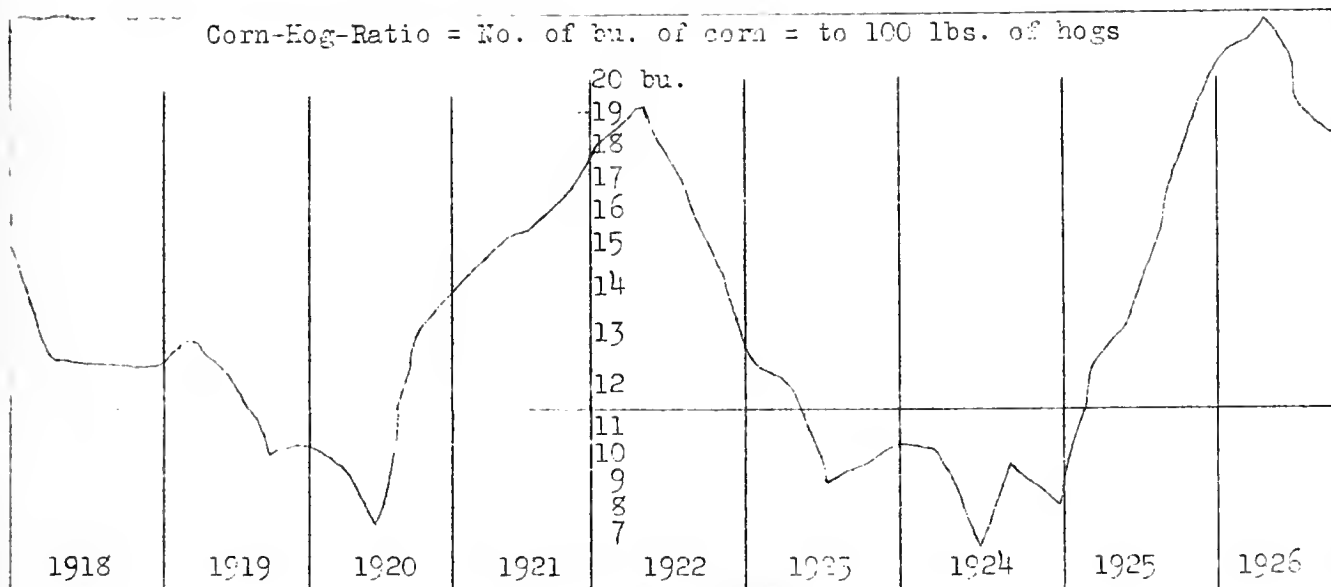
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The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

2. The second part covers the process of reconciling accounts. It explains how to compare the internal records with the bank statements to identify any discrepancies. Regular reconciliation helps in catching errors early and prevents them from accumulating.

3. The third part addresses the issue of budgeting. It provides guidelines on how to set a realistic budget based on historical data and current market conditions. A well-defined budget is essential for controlling costs and achieving financial goals.

4. The fourth part discusses the role of technology in financial management. It highlights the benefits of using accounting software to automate routine tasks, reduce the risk of human error, and provide real-time access to financial data.

5. The fifth part focuses on the importance of regular financial reviews. It suggests that management should conduct periodic reviews to assess the company's financial health and make necessary adjustments to the strategy.

6. The sixth part of the document deals with the management of cash flow. It offers practical advice on how to optimize the timing of payments and collections to maintain a healthy cash position. Effective cash flow management is crucial for the long-term survival of the business.

7. The seventh part discusses the importance of accurate forecasting. It explains how to use various financial models to predict future performance and identify potential risks. Accurate forecasts enable better decision-making and resource allocation.

8. The eighth part covers the topic of financial reporting. It outlines the requirements for preparing financial statements in accordance with relevant accounting standards. Clear and concise reporting is essential for communicating the company's financial performance to stakeholders.

9. The ninth part addresses the issue of financial control. It provides a framework for implementing internal controls to prevent fraud, misappropriation of assets, and other financial irregularities. A strong control system is a key component of a robust financial management system.

10. The tenth and final part of the document summarizes the key takeaways and provides a checklist of essential financial management practices. It encourages a proactive and disciplined approach to financial management to ensure the success and sustainability of the organization.

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

WABASH, EDWARDS, RICHLAND AND LAWRENCE COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1926

Farm Account keepers say:

"Farm accounts are more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

M51

Section 1: Introduction

The purpose of this document is to provide a comprehensive overview of the project's objectives and scope.

Section 2: Methodology

The methodology employed in this study is based on a combination of qualitative and quantitative research methods.

The data collected during the study was analyzed using statistical software to identify trends and patterns.

ANNUAL FARM BUSINESS REPORT

Wabash, Edwards, Richland and Lawrence Counties, Illinois - 1926

Prepared by R. R. Hudelson, J. B. Andrews, Peter Nelson, H. C. M. Case*

The 30 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$603 to pay for their labor risk and management after paying expenses and allowing 5 percent interest on their average investment of \$128 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,955 while the one-third who were least successful lacked an average of \$713 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,668 in the relative amounts which these last two groups received for their time and labor.

Expressed in another way, these 30 farmers earned 5.6 percent on their investments after allowing \$600 each to pay for his own labor. On the same basis the most successful third earned 11.6 percent and the least successful third 0.3 percent. The average investment on the 30 farms was \$21,990 which amounts to \$128 an acre. The higher profit third had an average investment of \$148 and the lower profit third \$128 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at \$90 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home, not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

Size of farm evidently had little influence on the relative earnings of the high and low profit groups. The less profitable farms had about 40 acres more land per farm which included 20 acres more tillable land. The more profitable farms although smaller had more acres of corn and wheat but less acres of oats per farm than the less profitable farms. This corresponds with other records which show that wheat is the most profitable grain crop for southern Illinois and that oats are usually unprofitable.

*J. R. Spencer, H. N. Myers, W. B. Bunn and H. C. Wheeler, farm advisers in Wabash, Edwards, Richland and Lawrence counties cooperated in supervising and collecting the records used in this report.

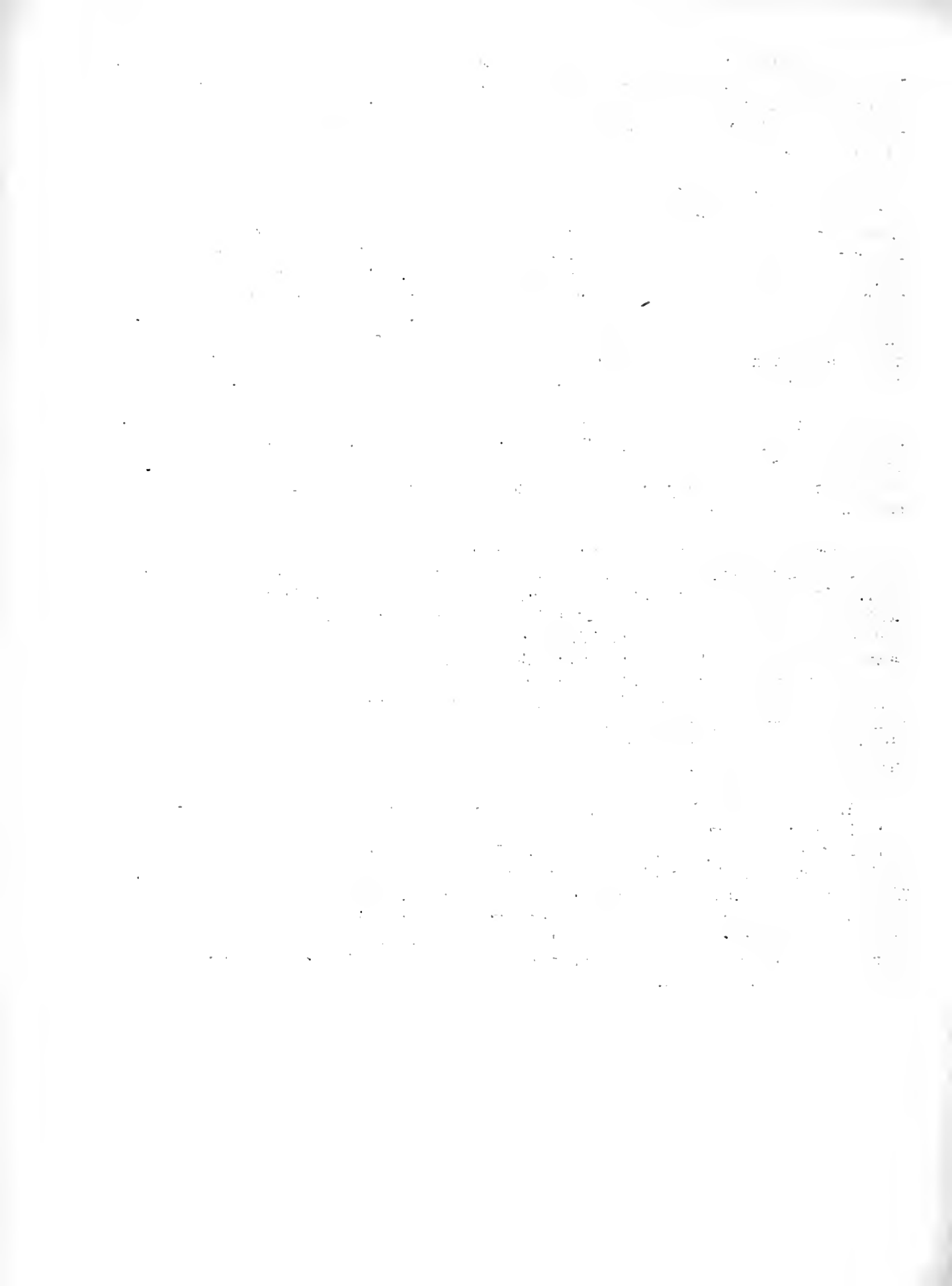
The operators of the more successful farms secured better crop yields. They raised $5\frac{1}{2}$ bushels more corn, 10 bushels more oats and 6 bushels more wheat per acre than their less successful neighbors. As the cost of growing an acre of crop increases but little with increased yields these larger yields go toward increasing profits.

The greatest advantage of the more profitable farms was in their more efficient livestock. The high and low profit groups had about the same investment per acre in livestock but the operators of the more profitable farms secured nearly three times as much livestock income per acre. The biggest single difference was in dairy products. The more successful operators sold almost ten times as much dairy products per farm as those who were less successful and almost three times as much poultry products. The livestock investment on the lower profit farms was mostly in beef cattle which handled as they were made little profit. Hogs were somewhat more efficient on the low profit farms than on the high profit farms.

That feeding on the more successful farms was more efficient is indicated by the fact that although these farms were smaller they had left on the average \$542 per farm from crop sales after feeding their livestock. In this case any feed purchased was deducted from crop sales. The less successful farms had left only \$262 from crop sales.

As might be expected labor costs were higher on the more profitable farms. Dairy cattle and poultry require more labor than beef cattle and hogs. In this case, however, the additional labor was well paid for in increased income. Dairy cattle and poultry also call for more equipment and the equipment costs were \$1.44 per acre higher on the more successful farms. Total operating costs were \$4.86 per acre higher on the farms of the higher profit group but their gross income per acre was \$21.56 per acre higher than on the low profit farms. The result was that the more profitable farms earned a rate of $11\frac{1}{2}$ percent on a land value of \$104 an acre, while the less profitable farms earned one-third of one percent on a land value of \$91 an acre.

Although there has been some shifting in the individual farms included for different years it is interesting to note the comparative income and cost figures in the following table. The better grain prices of 1924 made it the best year for profits of the four years for which we have records. Since then the trend has been slightly downward. Evidently there has been some progress in replacing declining grain income with increased income from hogs, dairy products and poultry products. It is evident that the farm operators who keep these accounts do adjust their farm production to meet changing prices.



Comparative Earnings on Farms in Wabash, Edwards,
Richland and Lawrence Counties

Item	1923*	1924	1925	1926
Number of farm records	24	41	32	30
Average size of farm in acres	163	174	187	172
Average rate earned	3.5%	7.2%	6.2%	5.6%
Average value of land per acre	\$ 103	\$ 85	\$ 83	\$ 90
Average investment per acre	139	115	120	128
Investment in livestock per farm	1,911	1,534	1,737	1,923
Investment in cattle per farm	784	626	694	835
Investment in hogs per farm	371	293	418	501
Investment in poultry per farm	161	144	175	166
Gross income per acre	15.40	18.23	17.22	19.75
Operating cost per acre	10.57	9.89	9.71	12.60
Grain sales less feed purchases per farm	1,122	1,327	516	708
Miscellaneous income per farm	120	102	104	167
Livestock income per farm	1,268	1,748	2,610	2,525
Gross income per farm	2,510	3,177	3,230	3,400
Cattle income per farm	227	206	298	251
Hog income per farm	487	742	1,482	1,044
Poultry income per farm	282	290	490	460
Dairy products sold per farm	272	476	300	740

*Only records from Wabash County were included for 1923.

Some points of strength and some of weakness in your own farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm as well as on the farms of the higher and lower profit groups.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This not only helps in tracking expenses but also ensures compliance with tax regulations.

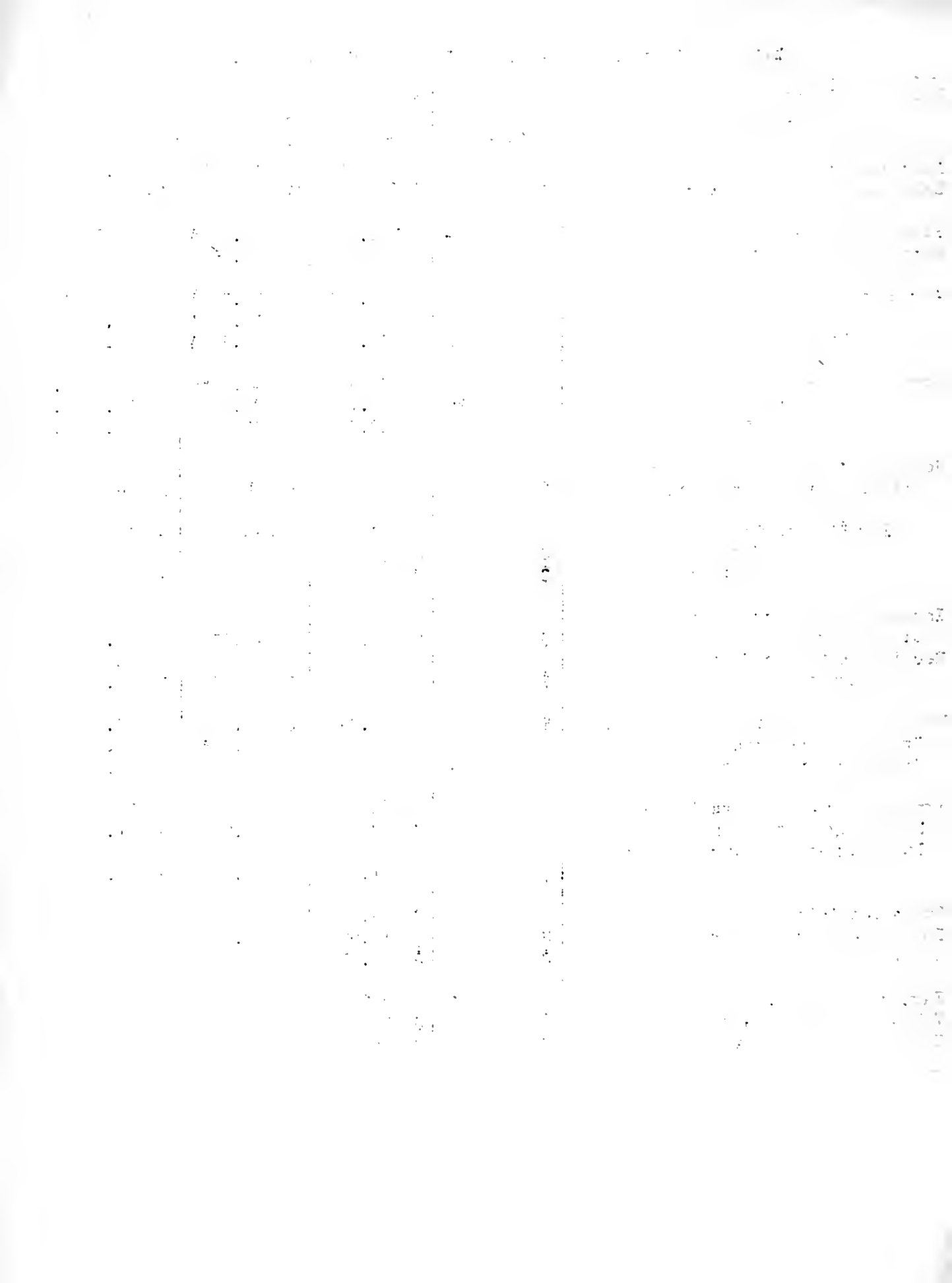
In the second section, the author outlines the various methods used for data collection and analysis. These include surveys, interviews, and focus groups. Each method has its own strengths and weaknesses, and the choice depends on the specific research objectives.

The third section delves into the statistical analysis of the collected data. It covers topics such as descriptive statistics, inferential statistics, and regression analysis. The goal is to identify patterns and trends in the data that can inform business decisions.

Finally, the document concludes with a summary of the findings and recommendations. It suggests that regular monitoring and reporting of financial performance are essential for long-term success. Additionally, it recommends investing in employee training and development to enhance productivity and innovation.

