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ANNUAL FARM BUSINESS REPORTS PREPARED FROM RECORDS KEPT
IN THE ILLINOIS FARM FINANCIAL RECORD BOOK FOR 28 AREAS FOR 1925

118

Prepared by the Department of Farm Organization and
Management of the University of Illinois

1. Jo Daviess, Stephenson and Carroll Counties

2. DuPage, Kane, Lake and Will Counties

3. Whiteside, Henderson, Rock Island, and Mercer Counties

4. Henry County

5. Stark and Peoria Counties

N O T I C E

AT LEAST ONE OF THE EDGES OF THIS
MAGAZINE HAS BEEN LEFT UNTRIMMED,
BECAUSE OF AN EXTREMELY NARROW
MARGIN.

HERTZBERG-NEW METHOD, INC.

d Counties

e Counties

14. McDonough County

15. Mason, Macon, Logan, Piatt and McLean Counties

16. Ford County

17. Champaign County

18. Coles County

19. Douglas, Shelby, Christian, Moultrie Counties

20. Jersey, Greene and Morgan Counties

21. Montgomery, Macoupin, Bond and Madison Counties

22. Cumberland, Clark and Crawford Counties

23. Richland, Marion and Effingham Counties

24. Wabash, Edwards and Lawrence Counties

25. Clinton County

26. Monroe and Randolph Counties

27. Saline, Gallatin, White, Johnson and Pulaski Counties

28. Summary of Annual Farm Business Reports on 1048 Farms

STATEMENT CONCERNED ENCLOSED DATA

The year 1925 marks the beginning of a wide general interest in the farm financial record work throughout the state. In most areas it will be noted from the enclosed reports that single counties or counties having similar types of farming have completed sufficient records for separate reports. In 1924, 14 reports were completed while in 1925 the number of areas reporting reached 26, including the farm bureau-farm management project report.

In addition to the farm financial reports the Gridley Township survey in McLean County is included which gives a cross section picture of agricultural conditions in the central part of the state. Also the summary for all areas is included.

Up to the present year the plan has been to encourage cooperating counties in securing sufficient records to give a good volume of data for a separate area report. In order to lend encouragement a relatively small number of records were used for some of the reports. However, beginning in 1925, the number of records completed provided a large enough number for more satisfactory area reports.

H. C. M. Case.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

JO DAVIESS, STEPHENSON AND CARROLL COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty-four Farms

for

1925

Urbana, Illinois

April 14, 1926

ANNUAL FARM BUSINESS REPORT

JO DAVIESS, STEPHENSON AND CARROLL COUNTIES, ILLINOIS - 1925

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

The forty-four farmers in this group of counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $1,345 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $170 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $2,782, while the third who were least successful had only $57. There was, therefore, a difference of about $2,839 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these forty-four farmers earned 7.45% on their investments after allowing $600 to pay for their own labor. On the same basis the most successful third earned 11.42% and the least successful third 3.15%. The average investment on the forty-four farms was $32,027, which amounts to $170 an acre. Both the higher and lower profit groups had an average investment of $163 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 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 about $725 a year on a group of Champaign County 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 the above named counties A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1,000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

The more successful group of these farms had about 40 acres more land than the less successful group and they also had an advantage of about 10% in the amount of their land that was tillable The average farm had 188 acres and was a little over 75% tillable. The higher profit third had 15 acres more corn and ten acres more oats than the lower profit third. The average farm had about 43 acres in corn, and 27 acres in oats.

The more successful group had only slightly higher yields than the less successful group, but all averaged about 25% higher corn yields than the corresponding farms in 1924.

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*V. J. Banter, W. A. Herrington and M. P. Roske, farm advisers in Jo Daviess, Stephenson and Carroll Counties respectively, cooperated in supervising and collecting the records used in this report

In returns per $100 invested in productive livestock the higher profit third stood 50% higher than the low profit group. As this is largely a livestock farming section this was a great advantage. With only a little larger investment in cattle the more successful group had over twice as large income from cattle and three times as large income from dairy sales. They had considerable advantage also in income from hogs and poultry. All groups received a little over 90% of their income from livestock but the more successful group had about twice the gross income of the low profit group.

In man and horse labor efficiency there was not a great deal of difference between groups. The fifteen farms making the least profit were below the average in man labor cost, but this is due chiefly to the fact that these farms did considerably less dairying than the more successful group.

The proportion of income which goes to pay operating expenses is an important factor. It is interesting to note that while the average operator on these forty-four farms spent about half his gross income in running the business, the most successful farms spent only one-third and the least successful ones two-thirds of their incomes as operating expenses. This advantage to the more successful farms was due to larger sales and not to lower expenses. The high profit third with nearly twice the gross income per acre and with about the same expenses had a net income per acre over three and a half times that of the low third. It is the net receipts which pay interest and profits.

The average farm included in this summary derived its income as follows: hogs, 46.8%; dairy products, 21.1%; cattle, 15.7%; eggs and poultry, 6.8%; feed and grain, 6.35%; miscellaneous items, 3.3%. The high and low profit groups differed little from this except that the low profit group received a much smaller portion of its income from dairy products.

The earnings on farms in this area for 1925 as compared with 1924 are quite encouraging. While most of the farm financial records for central and east central Illinois show considerably reduced earnings and southern Illinois little more than held its own. This area in the northweat corner of Illinois shows substantially improved earnings for 1925. The improvement is evidently due chiefly to larger crop yields and better prices for hogs. The income from dairy products also showed some improvement.

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.

Jo Daviess, Stephenson, Carroll Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 44 farms	15 most profitable farms	15 least profitable farms
Rate earned	%	7.45%	11.42%	3.15%
Labor and management wage	$	$1345	$2782.	$ 57.00
Size of farm - acres	A.	187.9 A.	214.7 A.	174.5 A
Percent of land area tillable	%	75.7%	78.3%	67.8%
Acres in Corn	A.	42.8 A.	51.0 A.	35.3 A
Oats	A.	27.2 A.	30.7 A.	20.0 A
Wheat	A.	1.6 A.	3.4 A.	0.4 A
Crop yields - Corn	bu.	53.2bu.	54.5 bu.	50.3 bu
Oats	bu.	49.5bu.	50.2 bu.	52.9 bu
Wheat	bu.	25.7bu.	27.1 bu.	14.2 bu
Returns per $100 invested in all productive livestock	$	$ 135.00	$ 160.00	$ 105.00
For $100 in Cattle	$	$ 85.00	$ 107.00	$ 56.00
Swine	$	$ 235.00	$ 255.00	$ 247.00
Poultry	$	$ 206.00	$ 226.00	$ 191.00
Percent of gross income from livestock	%	91.7%	92.1%	91.4%
Man labor cost per acre	$	$ 5.43	$ 5.18	$ 4.80
Crop acres per man	A.	63.7 A.	66.3 A.	63.7 A.
Crop acres per horse (with tractor)	A.	22.8 A.	23.9 A.	21.5 A
(without tractor)	A.	16.5 A.	16.6 A.	18.2 A.
Expense per $100 gross income	$	$ 49.00	$ 35.00	$ 67.00
Machinery cost per acre	$	$ 1.75	$ 1.57	$ 1.43
Building & fencing cost per A.	$	$ 1.20	$ 1.12	$ 1.03
Gross receipts per acre	$	$ 24.15	$ 28.91	$ 15.79
Total expenses per acre	$	$ 11.46	$ 10.26	$ 10.65
Net receipts per acre	$	$ 12.69	$ 18.65	$ 5.14
Farms with tractor	%	45 %	47 %	60 %
Value of land per acre	$	$ 112.00	$ 107.00	$ 113.00
Total investment per acre	$	$ 170.00	$ 163.00	$ 163.00

Jo Daviess, Stephenson, Carroll Counties - 1925

	Your farm	Average of 44 farms	15 most profitable farms	15 least profitable farms
1. Capital Investment - Total	$_____	$32027	$35068	$28528
2. Land		21039	23000	19788
3. Farm improvements		4852	5710	3715
4. Machinery and equipment		1318	1269	1101
5. Feed and supplies		1559	1611	1251
6. Livestock		3259	3478	2673
7. Horses		459	570	380
8. Cattle		1815	1854	1602
9. Swine		765	850	472
10. Sheep		79	68	94
11. Poultry		141	136	125
12. Receipts-Net Increases-Total	_____	4539	6207	2756
13. Feed and grain		286	342	211
14. Miscellaneous		91	147	25
15. Livestock - Total		4162	5718	2520
16. Horses		----	----	----
17. Cattle		715	1121	521
18. Swine		2127	2973	1296
19. Sheep		54	76	54
20. Poultry		123	135	110
21. Egg sales		186	202	144
22. Dairy sales		957	1211	395
23. Expenses-Net Decreases-Total	_____	1352	1336	1128
24. Farm improvements		225	241	180
25. Livestock		14	6	35
26. Horses		14	6	35
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		329	337	249
32. Feed and supplies		---	---	---
33. Livestock expense other than feed		65	93	34
34. Crop expense		126	132	112
35. Labor hired		218	246	107
36. Taxes, insurance, etc.		331	254	384
37. Miscellaneous		44	27	27
38. Receipts less Expenses	_____	3187	4871	1628
39. Operator's and unpaid family labor		802	866	730
40. Net income from investment		2385	4005	898

Find Your Farm Leaks - (Jo Daviess, Stephenson and Carroll Counties - 1925)

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 acres of			Returns per $100 invested in			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm acres
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No Tractor			
14.45	88	85	39	155	375	346	---	1.90	99	37	30	15	45	328
13.45	83	80	37	145	355	326	---	2.40	94	35	28	20	42	308
12.45	78	75	35	135	335	306	---	2.90	89	33	26	25	39	288
11.45	73	70	33	125	315	286	---	3.40	84	31	24	30	36	268
10.45	68	65	31	115	295	266	---	3.90	79	29	22	35	33	248
9.45	63	60	29	105	275	246	---	4.40	74	27	20	40	30	228
8.45	58	55	27	95	255	226	97	4.90	69	25	18	45	27	208
7.45	53	50	25	85	235	206	92	5.40	64	23	16	50	24	188
6.45	48	45	23	75	215	186	87	5.90	59	21	14	55	21	168
5.45	43	40	21	65	195	166	82	6.40	54	19	12	60	18	148
4.45	38	35	19	55	175	146	77	6.90	49	17	10	65	15	128
3.45	33	30	17	45	155	126	72	7.40	44	15	8	70	12	108
2.45	28	25	15	35	135	106	67	7.90	39	13	6	75	9	88
1.45	23	20	13	25	115	86	62	8.40	34	11	--	80	6	68
0.45	18	15	11	15	95	66	57	8.90	29	9	--	85	3	48
-1.45	13	10	9	5	75	46	52	9.40	24	7	--	90	--	--

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

DUPAGE, KANE, LAKE AND WILL COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-eight Farms

for

1925

Urbana, Illinois

June 15, 1926

ANNUAL FARM BUSINESS REPORT ON DAIRY FARMS

DUPAGE, KANE, LAKE AND WILL COUNTIES, ILLINOIS - 1925

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

The 28 dairy farmers in this group of counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $564 to pay for their labor, risk and management after paying expenses and allowing 5% 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 a labor and management wage of $1,851, while the third who were least successful lacked an average of $731 of having enough income to pay 5% interest on their investments allowing nothing for their labor and management.

There was, therefore, a difference of $2,582 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way, these 28 farmers earned 4.78% on their investments after allowing $720 each to pay for their own labor. On the same basis the most successful third earned 8.03%, and the least successful third 1.03%. The average investment on the 28 farms was $37,376, which amounts to $223 an acre. The higher profit third had an average investment of $214 and the lower profit third $244 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 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 about $725 a year on a group of Champaign County 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 earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged considerably higher net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

The ten most profitable farms covered by this report averaged about 40 acres larger in size but they had more non-tillable land and therefore had only about 20 acres more crop land than the 10 least profitable farms. This apparently had some influence on the amount of feed purchased. Both groups had about the same crop yields and the higher profit group sold an average of $424 worth of feed and grain per farm, while the low profit group bought an average of $455 worth

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*E. A. Carncross, J. E. Watt, J. J. Doerschuk, and J. F. Hedgcock, farm advisers in DuPage, Kane, Lake and Will Counties, respectively, cooperated in supervising and collecting the records used in this report.

of feed and grain. Without having to buy feed, the higher profit group secured 22% more income per farm from dairy products, 168% more income from hogs and about twice as much income from cattle sales. This indicates that the 10 most successful farmers handled their livestock more efficiently. This conclusion is supported by the fact that the more successful group secured 20% more income per $100 invested in productive livestock than the less successful group. This advantage in livestock efficiency was a very large one on these farms where the average farm secured 94.5% of its income from livestock. The term productive livestock, as used in this report, means chiefly dairy cattle and hogs. On the average of these farms, nearly three-fourths of the income came from dairy sales.

The greater efficiency of the more successful farmers shows up particularly in the dairy enterprise. The more successful dairymen secured 10% more dairy sales and 80% more cattle sales from every $100 invested in dairy cattle than those of the low profit group. In other words, for every $100 invested in dairy stock, the more profitable farmers had $147 in dairy sales and $27 cattle sales, while the other group only took in $134 as dairy sales and $15 for cattle sales. From an investment of $257 more in dairy cattle, the high profit group had $649 more income in dairy sales and $319 in cattle sales.

Next after livestock efficiency the greatest difference between the high and low profit groups in this report was in the various expense items. The low profit group had an average labor cost per acre 71% greater than the high profit group. This includes the operators and family labor, as well as hired labor. The low profit group also had a higher cost per acre, for machinery and equipment, as well as for building and fencing. This difference is partly a result of the smaller size of the less successful group of farms. Purchase of feed tended to increase the total expense on these less profitable farms. On the average, the 10 least successful farm operators had expenses amounting to $25.00 per acre, while the 10 most successful farmers spent only $14.60 per acre in operating the business. When expenses are high per acre, there is only one way for the year's business to succeed and that is in securing a correspondingly large gross income per acre. On the farms covered by this report, the group having the high expense also had a lower gross income per acre. As a result they had only $2.51 more income than expense per acre, while the higher profit group had net earnings of $17.18 an acre. It is the net receipts which pay interest and profits. The 10 most successful farmers spent $46.00 out of every $100 income in running the farm business, while the 10 least successful ones spent $91 out of every $100. taken in.

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 profit.

DuPage, Kane, Lake and Will Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 28 farms	10 most profitable farms	10 least profitable farms
Rate earned	%	4.78%	8.03%	1.03%
Labor and management wage	$	$564.	$1 851.	$-731.
Size of farm - Acres	A	167.8 A	184.5 A	142.3 A
Percent of land area tillable	%	83.1 %	77.0 %	83.4 %
Acres in Corn	A	44.0 A	40.7 A	36.6 A
Oats	A	29.1 A	27.6 A	28.5 A
Wheat	A	5.6 A	2.8 A	4.7 A
Crop Yields - Corn	bu.	34.9 bu.	32.7 bu.	38.6 bu.
Oats	bu.	38.5 bu.	41.8 bu.	36.0 bu.
Wheat	bu.	21.6 bu.	27.7 bu.	28.1 bu.
Returns per $100 invested in all productive livestock	$	$152.00	$ 171.00	$ 142.00
For $100 in Cattle	$	$145.00	$ 168.00	$ 141.00
Swine	$	$183.00	$ 184.00	$ 128.00
Poultry	$	$186.00	$ 177.00	$ 198.00
Percent of gross income from livestock	%	94.5 %	91.4 %	98.6 %
Man labor cost per acre	$	$ 8.06	$ 6.24	$ 10.70
Crop acres per man	A	85.9 A	110.0 A	64.5 A
Crop acres per horse (with tractor)	A	27.0 A	29.7 A	22.8 A
(without tractor)	A	18.1 A	17.2 A	17.7 A
Expense per $100 gross income	$	$ 62.00	$ 46.00	$ 91.00
Machinery cost per acre	$	$ 3.08	$ 2.65	$ 3.69
Building & fencing cost per acre	$	$ 1.58	$ 1.50	$ 1.94
Gross receipts per acre	$	$ 28.04	$ 31.78	$ 27.51
Total expenses per acre	$	$ 17.40	$ 14.60	$ 25.00
Net receipts per acre	$	$ 10.64	$ 17.18	$ 2.51
Farms with tractor	%	53.0 %	60.0 %	20.0 %
Value of land per acre	$	$146.00	$ 143.00	$ 154.00
Total investment per acre	$	$223.00	$ 214.00	$ 244.00

DuPage, Kane, Lake and Will Counties, 1925

	Your farm	Average of 28 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment - Total	$_____	$37 376	$39 555	$34 724
2. Land		24 511	26 779	21 945
3. Farm improvements		5 319	4 931	5 872
4. Machinery and equipment		1 964	2 322	1 656
5. Feed and supplies		2 255	2 425	2 156
6. Livestock		3 327	3 498	3 095
7. Horses		494	514	490
8. Cattle		2 283	2 421	2 164
9. Swine		398	424	290
10. Sheep		12	4	31
11. Poultry		140	135	120
12. Receipts-Net Increases-Total	_____	4 705	5 863	3 915
13. Feed and grain		169	424	---
14. Miscellaneous		92	82	53
15. Livestock - Total		4 444	5 357	3 862
16. Horses		---	---	---
17. Cattle		455	644	325
18. Swine		699	895	334
19. Sheep		11	3	27
20. Poultry		102	97	104
21. Egg sales		174	152	155
22. Dairy sales		3 003	3 566	2 917
23. Expenses-Net Decreases-Total	_____	1 954	1 762	2 670
24. Farm improvements		265	277	276
25. Livestock		---	---	---
26. Horses		23	24	12
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		516	489	525
32. Feed and supplies		---	---	455
33. Livestock expense other than feed		169	156	110
34. Crop expense		159	183	138
35. Labor hired		387	220	635
36. Taxes, Insurance, etc.		399	383	472
37. Miscellaneous		36	30	47
38. Receipts less Expenses	_____	2 751	4 101	1 245
39. Operator's and unpaid family labor		965	932	888
40. Net income from investment		1 786	3 169	357

Find Your Farm Leaks - (DuPage, Kane, Lake and Will Counties - 1925)

The numbers between the lines across the middle of the page are the approximate averages for your counties 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 counties.