Wabash, Edwards, Richland, and Lawrence Counties - 1926

Factors helping to analyze the farm business	Your farm	Average of thirty farms	Ten most profitable farms	Ten least profitable farms
Rate earned		% 5.6%	11.58%	0.32%
Labor and management wage	\$	\$ 603	\$1,955	\$-713
Size of farm - acres		A 172.1 A	152.5 A	191.3 A
Percent of land area tillable		% 85.6%	86.6%	79.2%
Acres in Corn		A 42.4 A	43.9 A	39.5 A
Oats		A 18 A	12.7 A	19.8 A
Wheat		A 25.2 A	25.5 A	18.6 A
Crop yields - Corn		bu. 38.3 bu.	42.3 bu.	36.8 bu.
Oats		bu. 20.7 bu.	27.2 bu.	16.6 bu.
Wheat		bu. 22.2 bu.	25.0 bu.	18.8 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 171	\$ 254	\$ 96
For \$100 in Cattle	\$	\$ 122	\$ 254	\$ 38
Hogs	\$	\$ 230	\$ 214	\$ 247
Poultry	\$	\$ 274	\$ 409	\$ 167
Investment per acre in productive livestock	\$	\$ 8.57	\$ 10.75	\$ 10.01
Receipts per acre from productive livestock	\$	\$ 14.67	\$ 27.32	\$ 9.60
Man labor cost per acre	\$	\$ 6.23	\$ 8.18	\$ 5.39
Crop acres per man		A 66.5 A	55.2 A	61.1 A
Crop acres per horse		A 23.1 A	23.2 A	20.0 A
Expense per \$100 gross income	\$	\$ 63	\$ 48	\$ 96
Machinery cost per acre	\$	\$ 2.13	\$ 2.90	\$ 1.46
Building and fencing cost per acre	\$	\$ 1.16	\$ 1.08	\$ 1.24
Gross receipts per acre	\$	\$ 19.75	\$ 32.98	\$ 11.42
Total expenses per acre	\$	\$ 12.60	\$ 15.88	\$ 11.02
Net receipts per acre	\$	\$ 7.15	\$ 17.10	\$ 0.40
Farm with tractor		% 40%	60%	20%
Value of land per acre	\$	\$ 90	\$ 104	\$ 91
Total investment per acre	\$	\$ 128	\$ 148	\$ 128



Wabash, Edwards, Richland, and Lawrence Counties - 1926

	Your farm	Average of thirty farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$ _____	\$21,990	\$22,530	\$24,474
2 Land		15,570	15,925	17,483
3 Farm improvements		2,137	2,113	2,243
4 Machinery and equipment		953	1,108	762
5 Feed and supplies		1,407	1,325	1,540
6 Livestock		1,923	2,059	2,446
7 Horses		385	348	471
8 Cattle		835	873	1,297
9 Hogs		501	656	490
10 Sheep		36	17	42
11 Poultry		166	165	146
12 <u>Receipts-Net Increases-Total</u>	\$ _____	\$ 3,400	\$ 5,029	\$ 2,185
13 Feed and grain		708	542	262
14 Miscellaneous		167	320	84
15 Livestock - Total		2,525	4,167	1,839
16 Horses		-	-	2
17 Cattle		251	327	300
18 Hogs		1,044	1,247	1,087
19 Sheep		30	18	21
20 Poultry		116	181	68
21 Egg sales		344	517	170
22 Dairy sales		740	1,877	191
23 <u>Expenses-Net Decreases-Total</u>	\$ _____	\$ 1,446	\$ 1,733	\$ 1,347
24 Farm improvements		199	164	238
25 Livestock		12	10	-
26 Horses		12	10	-
27 Cattle		-	-	-
28 Hogs		-	-	-
29 Sheep		-	-	-
30 Poultry		-	-	-
31 Machinery and equipment		366	443	279
32 Feed and supplies		-	-	-
33 Livestock expense other than feed		45	90	25
34 Crop expense		192	200	180
35 Labor hired		349	559	270
36 Taxes, insurance, etc.		250	239	334
37 Miscellaneous		23	28	21
38 <u>Receipts less Expenses</u>	\$ _____	\$ 1,954	\$ 3,296	\$ 838
39 Operator's and unpaid family labor		723	688	761
40 Net income from investment		1,231	2,608	77

Find Your Farm Leaks

Wabash, Edwards, Richland, Lawrence Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per		Expense per \$100 income	Gross receipts per acre	Size of farm	
	Com	Oats	Wheat	Cattle	Hogs				Poultry	Man				Horse
12.6	59	42	36	192	370	414	22.57	28.67	2.75	101	37	28	34	312
11.6	56	39	34	182	350	394	20.57	26.67	3.25	96	35	33	32	292
10.6	53	36	32	172	330	374	18.57	24.67	3.75	91	33	38	30	272
9.6	50	33	30	162	310	354	16.57	22.67	4.25	86	31	43	28	252
8.6	47	30	28	152	290	334	14.57	20.67	4.75	81	29	48	26	232
7.6	44	27	26	142	270	314	12.57	18.67	5.25	76	27	53	24	212
6.6	41	24	24	132	250	294	10.57	16.67	5.75	71	25	58	22	192
5.6	38	21	22	122	230	274	8.57	14.67	6.25	66	23	63	20	172
4.6	35	18	20	112	210	254	6.57	12.67	6.75	61	21	68	18	152
3.6	32	15	18	102	190	234	4.57	10.67	7.25	56	19	73	16	132
2.6	29	12	16	92	170	214	2.57	8.67	7.75	51	17	78	14	112
1.6	26	9	14	82	150	194	0.57	6.67	8.25	46	15	83	12	92
0.6	23	6	12	72	130	174	--	4.67	8.75	41	13	88	10	72
-0.4	20	-	10	62	110	154	--	2.67	9.25	36	11	93	8	52
-1.4	17	-	8	52	90	134	--	0.67	9.75	31	9	98	6	32

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ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

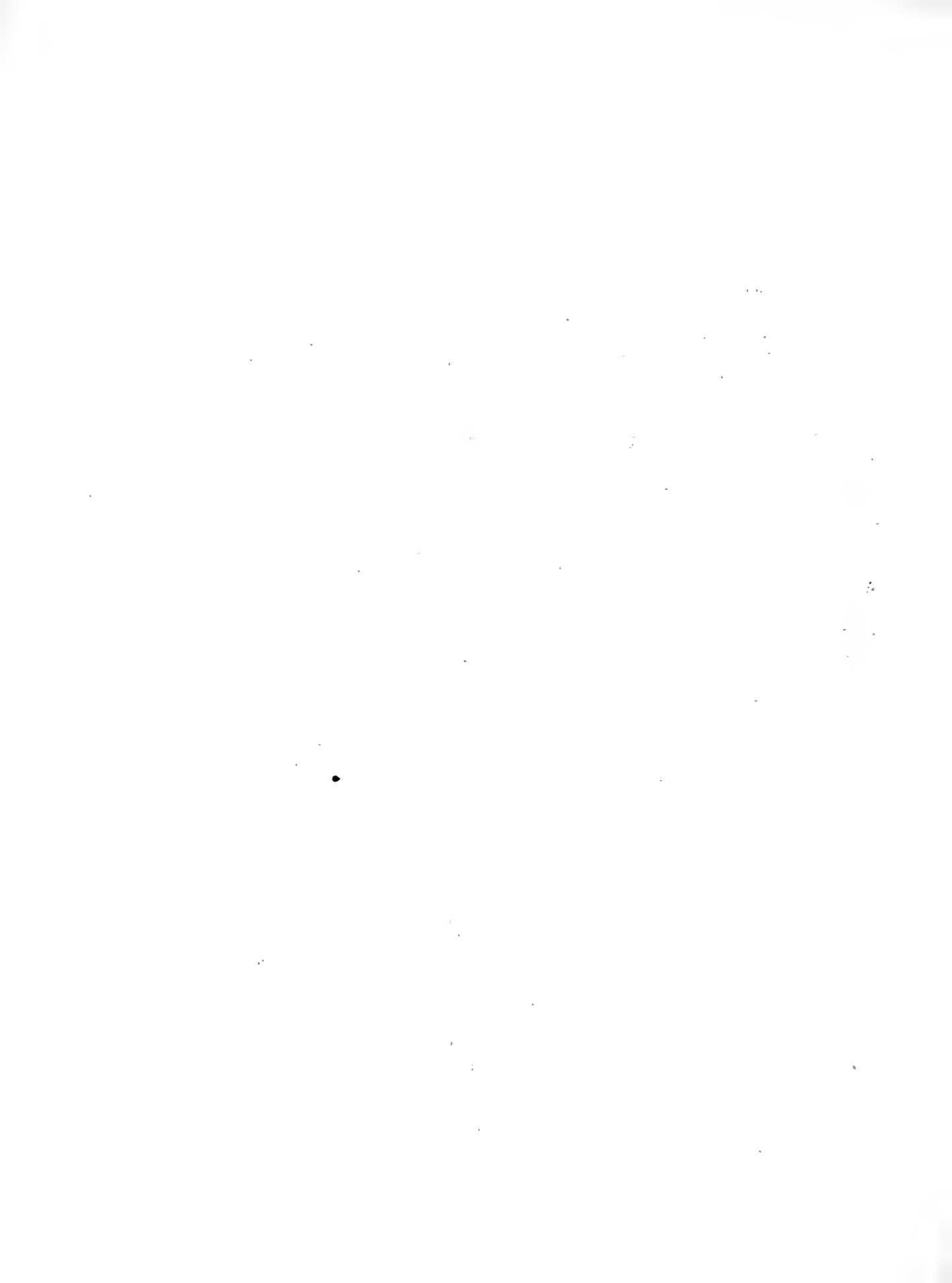
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest



conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

end of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

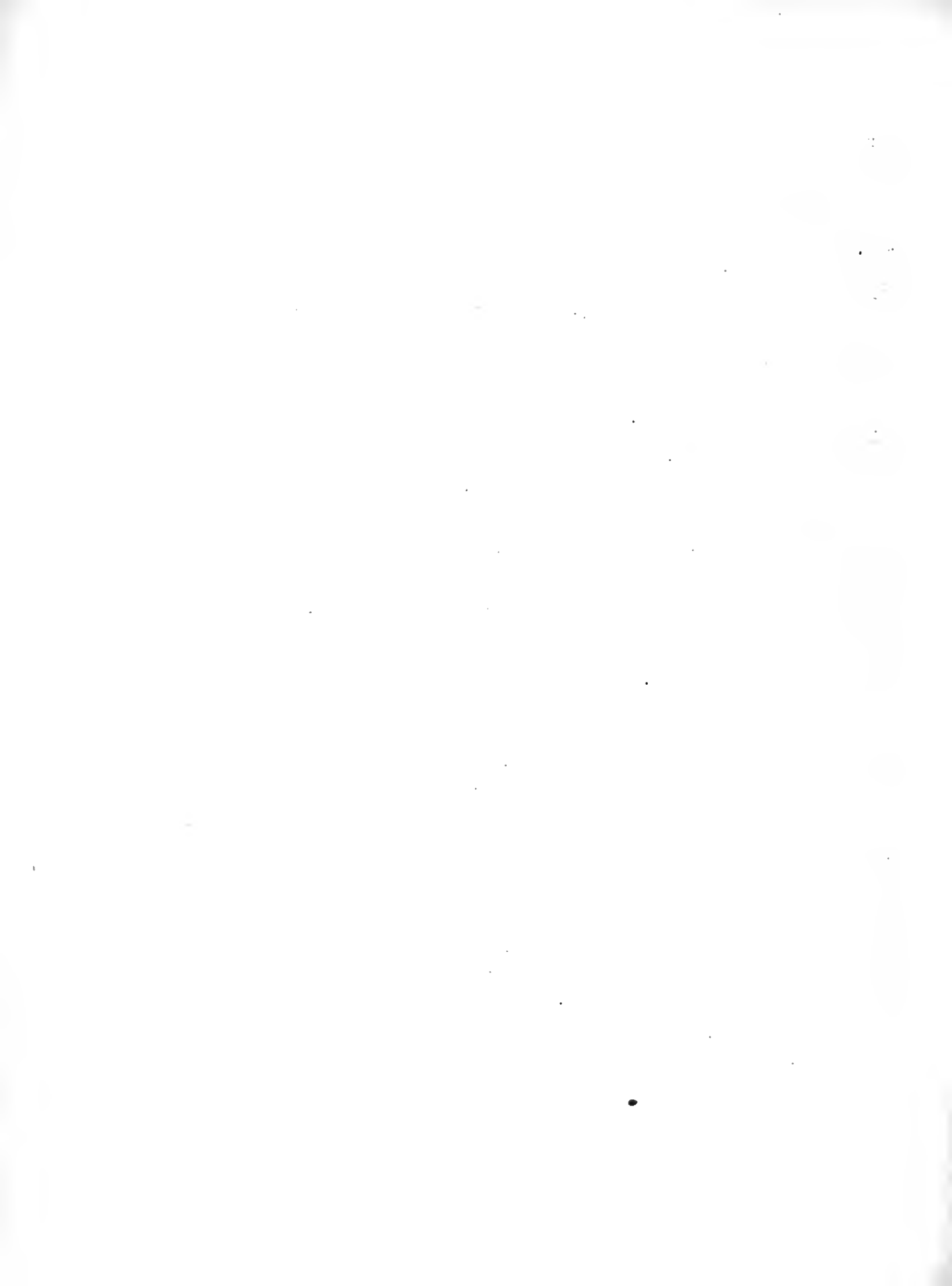
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The text notes that without reliable records, it would be difficult to track the flow of funds and identify any irregularities.

2. The second part of the document outlines the various methods used to collect and analyze data. It describes how different types of information are gathered from various sources and how this data is then processed to identify trends and patterns. The text highlights the need for consistent and standardized data collection procedures to ensure the reliability of the results.

3. The third part of the document focuses on the analysis of the collected data. It discusses the various statistical techniques and models used to interpret the data and draw meaningful conclusions. The text notes that the analysis should take into account both the quantitative and qualitative aspects of the data to provide a comprehensive understanding of the situation.

4. The fourth part of the document discusses the implications of the findings and the steps that should be taken to address any issues identified. It emphasizes the importance of transparency and accountability in the reporting of results and the implementation of corrective actions. The text also notes that the findings should be used to inform policy decisions and to improve the overall effectiveness of the system.

5. The fifth part of the document provides a summary of the key points discussed and offers some final thoughts on the importance of ongoing monitoring and evaluation. It concludes by stating that the information provided in this document is intended to serve as a guide and to encourage further research and discussion on the topic.

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

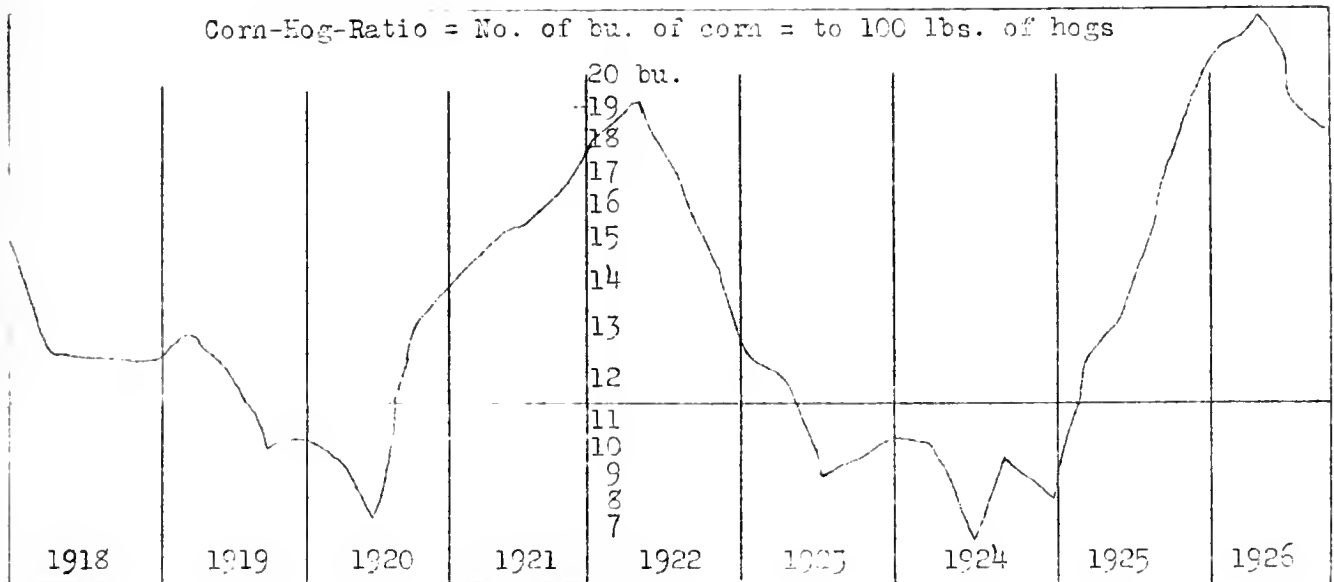
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

UNIVERSITY OF ILLINOIS
Department of Farm Organization and Management
and
RANDOLPH, MONROE, MARION AND WASHINGTON FARM BUREAUS
Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-three Farms

for

1926

Farm Account keepers say:
"Farm accounts have more value the longer
they are kept."

Urbana, Illinois

April, 1927

M38

STATEMENT OF WORK

FOR THE DEVELOPMENT OF A [REDACTED] [REDACTED]

AND

FOR THE [REDACTED] OF THE [REDACTED] [REDACTED]

AND

STATEMENT OF WORK

FOR THE [REDACTED] OF THE [REDACTED]

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FOR THE [REDACTED] OF THE [REDACTED]

AND

ANNUAL FARM BUSINESS REPORT

Randolph, Monroe, Marion and Washington Counties, Illinois-1926

Prepared by R. R. Hudelson, P. E. Johnston, H. A. Berg, H. C. M. Case*

The 33 farmers in Randolph, Monroe, Marion and Washington counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$742 to pay for their labor management and risk after paying expenses and allowing 5 percent interest on their average investment of \$83 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had an average labor and management wage of \$1,654 while the one-third who were least successful lacked an average of \$44 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$1,700 in the relative amounts which these two groups received for their time and labor.

Expressed in another way, these 33 farmers earned 6 percent on their investments after allowing \$600 each to pay for his own labor. On the same basis the most successful third earned 10.4 percent and the least successful third earned no interest on the investment. The average investment on the 33 farms was \$15,595 which amounts to \$83 an acre. The higher profit third had an average investment of \$84 and the lower profit third \$79 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4.

In addition to the above earnings, each family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The higher profit group had somewhat larger farms with about 80 acres more tillable land per farm than the lower profit group. The average farm contained 138 acres of which 158 acres was tillable land. This 158 acres included 27 acres of corn, 23 acres of oats, and 35 acres

*E. C. Secor, C. A. Hughes, F. J. Blackburn and G. E. Smith, farm advisers in Randolph, Monroe, Marion and Washington counties cooperated in supervising and collecting the records used in this report.

of wheat. The remaining area was mostly in hay and pasture. The more profitable farms had about 50 percent more acres of wheat per farm than the least profitable group.