Rate earned	Bushels per acre of			Returns per $100 invested in			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No Tractor			
8.25	70	59	36	285	323	326	----	4.50	120	41	32	27	42	308
7.75	65	56	34	265	303	306	----	5.00	115	39	30	32	40	288
7.25	60	53	32	245	283	286	----	5.50	110	37	28	37	38	268
6.75	55	50	30	225	263	266	----	6.00	105	35	26	42	36	248
6.25	50	47	28	205	243	246	----	6.50	100	33	24	47	34	228
5.75	45	44	26	185	223	226	----	7.00	95	31	22	52	32	208
5.25	40	41	24	165	203	206	100	7.50	90	29	20	57	30	188
4.75	35	38	22	145	183	186	95	8.00	85	27	18	62	28	168
4.25	30	35	20	125	163	166	90	8.50	80	25	16	67	26	148
3.75	25	32	18	105	143	146	85	9.00	75	23	14	72	24	128
3.25	20	29	16	85	123	126	80	9.50	70	21	12	77	22	108
2.75	15	26	14	65	103	106	75	10.00	65	19	10	82	20	88
2.25	10	23	12	45	83	86	70	10.50	60	17	8	87	18	68
1.75	--	20	10	25	63	66	65	11.00	55	15	6	92	16	48
1.25	--	17	8	--	43	46	60	11.50	50	13	--	97	14	28
0.75	--	14	6	--	23	26	55	12.00	45	11	--	--	12	--

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

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4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

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Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

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opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

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It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

WHITESIDE, HENDERSON, ROCK ISLAND AND MERCER COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-four Farms

for

1925

Urbana, Illinois

April 26, 1926

ANNUAL FARM BUSINESS REPORT

WHITESIDE, HENDERSON, ROCK ISLAND AND MERCER COUNTIES, ILLINOIS - 1925

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

The 34 farmers in this group of Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $700 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $197 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $1874, while the third who were least successful lacked $747 of earning enough to pay 5% on their investment, allowing nothing for their labor and management. There was, therefore, a difference of about $2621 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these 34 farmers earned 5.27% on their investment after allowing $600 each to pay for their own labor. On the same basis, the most successful third earned 12.35% and the least successful third 2.04%. The average investment on the 34 farms was $40,323, which amounts to $197 an acre. The higher profit third had an average investment of $192 and the lower profit third $194 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 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 about $725 a year on a group of Champaign County 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 the above named Counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

The average of these 34 farms contained 205 acres. The more successful group averaged about 20 acres less and the less successful group 25 acres more than this. The groups differed little in percent of tillable land with the average farm about 79% tillable. With the exception of 20 acres more oats on the low profit farms than on the high profit farms there was also very little difference in the number of acres of the chief grain crops on the average farm in each group. The average of the 34 farms contained about 65 acres of corn, 29 acres of oats and 11 acres of wheat per acre.

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*L. O. Wise, E. D. Walker, S. S. Carney and C. H. Belting, farm advisers in Whiteside, Henderson, Rock Island and Mercer Counties respectively, cooperated in supervising and collecting the records used in this report.

The eleven most successful farms had a 25% larger yield of corn and 40% larger yield of oats than the eleven least successful farms. Since corn and oats occupied nearly half the total farm acreage this advantage in yield was a large factor in the success of the more profitable farms.

In returns per $100 invested in productive livestock the group of most profitable farms had an advantage of about 12%. This advantage was chiefly in the cattle enterprise and in sales of poultry and dairy products. The hog and cattle enterprises constitute the largest sources of income on these farms. The high and low profit groups were about equally successful with hogs but the higher profit group received about 30% more income per $100 invested in cattle. That the 34 farms included in this summary are livestock farms is shown by the fact that the average of them secured 98.6% of its income from livestock. There was little difference between groups in this respect.

The greatest advantage of the 11 most profitable farms in this summary as judged from the financial records, is in their lower expenses. They had a lower man labor cost per acre, a greater efficiency in use of horse power, lower costs for buildings and equipment, and a much smaller portion of their income spent in operating the business. Where the low profit group spent $88 out of every $100 income in operating the business, the higher profit group spent only $41 and the average of the 34 farms spent $57.

With a gross income of $28.05 per acre and operating expenses of $11.45, the more profitable farms had an average of $16.60 per acre to pay interest and profits. The 11 farms with the least net earnings took in $23.50 but spent $19.55 per acre, leaving only $3.95 to pay interest and profits. The latter group, therefore, had less than one-fourth the net receipts per acre of the most profitable 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 profits and the group making the least profits.

Whiteside, Henderson, Rock Island and Mercer Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 34 farms	11 most profitable farms	11 least profitable farms
Rate earned	%	5.27%	12.35%	2.04%
Labor and management wage	$	$700.	$1874.	$-747.
Size of farm - Acres	A.	204.9 A.	185.9 A.	231.2 A.
Percent of land area tillable	%	79.0%	76.2%	75.3%
Acres in Corn	A.	65.2 A.	66.9 A.	62.5 A.
Oats	A.	28.8 A.	17.7 A.	37.3 A.
Wheat	A.	10.8 A.	12.4 A.	9.0 A.
Crop yields - Corn	bu.	46.6 bu.	51.0 bu.	40.7 bu.
Oats	bu.	41.9 bu.	52.7 bu.	37.2 bu.
Wheat	bu.	19.4 bu.	17.8 bu.	22.7 bu.
Returns per $100 invested in all productive livestock	$	$153.00	$ 167.00	$ 148.00
For $100 in Cattle	$	$100.00	$ 115.00	$ 88.00
Swine	$	$219.00	$ 215.00	$ 224.00
Poultry	$	$184.00	$ 193.00	$ 184.00
Percent of gross income from livestock	%	98.6%	96.6%	98.1%
Man labor cost per acre	$	$ 5.85	$ 5.82	$ 6.23
Crop acres per man	A.	71.1 A.	72.7 A.	76.7 A.
Crop acres per horse (with tractor)	A.	27.7 A.	29.1 A.	25.3 A.
(without tractor)	A.	16.7 A.	16.0 A.	13.8 A.
Expense per $100 gross income	$	$ 57.00	$ 41.00	$ 88.00
Machinery cost per acre	$	$ 1.96	$ 1.66	$ 2.11
Building & fencing cost per A	$	$ 1.16	$ .80	$ 1.41
Gross receipts per acre	$	$ 23.89	$ 28.05	$ 23.50
Total expenses per acre	$	$ 13.52	$ 11.45	$ 19.55
Net receipts per acre	$	$ 10.37	$ 16.60	$ 3.95
Farms with tractor	%	47.0%	27.0%	64.0%
Value of land per acre	$	$137.00	$ 134.00	$ 127.00
Total investment per acre	$	$197.00	$ 192.00	$ 194.00

Whiteside, Henderson, Rock Island and Mercer Counties - 1925

	Your farm	Average of 34 farms	11 most profitable farms	11 least profitable farms
1. Capital Investment - Total	$_____	$40323	$35655	$44832
2. Land		28050	24968	29314
3. Farm improvements		5051	4577	6012
4. Machinery and equipment		1419	1093	1963
5. Feed and supplies		2629	2315	3674
6. Livestock		3174	2702	3869
7. Horses		532	538	660
8. Cattle		1264	738	1560
9. Swine		1138	1243	1288
10. Sheep		109	14	244
11. Poultry		131	169	117
12. Receipts-Net Increases-Total	_____	4896	5212	5432
13. Feed and grain		---	118	---
14. Miscellaneous		67	61	82
15. Livestock - Total		4829	5033	5350
16. Horses		2	--	5
17. Cattle		1168	1078	1212
18. Swine		2927	3073	3481
19. Sheep		55	31	95
20. Poultry		105	147	103
21. Egg sales		130	169	109
22. Dairy sales		442	535	345
23. Expenses-Net Decreases-Total	_____	2000	1397	3627
24. Farm improvements		237	148	325
25. Livestock		---	23	---
26. Horses		---	23	---
27. Cattle		---	---	---
28. Swine		---	---	---
29. Sheep		---	---	---
30. Poultry		---	---	---
31. Machinery and equipment		402	308	488
32. Feed and supplies		300	---	1457
33. Livestock expense other than feed		86	79	91
34. Crop expense		158	157	205
35. Labor hired		428	351	548
36. Taxes, insurance, etc.		359	308	469
37. Miscellaneous		30	23	44
38. Receipts, less Expenses	_____	2896	3815	1805
39. Operator's and unpaid family labor		771	731	893
40. Net income from investment		2125	3084	912

Find Your Farm Leaks - (Whiteside, Henderson, Rock Island and Mercer Counties - 1925)

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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No tractor			
12.25	82	63	33	205	359	324	--	---	106	42	31	22	38	345
11.25	77	60	31	190	339	304	--	---	101	40	29	27	36	325
10.25	72	57	29	175	319	284	--	3.35	96	38	27	32	34	305
9.25	67	54	27	160	299	264	--	3.85	91	36	25	37	32	285
8.25	62	51	25	145	279	244	--	4.35	86	34	23	42	30	265
7.25	57	48	23	130	259	224	--	4.85	81	32	21	47	28	245
6.25	52	45	21	115	239	204	--	5.35	76	30	19	52	26	225
5.25	47	42	19	100	219	184	99	5.85	71	28	17	57	24	205
4.25	42	39	17	85	199	164	94	6.35	66	26	15	62	22	185
3.25	37	36	15	70	179	144	89	6.85	61	24	13	67	20	165
2.25	32	33	13	55	159	124	84	7.35	56	22	11	72	18	145
1.25	27	30	11	40	139	104	79	7.85	51	20	9	77	16	125
0.25	22	27	9	25	119	84	74	8.35	46	18	7	82	14	105
-0.75	17	24	--	10	99	64	69	8.85	41	16	--	87	12	85
-1.75	--	21	--	--	79	44	64	9.35	36	14	--	92	10	65
-2.75	--	18	--	--	59	24	59	9.85	31	12	--	97	8	45

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

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UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

HENRY COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty-five Farms

for

1925

Urbana, Illinois

April 6, 1926

ANNUAL FARM BUSINESS REPORT

HENRY COUNTY, ILLINOIS - 1925

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

The 45 farmers in Henry County who kept financial records in the Illinois Farm Account Project for 1925 had an average of $1,575 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $238 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $3,131, while the third who were least successful had only $139. There was, therefore, a difference of about $3,000 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these 45 farmers earned 7.08% on their investments after allowing $600 to pay for their own labor. On the same basis the most successful third earned 10.48% and the least successful third 3.97%. The average investment on the 45 farms was $48,286, which amounts to $238 an acre. The higher profit third had an average investment of $244 and the lower profit third $237 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 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 about $725 a year on a group of Champaign County 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 Henry County. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1,000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

Size of farm had little influence on the relative earnings of the different groups since the high third and low third are within about 17 acres of the average which was 202.5 acres. Neither was there any significant difference in percent of land tillable. In acreage of the chief grain crops the different groups varied little, although the higher profit third had about ten acres more corn than the low third. The average farm had about 77 acres of corn, 33 acres of oats and 6 acres of wheat.

In crop yields Henry County ranked among the first counties of the state for 1925. Weather conditions were favorable

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

and these 45 farms averaged 65 bushels of corn, 58 bushels of oats and 20 bushels of wheat to the acre. The more successful group of farms out-yielded the less successful group by 25% in corn and oats and 70% in wheat. What this means in the way of costs and profits should be clearly realized. Cost accounts in Knox and Warren Counties have shown an average cost of $27 to $30 to grow an acre of corn including taxes and interest. At this winter's prevailing farm prices this requires a yield of about 50 bushels of corn to pay expenses. Even with the unusually good yields produced in Henry County during 1925 this leaves the less successful third of these farmers with only about 7 bushels of corn per acre as a margin of profit. The most successful third, however, had about 20 bushels of corn as profit on operating an acre of corn land.

The higher profit third of these farm operators received about 21% more income per $100. invested in productive livestock than did the lower profit third. Examination of the income figures shows that this advantage was chiefly due to larger income from hogs and cattle. The production of hogs and cattle are relatively large enterprises on Henry County farms. The less successful group had a larger percentage of income from livestock. This was due more to low crop sales than to a large investment in livestock. In fact, the higher profit third had about 8% of their average farm capital in livestock while the lower third had only about 7%. The higher profit third had 56% larger income from livestock but they had nearly three times as large crop sales.

In labor and power efficiency the groups did not differ widely. The more successful third had a little higher man labor cost, but they handled slightly more crop acres per man and per horse than the less successful third.

In the portion of income spent as operating expenses the more profitable farms had a big advantage. With 73% more gross income and only 6% more expenses, their net income was nearly three times as great as that of the less successful group. This is a striking illustration of the necessity of having a margin of income above expenses. It is the net receipts which pay interest and profits.

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.

HENRY COUNTY

Factors helping to analyze the farm business	Your farm	Average of 45 farms	15 most profitable farms	15 least profitable farms
Rate Earned	%	7.08%	10.48%	3.97%
Labor & Management Wage	$	$1575	$3131	$139
Size of Farm - Acres	A	202.5 A	191.4 A	185.7 A
Percent of Land Area Tillable	%	84.7%	88.1%	89.8%
Acres in Corn	A	76.9 A	80.0 A	70.3 A
Oats	A	33.4 A	34.4 A	34.6 A
Wheat	A	6.4 A	6.9 A	1.7 A
Crop Yields - Corn	bu.	65.0 bu.	69.9 bu.	56.9 bu.
Oats	bu.	58.0 bu.	62.3 bu.	50.4 bu.
Wheat	bu.	20.4 bu.	24.6 bu.	14.3 bu.
Returns per $100. invested in all productive livestock	$	$ 142.00	$ 165.00	$136.00
For $100 in - Cattle	$	$ 90.00	$ 116.00	$ 62.00
Swine	$	$ 198.00	$ 212.00	$205.00
Poultry	$	$ 174.00	$ 180.00	$195.00
Percent of gross income from livestock	%	85.4%	79.6%	90.9%
Man Labor Cost per Acre	$	$ 6.60	$ 6.98	$ 6.62
Crop Acres per Man	A	80.3 A	82.7 A	78.9 A
Crop Acres per Horse without tractor	A	18.7 A	20.5 A	18.5 A
Crop Acres per Horse with tractor	A	23.9 A	26.6 A	24.4 A
Expense per $100 gross income	$	$ 44.00	$ 36.00	$ 59.00
Machinery Cost per Acre	$	$ 2.43	$ 2.59	$ 2.29
Building and Fencing Cost per Acre	$	$ 1.12	$ 1.24	$ 1.14
Gross Receipts per Acre	$	$ 30.39	$ 39.93	$ 23.00
Total Expenses per Acre	$	$ 13.52	$ 14.33	$ 13.58
Net Receipts per Acre	$	$ 16.87	$ 25.60	$ 9.42
Farms with tractor - percent	%	66.6%	66.6%	66.6%
Value of land per Acre	$	$ 172.00	$ 173.00	$176.00
Total Investment per Acre	$	$ 238.00	$ 244.00	$237.00

HENRY COUNTY
1925

	Your farm	Average of 45 farms	15 most profitable farms	15 least profitable farms
1. Capital Investment - Total	$_____	$48286	$46753	$44014
2. Land		34831	33186	32682
3. Farm Improvements		4758	5195	3839
4. Machinery and Equipment		1554	1420	1344
5. Feed and Supplies		3186	3045	2986
6. Livestock		3957	3907	3163
7. Horses		531	455	464
8. Cattle		1653	1598	1263
9. Swine		1542	1656	1179
10. Sheep		70	17	106
11. Poultry		161	181	151
12. Receipts - Net Increases - Total	$_____	6154	7643	4272
13. Feed and Grain		787	1368	349
14. Miscellaneous		114	188	41
15. Livestock - Total		5253	6087	3882
16. Horses		----	----	----
17. Cattle		1265	1645	414
18. Swine		3260	3745	2647
19. Sheep		64	16	121
20. Poultry		140	156	149
21. Egg Sales		151	186	153
22. Dairy Sales		373	339	398
23. Expenses - Net Decreases - Total	_____	1938	1955	1682
24. Farm Improvements		227	238	211
25. Livestock		27	23	34
26. Horses		27	23	34
27. Cattle		----	----	----
28. Swine		----	----	----
29. Sheep		----	----	----
30. Poultry		----	----	----
31. Machinery and Equipment		492	496	426
32. Feed and Supplies		---	---	---
33. Livestock Expense other than feed		50	44	56
34. Crop Expenses		222	237	203
35. Labor hired		536	548	389
36. Taxes, Insurance, etc.		356	345	332
37. Miscellaneous		28	24	31
38. Receipts less Expenses	_____	4216	5688	2590
39. Operator's & Unpaid Family labor		800	788	841
40. Net Income from Investment		3416	4900	1749

Find Your Farm Leaks - (Henry County - 1925)

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 acres of			Returns per $100 invested in			Percent income from L.S.	Man Lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No Tractor			
14.08	93	86	34	160	338	314	---	3.10	115	38	26	9	51	342
13.08	89	82	32	150	318	294	---	3.60	110	36	25	14	48	322
12.08	85	78	30	140	298	274	---	4.10	105	34	24	19	45	302
11.08	81	74	28	130	278	254	---	4.60	100	32	23	24	42	282
10.08	77	70	26	120	258	234	100	5.10	95	30	22	29	39	262
9.08	73	66	24	110	238	214	95	5.60	90	28	21	34	36	242
8.08	69	62	22	100	218	194	90	6.10	85	26	20	39	33	222
7.08	65	58	20	90	198	174	85	6.60	80	24	19	44	30	202
6.08	61	54	18	80	178	154	80	7.10	75	22	18	49	27	182
5.08	57	50	16	70	158	134	75	7.60	70	20	17	54	24	162
4.08	53	46	14	60	138	114	70	8.10	65	18	16	59	21	142
3.08	49	42	12	50	118	94	65	8.60	60	16	15	64	18	122
2.08	45	38	10	40	98	74	60	9.10	55	14	14	69	15	102
1.08	41	34	8	30	78	54	55	9.60	50	12	13	74	12	82
0.08	37	30	6	20	58	34	50	10.10	45	10	12	79	9	62
-1.08	33	26	4	10	38	14	45	10.60	40	8	11	84	6	42

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100. worth of feed fed, and for each $100. invested in livestock.

Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

STARK AND PEORIA COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

May 10, 1926

ANNUAL FARM BUSINESS REPORT

STARK AND PEORIA COUNTIES, ILLINOIS - 1925

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

The 30 farmers in this area who kept financial records in the Illinois Farm Account Project for 1925 had an average of $1008 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $250 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $2201 while the third who were least successful lacked an average of $186 each of having sufficient income to pay 5% interest on their capital, allowing nothing for labor and management. There was, therefore, an average difference of about $2387 each in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way, these 30 farmers earned 6% on their investments after allowing $600 each to pay for their own labor. On the same basis the most successful third earned 8.9% and the least successful third 3.57%. The average investment on the 30 farms was $46,767, which amounts to $250 an acre. The higher profit third had an average investment of $256 and the lower profit third $255 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 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 about $725 a year on a group of Champaign County 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 area. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

Size of farm had little influence on the relative earnings of the different groups since each group averaged within 15 acres of the general average which was 187 acres per farm. There was no significant difference between groups in percent of land tillable nor in relative acreage of the chief grain crops. The average farm had about two-thirds of its area in corn and oats and only a small acreage of wheat.

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*E. E. Brown, Wilfred Shaw, farm advisers in Stark and Peoria Counties respectively, cooperated in supervising and collecting the records used in this report.

Unlike most areas summarized, the higher profit group in this area had practically no better yields of the chief grain crops than the low profit group. There was an exception in the case of wheat, but since the average farm had only five acres of wheat this could not have much effect on average net incomes. All groups had better yields than the average for these Counties through a period of years.

The biggest advantage of the high profit group was in a greater livestock efficiency. Since all groups secured around 80% of their income from livestock this was a big advantage. The 10 most successful farmers secured 56% more income for each $100 invested in productive livestock than the 10 least successful ones. Much the largest single source of livestock income was the hog enterprise and the 10 most successful farmers secured nearly 25% more income per $100. invested in hogs than the low profit group. In the case of cattle, both groups had about the same investment but the higher profit group secured twice as much income. In spite of the fact that there was little difference between groups in acres or yields of the chief grain crops, the higher profit group of farmers satisfied their feed requirements, had about a half more livestock income, and still secured nearly twice as much income from crops as the least successful group. This indicates a high degree of efficiency in producing livestock and in marketing.

The 10 most successful farmers spent slightly more for man labor but the tractor farmers constituting 80% of this group handled more crop acres per horse than the tractor farmers in the low profit group. The latter group had slightly more expense for machinery and for buildings in spite of the fact that a smaller percentage of them had tractors. Taking all expenses together, the low profit group of farmers spent only 34 cents an acre more than the higher profit group but they had a gross income $13.32 an acre less than the latter group. This made a big difference in the proportion of income used to pay expenses. The 10 most successful farmers spent only $36 out of each $100 income in running the business while the 10 least successful farmers spent $59. It is the net receipts which pay interest and profits.

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.

Stark and Peoria Counties - 1925

Factors helping to analyze the farm business	Your #27 farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Rate earned	3.1 %	6.06%	8.89%	3.57%
Labor and management wage	$-893	$1 008.	$2 201.	$- 186.
Size of farm - Acres	329 A	187.1 A	172.8 A	199.7 A
Percent of land area tillable	%	88.5%	87.7%	86.9%
Acres in Corn	A	78.4 A	72.1 A	76.7 A
Oats	A	42.2 A	43.8 A	44.7 A
Wheat	A	5.0 A	7.3 A	4.2 A
Crop yields - Corn	52 bu.	61.4bu.	60.3bu.	61.1bu.
Oats	62 bu.	54.4bu.	56.2bu.	55.8bu.
Wheat	bu.	25.7bu.	26.0bu.	15.0bu.
Returns per $100 invested in all productive livestock	$ 91	$ 123.00	$ 181.00	$ 116.00
For $100 in Cattle	$ 41	$ 85.00	$ 147.00	$ 55.00
Swine	$ 189	$ 182.00	$ 195.00	$ 158.00
Poultry	$ 165	$ 162.00	$ 163.00	$ 151.00
Percent of gross income from livestock	%	76.5%	78.7%	81.8%
Man labor cost per acre	$ 4.91	$ 6.09	$ 6.16	$ 6.00
Crop acres per man	89 A	87.8 A	86.2 A	91.0 A
Crop acres per horse (with tractor) →	33 A	22.2 A	24.2 A	20.0 A
(without tractor)	A	19.1 A	19.1 A	24.2 A
Expense per $100 gross income	$63	$ 46.00	$ 36.00	$ 59.00
Machinery cost per acre	$ 3.06	$ 2.40	$ 2.05	$ 2.77
Building & fencing cost per A	$ 1.74	$ 1.07	$ 1.03	$ 1.07
Gross receipts per acre	$ 19.77	$ 27.94	$ 35.62	$ 22.30
Total expenses per acre	$ 12.40	$ 12.80	$ 12.87	$ 13.21
Net receipts per acre	$ 7.37	$ 15.14	$ 22.75	$ 9.09
Farms with tractor	%	60.0%	80.0%	70.0%
Value of land per acre	$	$ 189.00	$ 192.00	$ 192.00
Total investment per acre	$	$ 250.00	$ 256.00	$ 255.00

Stark and Peoria Counties - 1925

	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment - Total	$_____	$46767	$44223	$50828
2. Land		35417	33115	38426
3. Farm improvements		3930	4040	4061
4. Machinery and equipment		1411	1110	1899
5. Feed and supplies		3037	3109	3134
6. Livestock		2972	2849	3308
7. Horses		556	537	585
8. Cattle		805	498	997
9. Swine		1386	1522	1472
10. Sheep		79	135	103
11. Poultry		146	157	151
12. Receipts-Net Increases-Total	_____	5228	6155	4453
13. Feed and grain		1122	1271	649
14. Miscellaneous		107	38	163
15. Livestock - Total		3999	4846	3641
16. Horses		1	--	--
17. Cattle		541	767	376
18. Swine		2819	3325	2636
19. Sheep		163	245	225
20. Poultry		107	105	104
21. Egg sales		122	145	102
22. Dairy sales		246	259	198
23. Expenses-Net Decreases-Total	_____	1702	1496	1917
24. Farm improvements		201	178	214
25. Livestock		--	16	3
26. Horses		--	16	3
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		449	355	553
32. Feed and supplies		--	--	--
33. Livestock expense other than feed		65	84	62
34. Crop expense		174	203	173
35. Labor hired		447	338	477
36. Taxes, Insurance, etc.		343	301	409
37. Miscellaneous		23	21	26
38. Receipts less Expenses	_____	3526	4659	2536
39. Operator's and unpaid family labor		693	727	721
40. Net income from investment		2833	3932	1815

Find Your Farm Leaks - (Stark and Peoria Counties - 1925)

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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Trac-tor	No Tractor			
13.00	89	75	39	155	322	302	98	2.50	123	36	33	11	49	327
12.00	85	72	37	145	302	282	95	3.00	118	34	31	16	46	307
11.00	81	69	35	135	282	262	92	3.50	113	32	29	21	43	287
10.00	77	66	33	125	262	242	89	4.00	108	30	27	26	40	267
9.00	73	63	31	115	242	222	86	4.50	103	28	25	31	37	247
8.00	69	60	29	105	222	202	83	5.00	98	26	23	36	34	227
7.00	65	57	27	95	202	182	80	5.50	93	24	21	41	31	207
6.00	61	54	25	85	182	162	77	6.00	88	22	19	46	28	187
5.00	57	51	23	75	162	142	74	6.50	83	20	17	51	25	167
4.00	53	48	21	65	142	122	71	7.00	78	18	15	56	22	147
3.00	49	45	19	55	122	102	68	7.50	73	16	13	61	19	127
2.00	45	42	17	45	102	82	65	8.00	68	14	11	66	16	107
1.00	41	39	15	35	82	62	62	8.50	63	12	9	71	13	87
0.00	37	36	13	25	62	42	59	9.00	58	10	7	76	10	67
-1.00	33	33	11	15	42	22	56	9.50	53	8	5	81	--	47
-2.00	29	30	9	5	22	2	53	10.00	48	6	--	86	--	27

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

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Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.88 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 18 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

LASALLE COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-two Farms

for

1925

Urbana, Illinois

April 30, 1926

ANNUAL FARM BUSINESS REPORT

LASALLE COUNTY, ILLINOIS - 1925

Prepared by H. C. M. Case, R. R. Hudelson, R. C. Ross*

The 32 farmers in LaSalle County who kept financial records for 1925 in the Illinois Farm Account Project lacked an average of $87. each of having enough income to pay all expenses and return 5% interest on an investment of $279. an acre, allowing nothing for labor, risk and management. The one-third of these farmers who made the best incomes had an average of $564. left to pay for labor, risk and management after paying expenses and allowing 5% on the investment. This $564. is their labor and management wage. The third making the least profits lacked an average of $1941. of earning enough to pay expenses and 5% on the investment, allowing nothing for labor and management. From this it is evident that there was a difference in income for labor and management between the high and low thirds amounting to $2505. per farm.

Expressed in another way, these 32 farmers earned 2.7% on their capital after allowing $720. each to pay for the operator's labor. On the same basis the 11 most successful farmers earned 4.81% on their capital and the 11 least successful farmers earned 0.35 of one percent. The average investment on the 32 farms was $67,466. per farm which is equivalent to $279. an acre. The higher profit third had an average investment of $269. and the lower third an investment of $293. per acre. The investment per acre includes the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4.

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 about $725. on a group of Champaign County 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 LaSalle County. A field survey of the earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000. greater net incomes per farm for 1925 than farmers in the same locality keeping no financial records.

In LaSalle County, unlike most of the areas for which account summaries are made, there was a large difference in acreage between the high and low profit groups. The farms in the high profit group averaged 278 acres while the low profit group averaged 192 acres, a difference of 86 acres. Both groups were large enough, on the average, for efficient organization, but the average of the lower profit

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

group was held down by one 40 acre farm and two 120 acre farms. There was no significant difference between groups in the percent of land tillable. There also was no important difference in the proportion of land in the chief grain crops. All groups had about 64% of the total farm acreage in corn and oats and had only a small percentage in wheat.

In crop yields there was no significant difference between groups. The 11 most successful farms averaged two bushels more corn but 5 bushels less oats and 4 bushels less wheat per acre than the 11 least successful farms. Since the corn acreage was largest, this gives little advantage to either group. The average farm produced about 52 bushels of corn, 47 bushels of oats and 26 bushels of wheat per acre.

The chief advantage of the 11 most successful farmers was a greater efficiency in producing and marketing all classes of livestock. They secured an average of 56% more income for every $100. invested in productive livestock than was secured by the 11 least successful farmers. Their advantage was greatest in the cattle enterprise but they were distinctly more efficient with hogs andpoultry as well. All groups derived over 60% of their income from livestock and a 56% advantage in livestock efficiency, therefore,had considerable effect on the net earnings of the farm.

The man labor cost per acre was 75 cents greater on the low profit group of farms and they handled nearly 12 less crop acres per man. They also handled less crop acres per horse. The smaller size of farm was a factor in this reduced efficiency of man and horse labor. Undoubtedly the average was reduced materially by one 40 acre farm. Forty acres is entirely too small a unit over which to spread the minimum cost of man and horse labor as well as the minimum investment in buildings and equipment.

The 11 most successful farms had a very large advantage in the proportion of income spent in running the business. With 65% more gross income and 15% less expenses per acre than the 11 least successful farms, they had a net income per acre over twelve times that of the latter group. It is the net receipts which pay interest and profits. Expressed in another way the higher profit group spent $49. out of every $100. income in running the business while the lower profit group spent $93.

Since a similar farm business report was published for LaSalle County on the 1924 records and at least three-fourths of the records for 1925 represent the same farms, a comparison of 1924 and 1925 earnings is of interest. Thirty-two farm records for 1925 show that the operators of these farms lacked an average of $87. of having any labor and management wage while in 1924, 34 records showed a labor and management wage of $2106. There was therefore a reduction of $2193. in the average labor and management wage in 1925 as compared with 1924. Expressed as rate earned on capital, the 1924 report shows an average rate of 7.22% and in 1925 this dropped to 2.7%. A study of the income and expense figures show that the average expense

per acre was increased by 37 cents but the gross income per acre was reduced by $11.86 an acre in 1925. This was in spite of the fact that crop yields were somewhat better in 1925 and income from all classes of livestock was increased. The reduction in incomes was therefore clearly chargeable to reduced prices of grain, particularly corn and oats, which constitute the chief crops on these 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 profits and the group making the least profits.

LaSalle County - 1925

Factors helping to analyze the farm business	Your farm	Average of 32 farms	11 most profitable farms	11 least profitable farms
Rate earned	%	2.70%	4.81%	0.35%
Labor and management wage	$	$-87.	$ 564.	$-1941.
Size of farm - Acres	A	241.8A	278.6A	192.7A
Percent of land area tillable	%	92.1%	92.6%	90.9%
Acres in Corn	A	91.4A	102.0A	78.6A
Oats	A	64.9A	76.2A	47.6A
Wheat	A	10.0A	13.0A	4.3A
Crop yields - Corn	bu.	51.6bu.	52.9bu.	50.9bu.
Oats	bu.	47.2bu.	41.9bu.	47.6bu.
Wheat	bu.	25.9bu.	26.0bu.	30.0bu.
Returns per $100 invested in all productive livestock	$	$125.00	$ 155.00	$ 99.00
For $100 in Cattle	$	$ 98.00	$ 132.00	$ 76.00
Swine	$	$183.00	$ 205.00	$ 160.00
Poultry	$	$162.00	$ 171.00	$ 157.00
Percent of gross income from livestock	%	61.1%	63.1%	68.3%
Man labor cost per acre	$	$ 5.76	$ 5.66	$ 6.41
Crop acres per man	A	94.0A	96.3A	84.6A
Crop acres per horse (with tractor)	A	26.8A	27.7A	26.6A
(without tractor)	A	21.1A	23.8A	19.2A
Expense per $100 gross income	$	$ 64.00	$ 49.00	$ 93.00
Machinery cost per acre	$	$ 2.53	$ 2.33	$ 2.45
Building & fencing cost per A.	$	$ 1.22	$ 1.24	$ 1.37
Gross receipts per acre	$	$ 20.81	$ 25.27	$ 15.31
Total expenses per acre	$	$ 13.28	$ 12.36	$ 14.28
Net receipts per acre	$	$ 7.53	$ 12.91	$ 1.03
Farms with tractor	%	68.7%	63.6%	54.5%
Value of land per acre	$	$216.00	$ 213.00	$ 221.00
Total investment per acre	$	$279.00	$ 269.00	$ 293.00

LaSalle County - 1925

		Your farm	Average of 32 farms	11 most profitable farms	11 least profitable farms
1.	Capital Investment - Total	$___	$67 466	$74 813	$56 522
2.	Land		52 182	59 335	42 664
3.	Farm improvements		5 167	5 094	4 863
4.	Machinery and equipment		2 112	2 433	1 717
5.	Feed and supplies		4 701	4 573	4 245
6.	Livestock		3 304	3 378	3 033
7.	Horses		859	832	901
8.	Cattle		1 345	1 466	1 169
9.	Swine		728	819	537
10.	Sheep		229	109	302
11.	Poultry		143	152	123
12.	Receipts-Net Increases-Total	___	5 031	7 041	2 951
13.	Feed and grain		1 891	2 493	882
14.	Miscellaneous		65	103	53
15.	Livestock - Total		3 075	4 445	2 016
16.	Horses		---	---	---
17.	Cattle		617	795	453
18.	Swine		1 211	1 590	765
19.	Sheep		275	240	260
20.	Poultry		121	153	121
21.	Egg sales		108	120	80
22.	Dairy sales		743	1 547	337
23.	Expenses-Net Decreases-Total	___	2 392	2 618	1 941
24.	Farm improvements		294	345	264
25.	Livestock		47	14	104
26.	Horses		47	14	104
27.	Cattle		--	--	--
28.	Swine		--	--	--
29.	Sheep		--	--	--
30.	Poultry		--	--	--
31.	Machinery and equipment		612	648	473
32.	Feed and supplies		--	--	--
33.	Livestock expense other than feed		54	51	42
34.	Crop expense		241	268	202
35.	Labor hired		573	751	424
36.	Taxes, insurance, etc.		509	455	390
37.	Miscellaneous		62	86	42
38.	Receipts less Expenses	___	2 639	4 423	1 010
39.	Operator's and unpaid family labor		819	827	812
40.	Net income from investment		1 820	3 596	198

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The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

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6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

KENDALL AND GRUNDY COUNTIES

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-one Farms

for

1925

Urbana, Illinois

May 25, 1926

ANNUAL FARM BUSINESS REPORT

KENDALL AND GRUNDY COUNTIES, ILLINOIS - 1925

Prepared by H. C. M. Case, R. R. Hudelson, R. C. Ross*

The 21 farmers in Kendall and Grundy Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $569 to pay for their labor, risk and management after paying expenses and allowing 5% 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 a labor and management wage of $1,468, while the third who were least successful lacked $73 of having enough income to pay 5% on their investment, allowing nothing for their labor and management.