One of the big advantages of the more successful farms was in their higher yields. They averaged 13 bushels more corn, $35\frac{1}{2}$ bushels more oats, and $8\frac{1}{2}$ bushels more wheat per acre than the less successful farms. Stated on a farm basis, this gave the former group an average of 500 bushels more corn, 840 bushels more oats, and 600 bushels more wheat per farm than the latter.

The farms of the higher profit group had \$1.10 per acre more income from livestock than the low profit farms but this appears to be due more to a larger amount of livestock than to greater livestock efficiency. They did, however, show a higher efficiency in their hog and poultry enterprises.

Man labor and horse power were used more efficiently on the higher profit farms since they not only worked more crop acres per man and per horse but they secured larger yields and had more livestock to look after.

It required all of the income of the low profit group of farms to pay operating costs, including family labor, but not including any interest on the investment. The higher profit group had almost twice as much gross income per acre and their operating costs were no higher. They therefore had about half of their income left to pay interest and profits. The larger gross income is due chiefly to larger crop yields and more livestock.

Although there was a considerable shift in individual farms included it is interesting to make a comparison of income figures in this report with those of previous years in the same area. The average rates earned on the investment have been as follows: 1926, 6.0 percent; 1925, 6.6 percent; 1924, 5 percent; 1923, 3.3 percent, and 1922, 3.7 percent. The figures for 1925 came from 30 farms in Randolph and Monroe Counties; for 1924 from 23 farms in Randolph and Monroe Counties; for 1923 from 9 farms in Monroe County, and for 1922 from 10 farms in Monroe County. If we compare only those farms on which accounts were completed in both 1925 and 1926 we find that they earned 2 percent less on their invested capital in 1926 than in 1925. The reduction in gross income was due to less income from crop sales and miscellaneous sources. They took in as much livestock income in 1926 as in 1925. The operating costs per acre on those farms which reported both years averaged \$11.29 in 1925 and \$11.08 in 1926.

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm in each group.

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Randolph, Monroe, Marion and Washington Counties - 1926

Factors helping to analyze the farm business	Your farm	Average of 33 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	6.0%	10.43%	.02%
Labor and management wage	\$	\$ 742.00	\$ 1,654.	\$ -44.
Size of farm - acres	A	188.3	231.5	162.8
Percent of land area tillable	%	84.0	88.9	76.8
Acres in Corn	A	27.1 A	31.6 A	26.6 A
Oats	A	23.3 A	22.8 A	20.3 A
Wheat	A	35.0 A	42.0 A	27.9 A
Crop yields - Corn	bu.	24.5 bu.	30.8 bu.	17.7 bu.
Oats	bu.	22.8 bu.	47.8 bu.	12.1 bu.
Wheat	bu.	22.7 bu.	26.4 bu.	17.9 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 161.00	\$ 152.00	\$ 165.00
For \$100 in cattle	\$	\$ 140.00	\$ 124.00	\$ 148.00
hogs	\$	\$ 175.00	\$ 177.00	\$ 124.00
poultry	\$	\$ 227.00	\$ 253.00	\$ 229.00
Investment per acre in productive livestock	\$	\$ 4.71	\$ 5.29	\$ 4.25
Receipts per acre from productive livestock	\$	\$ 7.51	\$ 8.03	\$ 6.93
Man labor cost per acre	\$	\$ 5.16	\$ 4.60	\$ 5.63
Crop acres per man	A	79.7 A	98.6 A	67.0 A
Crop acres per horse				
(with tractor)	A	30.0 A	33.7 A	25.3 A
(without tractor)	A	19.6 A	24.0 A	18.2 A
Expense per \$100 gross income	\$	\$ 64.00	\$ 50.00	\$ 100.00
Machinery cost per acre	\$	\$ 1.35	\$ 1.52	\$ 1.07
Building and fencing cost per A	\$	\$.48	\$.42	\$.39
Gross receipts per acre	\$	\$ 13.88	\$ 17.50	\$ 8.90
Total expenses per acre	\$	\$ 8.92	\$ 8.75	\$ 8.90
Net receipts per acre	\$	\$ 4.96	\$ 8.75	\$ ----
Farms with tractor (%)	%	33-1/3%	50.0%	20.0%
Value of land per acre	\$	\$ 54.00	\$ 53.00	\$ 51.00
Total investment per acre	\$	\$ 83.00	\$ 84.00	\$ 79.00

The first part of the report discusses the background and objectives of the study.

The second part of the report describes the methodology used in the study.

The third part of the report presents the results of the study.

The fourth part of the report discusses the implications of the findings.

The fifth part of the report concludes the study and provides recommendations.

The sixth part of the report provides a list of references.

The seventh part of the report provides a list of appendices.

The eighth part of the report provides a list of figures.

The ninth part of the report provides a list of tables.

The tenth part of the report provides a list of abbreviations.

The eleventh part of the report provides a list of acronyms.

The twelfth part of the report provides a list of symbols.

The thirteenth part of the report provides a list of units.

The fourteenth part of the report provides a list of definitions.

The fifteenth part of the report provides a list of terms.

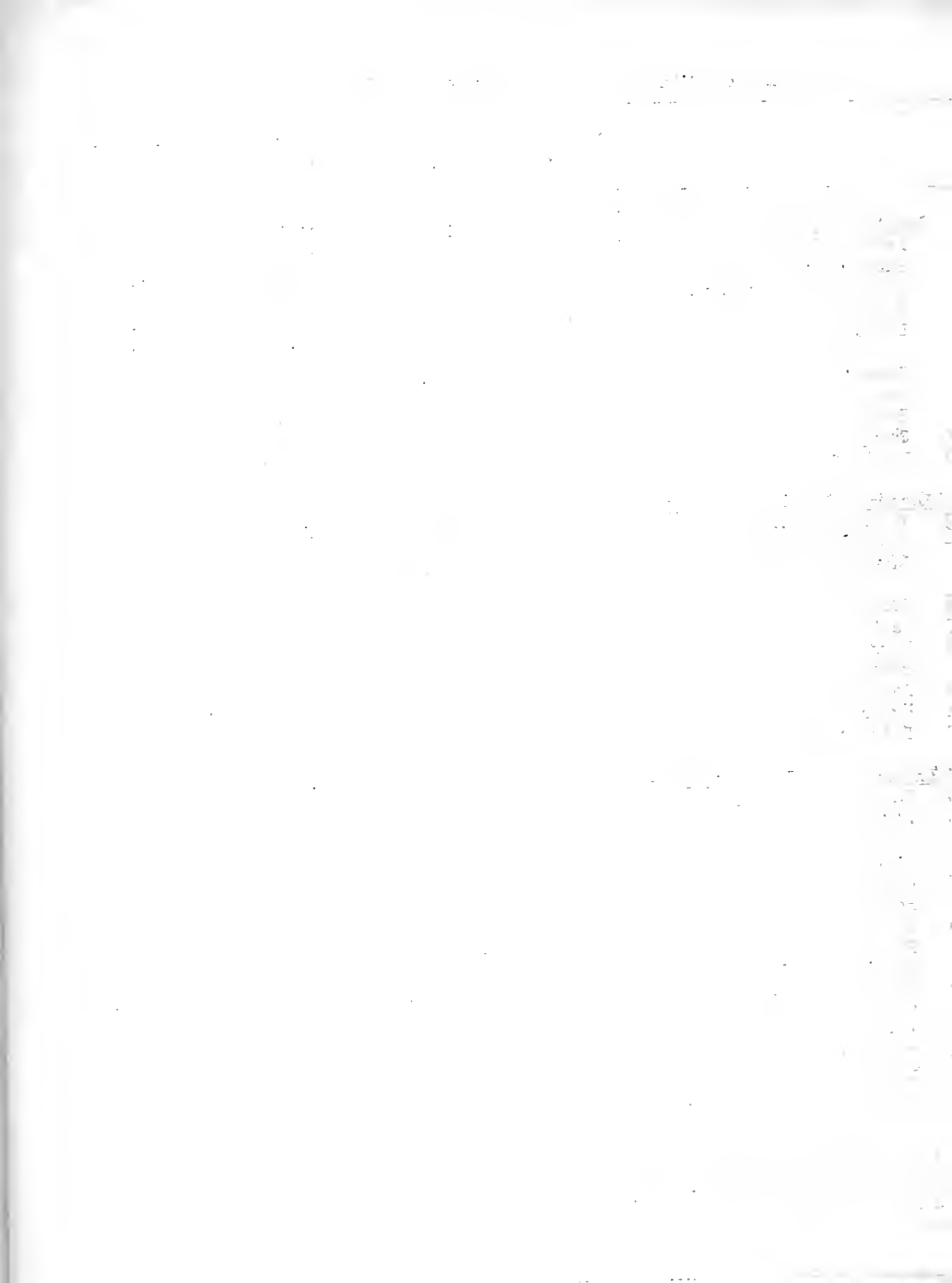
The sixteenth part of the report provides a list of notes.

The seventeenth part of the report provides a list of footnotes.

The eighteenth part of the report provides a list of endnotes.

Randolph, Monroe, Marion and Washington Counties - 1926

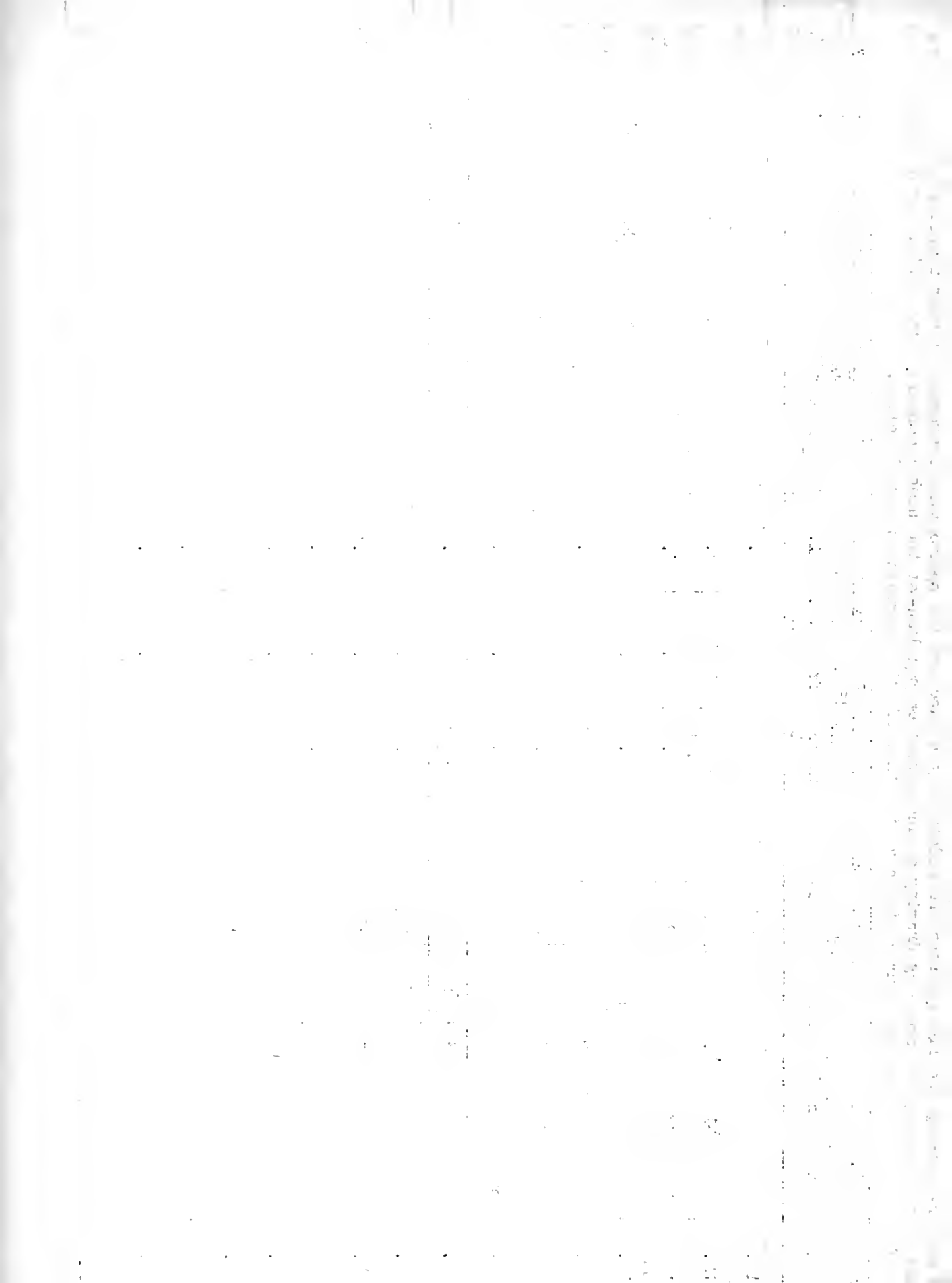
	Your farm	Average of 35 farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$15,595	\$ 19,416	\$ 12,845
2 Land		10,123	12,341	8,322
3 Farm improvements		1,614	2,112	1,427
4 Machinery and equipment		224	1,095	690
5 Feed and supplies		1,676	2,131	1,388
6 Livestock		1,278	1,737	1,018
7 Horses		423	572	354
8 Cattle		425	504	409
9 Hogs		163	275	100
10 Sheep		73	167	3
11 Poultry		194	219	147
12 <u>Receipts-Net Increases-Total</u>		2,614	4,050	1,449
13 Feed and grain		1,107	2,013	242
14 Miscellaneous		93	178	69
15 Livestock - Total		1,414	1,859	1,138
16 Horses		---	---	10
17 Cattle		177	247	173
18 Hogs		273	461	124
19 Sheep		49	115	---
20 Poultry		156	157	153
21 Egg sales		319	431	236
22 Dairy sales		440	427	442
23 <u>Expenses-Net Decreases-Total</u>		861	1,152	593
24 Farm improvements		91	97	63
25 Livestock		11	53	1
26 Horses		11	53	---
27 Cattle		---	---	---
28 Hogs		---	---	---
29 Sheep		---	---	1
30 Poultry		---	---	---
31 Machinery and equipment		254	353	175
32 Feed and supplies		---	---	---
33 Livestock expense other than feed		13	22	12
34 Crco expense		164	232	122
35 Labor hired		153	192	64
36 Taxes, insurance, etc.		164	189	145
37 Miscellaneous		11	14	10
38 <u>Receipts less Expenses</u>		1,753	2,898	856
39 Operator's and unpaid family labor		818	873	853
40 Net income from investment		935	2,025	3



Find Your Farm Leaks (Randolph, Monroe, Marion and Washington Counties - 1926)

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of			Returns per \$100 invested in			Invest. per A. in L.S.	Receipts over A. from L.S.	Man lab. cost per A.	Crop acres per			Expense per \$100 income	Gross receipts per A.	Size of farm	
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Horse					Tractor
											No	Trac-					tor
13.00	60	44	44	210	280	367	11.71	14.50	1.66	115	44	34	29	35	328	
12.00	55	41	41	200	265	347	10.71	13.50	2.16	110	42	32	34	32	308	
11.00	50	38	38	190	250	327	9.71	12.50	2.66	105	40	30	39	29	288	
10.00	45	35	35	180	235	307	8.71	11.50	3.16	100	38	28	44	26	268	
9.00	40	32	32	170	220	287	7.71	10.50	3.66	95	36	26	49	23	248	
8.00	35	29	29	160	205	267	6.71	9.50	4.16	90	34	24	54	20	228	
7.00	30	26	26	150	190	247	5.71	8.50	4.66	85	32	22	59	17	208	
6.00	25	23	23	140	175	227	4.71	7.50	5.16	80	30	20	64	14	188	
5.00	20	20	20	130	160	207	3.71	6.50	5.66	75	28	18	69	11	168	
4.00	15	17	17	120	145	187	2.71	5.50	6.16	70	26	16	74	8	148	
3.00	10	14	14	110	130	167	1.71	4.50	6.66	65	24	14	79	5	128	
2.00	5	11	11	100	115	147	.71	3.50	7.16	60	22	12	84	2	108	
1.00	--	8	8	90	100	127	--	2.50	7.66	55	20	10	89	--	88	
0.00	--	--	5	80	85	107	--	1.50	8.16	50	18	--	94	--	68	
-1.00	--	--	--	70	70	87	--	.50	8.66	45	16	--	99	--	48	
-2.00	--	--	--	60	55	67	--	--	9.16	40	14	--	--	--	28	



ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop rest

conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in the context of public administration and financial management.

2. The second part of the document outlines the various methods and tools used to collect, analyze, and report data. It highlights the need for standardized procedures and the use of modern technology to ensure the reliability and accuracy of the information gathered.

3. The third part of the document focuses on the role of the audit committee and the external auditors. It details the responsibilities of each party and the process of conducting an independent audit to verify the integrity of the financial statements and the compliance with applicable laws and regulations.

4. The fourth part of the document addresses the challenges and risks associated with the audit process. It discusses the potential for bias, conflicts of interest, and the impact of external factors on the audit's effectiveness. It also provides recommendations for mitigating these risks and ensuring the highest quality of the audit work.