There was, therefore, a difference of about $1,541 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way, these 21 farmers earned 4.74% on their investments after allowing $720 to pay for their own labor. On the same basis the most successful third earned 7.61% and the least successful third 3.35%. The average investment on the 21 farms was $39,919, which amounts to $223 an acre. The higher profit third had an average investment of $228 and the lower profit third $208 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 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 about $725 a year on a group of Champaign County farms where this phase of the farm business was given special study.

The income figures given in this report should not be considered so representative of all farms in these Counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1,000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

There were not as many records available in the two counties as are desired for a report of this kind. However, since the results from these records are similar to those secured for other areas in the same part of the state it is believed that the report is representative of conditions in this part of the state.

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*Earl Price and F. E. Longmire, farm advisers in Kendall and Grundy Counties respectively, cooperated in supervising and collecting the records used in this report.

The average farm covered by this report contained 178.7 acres. The more successful group averaged 151 acres and the less successful group 219 acres. Judging by the returns from twenty-four other accounting areas where more accounts were available it seems doubtful whether this difference in average size had any significant effect on the relative net earnings. In most of the other accounting areas there was little difference in size between the more successful and the less successful groups. In the Kendall and Grundy County area it should be noted that the more successful group of farms averaging about 70 acres less in size had nearly twice as much income from livestock and 1925 prices were decidedly favorable to livestock farms as compared with grain farms. There is a tendency for larger farms to have less livestock per acre.

The more profitable group of farms covered by this report show consistently larger yields than the less profitable farms although the difference was not large in the case of corn and oats. The more profitable farms had more wheat and it averaged considerably better in yield than on the less profitable farms.

The largest advantage of the seven most profitable farms covered by this report was in their having more livestock and in handling it more efficiently than the seven least profitable farms. They had a 30% larger investment in livestock and they secured 40% more income per $100 invested. This with livestock prices relatively better than grain prices accounts for most of the difference between these two groups of farms. While the low profit group secured 49% of their incomes from livestock the higher profit group secured 91.5% from this source.

In man labor cost per acre the low profit group had less expense than the high profit group, but this is accounted for by their having less livestock and more acres over which to spread the available labor. Farms under 160 acres in size usually show a larger cost per acre for man labor. There was no consistent difference between groups in crop acres per horse although the larger farms with less livestock would be expected to cover more acres per horse.

Because of their larger gross incomes the more successful group of these farm operators spent only $48 out of each $100 income in operating the business, while the less successful group spent $63 out of each $100 income. The more successful group had somewhat larger relative costs for machinery and equipment which apparently is due chiefly to their smaller farms and more livestock. Both groups had the same percentage of tractors.

The seven most profitable farms had 71% more gross income and only 32% more expense per acre. This resulted in first group having more than twice as large net receipts per acre. It is the net receipts which pay interest and profits.

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.

Kendall and Grundy Counties, 1925

Factors helping to analyze the farm business	Your farm	Average of 21 farms	7 most profitable farms	7 least profitable farms
Rate earned	%	4.74%	7.61%	3.35%
Labor and management wage	$	$569.	$1 468.	-$ 73.
Size of farm - Acres	A	178.7 A	150.9 A	219.1 A
Percent of land area tillable	%	88.6%	92.7%	86.8%
Acres in Corn	A	67.0 A	56.3 A	79.7 A
Oats	A	40.6 A	27.7 A	47.7 A
Wheat	A	7.6 A	12.7 A	4.7 A
Crop yields - Corn	bu.	47.7 bu.	48.2 bu	45.6 bu.
Oats	bu.	51.4 bu.	52.3 bu	48.3 bu.
Wheat	bu.	24.8 bu.	28.1 bu	19.5 bu.
Returns per $100 invested in all productive livestock	$	$139.00	$ 154.00	$110.00
For $100 in Cattle	$	$ 94.00	$ 125.00	$ 72.00
Swine	$	$196.00	$ 186.00	$173.00
Poultry	$	$236.00	$ 289.00	$135.00
Percent of gross income from livestock	%	70.2%	91.5%	48.9%
Man labor cost per acre	$	$ 6.51	$ 7.49	$ 5.26
Crop acres per man	A	90.2 A	89.9 A	99.1 A
Crop acres per horse (with tractor)	A	26.6 A	31.6 A	24.5 A
(without tractor)	A	20.5 A	19.4 A	22.3 A
Expense per $100 gross income	$	$ 57.00	$ 48.00	$ 63.00
Machinery cost per acre	$	$ 1.99	$ 2.18	$ 1.69
Building & fencing cost per A	$	$ 1.98	$ 1.45	$ 1.73
Gross receipts per acre	$	$ 24.78	$ 32.14	$ 18.76
Total expenses per acre	$	$ 14.20	$ 15.56	$ 11.79
Net receipts per acre	$	$ 10.58	$ 16.58	$ 6.97
Farms with tractor	%	38.0%	43.0%	43.0%
Value of land per acre	$	$155.00	$ 160.00	$145.00
Total investment per acre	$	$223.00	$ 226.00	$208.00

Kendall and Grundy Counties - 1925

	Your farm	Average of 21 farms	7 most profitable farms	7 least profitable farms
1. Capital Investment - Total	$	$39919	$34160	$45654
2. Land		27709	24198	31701
3. Farm improvements		5170	3458	6666
4. Machinery and equipment		1520	1222	1734
5. Feed and supplies		2716	2022	3052
6. Livestock		2804	3260	2501
7. Horses		599	451	754
8. Cattle		1165	1594	881
9. Swine		771	998	503
10. Sheep		130	78	257
11. Poultry		139	139	106
12. Receipts-Net Increases-Total		4429	4850	4111
13. Feed and grain		1234	338	2045
14. Miscellaneous		85	76	56
15. Livestock - Total		3110	4436	2010
16. Horses		---	---	15
17. Cattle		763	1526	268
18. Swine		1557	1940	1076
19. Sheep		113	69	162
20. Poultry		234	291	80
21. Egg sales		118	147	65
22. Dairy sales		325	463	344
23. Expenses-Net Decreases-Total		1712	1538	1812
24. Farm improvements		354	219	379
25. Livestock		20	37	--
26. Horses		20	37	--
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		356	329	370
32. Feed and supplies		--	--	--
33. Livestock expense other than feed		46	64	--
34. Crop expense		224	233	247
35. Labor hired		338	320	382
36. Taxes, Insurance, etc.		344	306	408
37. Miscellaneous		30	30	26
38. Receipts less Expenses		2717	3312	2299
39. Operator's and unpaid family labor		826	810	771
40. Net income from investment		1891	2502	1528

Find Your Farm Leaks - (Kendall and Grundy Counties - 1925)

The numbers between the lines at 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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm, acres
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Horse				
										No tractor	With tractor			
11.74	69	72	39	234	336	376	--	3.00	125	34	40	22	60	320
10.74	66	69	37	214	316	356	--	3.50	120	32	38	27	55	300
9.74	63	66	35	194	296	336	--	4.00	115	30	36	32	50	280
8.74	60	63	33	174	276	316	--	4.50	110	28	34	37	45	260
7.74	57	60	31	154	256	296	100	5.00	105	26	32	42	40	240
6.74	54	57	29	134	236	276	90	5.50	100	24	30	47	35	220
5.74	51	54	27	114	216	256	80	6.00	95	22	28	52	30	200
4.74	48	51	25	94	196	236	70	6.50	90	20	26	57	25	180
3.74	45	48	23	74	176	216	60	7.00	85	18	24	62	20	160
2.74	42	45	21	54	156	196	50	7.50	80	16	22	67	15	140
1.74	39	42	19	34	136	176	40	8.00	75	14	20	72	10	120
0.74	36	39	17	14	116	156	30	8.50	70	12	18	77	5	100
-0.26	33	36	15	--	96	136	20	9.00	65	10	16	82	0	80
-1.26	30	33	13	--	76	116	10	9.50	60	8	14	87	--	60
-2.26	27	30	11	--	56	96	--	10.00	55	--	12	92	--	40
-3.36	24	27	9	--	36	76	--	10.50	50	--	10	97	--	20

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100. worth of feed fed, and for each $100. invested in livestock.

Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

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It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

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Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

WILL COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-three Farms

for

1925

Urbana, Illinois

April 28, 1926

ANNUAL FARM BUSINESS REPORT

WILL COUNTY, ILLINOIS - 1925

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

The 33 farmers in Will County who kept financial records in the Illinois Farm Account Project for 1925 had an average of $197. to pay for their labor risk and management after paying expenses and allowing 5% interest on their average investment of $230. an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $1195 each, while the third who were least successful lacked $488. of having enough earnings to pay 5% interest on their average investment, allowing nothing for their labor and management.

There was, therefore, a difference of about $1683. in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these 33 farmers earned 4.13% on their investments after allowing $600. each to pay for their own labor. On the same basis the most successful third earned 6.34% and the least successful third 1.54%. The average investment on the 33 farms was $42,647. which amounts to $230 an acre. The higher profit third had an average investment of $217. 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.

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 about $725. a year on a group of Champaign County 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 Will County. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1,000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

Unlike most of the areas for which farm business reports were made from 1925 accounts the Will County area shows a large difference in the average size of farm in the high and low profit groups. The farms in the high profit group averaged 229 acres while those of the low profit group averaged only 120 acres. The average of the entire 33 farms was 185 acres. There was little difference between groups in percentage of tillable land. The 11 most successful farms had

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

nearly twice as many acres of corn and five times as many acres of wheat as the 11 least successful farms. The average farm had 58 acres of corn, 33 acres of oats and 21 acres of wheat, making up a total of 112 acres of these three crops and leaving 73 acres for other purposes such as pasture, hay and miscellaneous crops.

In yields per acre the 11 most successful farms had a great advantage. They grew 25% more corn, 17% more oats and 55% more wheat per acre than the 11 least successful farms. Since operating costs do not ordinarily increase in proportion to yield these higher yields mean a lower cost per bushel of grain.

In returns per $100 invested in livestock the higher profit group of these farmers had only a slight advantage over the lower profit group. They were a little more successful with hogs and poultry but slightly less successful with cattle. Hogs and dairy cattle constitute the largest livestock enterprises on the farms of all groups included in this report.

The 11 most successful farms supplied their feeding requirements and had an income of $2594 from feed and grain besides, while the low profit group bought more feed and grain than they sold. This resulted in a much larger percentage of income from livestock on the farms of the latter group. Size of farm and crop yields had much to do with this. The smaller farms were proportionately more heavily stocked, which with their lower average yields, gave them no surplus of feed and grain.

The man labor cost per acre was 27% smaller on the 11 most profitable farms than on the 11 least profitable farms. This is accounted for by the smaller proportion of investment in livestock, by the larger size of farms and probably by more efficient management on the farms of higher profit group. The same group also had a smaller cost per acre for machinery and equipment and for buildings as well as for horse labor. Taken altogether the more successful group of these farms had $4.31 less operating expense per acre than the less successful group. This combined with almost 25% greater gross income gave them a net income about three times that of the low profit group. It is the net income which pays interest and profits.

From the data presented it is evident that the 11 least profitable farms averaging little more than half the acreage of the 11 most profitable farms were handicapped by small size in man labor cost per acre, in crop acres worked per man, in crop acres worked per horse, in machinery and equipment cost per acre and in building and fencing cost per acre. They had fewer acres over which to spread these items of cost and could not reduce their labor and power supply or their buildings and equipment requirement below a certain minimum. These facts, however, only account for about half the advantage of the high profit over the low profit group. The smaller farms had fully as good an opportunity to grow good yields and apparently a

better opportunity to handle livestock efficiently, yet they lacked about $5.50 an acre of securing as large a gross income as the high profit group which averaged nearly twice as large in size.

Since the Will County "Farm Business Report" for 1924 and 1925 consisted of practically the same number of farms and three-fourths of them are the same identical farms, a comparison of earnings for the two years should give a good idea as to the relative opportunities in farming during these two years in Will County. In 1924, 34 Will County farmers keeping accounts earned 6.26% on an average investment in land, buildings, livestock, equipment and crops of $227. an acre. The land was valued at an average of $167. an acre. In 1925, 33 Will County farmers earned 4.13% on a corresponding investment of $230 an acre, the land alone being valued at an average of $165 an acre. Considering crop yields for the two years, we find the 1925 corn yield 40% higher, oats 13% lower and wheat 25% lower than in 1924. Since corn constitutes about half the grain acreage the smaller returns for 1925 cannot be traced to yields. A comparison of income figures from different sources shows that the various livestock enterprises each contributed close to the same amount of income both years. There was a reduction by about half in the feed and grain income for 1925, as compared with 1924. This with the larger average grain yield traces the reduced income rather definitely to lower prices for feed and grain.

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.