5. The fifth part of the document concludes with a summary of the key findings and recommendations. It stresses the importance of continuous improvement and the need for regular communication and collaboration between all stakeholders involved in the audit process.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

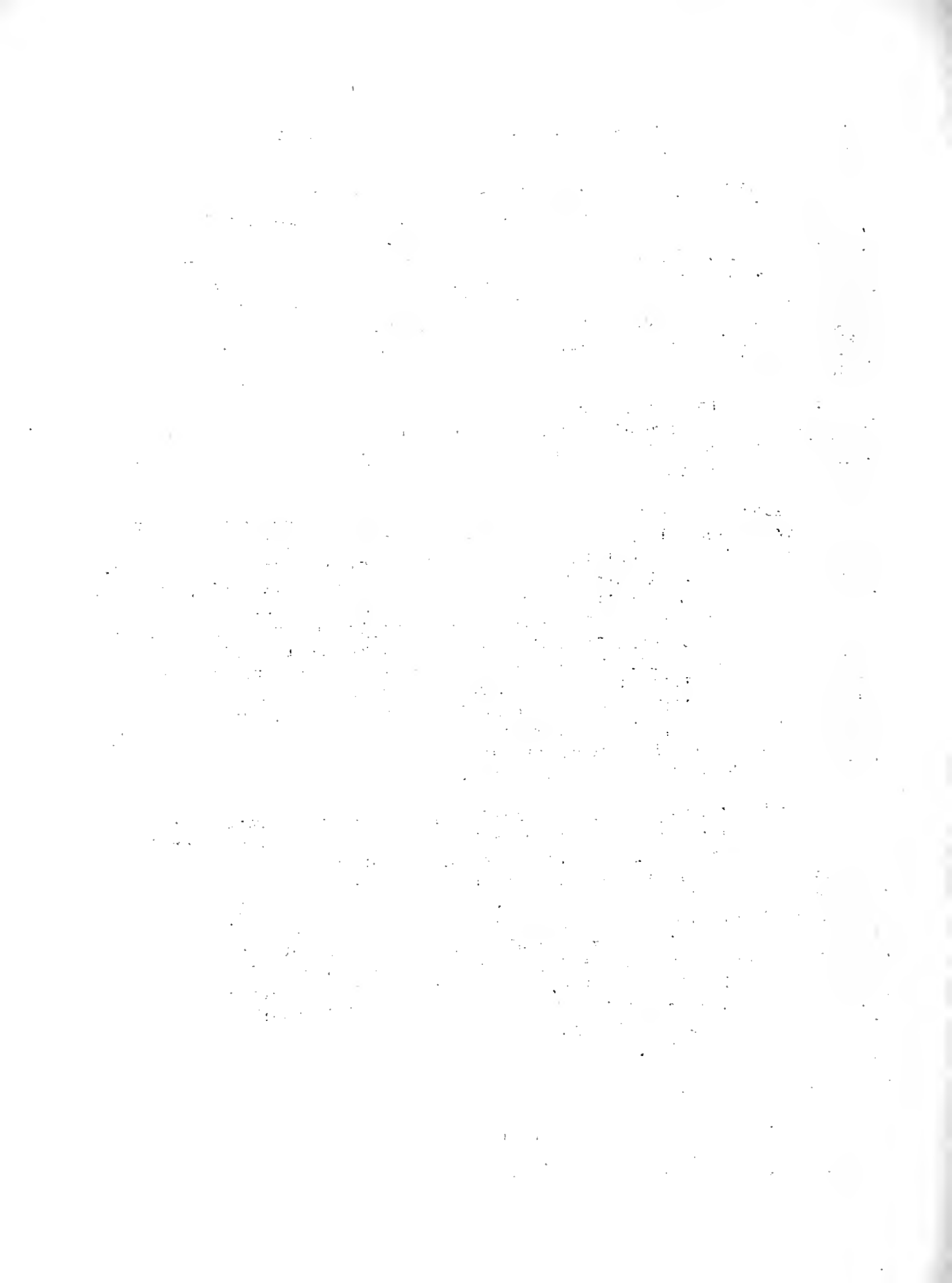
Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far



as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|--|--|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for a systematic approach to data collection and the importance of using reliable and valid measurement instruments. The document also discusses the challenges associated with data collection and analysis, such as missing data and measurement error.

3. The third part of the document focuses on the interpretation and reporting of research findings. It discusses the importance of providing a clear and concise summary of the results and the implications of the findings. The document also emphasizes the need to communicate the results in a way that is accessible and understandable to a wide range of stakeholders.

4. The fourth part of the document discusses the ethical considerations that must be taken into account when conducting research. It highlights the importance of obtaining informed consent from participants and ensuring that the research is conducted in a fair and equitable manner. The document also discusses the need to protect the confidentiality and privacy of the data.

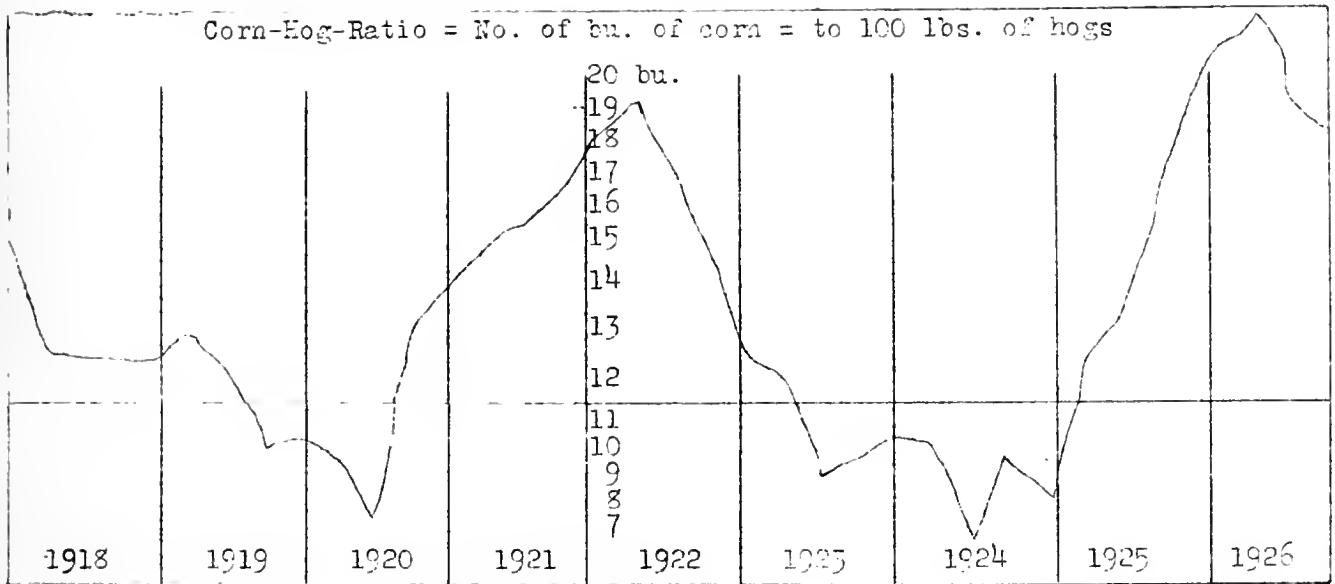
5. The fifth part of the document discusses the importance of ongoing evaluation and monitoring of the research process. It emphasizes the need to regularly assess the progress of the research and to make adjustments as needed. The document also discusses the importance of documenting the research process and the results of the evaluation.

6. The sixth part of the document discusses the importance of disseminating the research findings to the relevant stakeholders. It highlights the need to communicate the results in a way that is accessible and understandable to a wide range of stakeholders. The document also discusses the importance of providing ongoing support and training to the stakeholders.

7. The seventh part of the document discusses the importance of maintaining a high level of quality and integrity in the research process. It emphasizes the need to use reliable and valid measurement instruments and to follow a systematic approach to data collection and analysis. The document also discusses the importance of providing a clear and concise summary of the results and the implications of the findings.

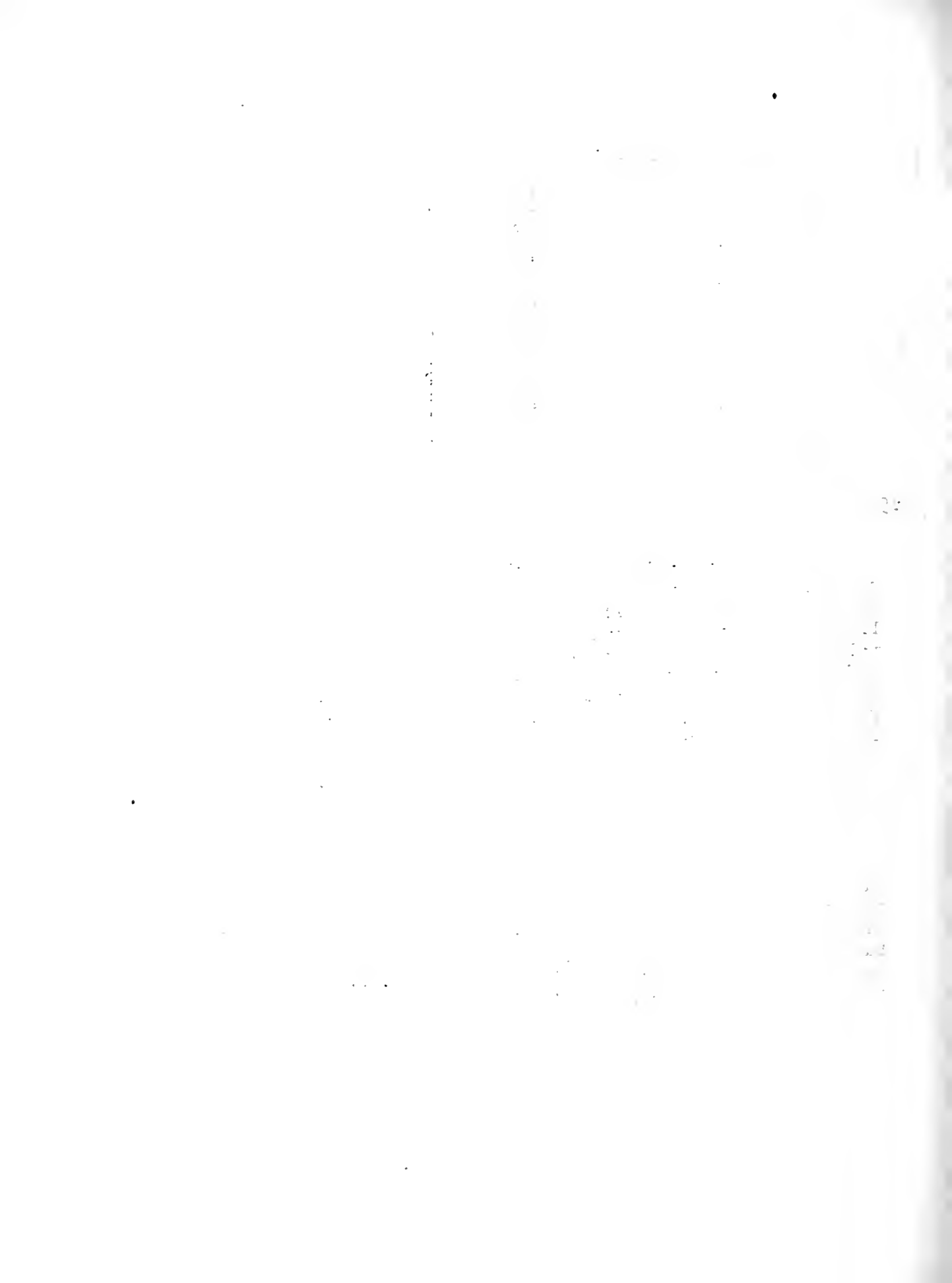
8. The eighth part of the document discusses the importance of ongoing communication and collaboration between the researchers and the stakeholders. It emphasizes the need to provide regular updates on the progress of the research and to listen to the feedback of the stakeholders. The document also discusses the importance of providing ongoing support and training to the stakeholders.

9. The ninth part of the document discusses the importance of maintaining a high level of transparency and accountability in the research process. It emphasizes the need to provide a clear and concise summary of the results and the implications of the findings. The document also discusses the importance of providing ongoing support and training to the stakeholders.



The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

WHITE, SALINE, GALLATIN, PULASKI, AND JOHNSON COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-five Farms

for

1926

Farm Account keepers say:

"Farm accounts are more valuable the longer
they are kept."

Urbana, Illinois

May, 1927

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1. The first part of the document is a list of names.

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ANNUAL FARM BUSINESS REPORT

White, Saline, Gallatin, Pulaski and Johnson Counties, Illinois, 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. A. Berg, H. C. M. Case*

The 25 farms in the above named counties who kept financial records in the Illinois Farm Account Project for 1926 had an average of \$957 to pay for their labor, risk and management after paying expenses and allowing 5 percent interest on their average investment of \$116 an acre. This is called their labor and management wage. Ten of these farmers who made the best profits had an average labor and management wage of \$1,975 while ten who were least successful lacked an average of \$240 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about \$2,215 in the relative amounts which these two groups received for their time and labor.

Expressed in another way, these 25 farmers earned 6.6 percent on their investments after allowing \$600 each to pay for his own labor. On the same basis the most successful third earned 11.9 percent and the least successful third 1.6 percent. The average investment on the 25 farms was \$23,785, which amounts to \$116 an acre. The higher profit third had an average investment of \$120 and the lower profit third \$108 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at \$79 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of produce, such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home not included in the above investment, amounted to \$725 at farm prices on a group of Central Illinois farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925 and a similar study of farm incomes in a township in Bond County for 1926 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

Size of the farm had little, if any, influence on relative earnings of the high and low profit groups of farms covered by this report. The less successful group averaged 57 acres larger and had a higher percentage of tillable land than the more successful group.

As to crop yields, the ten most profitable farms averaged four bushels more corn and six bushels more wheat per acre than the ten least profitable farms. Since acre costs increase but slightly with increased yield, this was enough to affect profits.

*E. W. Creighton, J. E. Whitchurch, C. W. Simpson, J. H. Hughes, and L. S. Foote, farm advisers in White, Saline, Gallatin, Pulaski, and Johnson Counties respectively, cooperated in supervising and collecting the records used in this report.

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The biggest advantage of the more profitable group of farms was in having a larger amount and more efficient livestock. They had \$2.40 more livestock investment and \$7.70 more livestock income per acre. This larger livestock income came chiefly from hog and dairy sales. The more successful farmers had \$54 more livestock income for each \$100 of livestock investment than their less successful neighbors.

That labor was used more efficiently on the more profitable farms is shown by the fact that with their greater amount of livestock and their smaller size they were farmed at no greater labor cost per acre than the less profitable farms. Having fields and equipment of good size, following a good crop rotation, and planning work ahead help increase labor efficiency.

That feed was more efficiently used is indicated by the fact that the more profitable farms, although smaller, furnished feed for more livestock and still had about 50 percent more income from crops than the less profitable farms. Having a proper combination and quantity of home-grown feeds and keeping livestock thrifty by good sanitation are important factors in livestock efficiency.

The high and low profit groups did not differ greatly in building and equipment costs but total operating costs per acre were seventy-five cents per acre smaller on the more profitable farms. The advantage of the latter group was due more to larger gross incomes than to lower expenses. They received almost twice as much gross income per acre as the low profit farms. It cost the more successful operators \$40 out of every \$100 income to pay operating costs, while the less successful ones had operating costs amounting to \$85 out of every \$100 income.

The following table of comparative earnings would be more reliable if only the same identical farms had been included for each year, but, making allowance for the shifting in farms reporting, it gives an interesting comparison of farm business conditions during the years 1923 to 1926. There seems to be a tendency toward larger livestock investments and incomes on these farms. This increase was evidently due to increasing prices for livestock and livestock products. This increased the value of livestock inventories and stimulated the keeping of more livestock.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy auditing of the accounts.

2. The second section covers the process of reconciling bank statements with the company's ledger. It provides a step-by-step guide on how to identify discrepancies and investigate their causes. Regular reconciliation is crucial for detecting errors and preventing fraud.

3. The third part of the document addresses the issue of budgeting and cost control. It explains how to set realistic budgets for different departments and projects, and how to monitor actual spending against these budgets. This helps in identifying areas where costs are being exceeded and taking corrective action.

4. The final section discusses the importance of timely payment of bills and invoices. It outlines the consequences of late payments, such as damaged relationships with suppliers and potential penalties. It also provides tips on how to manage cash flow effectively to ensure that all obligations are met on time.

Comparative Earnings on Accounting Farms
in
White, Saline, Gallatin, Pulaski and Johnson Counties

Item	1923	1924	1925	1926
Number of farm records	11*	17*	30	25
Average size of farms	195 A	177	202	205
Average rate earned	1.6%	5.4%	5.7%	6.6%
Average value of land per acre	\$ 101	97	80	79
Average investment per acre	128	129	115	116
Investment in livestock per farm	1,519	1,381	1,578	1,883
Investment in cattle per farm	296	401	489	505
Investment in hogs per farm	334	252	333	551
Investment in poultry per farm	212	176	165	168
Gross income per acre	10.20	15.41	15.95	17.76
Operating cost per acre	8.07	9.42	9.39	10.06
Grain sales less feed purchases per farm	916	1,624	998	1,343
Miscellaneous income per farm	57	92	106	139
Livestock income per farm	1,028	1,188	2,118	2,162
Gross income per farm	2,001	2,904	3,222	3,644
Cattle income per farm	232	383	608	458
Hog income per farm	439	440	1,078	1,215
Poultry income per farm	368	343	394	453

Some points of strength and some of weakness in your own farm business may be found by comparing the factors from your own account with those for the average farm as well as with the factors for the more profitable farms and the less profitable farms.

*Only Gallatin County records were included for 1923, and Saline and Gallatin county records for 1924.