Will County - 1925

Factors helping to analyze the farm business	Your farm	Average of 33 farms	11 most profitable farms	11 least profitable farms
Rate earned	%	4.13%	6.34%	1.54%
Labor and management wage	$	$197.	$1195.	$-488.
Size of farm - Acres	A	185.6A	229.3A	119.8A
Percent of land area tillable	%	88.4%	86.9%	88.6%
Acres in Corn	A	58.4A	70.0A	36.5A
Oats	A	33.1A	29.5A	29.1A
Wheat	A	21.5A	39.4A	6.9A
Crop yields - Corn	bu.	44.5bu.	48.1bu.	38.8bu.
Oats	bu.	46.7bu.	51.4bu.	43.9bu.
Wheat	bu.	25.8bu.	28.3bu.	18.3bu.
Returns per $100 invested in all productive livestock	$	$125.00	$ 133.00	$ 129.00
For $100 in Cattle	$	$106.00	$ 121.00	$ 125.00
Swine	$	$164.00	$ 148.00	$ 134.00
Poultry	$	$181.00	$ 189.00	$ 157.00
Percent of gross income from livestock	%	69.4%	54.5%	95.0%
Man labor cost per acre	$	$ 6.26	$ 5.87	$ 8.10
Crop acres per man	A	92.1A	103.3A	73.1A
Crop acres per horse (with tractor)	A	31.2A	34.4A	22.6A
(without tractor)	A	19.4A	19.9A	18.8A
Expense per $100 gross income	$	$ 59.00	$ 47.00	$ 81.00
Machinery cost per acre	$	$ 2.80	$ 2.17	$ 3.04
Building & fencing cost per A.	$	$ 1.34	$ 1.03	$ 1.32
Gross receipts per acre	$	$ 22.89	$ 25.73	$ 20.18
Total expenses per acre	$	$ 13.40	$ 11.97	$ 16.28
Net receipts per acre	$	$ 9.49	$ 13.76	$ 3.90
Farms with tractor	%	64.0%	72.0%	36.0%
Value of land per acre	$	$165.00	$ 161.00	$ 178.00
Total investment per acre	$	$230.00	$ 217.00	$ 254.00

Will County - 1925

		Your farm	Average of 33 farms	11 most profitable farms	11 least profitable farms
1.	Capital Investment - Total	$____	$42 647	$49 774	$30 406
2.	Land		30 644	36 984	21 300
3.	Farm improvements		4 600	4 928	3 075
4.	Machinery and equipment		1 842	2 071	1 602
5.	Feed and supplies		2 717	2 849	2 228
6.	Livestock		2 844	2 942	2 201
7.	Horses		545	579	387
8.	Cattle		1 520	1 516	1 142
9.	Swine		610	713	457
10.	Sheep		22	9	53
11.	Poultry		147	125	162
12.	Receipts-Net Increases-Total	____	4 249	5 903	2 418
13.	Feed and grain		1 169	2 594	---
14.	Miscellaneous		131	91	122
15.	Livestock - Total		2 949	3 218	2 296
16.	Horses		2	---	---
17.	Cattle		536	312	402
18.	Swine		1 006	1 070	640
19.	Sheep		57	13	44
20.	Poultry		109	112	81
21.	Egg sales		162	135	177
22.	Dairy sales		1 077	1 576	952
23.	Expenses-Net Decreases-Total	____	1 691	2 015	1 188
24.	Farm improvements		249	236	158
25.	Livestock		---	18	34
26.	Horses		---	18	34
27.	Cattle		---	---	---
28.	Swine		---	---	---
29.	Sheep		---	---	---
30.	Poultry		---	---	---
31.	Machinery and equipment		519	497	364
32.	Feed and supplies		---	---	111
33.	Livestock expense other than feed		87	88	50
34.	Crop expense		152	159	107
35.	Labor hired		320	615	109
36.	Taxes, insurance, etc.		330	368	225
37.	Miscellaneous		34	34	30
38.	Receipts less Expenses	____	2 558	3 888	1 230
39.	Operator's and unpaid family labor		796	731	762
40.	Net income from investment		1 762	3 157	468

Find Your Farm Leaks - (Will County, Illinois - 1925)

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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No Tractor			
11.13	66	68	40	176	304	321	--	2.75	127	45	33	24	51	325
10.13	63	65	38	166	284	301	100	3.25	122	43	31	29	47	305
9.13	60	62	36	156	264	281	95	3.75	117	41	29	34	43	285
8.13	57	59	34	146	244	261	90	4.25	112	39	27	39	39	265
7.13	54	56	32	136	224	241	85	4.75	107	37	25	44	35	245
6.13	51	53	30	126	204	221	80	5.25	102	35	23	49	31	225
5.13	48	50	28	116	184	201	75	5.75	97	33	21	54	27	205
4.13	45	47	26	106	164	181	70	6.25	92	31	19	59	23	185
3.13	42	44	24	96	144	161	65	6.75	87	29	17	64	19	165
2.13	39	41	22	86	124	141	60	7.25	82	27	15	69	15	145
1.13	36	38	20	76	104	121	55	7.75	77	25	13	74	11	125
0.13	33	35	18	66	84	101	50	8.25	72	23	11	79	7	105
-0.87	30	32	16	56	64	81	45	8.75	67	21	9	84	3	85
-1.87	27	29	14	46	44	61	40	9.25	62	19	7	89	--	65
-2.87	24	26	12	36	24	41	35	9.75	57	17	--	94	--	45
-3.87	21	23	10	26	4	21	30	10.25	52	15	--	99	--	25

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100. worth of feed fed, and for each $100. invested in livestock.

Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

MARSHALL AND PUTNAM COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-seven Farms

for

1925

Urbana, Illinois

May 10, 1926

ANNUAL FARM BUSINESS REPORT

MARSHALL AND PUTNAM COUNTIES, ILLINOIS - 1925

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

The 27 farmers in Marshall and Putnam Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $163 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $273 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $1404, while the third who were least successful lacked $1315 of having sufficient income to pay operating expenses and 5% interest without allowing anything for labor and management.

There was, therefore, an average difference of about $2719 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these 27 farmers earned 4.33% on their investments after allowing $600 to pay for their own labor. On the same basis the most successful third earned 6.36% and the least successful third 2.15%. The average investment on the 27 farms was $62,085, which amounts to $273 an acre. The higher profit third had an average investment of $262 and the lower profit third $281 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 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 about $725 a year on a group of Champaign County 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 earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

Size of farm had little influence on relative earnings of the different groups since all groups shown in these tables averaged within 6 acres of the general average which was 227 acres per farm. Neither was there much difference in percent of land tillable. The 10 most profitable farms had more acres of wheat and less acres of corn and oats which, considering price relationships for 1925, was in their favor.

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* F. E. Fuller and Louis A. Boyle, farm advisers in Marshall-Putnam Counties, cooperated in supervising and collecting the records used in this report.

Unlike most areas for which account summaries have been made there was little difference in yields of the chief grain crops on farms of the high and low profit groups in Marshall-Putnam Counties for 1925. The low profit group did have slightly lower corn yields but larger wheat yields than the high profit group but since the lower profit group had only 3 acres of wheat on the average farm the wheat yield had little effect on earnings.

The 10 most successful farmers had some advantage over the 10 least successful ones in returns per $100 invested in productive livestock. Hog production was the chief livestock enterprise on the farms of each group and the higher profit group secured 12% more income per $100 invested in hogs.

There was not much difference between groups in the percent of income from livestock but the 10 most successful farmers with less acres of corn and oats and about the same yields took care of their feed requirements and still sold feed and grain to the average amount of $550 more per farm than the 10 least successful farmers. Most of this larger grain income was from wheat sales.

The biggest single advantage of the 10 most profitable farms over the 10 least profitable farms was in their lower expenses. The former group with more livestock to look after had less expense for labor. They also had less expense for machinery and equipment as well as for buildings and fences. Altogether, the less successful group had costs amounting to $14.86 an acre while those of the more successful group were one-fourth lower at $11.11 an acre. The more successful group with expenses one-fourth lower and income about one-third higher had net receipts two and one-half times those of the less successful group. It is the net receipts which pay interest and profits. It is a well-known fact that expenses should be held low in proportion to income and the 10 most successful farmers covered by this report spent $40.04 out of each $100 income in running the business, while the 10 least successful ones spent $71.08 out of each $100 income.

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.

Marshall and Putnam Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 27 farms	10 most profitable farms	10 least profitable farms
Rate earned	%	4.33%	6.36%	2.15%
Labor and management wage	$	$163.	$1 404.	$-1 315.
Size of farm - Acres	A	227.2 A	225.8 A	233.1 A
Percent of land area tillable	%	88.2%	89.8%	91.9%
Acres in Corn	A	87.8 A	82.5 A	105.5 A
Oats	A	50.3 A	46.8 A	62.0 A
Wheat	A	11.0 A	21.6 A	3.1 A
Crop yields - Corn	bu.	63.0bu.	63.4bu.	59.4bu.
Oats	bu.	48.2bu.	44.4bu.	45.5bu.
Wheat	bu.	25.5bu.	22.9bu.	28.2bu.
Returns per $100 invested in all productive livestock	$	$122.00	$ 136.00	$ 129.00
For $100 in Cattle	$	$ 43.00	$ 48.00	$ 31.00
Swine	$	$186.00	$ 174.00	$ 155.00
Poultry	$	$105.00	$ 131.00	$ 70.00
Percent of gross income from livestock	%	53.5%	49.9%	45.5%
Man labor cost per acre	$	$ 5.98	$ 5.22	$ 6.73
Crop acres per man	A	88.5 A	92.1 A	85.2 A
Crop acres per horse (with tractor)	A	27.2 A	23.2 A	28.2 A
(without tractor)	A	23.0 A	24.3 A	21.8 A
Expense per $100 gross income	$	$ 53.00	$ 40.04	$ 71.08
Machinery cost per acre	$	$ 2.46	$ 1.44	$ 3.14
Building & fencing cost per A.	$	$ 1.35	$ .74	$ 1.70
Gross receipts per acre	$	$ 25.15	$ 27.75	$ 20.91
Total expenses per acre	$	$ 13.33	$ 11.11	$ 14.86
Net receipts per acre	$	$ 11.82	$ 16.64	$ 6.05
Farms with tractor	%	55%	40%	70%
Value of land per acre	$	$209.00	$ 208.00	$ 212.00
Total investment per acre	$	$273.00	$ 262.00	$ 281.00

Marshall and Putnam Counties - 1925

	Your farm	Average of 27 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment - Total	$_____	$62 085	$59 075	$65 557
2. Land		47 510	47 025	49 343
3. Farm improvements		4 985	3 430	5 631
4. Machinery and equipment		1 729	1 476	2 064
5. Feed and supplies		4 433	4 046	5 641
6. Livestock		3 428	3 098	2 878
7. Horses		810	798	855
8. Cattle		1 223	695	792
9. Swine		1 164	1 212	1 060
10. Sheep		140	287	71
11. Poultry		91	106	100
12. Receipts-Net Increases-Total	_____	5 714	6 266	4 878
13. Feed and grain		2 559	3 060	2 511
14. Miscellaneous		95	80	147
15. Livestock - Total		3 060	3 126	2 220
16. Horses		---	---	---
17. Cattle		512	349	239
18. Swine		2 050	2 101	1 541
19. Sheep		104	173	55
20. Poultry		109	167	76
21. Egg sales		79	102	91
22. Dairy sales		206	234	218
23. Expenses-Net Decreases-Total	_____	2 259	1 745	2 727
24. Farm improvements		307	167	396
25. Livestock		---	---	---
26. Horses		25	20	35
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		560	326	732
32. Feed and supplies		--	--	--
33. Livestock expense other than feed		77	93	65
34. Crop expense		215	209	195
35. Labor hired		589	418	829
36. Taxes, Insurance, etc.		441	436	449
37. Miscellaneous		45	76	26
38. Receipts less Expenses	_____	3 455	4 521	2 151
39. Operator's and unpaid family labor		769	763	740
40. Net income from investment		2 686	3 758	1 411

Materials and Power Industries - 1961

1.	Cement Industries - Total	[illegible]	[illegible]	[illegible]
2.	Cement	[illegible]	[illegible]	[illegible]
3.	Lime Industries	[illegible]	[illegible]	[illegible]
4.	Tanneries and Industries	[illegible]	[illegible]	[illegible]
5.	Fuel and Minerals	[illegible]	[illegible]	[illegible]
6.	Lumbering	[illegible]	[illegible]	[illegible]
7.	Potash	[illegible]	[illegible]	[illegible]
8.	Cotton	[illegible]	[illegible]	[illegible]
9.	Sugar	[illegible]	[illegible]	[illegible]
10.	Beans	[illegible]	[illegible]	[illegible]
11.	Poultry	[illegible]	[illegible]	[illegible]
12.	Reserves for Increase-Total	[illegible]	[illegible]	[illegible]
13.	Food and Drink	[illegible]	[illegible]	[illegible]
14.	Necessities	[illegible]	[illegible]	[illegible]
15.	Liquidation - Total	[illegible]	[illegible]	[illegible]
16.	Leather	[illegible]	[illegible]	[illegible]
17.	Cotton	[illegible]	[illegible]	[illegible]
18.	Fats	[illegible]	[illegible]	[illegible]
19.	Wool	[illegible]	[illegible]	[illegible]
20.	Poultry	[illegible]	[illegible]	[illegible]
21.	Egg sales	[illegible]	[illegible]	[illegible]
22.	Milk sales	[illegible]	[illegible]	[illegible]
23.	Reserve-Non Liquidation-Total	[illegible]	[illegible]	[illegible]
24.	Food [illegible]	[illegible]	[illegible]	[illegible]
25.	Liquidation	[illegible]	[illegible]	[illegible]
26.	Leather	[illegible]	[illegible]	[illegible]
27.	Cotton	[illegible]	[illegible]	[illegible]
28.	Wool	[illegible]	[illegible]	[illegible]
29.	Sugar	[illegible]	[illegible]	[illegible]
30.	Poultry	[illegible]	[illegible]	[illegible]
31.	Equipment and consumer	[illegible]	[illegible]	[illegible]
32.	Fuel or Energy	[illegible]	[illegible]	[illegible]
33.	Miscellaneous expense (Labor Costs)	[illegible]	[illegible]	[illegible]
	Total	[illegible]	[illegible]	[illegible]
34.	Food expense	[illegible]	[illegible]	[illegible]
35.	Labor costs	[illegible]	[illegible]	[illegible]
36.	Taxes, insurance, etc.	[illegible]	[illegible]	[illegible]
37.	Miscellaneous	[illegible]	[illegible]	[illegible]
38.	Reserve for Bonuses	[illegible]	[illegible]	[illegible]
39.	Creditor's and Debtor Balances	[illegible]	[illegible]	[illegible]
	Loans	[illegible]	[illegible]	[illegible]
40.	Net income from operations	[illegible]	[illegible]	[illegible]

Find Your Farm Leaks - (Marshall-Putnam Counties - 1925)

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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No Tractor			
11.33	84	69	39	183	326	245	88	2.50	123	41	37	18	60	367
10.33	81	66	37	163	306	225	83	3.00	118	39	35	23	55	347
9.33	78	63	35	143	286	205	78	3.50	113	37	33	28	50	327
8.33	75	60	33	123	266	185	73	4.00	108	35	31	33	45	307
7.33	72	57	31	103	246	165	68	4.50	103	33	29	38	40	287
6.33	69	54	29	83	226	145	63	5.00	98	31	27	43	35	267
5.33	66	51	27	63	206	125	58	5.50	93	29	25	48	30	247
4.33	63	48	25	43	186	105	53	6.00	88	27	23	53	25	227
3.33	60	45	23	23	166	85	48	6.50	83	25	21	58	20	207
2.33	57	42	21	3	146	65	43	7.00	78	23	19	63	15	187
1.33	54	39	19	-17	126	45	38	7.50	73	21	17	68	10	167
0.33	51	36	17	-37	106	25	33	8.00	68	19	15	73	5	147
-0.67	48	33	15	-57	86	5	28	8.50	63	17	13	78	--	127
-1.67	45	30	13	-77	66	-15	23	9.00	58	15	11	83	--	107
-2.67	42	27	11	--	46	--	18	9.50	53	13	9	88	--	87
-3.67	39	24	9	--	26	--	13	10.00	48	11	7	93	--	67

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100. worth of feed fed, and for each $100. invested in livestock.

Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

WOODFORD COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty-four Farms

for

1925

Urbana, Illinois

May 3, 1926

ANNUAL FARM BUSINESS REPORT

WOODFORD COUNTY, ILLINOIS - 1925

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

The 44 farmers in Woodford County who kept financial records for 1925 in the Illinois Farm Account Project lacked an average of $119. of having enough income to pay expenses and return 5% interest on their average investment of $266. an acre without allowing anything for their own labor, risk and management. The 15 most successful farmers in this group paid expenses, allowed 5% interest on their investment and had left $1590. to pay for their labor, risk and management. This $1590. is called their labor and management wage. The 15 least successful farmers lacked an average of $1610. of having enough income to pay expenses and 5% interest, allowing nothing as labor and management wage. From these figures it is evident that there was a difference between the high and low profit groups in income for labor and management of $3200. per farm.

Expressed in another way these 44 farmers earned 3.35% on their investment after allowing $720. each to pay for their own labor. On the same basis, the most successful third of them earned 6.88% and the least successful third earned .73 of one percent. The average investment on the 44 farms was $50,513 per farm which is equivalent to $266. an acre. This includes the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The 15 most successful farms had an average investment of $228. per acre while the 15 least successful farms had $283. investment per acre.

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 about $725. a year on a group of Champaign County 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 Woodford County. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000. greater net earnings per farm for 1925 than the average of all farmers in the same locality.

Size of farm had little influence on the relative net incomes of the different groups covered by this report. The 44 farms averaged 190 acres each. The high profit group was 15 acres larger and the low profit group 3 acres larger. All groups were large enough on the average to permit efficient organization. There was only about 1½% variation between groups in percent of land tillable. There was

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

ANNUAL FARM MANAGEMENT REPORT

WOODFORD COUNTY, ILLINOIS - 1955

prepared by H. [illegible], H. J. Malidon, [illegible]*

[illegible] farmers in Woodford County who kept financial records [illegible] this farm account project. Books on average of [illegible] farms to pay expenses and return a reasonable [illegible] of $[illegible]. [illegible] farm operations for labor, risk and management. The [illegible] farmers in the group paid excessive, allowed [illegible] farmers a [illegible] $1000. [illegible] for their labor, risk and management. [illegible] $[illegible]. In regard their labor and management. The [illegible] actual farmers looked on average [illegible] $[illegible] [illegible] income in one [illegible] expenses and $[illegible] [illegible] labor [illegible] and wage. From these figures it is evident that [illegible] farmers [illegible] the high and low profit groups in [illegible] management [illegible] $[illegible] per farm.

[illegible] farmers may have [illegible] $[illegible] [illegible] allowing $[illegible] to pay [illegible] [illegible] the most successful [illegible] [illegible] and [illegible] successful farmers earned [illegible]. The [illegible] on the 44 farms was $[illegible] per farm which is equivalent [illegible] acre. This includes the capital [illegible] building, [illegible] livestock and crops as listed in the [illegible]. The [illegible] farms showed an average investment [illegible] while the 11 least successful farms had $[illegible] per farm.

In addition to the above earnings each [illegible] family received [illegible] farm products such as milk, butter, [illegible] and lived in [illegible]. These together with [illegible] from home, [illegible] in the above investment, amounted to about $[illegible], a year on [illegible] of Woodford County farms who [illegible] a fair profit [illegible] usual- [illegible] year [illegible] family.