Section 10

Item No.	Description	Quantity	Unit Price	Total
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White, Saline, Gallatin, Pulaski, and Johnson Counties, 1926

Factors helping to analyze the farm business	Your farm	Average of twenty-five farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	6.64 %	11.89 %	1.64 %
Labor and management wage	\$	\$ 957	\$1,975	\$-240
Size of farm - acres	A	205.1 A	171.1 A	228.5 A
Percent of land area tillable	%	84.2 %	82.3 %	83.9 %
Acres in Corn	A	50.9 A	43.0 A	53.6 A
Oats	A	24.5 A	17.7 A	23.0 A
Wheat	A	22.3 A	20.8 A	27.1 A
Crop yields - Corn	bu.	38.1 bu.	40.1 bu.	36.0 bu.
Oats	bu.	24.1 bu.	22.4 bu.	22.6 bu.
Wheat	bu.	24.1 bu.	27.6 bu.	21.9 bu.
Returns per \$100 invested in all productive livestock	\$	\$ 161	\$ 183	\$ 129
For \$100 in Cattle	\$	\$ 97	\$ 143	\$ 54
Swine	\$	\$ 192	\$ 201	\$ 182
Poultry	\$	\$ 245	\$ 243	\$ 197
Investment per acre in productive livestock	\$	\$ 6.55	\$ 8.47	\$ 6.08
Receipts per acre in productive livestock	\$	\$ 10.54	\$ 15.52	\$ 7.83
Man labor cost per acre	\$	\$ 5.29	\$ 5.41	\$ 5.38
Crop acres per man		72.3 A	63.7 A	69.1 A
Crop acres per horse		20.8 A	20.5 A	19.9 A
Expense per \$100 gross income	\$	\$ 57.00	\$ 40.00	\$ 85.00
Machinery cost per acre	\$	\$ 1.38	\$ 1.13	\$ 1.39
Building and fencing cost per acre	\$	\$.64	\$.61	\$.68
Gross receipts per acre	\$	\$ 17.76	\$ 23.93	\$ 12.12
Total expenses per acre	\$	\$ 10.06	\$ 9.59	\$ 10.34
Net receipts per acre	\$	\$ 7.70	\$ 14.34	\$ 1.78
Percent of farms with tractor	%	40 %	30 %	50 %
Value of land per acre	\$	\$ 79.00	\$ 78.00	\$ 72.00
Total investment per acre	\$	\$ 116.00	\$ 120.00	\$ 108.00

Page 1

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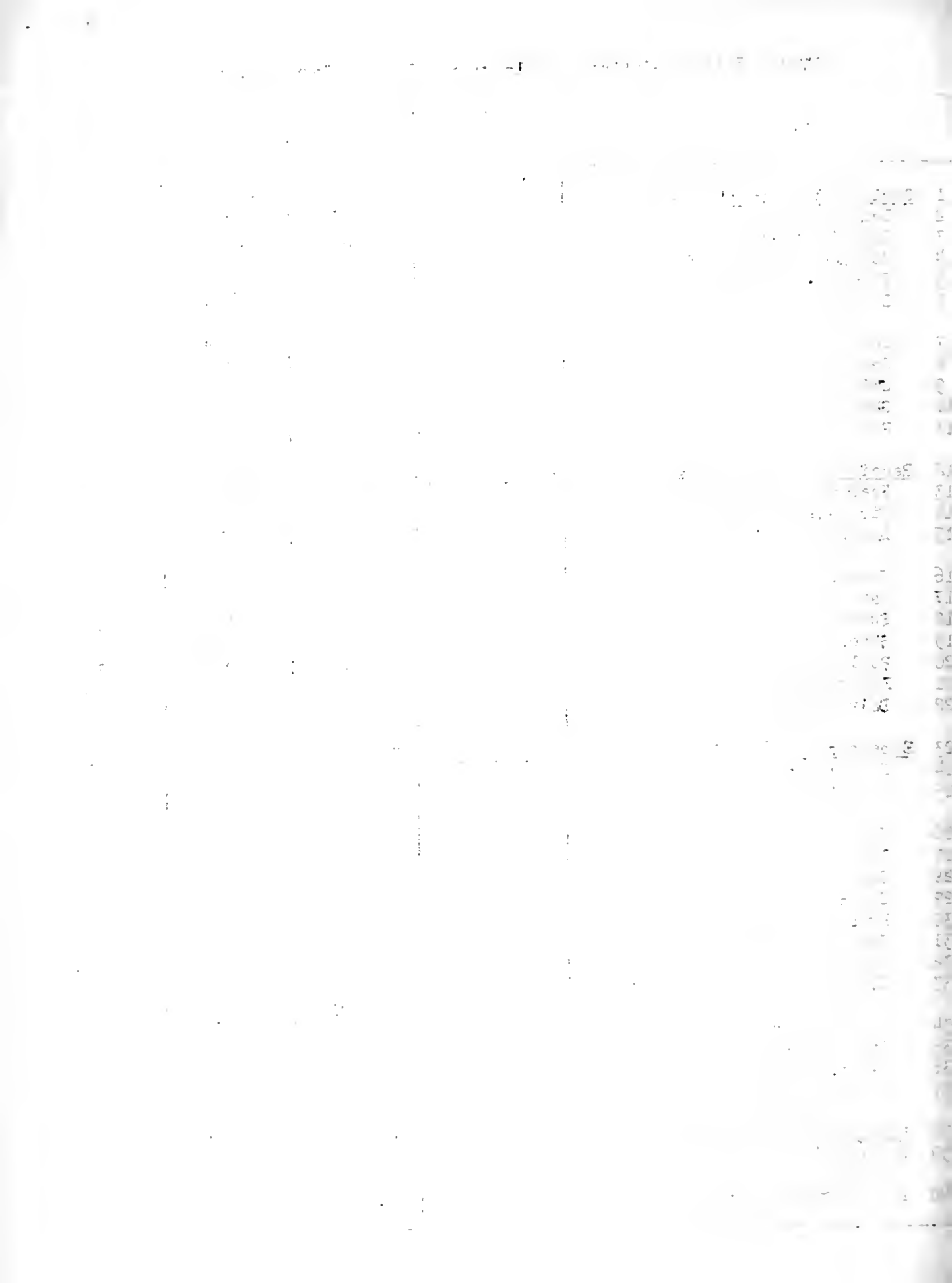
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White, Saline, Gallatin, Pulaski and Johnson Counties, 1926

Item	Your farm	Average of twenty-five farms	Ten most profitable farms	Ten least profitable farms
1 <u>Capital Investment - Total</u>	\$	\$23,785	\$20,629	\$24,675
2 Land		16,241	13,403	16,505
3 Farm improvements		3,152	3,260	3,351
4 Machinery and equipment		913	814	926
5 Feed and supplies		1,596	1,313	1,805
6 Livestock		1,883	1,839	2,088
7 Horses		597	524	727
8 Cattle		505	461	619
9 Swine		551	637	466
10 Sheep		62	40	116
11 Poultry		168	177	160
12 <u>Receipts-Net Increases-Total</u>	\$	\$ 3,644	\$ 4,094	\$ 2,770
13 Feed and grain		1,343	1,257	820
14 Miscellaneous		139	181	163
15 Livestock - Total		2,162	2,656	1,787
16 Horses		--	--	--
17 Cattle		227	279	217
18 Swine		1,215	1,448	1,101
19 Sheep		36	36	54
20 Poultry		153	191	125
21 Egg sales		300	280	230
22 Dairy sales		231	422	60
23 <u>Expenses-Net Decreases-Total</u>	\$	\$ 1,270	\$ 926	\$ 1,473
24 Farm improvements		131	104	155
25 Livestock		21	31	2
26 Horses		21	31	2
27 Cattle		--	--	--
28 Swine		--	--	--
29 Sheep		--	--	--
30 Poultry		--	--	--
31 Machinery and equipment		283	194	317
32 Feed and supplies		--	--	--
33 Livestock expense other than feed		21	15	34
34 Crop expense		259	163	309
35 Labor hired		291	211	338
36 Taxes, insurance, etc.		247	190	303
37 Miscellaneous		17	18	15
38 <u>Receipts less Expenses</u>	\$	\$ 2,374	\$ 3,168	\$ 1,297
39 Operator's and unpaid family labor		794	715	891
40 Net income from investment		1,580	2,453	406



White, Saline, Gallatin, Pulaski, and Johnson Counties, 1926

The numbers between the lines across the middle of the page are the approximate averages for your locality of the factors named at the top of the page. By drawing a line across each column at the number measuring the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned	Bushels per acre of		Returns per \$100 invested in			Invest. per acre in L.S.	Receipts per acre from L.S.	Man labor cost per acre	Crop Acres per		Exoense per \$100 income	Gross receipts per acre	Size of farm	
	Corn	Oats	Wheat	Cattle	Hogs				Poultry	Man				Horse
13.6	59	45	39	167	332	385	13.55	24.54	1.80	107	35	22	32	345
12.6	56	42	37	157	312	365	12.55	22.54	2.30	102	33	27	30	325
11.6	53	39	35	147	292	345	11.55	20.54	2.80	97	31	32	28	305
10.6	50	36	33	137	272	325	10.55	18.54	3.30	92	29	37	26	285
9.6	47	33	31	127	252	305	9.55	16.54	3.80	87	27	42	24	265
8.6	44	30	29	117	232	285	8.55	14.54	4.30	82	25	47	22	245
7.6	41	27	27	107	212	265	7.55	12.54	4.80	77	23	52	20	225
6.6	38	24	25	97	192	245	6.55	10.54	5.30	72	21	57	18	205
5.6	35	21	23	87	172	225	5.55	8.54	5.80	67	19	62	16	185
4.6	32	18	21	77	152	205	4.55	6.54	6.30	62	17	67	14	165
3.6	29	15	19	67	132	185	3.55	4.54	6.80	57	15	72	12	145
2.6	26	12	17	57	112	165	2.55	2.54	7.30	52	13	77	10	125
1.6	23	9	15	47	92	145	1.55	0.54	7.80	47	11	82	8	105
0.6	20	6	13	37	72	125	0.55	----	8.30	42	9	87	6	85
-0.4	17	--	11	27	52	105	----	----	8.80	37	7	92	4	65

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ORGANIZING THE FARM FOR MORE PROFITABLE OPERATION

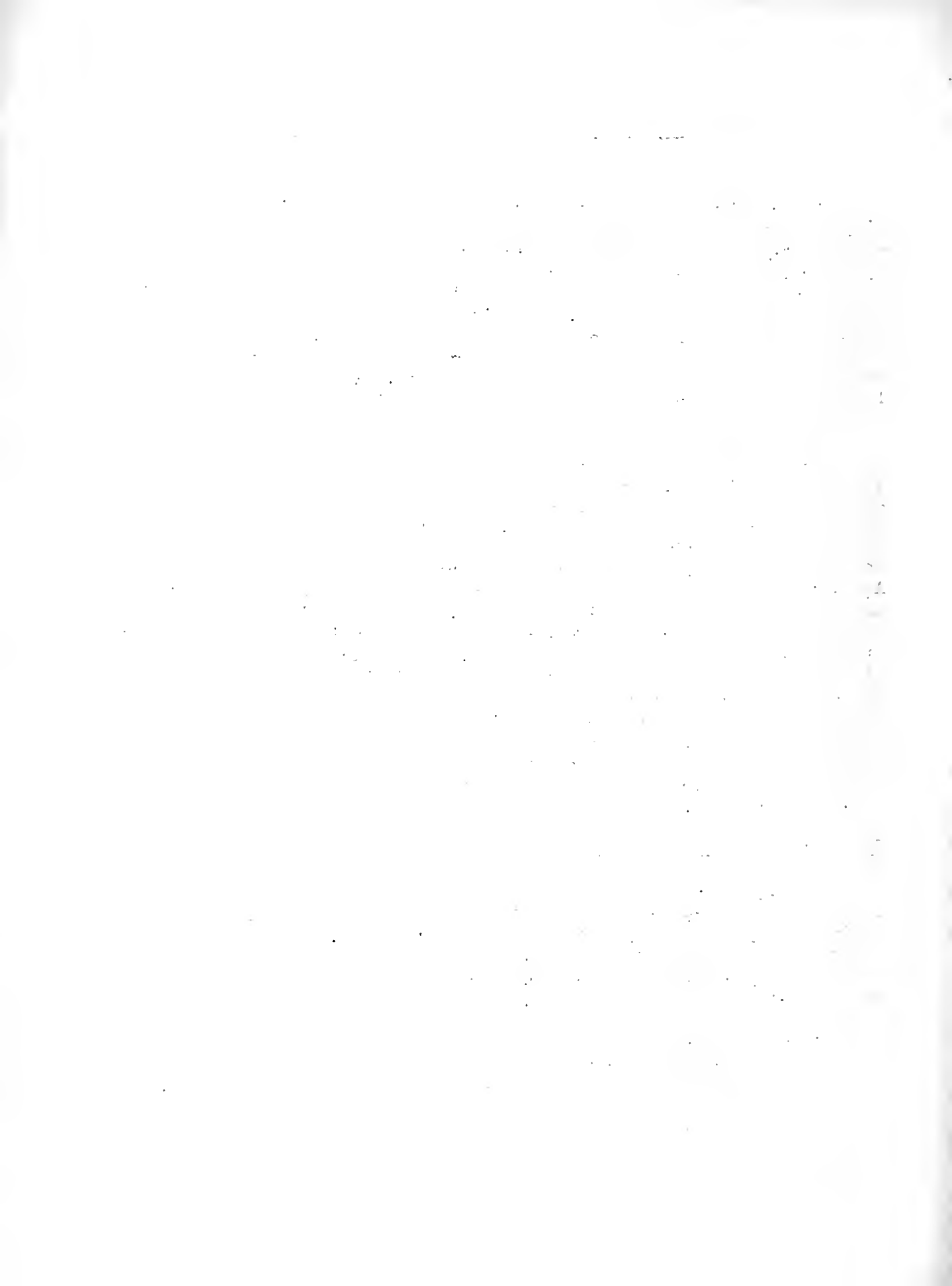
The problem of profitable farming is one of selecting the best combination of crop and livestock enterprises and handling those enterprises efficiently so as to produce the largest average net income over a period of years. This does not mean devoting the entire farm to that product which according to cost of production studies shows the largest margin between cost and selling price. Devoting the entire farm to one or two products may greatly increase the cost of production. Risks are also increased by such a plan since price and weather conditions affecting a particular product cannot be known in advance. Several products are less likely to be hit by unfavorable weather and prices during the same year.

"The Simple Farm Account Project" furnishes the farm operator with a means of knowing his net income, how his combination of crop and livestock enterprises differs from that of the average farmer in his locality, and the effect this has on farm earnings. Every keeper of an account book in this project will have missed a valuable opportunity if he does not make a thoughtful study of his own combination of enterprises with that of other farm operators who are more or less successful than he. A profitable comparison can be made as to kind and size of enterprises and particularly as to their efficiency. The enterprises on any given farm may have been selected a generation ago when investments, costs and prices differed from what they are now. The efficient farm operator will study the effect of changing conditions on his business and will plan his operations so as to work with the changing forces and not against them. This does not mean a constant shifting of farm enterprises nor a constant change in methods. It does mean the adoption of a carefully thought out plan of operation definite enough to keep from acting too short-sightedly and flexible enough to allow for adjustments to meet changing weather and market conditions.

Selecting Crop Enterprises

For any given farm the choice of staple crops is restricted to a few and these are usually well established in the community. As a rule, rotations will be built up out of these staple crops. Emergency and minor crops constitute a much longer list and the choice of these will vary with the particular farm, especially with respect to soil and market conditions and the kinds of livestock grown.

It was long ago found to be good practice to include in a rotation for general farming one cultivated crop to aid in clearing land of weeds, and one deep rooted legume crop to add nitrogen and organic matter. As legumes can usually be seeded with least expense in a small grain crop it has proved good practice to put in a small grain crop between the cultivated crop and the deep rooted legume. The number of years of the rotation devoted to any one of these three kinds of crops should be adjusted to suit soil, labor, market, amount and kind of livestock and crop pest



conditions on the individual farm.

Carefully kept records on several hundred farms thruout Illinois have shown that the profits on a particular farm are increased by keeping a high percentage of the tillable land in the more profitable crops. For any given locality there are usually one or two staple crops which are more profitable under general farming conditions than others. If we try to devote too much of the farm to the one or two best crops from this standpoint, however, we will unbalance the farm business from the point of view of securing good use of land, labor, power, equipment, buildings and fences. We may also increase the risk of damage by insect pests and crop diseases and fail to produce the crops needed as feeds. One of the best means of keeping farm expenses down is that of producing sufficient quantity and variety of well balanced feed crops for all livestock, thus avoiding a cash outlay for feeds.

Cost of production records have shown that for Central Illinois the more profitable staple crops include corn, winter wheat, alfalfa, and sweet clover. Here we have representatives of the three kinds of crops necessary to a good rotation, namely, a cultivated crop, a small grain and a deep rooted legume. For large scale farming, they do not fit together perfectly, however. Winter wheat does not follow corn well and alfalfa needs labor at the same time that corn must be cultivated. It is generally preferred also to leave a seeding of alfalfa longer than the year or two that the legume can best be left in a rotation. For central and northern Illinois corn is the undisputed favorite crop. The rotation will, therefore, include as much corn as possible without requiring too much labor and power in April, May and June and without exhausting the soil or increasing the damage from corn insects and diseases. This frequently means about 40 percent of the land in corn on good level black land, or less under less favorable circumstances. It is seldom advisable to have more than 40 percent of the crop land in one crop.

As winter wheat does not follow corn well, it is desirable to introduce some crop between corn and wheat unless the corn is cut for early feed or silage. The old favorite for this place has been oats. It has the advantage of taking little labor and power and of taking them when they are not greatly in demand for other crops. Against these advantages there is the poor oat market which does not promise to improve with the increasing displacement of horses as a source of power. Up to the amount that can be fed on the farm where grown, however, oats are as good as they ever were. For many farms this suggests a reduction of the oat acreage. For northern Illinois barley and spring wheat are gradually replacing some oats. For central Illinois soybeans are the favorite substitute, if the ground is well prepared, free of weeds, and the seed well inoculated. Many failures with soybeans can be attributed to these causes. They have the disadvantages of taking more labor and power than oats and of taking it when it is in greater demand, especially for corn. They have the advantage of being legumes and thus supplying a protein feed and cutting down the cash outlay for protein hays and concentrates, of fixing some nitrogen in the soil,

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The text notes that without reliable records, it would be difficult to track the flow of funds and identify any irregularities.

2. The second part of the document outlines the various methods used to collect and analyze data. It describes the process of gathering information from different sources, such as bank statements, receipts, and interviews. The analysis involves comparing the data to identify patterns and anomalies that may indicate suspicious activity. The text also mentions the use of statistical techniques to help in the interpretation of the data.

3. The third part of the document focuses on the role of the law enforcement agencies in the investigation. It discusses the cooperation between the police and the financial institutions, and the importance of sharing information and resources. The text highlights the need for a coordinated effort to ensure that all leads are followed up and that any potential suspects are identified and brought to justice.

4. The fourth part of the document discusses the challenges faced by investigators in the field. It notes that the volume of data is constantly increasing, and that the complexity of financial transactions is also growing. This makes it more difficult to identify and track suspicious activity. The text also mentions the need for ongoing training and education for investigators to stay up-to-date on the latest techniques and technologies.

5. The fifth part of the document discusses the importance of public awareness and education. It notes that many people are unaware of the risks of financial fraud and the steps they can take to protect themselves. The text emphasizes the need for clear and concise information to be made available to the public, and for efforts to be made to educate people on how to recognize and avoid potential threats.

6. The sixth part of the document discusses the role of technology in the investigation. It notes that the use of computers and data analysis tools has significantly improved the ability to process and analyze large amounts of information. The text also mentions the need for secure and reliable systems to store and protect sensitive data, and for the development of new technologies to help in the detection and prevention of fraud.

7. The seventh part of the document discusses the importance of international cooperation. It notes that financial fraud is often a global phenomenon, and that investigators need to work together across borders to track down suspects and recover assets. The text emphasizes the need for strong relationships and communication between law enforcement agencies in different countries, and for the sharing of information and resources.

8. The eighth part of the document discusses the role of the media in the investigation. It notes that the media can play a significant role in raising public awareness and in putting pressure on law enforcement agencies to act quickly and effectively. The text also mentions the need for the media to report accurately and responsibly, and to avoid spreading rumors or misinformation.

9. The ninth part of the document discusses the importance of the legal system in the investigation. It notes that the law provides the framework for the investigation and the prosecution of offenders. The text emphasizes the need for a strong and independent legal system, and for the protection of the rights of all parties involved in the process.

10. The tenth part of the document discusses the future of the investigation. It notes that the field is constantly evolving, and that investigators need to stay up-to-date on the latest trends and technologies. The text emphasizes the need for ongoing research and development, and for the implementation of new and improved methods and tools to help in the detection and prevention of fraud.

and of being a good preparatory crop for wheat on land that is well supplied with nitrogen.

Since alfalfa, our most profitable deep rooted legume crop, does not fit well in the general farm rotation, we must substitute for it the clover best adapted to the particular conditions. Alfalfa is used both as hay and pasture. Where the primary purposes are to provide pasture and soil improvement sweet clover is proving to be the best clover on land that is not deficient in lime. Where lime is lacking for sweet clover or where hay is the product most needed red, alsike and mammoth clovers are best adapted, if the land will grow them successfully. They may be classified as medium profit crops.

Among the low profit crops must be included blue grass, oats, and timothy, but these are all crops requiring little labor and where soil conditions or other circumstances prohibit the growing of better crops they have a place in the cropping system.

The above discussion on the selection of staple crops applies more definitely to central and northern Illinois. Under prevailing conditions in southern Illinois wheat is found to be the most profitable grain crop. Corn may equal wheat in profitableness even in southern Illinois, however, when the soil has been built up with limestone and legumes. Under any circumstances corn is one of the few staple cultivated crops and will be included on most southern Illinois farms even where soil conditions prevent a profitable yield. The acreage will be less, however, than on central and northern Illinois farms. Soybeans may also be considered as a cultivated crop. With wheat as the most profitable grain crop for most of southern Illinois, it will form the center about which the rotation is built and will generally occupy as large a percentage of the tillable land as corn does farther north in the state.

After the farm operator has decided on the kinds of crops he will grow and the acreage of each, there still remains the problem of producing those crops most efficiently, that is, at the lowest practical cost per bushel or ton of crop and the problem of marketing particularly as to whether the crop will be sold or fed. Efficiency of production cannot be discussed here for lack of room but the problem may be defined as that of securing good yields of good quality without too great cost. The difficulties under which midwest farmers have labored since 1920 cannot be removed by growing lower yields. Better yields of grain crops on less land will come nearer solving the problem. This will usually mean using more acres for soil building legumes and in many cases will aid in cheaper livestock production.

Livestock Enterprises

While in some cases, particularly in good dairy locations, crops will be selected to suit the kind of livestock, on the majority of farms the livestock enterprises will be adjusted to the crops at least so far

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as the numbers of each kind of livestock are concerned. Too often the kinds of livestock are determined primarily by the personal likes and dislikes of the individual operator. This can hardly be justified on a business basis. It probably is true that a man will succeed more easily with enterprises he enjoys, but we usually can learn to like those enterprises which make money and therefore supply our wants. Today information on the care and handling of all livestock enterprises is available to anyone who has the determination and the open-mindedness to learn. Livestock furnish the best opportunity for using slack season labor profitably and they make it possible to avoid the necessity for throwing all the grain crops on a cash market which at times may be below cost of production. If feed crops are sold, they usually are bought by another farm at an increase in price and he hopes to feed them so as to make a profit on the feeding process. The grower has the advantage over this feeder of purchased feed in that he does not have to pay the freight, commission, and the other shipping charges on the transfer.

The livestock enterprises are few in number but they may be combined in any proportions. The question of relative numbers of each kind is probably the biggest one for most operators. If it is decided to increase the numbers of any given kind of livestock, care should be taken not to buy in when that class of livestock is relatively too high in price. The government outlook and market reports furnish the best available information as to the prospects for any class of livestock to move up or down over a period of time.

Each class of livestock has its particular advantages if handled efficiently. Poultry are probably the most universal. They have the advantages of furnishing a finished product and bringing in some income at close regular intervals to meet current expenses. They pick up a considerable amount of what would otherwise be waste feed and can be handled in a way that will make a profit on odd time labor. This last feature should not be overemphasized, however, to the point that the poultry be neglected except when there is surplus labor. Poultry must have regular and careful attention to give the best results.

Hogs furnish the greatest alternative market for corn and by being marketable at various weights give a good opportunity for adjustment to meet market conditions. Efficiency in breeding, sanitation and feeding can make hogs more profitable on most farms. Recent hog cost accounts in McLean County show that among a large number of farms twenty-five percent produced pork at a cost of \$6.75 a hundred pounds, while another twenty-five percent had a corresponding cost of \$13.12. The first group can grow pork at a profit even when the price level is such as to cause the latter group to lose heavily.

Cattle are needed on most farms to consume what would otherwise be waste roughage. Sheep alone compete with them for this purpose and sheep are grown in small numbers in Illinois. Where a market is available and labor can be had at reasonable cost, dairy cattle have the advantage in

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supplying a frequent and steady source of income. They are particularly suited to the smaller farm which usually has more labor available. Dairy cattle require a better grade of roughage feeds than beef cattle.

Beef cattle are suited to more extensive farming and shortage of labor. They may be raised or bought for feeding. If they are raised the breeding cows must be kept at low cost to produce a calf as cheaply as it can be bought from the range country where grain is seldom fed to cows and where cheap land and cheap feed are available. Purchased feeder cattle are the next alternative and require good buying judgment to meet feed and market conditions. Grain is generally necessary to the finishing of feeder cattle and purchased feeders are indicated only where grain is available. In this enterprise it is particularly desirable for the farm operator to know his own feed supplies, the outlook for cattle from competitors, the seasonal market fluctuation and the prospect for long-time swings in market conditions. Helpful information along these lines is available for the man who has the desire and determination to study the problem carefully.

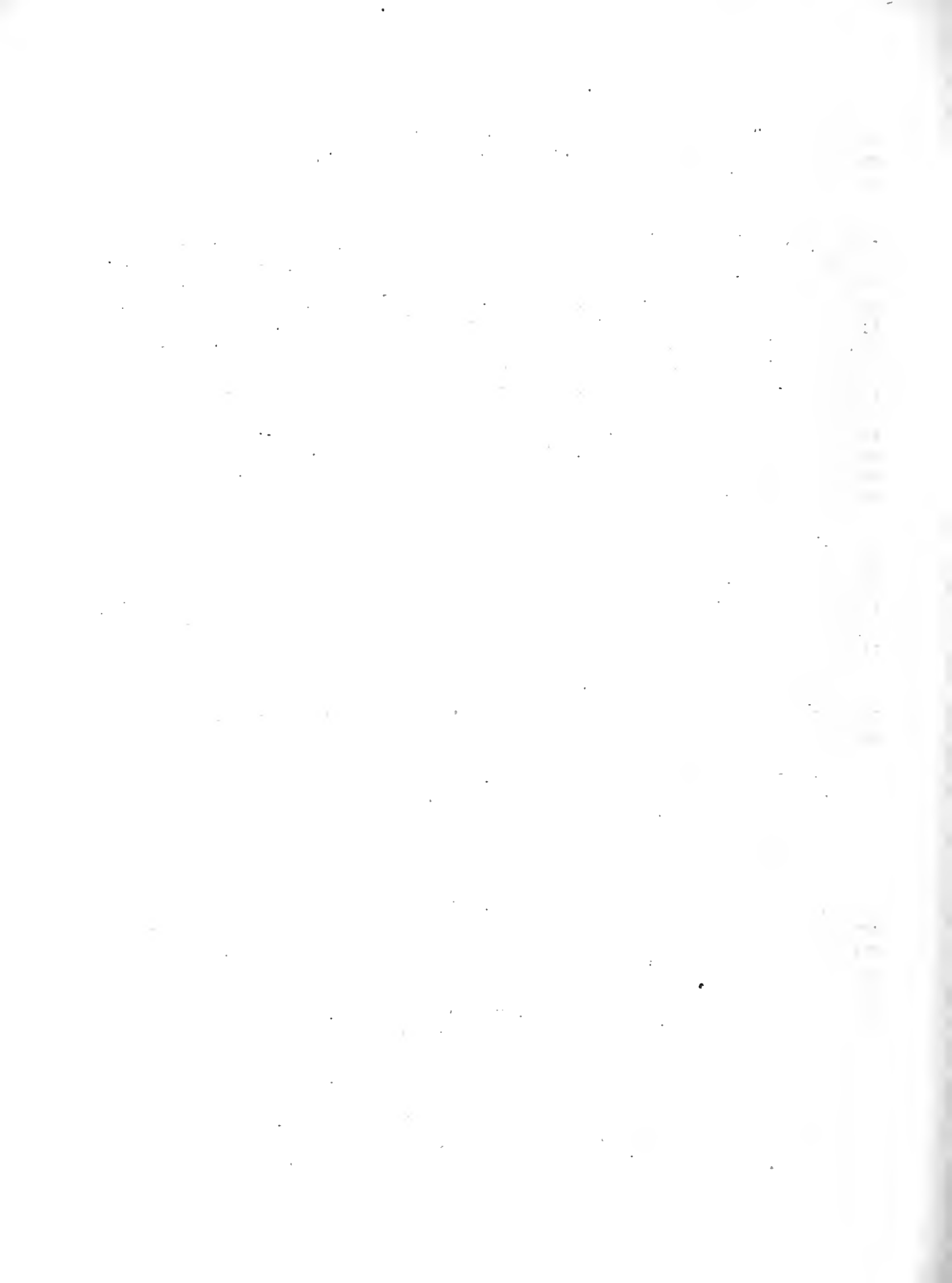
Although the above discussion emphasizes the selection and combination of enterprises it is equally important to secure efficiency in conducting these enterprises once they are selected. Lack of space forbids a discussion of production and marketing methods. This information is available, however, through publications of the Illinois Agricultural Experiment Station.

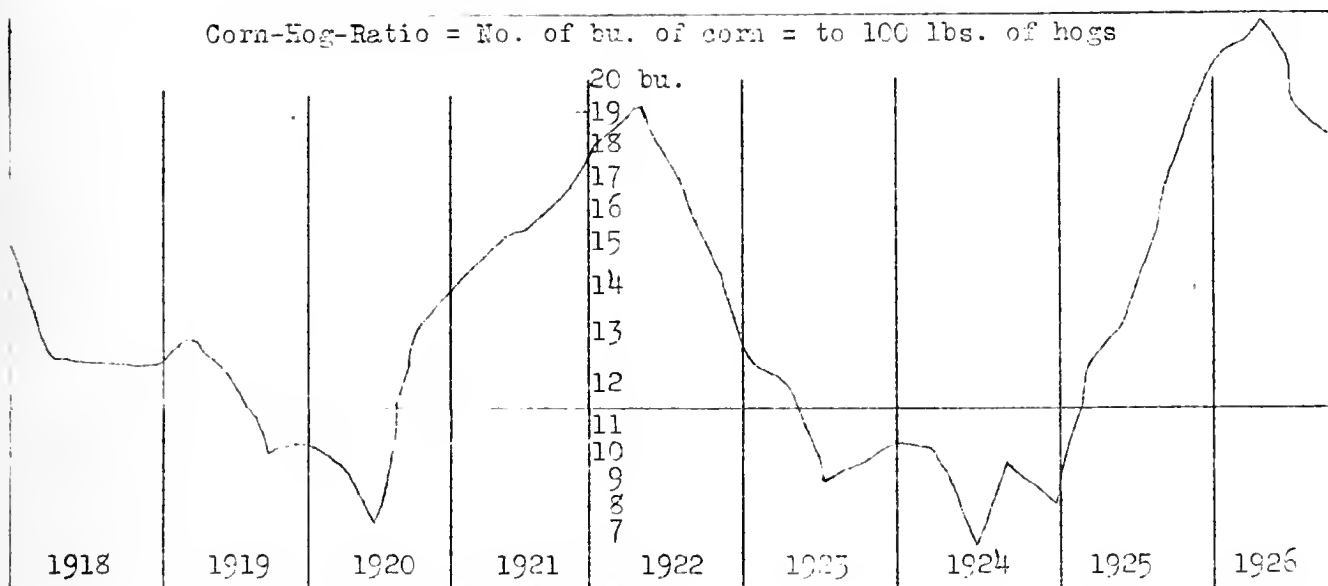
It will pay all farm operators keeping farm accounts to watch their relative standing on the following factors which our accounting studies have shown to influence farm profits to a great degree.

- | | |
|---|---|
| 1. Crop yields | 5. Power and equipment efficiency |
| 2. Percentage of land in
more profitable crops | 6. Thrift in keeping down cash expense |
| 3. Livestock efficiency | 7. Volume of business |
| 4. Man labor efficiency | 8. Number of important sources of
income |

In addition to the above factors affecting farm earnings, the successful farmer will keep well informed concerning market conditions and will make some adjustment in his farm business to meet changes in the market. Crop enterprises cannot be changed without danger of interfering with the crop rotation or with the adjustment of labor and power in a way that will increase the costs of operation. However, hog production is one enterprise that is flexible and with which most Illinois farmers are concerned. It offers one of the best opportunities of regulating farm operations to take advantage of economic conditions.

The relative advantage of selling corn directly or in the form of hogs must take into account the efficiency with which hogs are raised and the relative price of corn and hogs, which may be expressed as the corn-hog-ratio, as shown in the following chart.





The corn-hog-ratio which is the name given to the number of bushels of corn equal in price to 100 pounds of live hogs, is one of the best indicators of profit or lack of profit in hog production. When the crooked line in the above chart was above the straight line, the average farmer made a profit in feeding corn to hogs. When it was below, only the more efficient hog producers made a profit. When the ratio line is below the straight line, it usually pays to market at lighter weights, but when the ratio line is high, it usually pays to feed to heavier weights if the hogs are thrifty and are making good use of feed. One may be influenced to raise more or less hogs depending on the prospective relationship of corn and hogs when the hogs are to be marketed. It is the relative price of corn and hogs at the time hogs are sold that is important, rather than the price when feeding is planned.

In making plans for breeding and feeding hogs, it is well to consider such factors as the number of hogs on farms, the rate of movement of hogs to market, results of surveys of intentions to breed, the prevalence of disease, the supply of old corn, the prospect for new corn and general business conditions. These factors are published in market papers or they can be had from a monthly publication of the U. S. Department of Agriculture called "The Agricultural Situation."

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

SUMMARY

of

ANNUAL FARM BUSINESS REPORTS

on

Twelve Hundred Farms

for

1926

Urbana, Illinois

June 30, 1927

SUMMARY OF ANNUAL FARM BUSINESS REPORTS
ON
TWENTY-SEVEN LOCAL FARMING AREAS IN ILLINOIS FOR 1926

Prepared by R. R. Hudelson, P. E. Johnston, H. C. M. Case

Separate farm business reports for each of the areas shown in the following tables have been prepared and distributed to each of the farm operators whose accounts were included in this summary. In these separate reports the data included herewith was fully discussed with a view to aiding the individual account keeper in using his accounts as a guide to more profitable farm management. That discussion will not be repeated here, but a limited number of copies of the separate reports are available to those who are particularly interested in a given area.

In considering the following tables, it should be kept in mind that these data represent only those farms whose operators are sufficiently progressive and businesslike to keep accounts. They show higher average net earnings than the rank and file of all farmers. While there are many efficient and successful farm operators who keep no financial records, the selection of a group all of whom keep accounts eliminates a large number of the more careless and unbusinesslike farmers who usually rank near the bottom in earnings. A comparative study of earnings for 1925 on 113 McLean County farms located in a solid block and a similar study of 108 Clinton County farms for 1926 indicate that on an average the farms in the simple farm account project earn nearly 2 percent more on their capital than the average of all farmers in their localities. In considering the following data it would therefore seem necessary to deduct about 2 percent from the rates earned if it is desired to estimate the rate earned by the average farmer in a particular locality. The computed average rates earned by the rank and file of all farmers in each "type of farming" area are indicated for the last three years on the map and chart, page 2.

Net earnings on these accounting farms for 1926 averaged about one percent less than for 1925. The average rate for 1926 was about 4 percent. If we deduct 1.7 percent which is the exact amount that the accounting farms exceeded the rank and file of all farms in the special areas studied in McLean and Bond Counties we have an estimate of 2.3 percent for the rate earned on the average Illinois farm for 1926.

The greatest reduction in earnings between 1925 and 1926 was found in those sections which had the highest net earnings for 1925. This was especially true for the western and northwestern sections of the state. These sections had unusually good yields for 1925. The 1925 corn yield was especially good in these sections. Some of the causes of lower farm earnings over the state for 1926 as compared with 1925 include the loss of much small grain and corn due to continued wet weather in late summer and fall, the loss of many hogs from a serious outbreak of cholera, and unfavorable selling prices for heavy fat cattle during the winter of 1925 and 1926.

PHYSICS 311

PROBLEM SET 1

1. A particle of mass m moves in a circular path of radius r with constant speed v . Find the magnitude of the centripetal force.

2. A particle of mass m moves in a circular path of radius r with constant speed v . Find the magnitude of the centripetal force.