The [illegible] given in this report [illegible] [illegible] on [illegible] of all farms in Woodford County. [illegible] farms [illegible] on all farms in the Illinois County [illegible] [illegible] income averaged about $[illegible]. [illegible] [illegible] that the average of all farmers [illegible] profitably.

Size of farm had little influence on the relationship [illegible] of the different groups covered by this report. The 44 [illegible] 100 acres [illegible]. The high profit group was 10 acres [illegible] the profit group 4 acres larger. All groups were larger than average in county efficient production. There was [illegible] variation between groups in percent of land [illegible].

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* H. A. DeVault, farm analyst in Woodford County, [illegible] supervision was [illegible] the county [illegible].

little difference between groups in the acreage devoted to each of the chief grain crops. The more successful group did have about 5 acres more corn and 5 acres more wheat on the average than the less successful group. There was remarkably little variation between groups in yields of the chief grain crops. The more successful group were operating land of a little less average value, however, which indicates a greater efficiency in producing yields equal to the average.

One of the chief advantages of the 15 most successful farms was in their greater efficiency with livestock. They secured an average of 25% more income per $100. invested in livestock than the 15 least successful farms. Since the average farm covered by this report secured a little more than half its income from livestock this was a big advantage. It should be noted that this greater efficiency applied to all classes of livestock but since hogs constituted much the largest livestock enterprise the biggest advantage came from this source. The 15 most profitable farms had 42.7% of their income from livestock while the 15 least profitable farms had 60.8% of their income from this source. This lower percentage of livestock income by the first group was due to their having more crop income since they also had more livestock income. With only a little more acreage of crops and with about the same yields, the more successful group took care of their feed requirements and still had over twice the income from feed and grain as compared with the less successful group. This indicates a high efficiency in feeding and marketing.

The 15 most successful farms show a greater efficiency in the use of man and horse labor. Their man labor cost per acre was 21% less than on the 15 least successful farms and they handled 8 crop acres more per man. As to horse power, the tractor farms of the more successful group worked 13 crop acres more per horse and the non-tractor farms only 1 crop acre more than corresponding farms of the less successful group.

With $9.24 more gross income and $4.43 less expense per acre, the 15 most successful farms had seven times as much net receipts per acre with which to pay interest and profits as the 15 least successful farms. The less successful group had higher machinery and building expenses per acre. Taken as a whole, the 15 most successful farmers spent only $41. out of each $100. income in operating the business while the 15 least successful farmers spent $88.

The 1924 farm business report for Woodford County covered records of 101 farmers but a considerable number of these, some of whom had kept these accounts for ten years, organized a special project and 240 farmers in Woodford, McLean, Tazewell, and Livingston counties have the full time service of a representative of the University to help them with their accounting. They contribute a part of the expense of this project and their "Annual Business Report" is published separately. It is interesting to note that this special project report which covered complete records on 225 farms checks closely with the records on the 44 farmers reported in this Woodford County report. Where the 44 Woodford County farms earned a rate of

[illegible] in the acres of level [illegible] more successful [illegible] the average [illegible] remarkably little [illegible] crops. [illegible] little less average [illegible] producing yields [illegible]

[illegible] advantages of the [illegible] efficiency with livestock. They secured [illegible] income per $100 invested in livestock [illegible] successful farms. Since the average [illegible] more [illegible] It would be noted that [illegible] livestock but since [illegible] interest [illegible] the biggest [illegible] profitable farms had $5 [illegible] 15 least profitable farms [illegible] larger percentage [illegible] to those having more [illegible] With only a [illegible] same yields, the more [illegible] requirements are still [illegible] compared with the les[illegible] in return [illegible]

[illegible] successful farms show a [illegible] Their man labor [illegible] successful farms [illegible] horse power [illegible] crop acres more [illegible] more [illegible] than [illegible] crops.

[illegible] gross income and $4.45 is [illegible] successful farms had seven times [illegible] which to pay interest and profits [illegible] The least successful group had [illegible] per acre. Taken as a whole [illegible] farmers spent only $41 out of each $100 [illegible] the 15 least successful farmers

[illegible] 1924 farm business report for [illegible] are but a [illegible] for ten years, [illegible] in Woodford, McLean, [illegible] the service of a [illegible] of the [illegible] farming. They attribute [illegible] of this [illegible] Farm Business Report [illegible] separately. It is interesting [illegible]

3.35%, the 225 special project farms earned 3.21%. Neither group earned any labor and management wage on the average and where the 44 farms lacked $119. each of earning 5% interest without paying for their labor, the 225 farms lacked $382. each of paying 5% on the same basis.

Although there was a considerable change in the individual farms covered by the Woodford County report between 1924 and 1925, some comparison of the two reports is interesting especially as it checks closely with other records for Central and East Central Illinois. One hundred one Woodford County farms earned 7.24% interest in 1924 while 44 farms covered in this report earned 3.35% for 1925. Expressed in another way, the 101 farms earned an average labor and management wage of $1890. in 1924 while the 44 farms lacked an average of $119. each of having any labor and management wage in 1925. A study of the income figures shows that this great reduction in net earnings is due to a falling off in crop income, chiefly corn and oats. The average livestock income per farm was a little larger in 1924 but the average crop income fell to less than half. At the same time, expense per crop acre increased nearly 8%.

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.

[illegible] 3 [illegible], the [illegible] special project farm earned $.[illegible] [illegible] earned our labor and [illegible] in the years [illegible] 44 farms broke $11[illegible], such [illegible] certainly be interest also [illegible] [illegible] to all labor, the [illegible] farms broken $[illegible]. [illegible] may be [illegible] the [illegible] [illegible].

Although there was a considerable change in the individual farms covered by the "Modified Farm" report between 1934 and 1935, some comparison of the "report" is interesting enough [illegible] [illegible] area, with other records for Central and Eastern Illinois, [illegible] the Woodford County farms covered 7,[illegible] [illegible] in 1934 [illegible] 44 farms covered 1,[illegible] [illegible] [illegible] [illegible] Expenses in another way, the [illegible] farms earned an [illegible] labor and management wage of $1800. In 1934 while the 44 farms [illegible] [illegible] wage of $[illegible], each of having any labor and management wage in [illegible] [illegible] [illegible] [illegible] farms [illegible] [illegible] [illegible] farming. It due [illegible] facility of in [illegible] income, [illegible] [illegible] [illegible] average live stock inc me per farm was a little larger in [illegible] [illegible] [illegible] average crop income fell to less than half. At the same time, expense for crop [illegible] increased nearly [illegible].

Some points of strength and some of weakness in your farm [illegible] [illegible] be found by comparing the factors of your own farm [illegible] [illegible] tables with the same factors on the average farm as [illegible] [illegible] the farms of the group making the best profits and the group making the least profits.

Woodford County - 1925

Factors helping to analyze the farm business	Your farm	Average of 44 farms	15 most profitable farms	15 least profitable farms
Rate earned	%	3.35%	6.88%	0.73%
Labor and management wage	$	$-119.	$1590.	$-1610.
Size of farm - Acres	A	190.0A	205.9A	193.0A
Percent of land area tillable	%	86.6%	85.2%	86.8%
Acres in Corn	A	75.3A	80.7A	75.1A
Oats	A	54.3A	55.3A	57.4A
Wheat	A	3.3A	6.5A	0.3A
Crop yields - Corn	bu.	55.5bu.	57.1bu.	55.2bu.
Oats	bu.	41.5bu.	42.4bu.	42.1bu.
Wheat	bu.	17.0bu.	16.0bu.	13.4bu.
Returns per $100 invested in all productive livestock	$	$ 148.00	$ 158.00	$ 126.00
For $100 in Cattle	$	$ 83.00	$ 86.00	$ 67.00
Swine	$	$ 225.00	$ 248.00	$ 197.00
Poultry	$	$ 187.00	$ 203.00	$ 164.00
Percent of gross income from livestock	%	51.2%	42.7%	60.8%
Man labor cost per acre	$	$ 6.68	$ 5.88	$ 7.14
Crop acres per man	A	88.3A	94.5A	86.4A
Crop acres per horse (with tractor)	A	24.0A	35.9A	22.5A
(without tractor)	A	19.0A	18.3A	17.4A
Expense per $100 gross income	$	$ 60.00	$ 41.00	$ 88.00
Machinery cost per acre	$	$ 2.00	$ 1.43	$ 2.51
Building & fencing cost per A.	$	$ .91	$ .67	$ 1.21
Gross receipts per acre	$	$ 22.06	$ 26.72	$ 17.48
Total expenses per acre	$	$ 13.16	$ 10.99	$ 15.42
Net receipts per acre	$	$ 8.90	$ 15.73	$ 2.06
Farms with tractor	%	52.0%	40.0%	80.0%
Value of land per acre	$	$ 211.00	$ 186.00	$ 221.00
Total investment per acre	$	$ 266.00	$ 228.00	$ 283.00

Woodford County - 1925

		Your farm	Average of 44 farms	15 most profitable farms	15 least profitable farms
1.	Capital Investment - Total	$____	$50 513	$47 052	$54 572
2.	Land		40 163	38 360	42 572
3.	Farm improvements		3 331	2 754	3 722
4.	Machinery and equipment		1 368	1 251	1 595
5.	Feed and supplies		3 428	2 605	4 047
6.	Livestock		2 223	2 082	2 636
7.	Horses		779	689	893
8.	Cattle		740	646	990
9.	Swine		530	565	563
10.	Sheep		52	59	75
11.	Poultry		123	123	116
12.	Receipts-Net Increases-Total	____	4 192	5 502	3 373
13.	Feed and grain		1 996	3 073	1 297
14.	Miscellaneous		48	77	24
15.	Livestock - Total		2 148	2 352	2 052
16.	Horses		---	33	---
17.	Cattle		287	313	227
18.	Swine		1 271	1 396	1 252
19.	Sheep		43	41	64
20.	Poultry		110	120	92
21.	Egg sales		144	160	110
22.	Dairy sales		293	289	307
23.	Expenses-Net Decreases-Total	____	1 592	1 418	1 983
24.	Farm improvements		173	138	234
25.	Livestock		---	---	18
26.	Horses		---	---	18
27.	Cattle		---	---	---
28.	Swine		---	---	---
29.	Sheep		---	---	---
30.	Poultry		---	---	---
31.	Machinery and equipment		379	294	485
32.	Feed and supplies		---	---	---
33.	Livestock expense other than feed		43	45	54
34.	Crop expense		177	185	198
35.	Labor hired		362	365	387
36.	Taxes, insurance, etc.		430	363	572
37.	Miscellaneous		28	28	35
38.	Receipts less Expenses	____	2 600	4 084	1 390
39.	Operator's and unpaid family labor		908	845	992
40.	Net income from investment		1 692	3 239	398

Find Your Farm Leaks - (Woodford County - 1925)

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 farms in your County.

Rate earned	Bushels per acre of			Returns per $100 invested in			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No Tractor			
10.35	90	62	31	153	365	327	85	3.18	123	38	26	25	43	330
9.35	85	59	29	143	345	307	80	3.68	118	36	25	30	40	310
8.35	80	56	27	133	325	287	75	4.18	113	34	24	35	37	290
7.35	75	53	25	123	305	267	70	4.68	108	32	23	40	34	270
6.35	70	50	23	113	285	247	65	5.18	103	30	22	45	31	250
5.35	65	47	21	103	265	227	60	5.68	98	28	21	50	28	230
4.35	60	44	19	93	245	207	55	6.18	93	26	20	55	25	210
3.35	55	41	17	83	225	187	50	6.68	88	24	19	60	22	190
2.35	50	38	15	73	205	167	45	7.18	83	22	18	65	19	170
1.35	45	35	13	63	185	147	40	7.68	78	20	17	70	16	150
0.35	40	32	11	53	165	127	35	8.18	73	18	16	75	13	130
-0.65	35	29	9	43	145	107	30	8.68	68	16	15	80	10	110
-1.65	30	26	7	33	125	87	25	9.18	63	14	14	85	7	90
-2.65	25	23	--	23	105	67	20	9.68	58	12	13	90	4	70
-3.65	--	20	--	13	85	47	15	10.18	53	10	12	95	--	50
-4.65	--	17	--	3	65	27	10	10.68	48	8	11	100	--	30

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100 worth of feed fed, and for each $100 invested in livestock.

Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

As to horse power costs, 1934 data from 14 farms and flight farms showed a variation in cost of feeding one horse for a year from $[illegible].05 to $[illegible] with an average of [illegible] $110.00. The variation on 16 horse and farmer farms for the same year was from $[illegible].71 to $[illegible] and average of $110.74. There was also a wide variation in the cost of keeping other on these farms, the average for [illegible] flight farms being $[illegible] for the year. The resulting cost per man of labor [illegible] from [illegible] to 17 cents with an average of 14 [illegible]. Comparing and flight farms, [illegible] with a [illegible] of over 3[illegible] tractors. The [illegible] and Wa[illegible] varied from 11 cents to 25 cents with an average of [illegible] cents.

The average cost of operating 88 horse-power tractors in Chesapeake County in 1934 was $838. These tractors were used an average of 307 hours, giving an average hourly cost of [illegible] cents. The average annual cost for 34 tractors in the same area was $328.[illegible] or an average of $1.[illegible] per man of the 307 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which keep the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly removes from the farm buildings bugs in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the rush season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull seasons and is one well help in labor efficiency even if the livestock enterprise is no more than paying enough expenses including a share of [illegible], [illegible]. Livestock farms usually have more land in pasture [illegible] by producing crop acres only the best adapted for pasture and [illegible]. Farms with a large amount of "[illegible]" water, [illegible] also have less crop acres per man than do crop farms, which [illegible] not suffer from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and never exclusive [illegible] to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but this is a common mistake in handling acres. The greatest efficiency comes from a full [illegible] and also taking advantage of all known cost saving methods for adjustments to probable growing [illegible].

[illegible]. Expenses of $100. [illegible] in [illegible]. [illegible] farmer [illegible] for [illegible], implements, and supplies [illegible] including [illegible] other items as gasoline, oil and [illegible] the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and the

Farm Bureaus of

Livingston, McLean, Tazewell and Woodford Counties

Cooperating

FIRST ANNUAL REPORT

of the

FARM BUREAU-FARM MANAGEMENT SERVICE

for the year

1925

This report prepared for the farm operated by

_____

Urbana, Illinois

April 17, 1926

FIRST ANNUAL REPORT

For the Cooperators in the

Farm Bureau-Farm Management Service

For the Year 1925

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

The 225 farmers whose records were used in preparing this report, after paying all expenses of operating their farms, without including any allowance for their own labor, lacked $382 of making 5% return on their investment. The average investment per acre, including buildings, livestock and other equipment, was $258.15 per acre. Expressed in another way these men earned 3.21% on their investment, after deducting all expenses of operating their farms and $720 allowance for the value of their own labor.

In addition to the wages allowed a man for his own labor, these farms on an average received the use of produce from the farm which at farm prices was worth $430 per farm. Also the house they lived in was worth $446 per farm each year based on depreciation, upkeep and interest charges. The total value of the living furnished from the farm at farm prices amounted to $876 per farm.

In considering the earnings on these farms it must be recognized that these farms do not represent average farm conditions and average farm earnings. Most of these men own their own farms or else are renting them from relatives, and on the whole they are more productive than the average of all farms of a community in this section of the state. A survey was made of all the farms in one township in the center of the area represented by the 225 farms securing information which would determine the approximate farm earnings. It was found that the 225 cooperators in this project received a return of more than a thousand dollars greater net income per farm for 1925 than those in the one township where very few farm records were kept.

Differences in Earnings Between Farms

There are wide variations in the earnings on the more successful and the less successful farms. The 25 most profitable of the 225 farms made 5% interest on the investment and had $2320 to pay the operator for his own labor and management while the 25 least profitable farms lacked $2404 of making 5% on the investment, and leaving nothing to the operator for his own labor and management.

This amounts to a total difference of $4724 in the return for the 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 8.1% on the investment, while the least profitable group lacked .57 of 1% of getting any return for the money invested.

What Accounted for the Difference in Farm Earnings

The important question for the man who was cooperating in this project is to analyze these records and find out what is responsible for the difference in earnings. A satisfactory way of studying the record of any farm is to consider first the gross receipts and total expenses per acre on the farm in comparison with the same figures for the average of all the farms and the average of the more profitable farms. This will enable one to determine whether his farm differe from others in income or in the expenses of operation.

There is little difference in the total expense per acre on the most profitable and least profitable groups of farms, the expenses being $17.72 and $16.32 per acre respectively for the two groups as shown by Table 2. However, the gross receipts per acre are $37.80 per acre on the most profitable farms and only $14.80 per acre on the least profitable group. In other words the most profitable farms with a slightly larger expense per acre received two and a half times as large returns per acre. The same table shows that there was very little difference in the size of farms in the two groups and that the investment per acre was only a little larger on the less profitable farms. It is known that the type of soil originally was as good on the less profitable group of farms as on the better group.