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Mixed Livestock

1924 - 2.3%
 1925 - 5.3
 1926 - 3.6

Beef and Hogs

1924 - 4.3%
 1925 - 4.3
 1926 - 2.3

General Farming

(Wheat and Corn)
 1924 - 3.3%
 1925 - 4.0
 1926 - 2.5

Wheat and Dairying

1924 - 3.3%
 1925 - 4.3
 1926 - 2.1

*Dairying*

1924 - 4.3%
 1925 - 2.8
 1926 - 2.9

Grain Farming

1924 - 5.5%
 1925 - 1.5
 1926 - 1.5

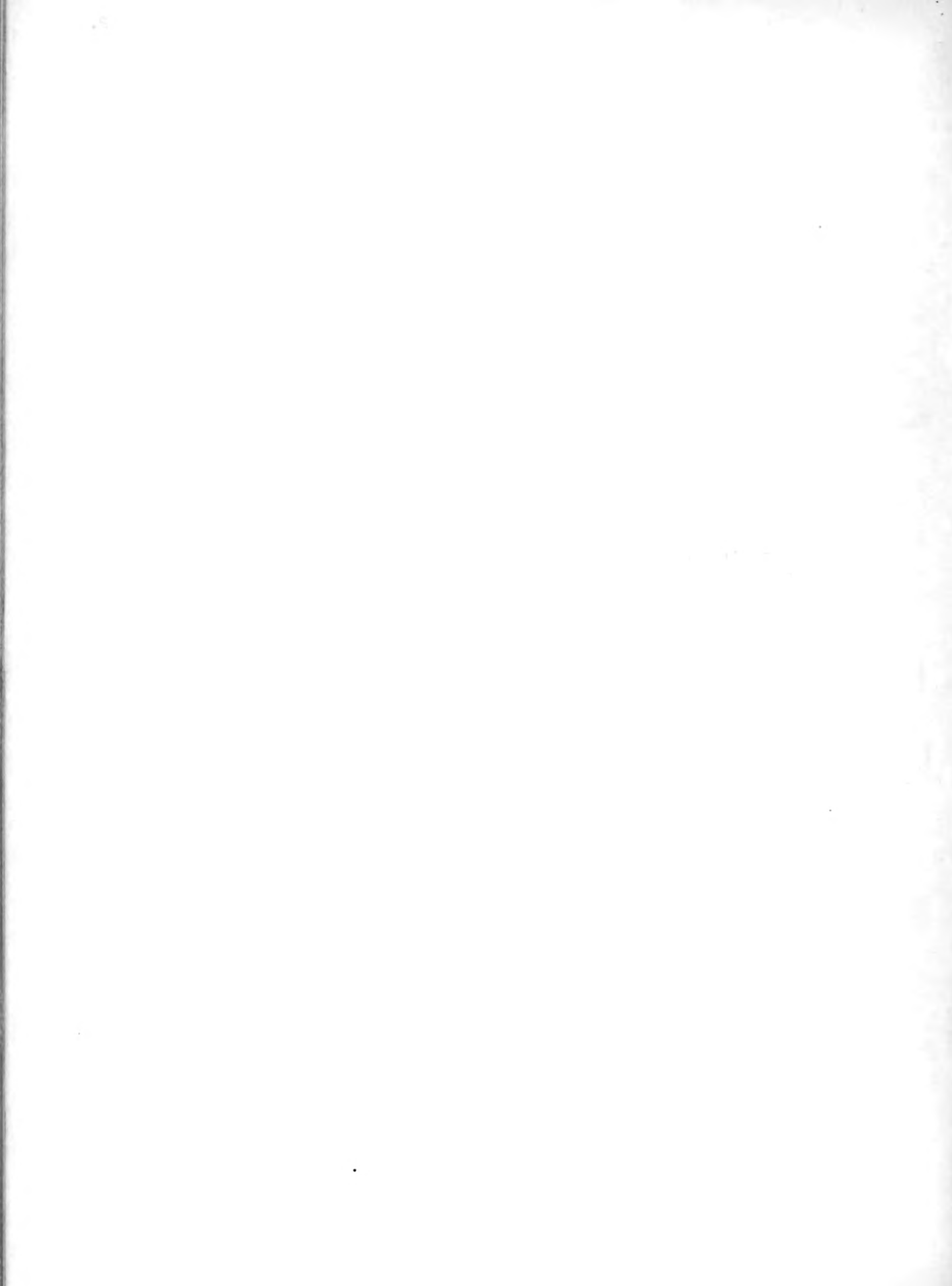
General Farming

(Corn)
 1924 - 6.3%
 1925 - 2.3
 1926 - 2.3

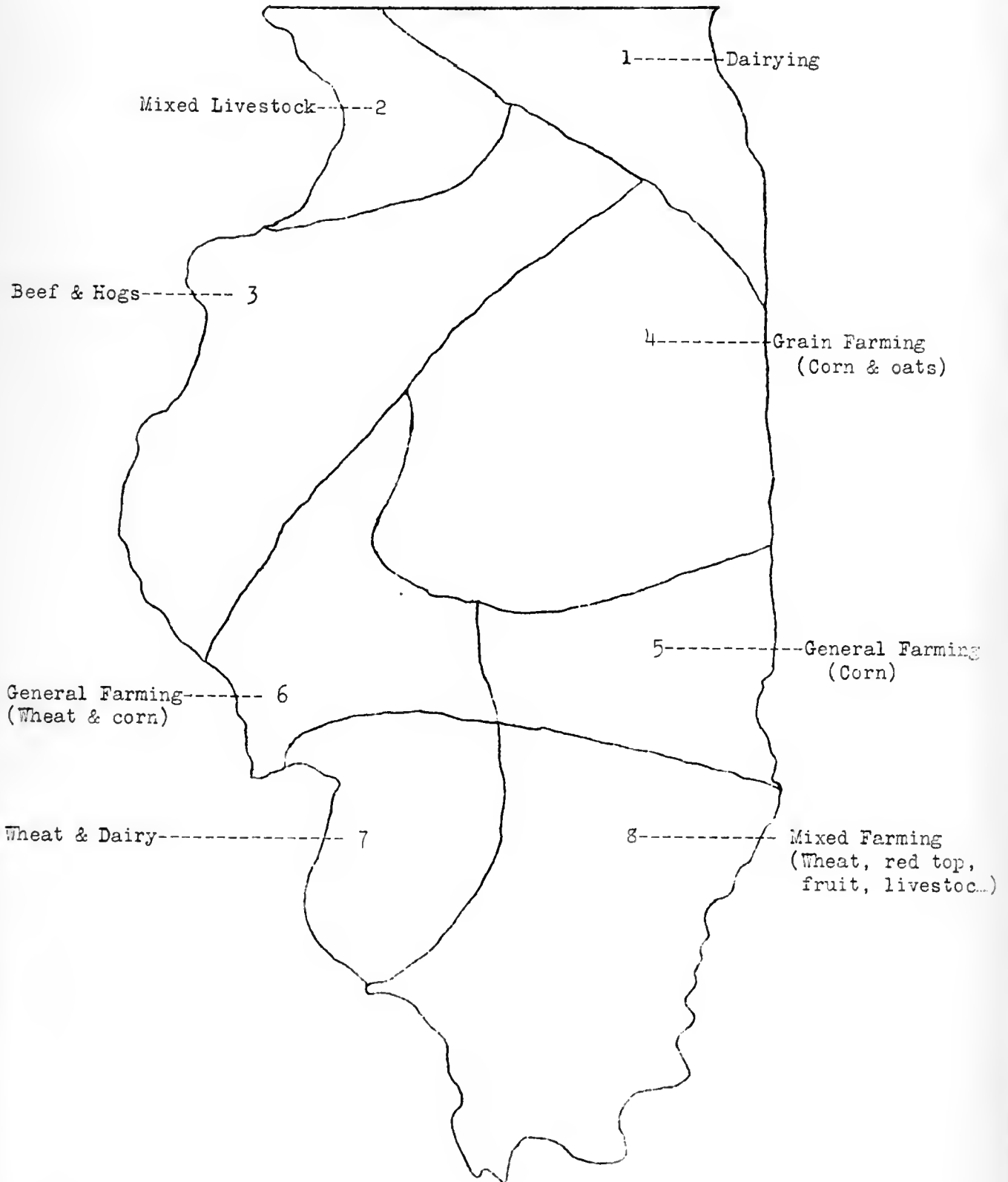
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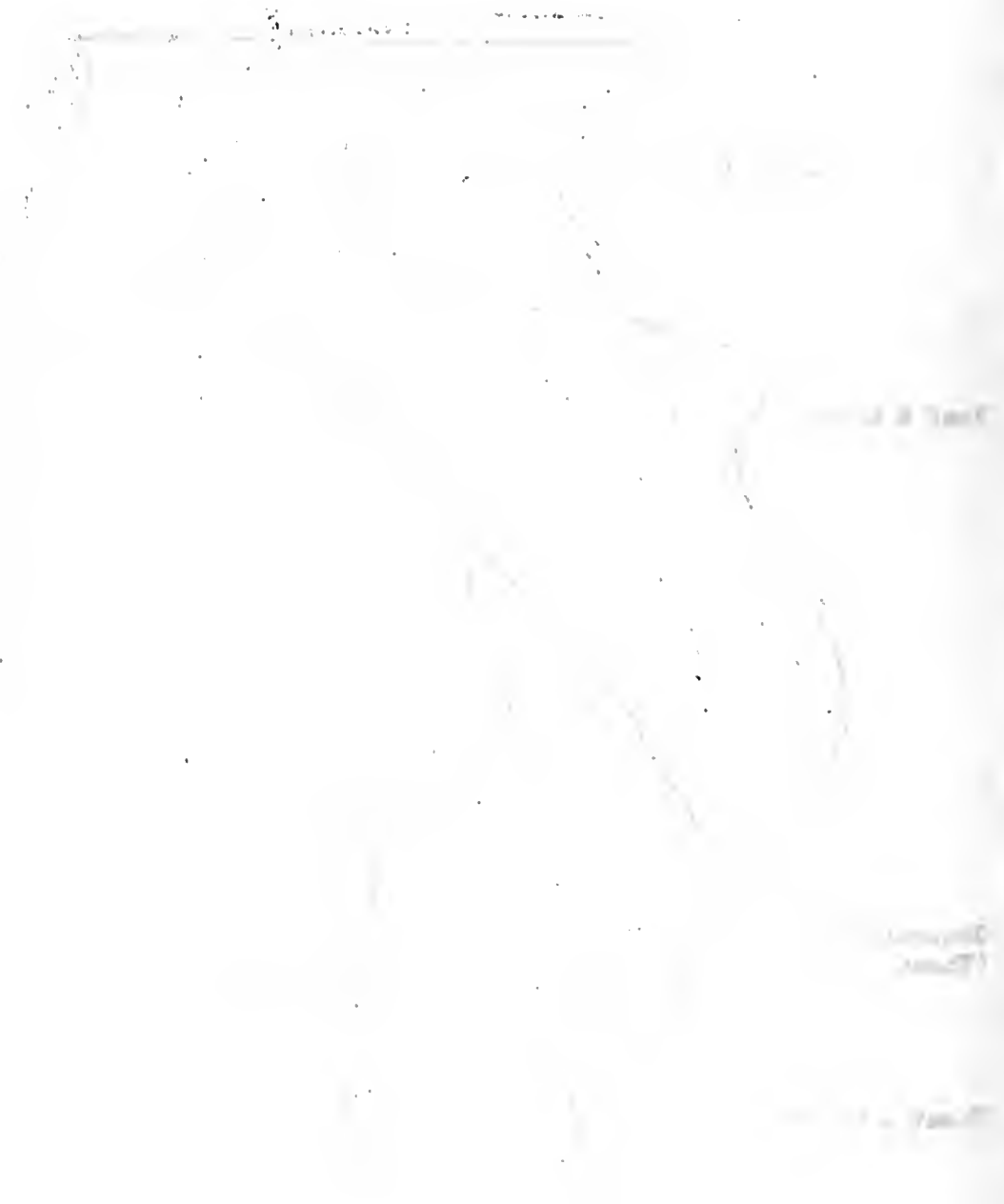
1924 - 4.3%
 1925 - 4.3
 1926 - 4.3

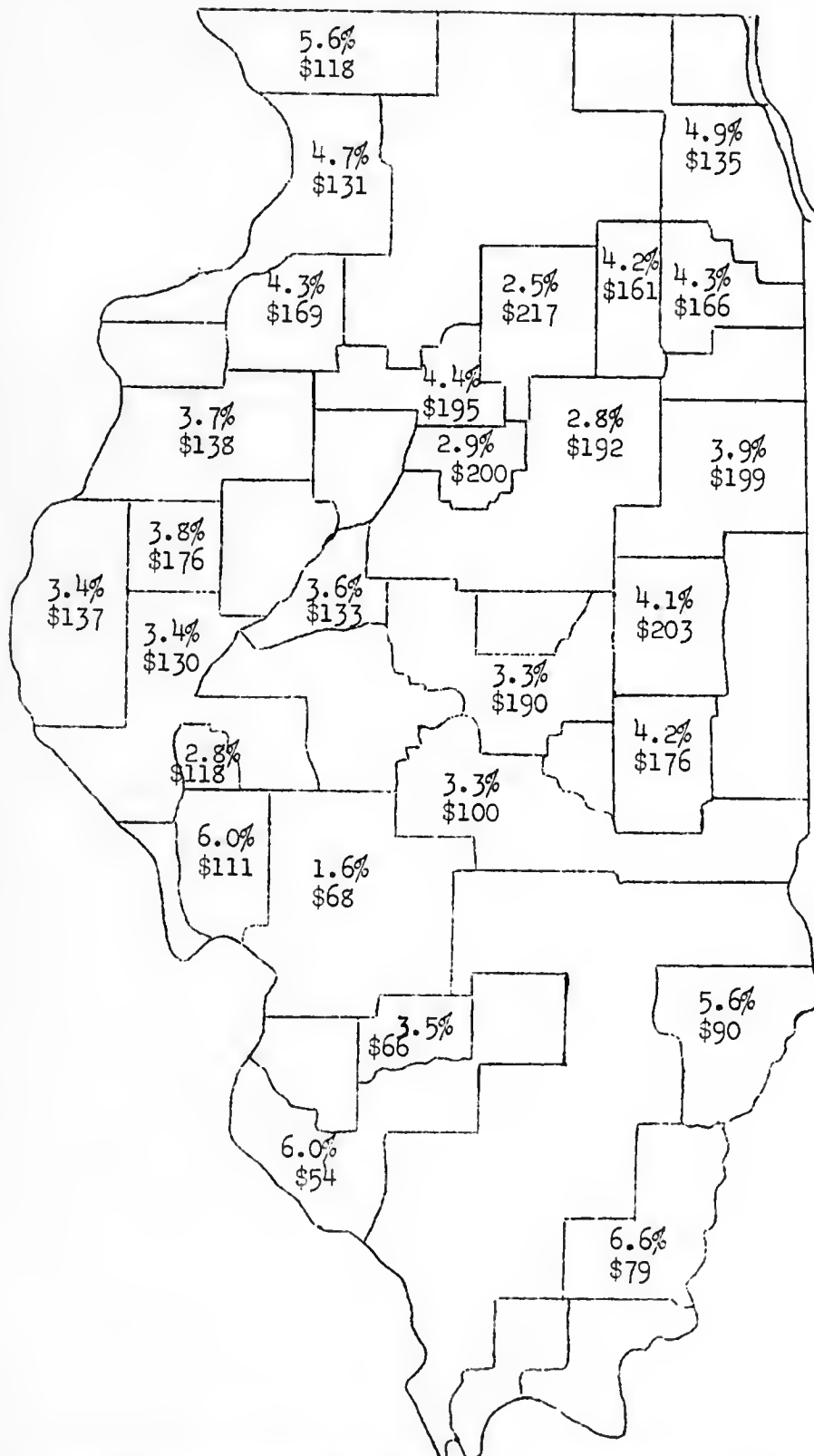
Computed average rates earned by the rank and file of all farmers in each principal type of farming section of Illinois, 1924 to 1926 inclusive.



Types of Farming Followed in Different Sections of Illinois







Rate earned and average value of land per acre on farms keeping accounts for 1926. Figures used are averages for 30 to 210 farms in each section as outlined. The average of all farms has been found to be about 2 percent less than the average of farms on which accounts are kept.



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TABLE 72.—SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1,200 ILLINOIS FARMS, 1926

County or area	McHenry Cook DuPage Dairy farms	Jo Daviess Stephenson	Whiteside Rock Island Carroll	Will	Kendall Grundy	LaSalle	Henry	Marshall Putnam Stark	Woodford
Rate earned.....	4.9%	5.6%	4.7%	4.3%	4.2%	2.5%	4.3%	4.4%	2.9%
Labor and management wage.....	\$652	\$829	\$595	\$391	\$535	\$-712	\$378	\$329	\$-261
Size of farm, acres.....	161	182	194	179	202	204	199	195	191
Percent of land tillable.....	77%	74%	85%	88%	91%	91%	86%	90%	85%
Crop acreage—Corn.....	38	39	62	51	79	80	76	85	75
Oats.....	25	25	32	32	47	47	32	36	51
Wheat.....	6	3	6	24	13	12	8	6	5
Crop yields—Corn, bushels.....	35	43	43	42	42	47	49	49	51
Oats, bushels.....	17	37	30	45	41	38	39	34	32
Wheat, bushels.....	24	24	24	27	23	20	24	23	22
Returns from \$100 in productive livestock.....	\$125	\$125	\$139	\$124	\$122	\$123	\$124	\$124	\$140
For \$100 in cattle.....	121	85	85	102	76	115	83	76	87
For \$100 in hogs.....	148	223	202	161	185	165	171	172	192
For \$100 in poultry.....	155	161	172	187	214	151	170	161	163
Investment an acre in productive livestock.....	\$25.50	\$19.34	\$17.77	\$12.34	\$12.04	\$10.96	\$19.45	\$15.17	\$8.75
Receipts an acre from productive livestock.....	31.82	21.26	21.75	15.30	14.66	13.49	21.18	18.86	12.25
Man labor cost an acre.....	\$10.28	\$6.15	\$6.91	\$6.54	\$6.10	\$6.91	\$7.49	\$6.28	\$6.47
Crop acres a man.....	48	64	70	87	91	82	79	91	85
Crop acres a horse.....									
With tractor.....	23	23	28	31	26	26	25	23	22
Without tractor.....	18	18	19	21	21	20	18	21	19
Expense for \$100 gross income.....	\$65	\$58	\$63	\$58	\$57	\$68	\$59	\$54	\$73
Gross receipts an acre.....	32.07	24.70	24.96	23.26	22.09	22.30	24.80	24.32	19.96
Total expense an acre.....	20.92	14.22	15.66	13.48	12.61	15.25	14.54	13.03	12.59
Net receipts an acre.....	11.15	10.48	9.30	9.78	9.48	7.05	10.26	11.29	7.37
Farms with tractor.....	71%	62%	44%	62%	56%	70%	64%	62%	67%
Value of land an acre.....	\$135	\$118	\$131	\$166	\$161	\$217	\$169	\$195	\$200
Total investment an acre.....	226	188	196	227	223	283	239	258	250

TABLE 72.—SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1,200 ILLINOIS FARMS, 1926—Continued