Factors Affecting Farm Income

One of the first things to be considered in relation to farm earnings is the influence of crop yields. The yields per acre on the most profitable group of farms were as follows: corn, 65.7; oats, 43.5; wheat, 22.4 bushels. On the least profitable group, the yields for the same crops were 49.6 bushels; 36.4 bushels, and 25.1 bushels. This shows that the yields of corn and oats were from 20% to 30% higher on the most profitable farms. Wheat yields were slightly higher on the less profitable farms but a small acreage of wheat was grown on this group of farms.

It is also important that one select those crops which will give a large return per acre. This is discussed at greater length later in the report. The percent of land in the different crops should be noted at this time. The more profitable farms grew less oats, less bluegrass, less timothy and more wheat than did the less profitable farms. Also there were slightly more legumes grown on the more profitable farms.

Livestock production also has an important bearing on the returns per acre. It is significant that the more profitable farms with an investment of $14.34 per acre in productive livestock received a return of $27.24 per acre from livestock, while the less profitable group of farms had $9.54 invested and received a return of only $9.10 per acre. The less profitable group of farms with two-thirds of the investment in livestock received one-third as large returns per acre.

The return for $100 feed fed to livestock show that the more profitable farms received $166 in livestock returns for each $100 worth of feed fed while the less profitable received $122.81. In each case the returns for $100 worth of feed fed was greater for cattle, hogs and sheep on the most profitable farms. Likewise, the return for $100 invested in productive live-

stock shows that the most profitable farms received $175.73 for every $100 invested, while the less profitable group received only $120.03. Again the most profitable farms received larger returns from each class of livestock. It will also be seen on Page 6 that the most profitable farms produced about three times as many hogs per farm and that the cost of feed amounted to only $7.01 per hundred pounds, while on the least profitable group the cost of feed was $9.10 per hundred pounds of pork produced. The difference in feed cost alone of $2.09 for each 100 pounds of pork produced would have amounted to a difference of over $650 larger returns per farm in favor of the most profitable group.

The most profitable farms worked fewer acres of crops with one man than the least profitable group. This would be expected because of the larger amount of livestock and the larger return received per acre from the most profitable group. In terms of labor cost per acre for the entire farm, it will be found that the most profitable farms expended only 15¢ an acre more for labor than did the least profitable group. It may be said then that farms with more livestock require practically no more expense for labor than do the farms with less livestock, but that the keeping of more livestock helps to distribute the labor to better advantage throughout the entire year.

In the use of horse labor the more profitable farms show a smaller cost for feed and depreciation per work horse and a smaller cost per acre of crops grown. Noting the cost of horse labor amounted to $3.00 to $4.00 per acre, one can well give attention to the economy in feeding work horses.

One of the striking differences between the most profitable and the least profitable farms is the relationship of expenses to income. For $100 gross income, it will be noted that the more profitable farms paid out only $46.84, while the less profitable group paid out $110.27. It will be noted in studying the distribution of expenses on the acre basis that there were not wide variations on the acre basis. The big difference is due to the larger size income with a similar expenditure on the better farms.

In considering the income from the farm one can well afford to give attention to the value of the living secured from the farm. It will be noted that on the average the produce received from the farm and used in the home was worth $430.21 at farm prices. If this were converted into retail prices which one would have to pay in the city, the value would be very nearly doubled. One should not make the error of comparing farm income with city incomes without giving the farm full credit for the value of the living secured from it.

Table 1. SUMMARY OF THE YEARS FARM BUSINESS

Your summary as shown on Pages 34 and 35 of your book compared with 225 farms, the twenty-five most profitable and the twenty-five least profitable farms.

	Items	Your farm	Average of 225 farms	25 most profitable farms	25 least profitable farms
1	Capital Investments - Total	$_____	$59890	$52451	$55064
2	Land		44440	39035	40733
3	Farm Improvements		5694	4258	4853
4	Machinery & Equipment		1815	1498	1748
5	Feed, Grain & Supplies		4842	3818	4843
6	Livestock - Total		3099	3842	2887
7	Horses		867	814	899
8	Cattle		1114	1080	993
9	Hogs		864	1635	788
10	Sheep		111	189	79
11	Poultry		140	124	128
12	Bees		3	---	---
13	Receipts & Net Increases - Total	$_____	$ 5356	$ 7987	$ 3084
14	Farm Improvements		8	11	0
15	Feed, Grain & Supplies		2097	2010	1093
16	Labor off the Farm		80	147	27
17	Miscellaneous		25	21	4
18	Livestock - Total		3146	5798	1960
19	Horses		28	43	16
20	Cattle		560	798	265
21	Hogs		1846	3935	1234
22	Sheep		103	235	56
23	Poultry		121	139	95
24	Egg Sales		137	130	81
25	Dairy Sales		346	518	213
26	Bees		5	---	---
27	Expenses & Net Decreases - Total	$_____	$ 2514	$ 2784	$ 2489
28	Farm Improvements		247	208	236
29	Machinery & Equipment		513	485	444
30	Feed, Grain & Supplies		196	544	293
31	Miscellaneous Livestock Exp.		47	59	45
32	Miscellaneous Crop Expense		234	251	201
33	Hired Labor		668	654	648
34	Taxes, Insurance, etc.		493	482	499
35	Miscellaneous Expenses		54	54	59
36	Horses - Decreases		53	45	55
37	Miscellaneous Livestock Decreases		9	2	9
38	Receipts less Expenses	$_____	$ 2842	$ 5203	$ 595
39	Operator's and Family Labor		922	957	910
40	Net Income from Investment		1920	4246	-315

Table 2 - IMPORTANT FACTORS BY WHICH THE FARM BUSINESS MAY BE STUDIED
Underlined factors are the ones used on the chart, Page 7

	Your farm	225 farms	25 most profitable farms	25 least profitable farms
The Farm as a Whole				
Rate earned on investment	_____ %	3.21%	8.10%	- .57%
Labor and Management wage	$	$-382.	$2320.	$-2404.
Gross receipts per acre	_____	23.09	37.83	14.80
Total expense per acre		14.81	17.72	16.32
Net receipts per acre		8.28	20.11	-1.52
Size of farm - acres		232.0	211.1	208.3
Value of land per acre	$	$191.55	$184.89	$195.51
Total investment per acre	$	$258.15	$248.44	$264.30
Crop Production				
Corn - Bushels per acre	_____	55.3	65.7	49.6
Oats - Bushels per acre	_____	39.2	43.5	36.4
Wheat - Bushels per acre	_____	18.3	22.4	25.1
Percent of farm tillable	%	89.7%	86.0%	90.1%
Percent of tillable land in				
Corn	%	44.4%	44.3%	42.2%
Oats	%	26.1%	20.2%	29.1%
Wheat	%	7.0%	11.2%	3.5%
Legumes	%	15.0%	17.0%	16.3%
Bluegrass	%	4.0%	2.5%	4.6%
Timothy	%	1.5%	.8%	1.2%
Miscellaneous	%	1.9%	3.9%	3.1%
All grain and hay crops	%	88.4%	88.1%	87.7%
Livestock Production				
Percent of income from livestock	%	58.3%	72.4%	62.8%
Investment in productive livestock per acre	$	$ 9.62	$ 14.34	$ 9.54
Livestock returns per acre	$	13.29	27.24	9.10
Returns per $100 feed fed to				
All productive livestock	$	150.77	166.00	122.81
Cattle	$_____	105.71	127.09	82.38
Hogs	$_____	172.31	181.45	133.68
Sheep*	$_____	172.19	168.01	130.48
Returns per $100 invested in				
All productive livestock	$	$108.95	$ 175.73	$120.03
Cattle	$	$ 95.61	$ 110.58	$ 65.93
Hogs	$	$212.04	$ 248.11	$179.02
Sheep*	$	$ 70.49	$ 76.58	$ 69.66
Poultry	$_____	$234.37	$ 275.78	$203.75

* Too few sheep kept in area to make results significant.

Table 2 - Continued

	Your farm	225 farms	25 most profitable farms	25 least profitable farms
Livestock Production (Continued)				
Returns per $100 invested in				
Number of eggs per hen		66.3	65.2	61.5
Pounds of pork produced		15508	31971	10596
Feed cost per $100 lbs. of pork	$	$ 7.10	$ 7.01	$ 9.10
Man Labor				
Crop acres per man				
With tractor	_____	91.4	80.1	87.0
Without tractor		86.6	78.4	83.2
Horse Labor				
Crop acres per horse				
With tractor	_____	25.9	24.4	21.0
Without tractor	_____	19.1	18.3	19.4
Feed and depreciation per work horse	$	$ 75.56	$ 74.88	$ 76.93
Feed and depreciation per crop acre	$	$ 3.27	$ 3.40	$ 3.79
Expenses				
Expenses per $100 Gross Income	$_____	$ 64.14	$ 46.84	$ 110.27
Expense per acre of whole farm		14.81	17.72	16.32
Farm improvements		1.07	.99	1.13
Horses		.23	.21	.27
Machinery & equipment all farms		2.21	2.30	2.13
With tractor		(2.46)	(2.66)	(2.70)
Without tractor		(1.66)	(1.57)	(1.60)
Feed, grain and supplies		.85	2.58	1.40
Miscellaneous livestock expense		.20	.28	.22
Miscellaneous crop expense		1.01	1.19	.97
Hired and home labor		6.85	7.63	7.48
Taxes, insurance, etc.		2.12	2.28	2.39
Miscellaneous expenses		.27	.26	.33
Family Living Furnished by Farm				
Farm produce used in home	$	$ 430.21	$ 434.83	$ 413.09
House rent (10% of value)	$	445.60	433.25	384.61
Total living furnished by farm	$	875.81	868.08	797.70
Size of family		4.7	4.9	4.2

Table 3 - FIND YOUR FARM LEAKS

The numbers between the lines across the middle of the page are the averages for the 225 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 Invest-ment	Bushels per Acre			Livestock Returns				Crop Acres per Man		Crop Acres per Horse		Expse per $100 Gross Income	Gross Income per Acre
								Tractor		Tractor			
	Corn	Oats	Wheat	Cattle per $100 feed	Hogs per $100 feed	Sheep per $100 feed	Po'lt'y per $100 invest-ment	Yes	No	Yes	No		
10.30	90	74	39	246	277	277	444	147	136	47	40	38.80	44
9.30	85	69	36	226	262	262	414	139	129	44	37	42.40	41
8.30	80	64	33	206	247	247	384	131	122	41	34	46.00	38
7.30	75	59	30	186	232	232	354	123	115	38	31	49.60	35
6.30	70	54	27	166	217	217	324	115	108	35	28	53.20	32
5.30	65	49	24	146	202	202	294	107	101	32	25	56.80	29
4.30	60	44	21	126	187	187	264	99	94	29	22	60.40	26
3.30	55	39	18	106	172	172	234	91	87	26	19	64.00	23
2.30	50	34	15	86	157	157	204	83	80	23	16	67.60	20
1.30	45	29	12	66	142	142	174	75	73	20	13	71.20	17
.30	40	24	9	46	127	127	144	67	66	17	10	74.80	14
-.70	35	19	6	26	112	112	114	59	59	14	7	78.40	11
-1.70	30	14	3	6	97	97	84	51	52	11	4	82.00	8

Profitable Farming and Basis of Study

Profitable farming requires balanced farming. Weaknesses in some parts of the farm business may offset the advantages gained at other points. 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
2. Kinds of crops grown
3. Amount of livestock
4. Efficiency with which livestock is fed
5. Use of man labor
6. Use of horse labor and farm power
7. Relationship of expenses to receipts
8. Size of farms

A study of these factors and the management practices affecting the results shows conclusively the importance of these factors on farm earnings. The Department of Farm Organization and Management has conducted different kinds of studies in central Illinois which are valuable in helping analyze the results on farms included in this project. These studies include:

1. Records kept in the Illinois Farm Account Book for 8 to 10 consecutive years, by many farmers in central Illinois.

2. Complete cost of production records secured on 12 to 34 farms annually for the past 13 years.

3. Annual records secured from 40 to 100 tractor operators continuously since 1918. This has enabled making a careful study of farm power costs and the experience of farmers in solving their farm power problems.

4. A special study of the cost of producing hogs conducted on about 40 farms for two years. The purpose of this study was to determine the effect of different methods of handling hogs on the cost of production.

5. Survey records giving the approximate earnings on each farm, secured from practically every farm in one township located in about the center of the area where this project is being conducted. The purpose of this study was to determine how the farms keeping records on this project differ from the average farm of a community in the same area. The difference in earnings of the two groups is stated on Page 1.

It is believed that this combination of studies gives a good basis for making rather definite recommendations to the cooperators as to changes they can profitably make in organizing and operating their own business. The record on each individual farm is essential in order to study in detail the plans and practices followed on each farm and to measure differences in results obtained on the different farms in order to give a definite basis for determining points of strength and weakness on each farm.

In addition to the analysis already made of the farm business it is believed well to give further consideration to farm practices and the influence of certain factors on the total farm earnings.

Table 4. Practices in Soil Treatment followed on Best and Poorest Yielding Fields of Corn, Oats and Wheat on 1180 Brown Silt Loam Soil Fields. Only Fields of ten acres or more were used in making this summary.

	Corn		Oats		Wheat		Three Crops	
	10% best fields	10% poor fields	10% best fields	10% poor fields	10% best fields	10% poor fields	10% best fields	10% poor fields
Number of fields	66	66	42	42	10	10	118	118
Yield- Bu. per Acre	79.3	36.4	58.3	23.9	33.5	13.3	---	---
Phosphated fields [1]	30	3	22	1	5	0	57	4
Partly phos. fields	5	2	5	1	0	1	10	4
Not phosphated fields	31	61	15	40	5	9	51	110
Limed fields [2]	12	7	6	4	6	2	24	13
Partly limed fields	8	4	6	2	1	1	15	7
Not limed fields	46	55	30	36	3	7	79	98
Manured fields [3]	23	14	13	6	6	2	42	22
Partly manured fields	28	15	18	14	3	4	49	33
Not manured fields	15	37	11	22	1	4	27	63
Sweet clover or alfalfa [4]	25	7	12	0	4	0	41	7
Red, mammoth or alsike clover [4]	27	16	14	3	3	1	44	20
Partly clovered fields	5	3	4	9	1	1	10	13
Bluegrass pasture	3	0	0	0	0	0	0	0
No clover	0	40	12	30	2	8	20	78
Clover or manure and phosphate	27	3	14	0	5	0	46	3
Some clover or some manure and some phosphate	8	1	11	2	0	1	19	4
No clover, no manure, no phosphate	3*	25	0	17	0	3	3	45

1. "Phosphated field" as used here means a field which has been completely covered with more or less rock phosphate during past years.

2. "Limed field" means a field which has been entirely covered with more or less limestone during the past.

3. "Manured field" means a field which has been covered with more or less manure during the five years 1921 to 1925 inclusive.

4. Wherever the term "clover" is used, it means that the field has been left in clover for a full year for hay, seed, pasture or for plowing under during one or more of the five years 1921 to 1925 inclusive.

* These three fields have been in bluegrass pasture for many years before growing corn.

These data showing soil treatments in high and low yielding fields indicate the important place which the use of clover, manure, rock phosphate and limestone have on the farms on which the highest yields of grain were secured as compared with farms where the yields were low.

Notice for example, that approximately one-half of all the high yielding fields of corn, oats and wheat had been covered with rock phosphate while only a very few of the low yielding fields had been phosphated.

The fact that 85 of the 118 high yielding fields had been left in clover sometime during the preceding four years while only 27 of the low yielding fields had had clover left on them shows in a striking way the important place which clover has in securing high crop yields.

Cost of production studies show that good crop yields are essential to profitable farming. During the past five years, cost of production data have been secured on a number of Champaign and Piatt County farms where the type of soil is comparable with that on most of the 225 farms. The cost data show that the cost of growing an acre of corn and other crops remains rather uniform from year to year. The average cost of growing an acre of corn for the five-year period was $29.86 per acre when the land was valued at about $250 per acre and interest on this investment was charged at 5%. With corn at 60¢ a bushel it would require a yield of approximately 50 bushels per acre to pay the cost of production. The cost of growing an acre of other crops in the same area were as follows: winter wheat, $27.76; oats, $22.87; soy beans $29.31; clover hay $21.07; timothy, $20.72; soy bean hay $32.12.

Using current prices for these crops it shows that average yields or better are required to pay the cost of production. Good yields are dependent upon many different factors aside from the fertility of the soil. The influence of some of these factors is indicated in Tables 5, 6 and 7, which show some of the practices followed on the best yielding and poorest yielding fields.

Table 5 - Practices with Seed Corn and Corn Cultivation followed on the Best and Poorest Yielding of 660 fields on Brown Silt Loam Soil. Only fields of ten or more acres were used in this summary.