Capital investment, total.....	\$36 429	\$34 222	\$38 131	\$10 564	\$45 093	\$57 649	\$47 547	\$59 361	\$47 787
Land.....	21 688	21 548	25 447	29 700	32 664	44 181	33 556	38 008	38 088
Farm improvements.....	6 290	5 289	5 238	4 238	5 307	5 476	4 792	4 191	3 437
Machinery and equipment.....	1 994	1 366	1 392	1 611	1 591	2 004	1 668	1 454	1 400
Feed, grain, and supplies.....	2 053	1 984	2 140	2 355	2 631	3 152	3 143	3 423	2 628
Livestock.....	4 404	4 035	3 917	2 690	2 900	2 836	4 388	3 285	2 234
Receipts, total.....	\$5 170	\$4 594	\$4 852	\$1 163	\$4 499	\$4 545	\$4 933	\$1 752	\$3 814
Feed and grain.....				1 319	1 454	1 769	68	1 018	1 440
Miscellaneous.....	41	79	41	105	59	27	55	48	34
Livestock, total.....	5 129	4 425	4 811	2 739	2 965	2 749	4 810	3 686	2 340
Horses.....									
Cattle.....	484	712	796	481	629	356	1 178	622	283
Hogs.....	601	2 195	2 991	899	1 593	953	2 894	2 599	1 434
Sheep.....	17	81	48	35	117	99	36	67	31
Poultry.....	70	107	147	131	224	104	156	95	102
Egg sales.....	194	174	171	168	128	89	119	97	147
Dairy sales.....	3 763	1 156	658	1 034	364	1 148	427	206	343
Expenses, total.....	\$2 285	\$1 659	\$2 049	\$1 513	\$1 790	\$2 151	\$1 961	\$1 779	\$1 510
Farm improvements.....	238	202	315	219	252	331	243	225	139
Livestock and dairy expense.....	152	18	18	4	46	25	20	4	17
Machinery and equipment.....	616	361	431	465	376	596	470	420	356
Feed and supplies.....	121	459	348						
Livestock expense other than feed.....	36	56	88	66	43	81	88	73	54
Crop expense.....	173	119	177	176	214	202	208	171	171
Labor hired.....	539	188	340	271	383	159	558	462	342
Taxes and insurance.....	349	238	315	279	359	129	345	402	402
Miscellaneous.....	31	27	26	33	27	36	29	22	29
Receipts less expenses.....	\$2 885	\$2 845	\$2 812	\$2 650	\$2 769	\$2 395	\$2 972	\$2 973	\$2 304
Operator's and unpaid family labor.....	1 088	935	1 004	969	851	958	932	796	895
Net income from investment.....	1 797	1 910	1 808	1 559	1 918	1 437	2 040	2 207	1 409
Number of farms included.....	35	37	32	30	34	40	59	41	55

TABLE 72.—SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1,200 ILLINOIS FARMS, 1926—Continued

County or area	Henderson Warren Knox	Mason Tazewell Peoria	McLean Livingston Tazewell Woodford	McDonough	Hancock Adams	Schuyler Morgan Pike Brown	Logan Macon Piatt	Ford Iroquois	Champaign
Rate earned.....	3.7%	3.6%	2.8%	3.8%	3.4%	3.4%	3.3%	3.9%	4.1%
Labor and management wage.....	\$60	\$207	\$-616	\$212	\$-122	\$13	\$-265	\$33	\$185
Size of farm, acres.....	252	198	232	181	236	224	227	231	225
Percent of land tillable.....	79%	86%	90%	84%	82%	72%	95%	95%	96%
Crop acreage—Corn.....	87	63	95	65	76	60	91	97	100
Oats.....	37	16	53	25	30	22	39	61	44
Wheat.....	12	51	15	20	5	24	24	12	20
Crop yields—Corn, bushels.....	48	38	51	49	39	42	50	52	50
Oats, bushels.....	30	32	37	37	32	30	39	34	39
Wheat, bushels.....	13	18	21	21	13	20	28	25	26
Returns from \$100 in productive livestock.....	\$130	\$121	\$114	\$139	\$135	\$141	\$123	\$121	\$132
For \$100 in cattle.....	88	74	71	82	78	77	90	78	82
For \$100 in hogs.....	182	193	182	177	191	220	166	172	202
For \$100 in poultry.....	169	163	165	206	173	163	164	172	169
Investment an acre in productive livestock.....	\$15.53	\$7.57	\$10.48	\$14.49	\$14.37	\$11.37	\$9.38	\$9.99	\$5.42
Receipts an acre from productive livestock.....	20.18	9.35	13.38	20.14	19.43	16.08	11.54	8.45	7.15
Man labor cost an acre.....	\$5.90	\$5.60	\$6.67	\$7.39	\$5.59	\$5.30	\$6.32	\$5.62	\$5.81
Crop acres a man.....	85	101	92	73	80	70	97	109	98
Crop acres a horse.....			25						
With tractor.....	28	28		21	25	25	29	31	29
Without tractor.....	20	26		17	20	14	17	22	18
Expense for \$100 gross income.....	\$65	\$63	\$45	\$61	\$67	\$63	\$62	\$51	\$55
Gross receipts an acre.....	20.66	17.60	29.74	23.24	19.91	16.98	20.95	20.96	22.50
Total expense an acre.....	13.39	11.08	13.57	14.23	13.42	10.77	12.97	11.39	12.42
Net receipts an acre.....	7.27	6.52	16.17	9.01	6.49	6.21	7.98	9.57	10.08
Farms with tractor.....	69%	42%	65%	42%	59%	61%	64%	68%	70%
Value of land an acre.....	\$138	\$133	\$192	\$176	\$137	\$130	\$190	\$199	\$203
Total investment an acre.....	196	181	256	236	190	180	244	245	246

TABLE 72.—SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1,200 ILLINOIS FARMS, 1926—Continued

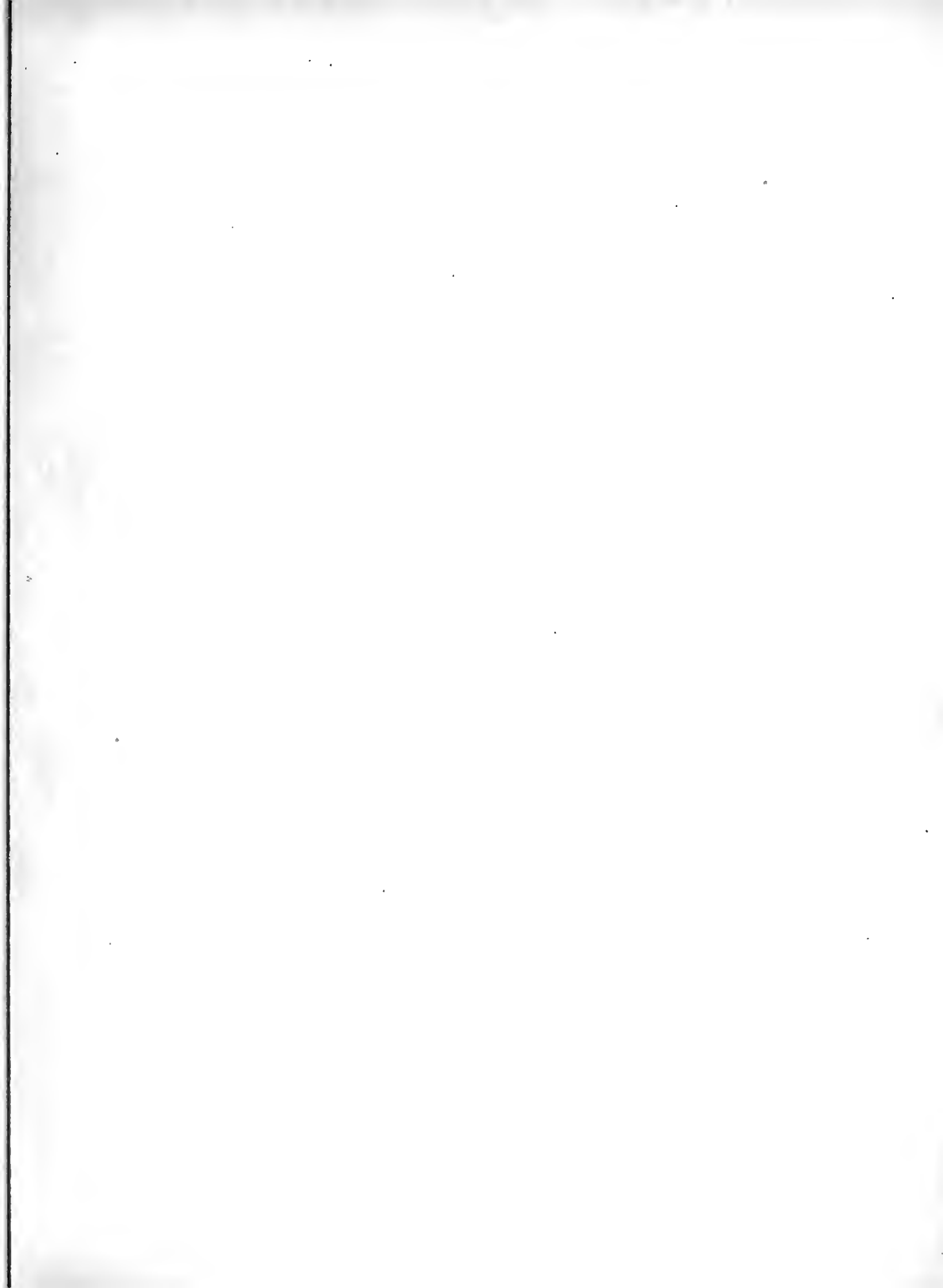
Capital investment, total.....	\$49 198	\$35 795	\$59 403	\$42 610	\$45 034	\$40 270	\$55 312	\$56 731	\$55 343
Land.....	31 825	26 403	44 620	31 743	32 473	28 997	43 059	45 985	45 675
Farm improvements.....	5 064	3 108	5 840	3 742	4 625	4 596	4 243	4 086	3 310
Machinery and equipment.....	1 649	1 521	1 883	1 446	1 523	1 233	1 594	1 547	1 583
Feed, grain, and supplies.....	2 920	2 617	3 809	2 561	2 554	2 428	3 521	2 932	2 825
Livestock.....	4 740	2 146	3 251	3 118	3 859	3 016	2 885	2 181	1 949
Receipts, total.....	\$5 199	\$3 482	\$4 813	\$4 197	\$4 711	\$3 798	\$1 752	\$4 845	\$5 062
Feed and grain.....		1 527	1 961	495		150	2 074	2 819	3 379
Miscellaneous.....	77	106	69	61	112	52	61	73	74
Livestock, total.....	5 122	1 849	2 783	3 641	4 599	3 596	2 617	1 953	1 609
Horses.....	45			4	3				
Cattle.....	1 507	242	454	488	958	760	666	228	196
Hogs.....	3 028	1 029	1 689	2 494	3 078	2 440	1 384	966	724
Sheep.....	55	4	36	40	89	34	39	38	16
Poultry.....	105	101	121	161	105	86	143	162	214
Egg sales.....	98	100	130	164	156	118	123	168	142
Dairy sales.....	284	373	353	291	210	149	262	391	317
Expenses, total.....	\$2 500	\$1 383	\$2 234	\$1 561	\$2 410	\$1 652	\$2 002	\$1 666	\$1 883
Farm improvements.....	289	166	250	233	241	244	248	215	204
Livestock and dairy expense.....		43	8			3	15	32	3
Machinery and equipment.....	482	347	481	352	491	381	421	374	472
Feed and supplies.....	386				402				
Livestock expense other than feed.....	48	43	52	73	112	72	58	35	41
Crop expense.....	195	151	259	199	231	161	248	189	215
Labor hired.....	615	300	634	326	558	431	494	333	403
Taxes and insurance.....	434	313	509	355	344	325	494	465	515
Miscellaneous.....	31	20	50	23	28	35	21	23	30
Receipts less expenses.....	\$2 699	\$2 099	\$2 579	\$2 636	\$2 301	\$2 146	\$2 759	\$3 179	\$3 179
Operator's and unpaid family labor.....	869	808	914	1 069	764	756	940	967	912
Net income from investment.....	1 830	1 291	1 665	1 627	1 537	1 390	1 810	2 212	2 267
Number of farms included.....	32	26	210	25	32	26	28	31	30

TABLE 72.—SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1,200 ILLINOIS FARMS, 1926—Continued

County or area	Scott	Jersey Green	Coles Douglas	Christian Shelby Cumberland Clark	Macoupin Montgomery Bond Marlison	Clinton	Monroe Randolph Washington Marion	Wabash Edwards Richland Lawrence	White Saline Gallatin Johnson Pulaski
Rate earned.....	2.87%	6.00%	4.27%	3.37%	1.6%	3.5%	6.0%	5.6%	6.6%
Labor and management wage.....	\$-128	\$861	\$275	\$124	\$-285	\$320	\$742	\$603	\$957
Size of farm, acres.....	210	207	197	202	224	172	188	172	205
Percent of land tillable.....	94%	80%	89%	86%	78%	72%	84%	86%	84%
Crop acreage—Corn.....	71	59	76	54	49	33	27	42	51
Oats.....	17	16	29	20	32	27	29	18	25
Wheat.....	44	32	29	10	12	33	35	25	22
Crop yields—Corn, bushels.....	40	42	49	36	30	18	35	38	38
Oats, bushels.....	22	29	39	31	22	20	23	21	24
Wheat, bushels.....	17	23	32	20	19	19	23	22	25
Returns from \$100 in productive livestock.....	\$171	\$163	\$142	\$141	\$134	\$172	\$161	\$171	\$161
For \$100 in cattle.....	99	114	85	82	106	161	140	122	97
For \$100 in hogs.....	230	250	234	217	208	173	175	230	192
For \$100 in poultry.....	176	217	165	197	174	218	227	274	245
Investment an acre in productive livestock.....	\$7.76	\$12.49	\$8.17	\$10.19	\$9.23	\$8.40	\$1.71	\$8.57	\$6.55
Receipts an acre from productive livestock.....	13.27	20.38	11.63	14.42	12.40	11.47	7.51	14.67	10.54
Man labor cost an acre.....	\$5.77	\$6.15	\$5.95	\$5.09	\$5.11	\$3.47	\$5.16	\$6.23	\$5.29
Crop acres a man.....	75	67	87	72	76	61	80	66	72
Crop acres a horse.....	.....	.....	.....	.....	.....	19	.....	23	21
With tractor.....	24	23	29	27	27	.....	30	.....	.....
Without tractor.....	19	17	21	20	17	.....	20	.....	.....
Expense for \$100 gross income.....	\$73	\$56	\$57	\$70	\$87	\$75	\$64	\$63	\$57
Gross receipts an acre.....	16.43	22.38	21.92	15.33	12.81	15.28	13.88	19.75	17.76
Total expense an acre.....	11.99	12.63	12.42	10.73	11.10	11.51	8.92	12.60	10.06
Net receipts an acre.....	4.44	9.75	9.50	4.60	1.71	3.77	4.95	7.15	7.70
Farms with tractor.....	46%	38%	61%	30%	56%	21%	33%	40%	40%
Value of land an acre.....	\$118	\$111	\$176	\$100	\$68	\$66	\$54	\$90	\$79
Total investment an acre.....	163	161	224	139	109	108	83	128	116

TABLE 72.—SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1,200 ILLINOIS FARMS, 1923—Concluded

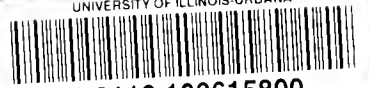
Capital investment, total.....	\$33 387	\$33 294	\$44 030	\$28 148	\$21 462	\$18 604	\$15 595	\$21 990	\$23 785
Land.....	24 675	23 062	34 556	20 129	15 341	11 397	10 123	15 570	16 241
Farm improvements.....	3 540	3 305	4 000	2 902	3 513	2 690	1 614	2 137	3 152
Machinery and equipment.....	1 178	1 243	1 229	1 013	1 283	1 196	904	953	913
Feed, grain, and supplies.....	1 861	2 403	2 232	1 464	1 782	1 437	1 676	1 407	1 596
Livestock.....	2 133	3 281	2 013	2 640	2 543	1 881	1 278	1 923	1 883
Receipts, total.....	\$3 448	\$4 632	\$4 309	\$3 101	\$2 871	\$2 633	\$2 614	\$3 490	\$3 644
Feed and grain.....	622	351	1 970	9	.....	.....	1 107	798	1 313
Miscellaneous.....	41	63	52	119	90	139	94	167	139
Livestock, total.....	2 785	4 218	2 287	2 973	2 781	2 494	1 411	2 525	2 162
Horses.....	.....	.....	57	.....	3	.....	.....	.....	.....
Cattle.....	449	987	368	490	539	246	177	251	227
Hogs.....	1 901	2 271	1 414	1 727	1 174	378	273	1 044	1 215
Sheep.....	42	54	48	116	64	16	49	30	36
Poultry.....	115	149	115	159	136	185	153	116	153
Egg sales.....	169	157	105	158	234	444	319	344	300
Dairy sales.....	109	600	247	236	661	1 215	440	740	241
Expenses, total.....	\$1 756	\$1 934	\$1 731	\$1 415	\$1 647	\$1 018	\$861	\$1 446	\$1 270
Farm improvements.....	297	203	221	150	256	149	91	199	131
Livestock and dairy expense.....	51	31	43	.....	9	11	12	21	21
Machinery and equipment.....	398	463	324	413	409	311	254	366	283
Feed and supplies.....	.....	.....	.....	.....	92	2	.....	.....	.....
Livestock expense other than feed.....	70	86	48	86	77	23	13	15	21
Crop expense.....	151	211	219	179	185	193	164	192	259
Labor hired.....	452	593	459	275	304	151	153	319	291
Taxes and insurance.....	397	311	392	279	277	149	164	260	247
Miscellaneous.....	30	36	25	33	47	31	11	23	17
Receipts less expenses.....	\$1 692	\$2 698	\$2 578	\$1 685	\$1 224	\$1 615	\$1 753	\$1 954	\$2 374
Operator's and unpaid family labor.....	760	681	710	755	840	965	818	723	794
Net income from investment.....	932	2 017	1 868	931	384	650	935	1 231	1 580
Number of farms included.....	27	31	39	24	39	56	33	39	25







UNIVERSITY OF ILLINOIS-URBANA



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