	Your farm	66 best fields	66 poorest fields
Yield - Bushels per acre		79.3	36.4
Utility type strains		45	14
Yellow other than utility strains		19	41
Other than yellow corn		2	11
Selected before husking		45	40
Selected at husking time		16	12
Selected from crib		1	3
Time unknown or mixed		4	11
Stalks considered in selection		33	31
Stalks not considered		21	18
Not stated or mixed		12	17
Disease or Ear tested		37	27
General test		18	20
Not tested or mixed		11	19
Cultivated with six shovels only		22	10
Cultivated with knives only		29	33
Shovels first time - laid with knives		4	14
Mixed		11	9
Stalks per hill		2.46	2.02
Fields with soy beans		11	6
Fields without soy beans		52	59
Fields partly with soy beans or unknown		3	1
Corn following clover or alfalfa		34	4
Corn following part clover or alfalfa		13	1
Corn following small grain			
Fall plowed - clover		1	5
Fall plowed - no clover		1	20
Spring plowed - sweet clover		1	2
Spring plowed - red clover		2	2
Spring plowed - no clover		1	3
Corn following corn		12	24
Corn following bluegrass		1	0
Corn following mixed crops		0	5

The important place which high yielding types and strains of corn have in actual use is clearly shown in Table 5. Notice that forty-five of the sixty-six high yielding fields of corn were planted with "utility" strains of corn. Contrasted with this, only fourteen of the low yielding fields were of the utility strains. The practical value of disease testing to men on the farm is shown by the larger number of high yielding fields planted with disease tested seed.

The great place which clover has in increasing corn yields is again shown in this table. Notice that 51 of the 66 high yielding corn fields followed more or less clover, while 47 of the 66 low yielding fields followed corn or small grain without clover seeded with it.

Table 6 - Practices with Growing Oats

Treatment and Method of Seeding. On 420 Brown Silt Loam Fields. Only fields of ten or more acres were used in this summary.

	Your farm	42 best fields	42 poorest fields
Yield - Bushels per Acre		58.3	23.9
Iowar, Iowa 103 or Ia. 105		27	19
Silvermine, Big 4, or Great American		14	14
Miscellaneous and Unknown		1	9
Treated in 1925 Treated in 1924		18	10
Treated in 1925 Not treated in 1924		10	12
Not treated in 1925 Treated in 1924		10	6
Not treated in 1925 Not treated in 1924		4	14
Fanned		38	23
Not fanned		4	19
Drilled		3	2
Broadcasted		39	40
Disced - seeded - disced - harrowed		21	25
Seeded - disced - harrowed		16	15
Disced - seeded - harrowed		2	0
Disced only with horses		24	18
Disced only with tractor		14	6
Disced with both or unknown		1	16
Average rate of seeding		3.0 bu.	2.6 bu.

That the use of known high yielding strains of crops is an important cause of the high yields on some farms is again brought out in Table No. 6. Here it is seen that, in spite of an unfavorable year for early oats, standard high yielding strains of early oats were used on 27 of the 42 best yielding of 420 fields. In contrast to this, the same varieties were used on only 19 of the 42 low yielding fields. Notice too that nine of the low yielding fields were on farms where the operators did not know what kind of oats they used.

The value of the old practices of fanning the seed and treating for smut is shown by these data. However, a rather surprisingly large number of farmers do not follow these practices.

Table 7 - Practices with Growing Wheat

Seed Treatment and Methods of Seeding on Best and Poorest of 96 Brown Silt Loam Fields.

	Your farm	10 best fields	10 poorest fields
Yield - Bushels per Acre		33.5	13.3
Turkey Red Type Other than Turkey Red Type		9 1	9 1
Seeded after fly free date Seeded before fly free date		10 0	7 3
Treated for smut Not treated for smut Not stated		4 6 0	2 6 2
Plowed early Plowed late Drilled in corn		7 1 2	6 3 1
Cultivated in Spring Not cultivated in Spring		5 5	3 7
Rate of Seeding		1.52	1.43

The summary of wheat yields shown in Table No. 7 indicates the valuable place which seeding after the fly free date, treatment for smut, and early plowing for wheat have on farms where the largest yields are secured.

The Best Combination of Crops

The profit per acre varies widely with different crops. While good crop yields and low costs are essential, it is equally important that the crops grown shall include a large proportion of the more profitable crops. Cost of production data secured on the cost of producing crops on representative farms in Hancock County for ten years' time show the following average annual profit per acre: corn, $8.59; wheat, $5.44; rye, $4.88; oats, $2.68; clover, $9.32; alfalfa, $12.20; timothy, $3.21; and mixed hay, $ .18 per acre. Cost records kept in Champaign County since 1920 on soil comparable to most of the soil found in the 225 farms included in this report, show similar results regarding the relative profitableness of crops. The net profit has been less per acre largely because of unfavorable prices and wheat was somewhat more profitable than corn because of more favorable prices during recent years.

From such data one might conclude that the best grains to grow in a rotation should consist mainly of corn and wheat on farms where soil and drainage permit growing wheat. Rye has about the same labor requirements as wheat and is a little less profitable though it was generally grown on lower grade land. One should consider in regard to the oat crop that oats usually follow other grain crops and are the last crop before growing a crop of clover. From the standpoint of its place in the rotation, the oat crop may be fairly compared with the third crop of corn. From this point of view, there is good reason to retain oats in the crop rotation. Clover and alfalfa are clearly more profitable than other hays and compare favorably with the grain crops. The gross return per acre may not be as high as from some of our cultivated crops, but the cost of production and the labor expended per acre are usually much less than those required in growing cultivated crops.

From the standpoint of cost of production data and farm practice, the conditions which should be considered in selecting a rotation of crops include the following:

(1) It is generally recognized that a legume crop may well be grown on all plow land once in four or five years. Cost of production data show that these crops are directly profitable in addition to filling the need which exists on most farms in building up the soil.

(2) Crops differ as to the time of year they require labor. Oats are seeded ahead of corn planting and are cut after corn cultivation is completed. Wheat harvest, ground preparation, and seeding follow corn cultivation and precede corn picking. These three crops fit together well in giving a good distribution of labor. Alfalfa requires labor at a time that usually interferes somewhat with each of these grain crops but considered on the acre basis it is usually a more profitable crop than any of them where the soil has been well-drained and well-limed. Cost records during the past three years show a net profit of over $20.00 per acre when the hay was valued at $15.00 to $18.00 per ton. During the same period grain crops have shown very little profit.

(3) A succession of cultivated crops, small grain crops and legumes is practically essential in a good rotation in order to control weeds, plant diseases and insects, and to provide for a succession of deep and shallow rooted crops, as well as to maintain or improve the soil.

(4) Crops may be selected to some extent with reference to the needs of feeding the livestock kept on the farm. More generally livestock production plans are adapted to the cropping plan as it is affected by the proportion of tillable land and the condition of the soil.

A consideration of the profitableness of the different crops and the other factors mentioned, as well as a study of the earnings on many central Illinois farms, over a period of years, leads to the conclusion that the most profitable cropping system should contain 60% to 70% of the more profitable crops, which in this section are corn, wheat and alfalfa. The experience of many farmers who are located near a canning factory is that sweet corn is likewise satisfactory as a profit crop. It is probable that from the standpoint of labor distribution and the cost of operating the entire farm that not more than 40% of the crop land should be planted to one crop in central Illinois.

(Annual data regarding the cost of producing crops and livestock in east central Illinois are available on request to the Department of Farm Organization and Management of the University of Illinois).

The Place of Livestock on Farms in Central Illinois

The farmer in central Illinois has more opportunity of choosing whether he will sell his crops directly or sell them in the form of livestock and livestock products than farmers in many parts of the country. Cost of production studies show that the average farmer one year with another makes more profit in feeding livestock than in selling crops directly. This means that the man who is especially successful with livestock has the opportunity of greatly increasing his profit by feeding his crops. In addition, livestock production helps maintain the fertility of the soil.

There is a wide variation in the returns which different farmers get for the feed fed to livestock. Special emphasis can well be placed on the cost of feed in livestock production since feed makes up from 40% to 85% of the total cost of producing or keeping different classes of livestock. One of the largest problems of the corn belt farmer is to find how he can utilize legumes, non-salable roughage and low grade grains to best advantage. Recognizing this problem, one is led to the conclusion that all corn belt farms have a place for some livestock capable of utilizing rough feeds. Legumes are grown primarily to improve the soil hence they should not be sold from the farm. A man has the alternative of turning the legume under or utilizing it with livestock. There is good reason to believe that the man who gets some direct return from the legume through livestock receives the larger profit in the long run. When no livestock is kept there is a temptation to sell legume crops from the farm. There is also considerable aftermath in stubble fields, or meadows and other roughage which has no sale value but which can be converted into profit by livestock. Frequently, there is low grade grain which can be fed to better advantage than can be gained by its sale.

In the effort to utilize legumes and less-salable feeds on the farms the error should not be made of feeding too heavily on salable grain. The return for $100 worth of feed fed on the farms included in this project shows conclusively that many men are not feeding their stock economically. It is believed that this is one of the sources of large losses on corn belt farms.

The profit in livestock production is dependent also on management practices other than feeding. A special study on the cost of producing pork in McLean and Woodford Counties conducted by the College of Agriculture and the United States Department of Agriculture helps to illustrate this statement. Results on 25 of these farms in 1924 show that 8 of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less grain than 8 other farms, paying little attention to sanitation. As a result of differences in management and feeding practice, it was found that 4 farms produced pork at a cost of less than $8.00; 9 farms between $8.00 and $9.00; 5 farms between $9.00 and $10.00; 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit. Similar comparisons might be made on other classes of livestock from the available data which would serve only to emphasize the facts already stated.

The Use of Man Labor and Farm Power

Cost of production records show that man labor and horse and tractor power are the largest items of operating cost in growing crops. While there is less opportunity of reducing man labor costs than farm power costs, some men through good management accomplish much more than others with a given amount of labor. The cost of horse labor frequently is not appreciated because the horses are fed from crops grown on the farm and the cost of horse labor is realized mainly in a reduction of the amount of crops that remain to be sold.

As to horse power costs, 1924 cost data from 32 farms in central Illinois showed a variation in cost of keeping one horse for a year from $79.00 to $158.00 with an average of $115.00. There was also a wide variation in hours of horse labor done on these farms, the average being less than 800 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 25 cents with an average of 15 cents on these farms, leaving out one small farm with a cost of over 37 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Size of Farms

The farms included in this project vary from 40 to 640 acres in size. The farms were divided into six different size groups as shown in Table 8. The type of soil is similar on most of the farms but it happened that there were a greater number of farms from 141 to 180 acres in size that were on sandy or lighter soil than in the other size groups. This is reflected slightly in the value of land per acre. It is probable that farms on poorer land were more greatly affected by the dry season of 1925.

The average investment for the different groups varied from about $32,000 to over $100,000 per farm. It is remarkable that the rate of interest earned on the investment for the different groups fell between 3.02% and 3.9% for all the groups except the second, which, as mentioned, was more affected by adverse soil and weather conditions. This difference in type of soil was

responsible for other differences in this group of farms, such as the amount of livestock kept. The labor and management wage was highest on the small farms and with the exception of group 2, continued to decrease as the farms became larger. This is to be expected in a year when farm earnings were as low as they were in 1925.

Similar studies of size of farms show that normally the smaller farms make a larger rate on the investment than do the larger farms. In this study it was found that crop yields on the whole were larger on the small farms. Also it will be noted that the investment in livestock and the returns from livestock were larger per acre on the small farms. One concludes from such data that the quality of work on the smaller farms is usually better and that frequently livestock helps to increase the size of the business.

There are some disadvantages of the smaller size farms which are clearly brought out in this data. The number of acres of crops worked with one man and one horse gradually increase with the larger size 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 size 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 the farm increases.

Since the expenses per acre are necessarily higher on the small size farm, there is good reason for the smaller size farm to use land more intensively and to choose enterprises which will help to increase the size of the business. This has been accomplished to some extent through securing larger crop yields and through keeping a larger amount of livestock per acre. Noting, however, the smallpercent of legumes on all the farms, it is probable that the smaller farms might well increase the percent of land in such crops as alfalfa and give special attention to having a large percent of the land in crops which will give the largest return per acre. Dairying and poultry production are enterprises well adapted to the small sized farm, since they require large amounts of labor and require less feed for the income received than do other classes of livestock. Frequently, there is opportunity of introducing truck crops in the locality of canning plants or the larger towns which may serve well in making small farms more profitable.

While pointing out the disadvantages of farms which are relatively small, one should not overlook the fact that frequently the reason why many of the larger farms are not more profitable is because they do not approach the same organization of the smaller farms. It will be noted that the larger farms tend to grow a larger percent of the land in corn and oats and have a smaller percentage of the land in legumes than do the smaller farms. Also the investment in livestock and the returns per livestock amounted to only about half as much as on the smallsized farms. Occasionally larger farms go to the extreme in handling a large acreage per man and per horse, and as a result receive smaller yields.

The disadvantages of either the small or the large farms serve merely to emphasize some of the things to which every farmer should give attention in working out the plan or organization of his farm and the practices he follows in the operation of his farm.

Table 8. - SIZE OF FARM IN RELATION TO FARM ORGANIZATION AND OPERATION

	Your farm	Farms of 40-140 acres	Farms of 141-180 acres	Farms of 181-220 acres	Farms of 221-260 acres	Farms of 261-320 acres	Farms of 321-640 acres
Number of farms		33	47	34	41	43	27
Average size of farm		118.9	161.8	204.8	240.4	298.2	408.4
Value of land per acre		$ 194.68	$ 188.11	$ 193.56	$ 192.76	$ 189.18	$ 193.26
Total investment per acre		$ 274.06	$ 254.16	$ 263.77	$ 261.52	$ 250.96	$ 257.07
Rate earned on investment		3.61%	2.48%	3.90%	3.19%	3.29%	3.02%
Labor and management wage		$ 194.50	$-339.25	$ 106.25	$-424.64	$-587.56	$-1382.71
Gross receipts per acre		$ 28.12	$ 22.09	$ 25.56	$ 22.95	$ 22.05	$ 21.74
Total expense per acre		$ 18.23	$ 15.79	$ 15.28	$ 14.61	$ 13.80	$ 13.97
Net receipts per acre		$ 9.89	$ 6.30	$ 10.28	$ 8.34	$ 8.25	$ 7.77
Percent of farm tillable		91.0%	89.7%	88.2%	90.1%	88.9%	90.8%
Percent of tillable land in							
Corn		43.2%	43.5%	44.2%	45.9%	42.7%	46.1%
Oats		24.3%	25.7%	28.6%	25.8%	25.1%	26.7%
Wheat		5.5%	7.2%	5.5%	6.8%	10.1%	5.2%
Legumes		19.6%	17.2%	15.1%	14.8%	13.6%	13.7%
Blue grass		3.7%	3.3%	2.9%	3.2%	4.0%	6.1%
Timothy		.6%	.8%	1.2%	1.8%	3.0%	.7%
Miscellaneous		3.1%	2.2%	2.5%	1.8%	1.5%	1.5%
Percent of income from livestock		69.4%	57.6%	66.9%	60.5%	55.5%	47.8%
Investment in productive L.S. per A.		$ 15.25	$ 9.44	$ 13.51	$ 9.42	$ 8.94	$ 7.98
Livestock returns per acre		$ 19.26	$ 12.55	$ 16.95	$ 13.74	$ 12.09	$ 10.37
Pounds of pork per acre		91.8	59.6	91.0	77.7	59.3	46.7
Crop acres per man		73.5A.	81.1A.	83.7A.	94.0A.	93.5A.	101.8A.
Crop acres per horse		18.0A.	19.9A.	21.9A.	25.5A.	24.0A.	28.0A.
Expense per $100 gross income		$ 64.83	$ 71.48	$ 59.79	$ 63.66	$ 62.58	$ 64.26
Expense per acre of whole farm							
Farm improvements		$ 1.19	$ 1.01	$ .99	$ 1.20	$ .93	$ 1.14
Machinery and equipment		$ 2.49	$ 2.27	$ 2.34	$ 2.29	$ 2.01	$ 2.16
Hired and home labor		$ 8.14	$ 7.39	$ 7.13	$ 6.82	$ 6.51	$ 6.28
Other expenses		$ 6.41	$ 5.12	$ 4.83	$ 4.29	$ 4.35	$ 4.39
Farm produce used in home		$ 353.98	$ 406.98	$ 450.83	$ 443.67	$ 487.11	$ 423.18
House rent (10% of value)		$ 356.61	$ 353.00	$ 515.06	$ 462.80	$ 441.59	$ 621.74
Total living furnished by farm		$ 710.59	$ 759.98	$ 965.89	$ 906.47	$ 928.70	$ 1044.92

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 proven profitable on other farms of a similar type. The project in which 239 farmers cooperated is an outgrowth of the regular Extension Project in Farm Organization and Management of the College of Agriculture of the University of Illinois.

The cooperators in the project are farm bureau members of Livingston, McLean, Tazewell and Woodford counties. Farm accounting work of the Illinois Extension Service was started in Tazewell county in 1915 and taken up in Woodford county in 1916. A little work was also done in Livingston and McLean counties in 1916. In Woodford county where more work has been done than in the other counties, from thirty to one hundred farmers kept the records each of the nine years from 1916 to 1924 inclusive. Beginning with 1921, one hundred records have been closed each year.

During each of the last six years, Farm Management tours have been conducted; each tour included visits to six or eight of the more profitable farms which showed the effects of good practices. During these tours the cooperators had the opportunity to learn from efficient farmers how they might improve the organization and operation of their own farms. The results of the work are clearly shown in the increased efficiency with which many of the farms are being operated as shown by their consecutive annual records over the past ten years.

The growing number of farmers keeping records made it impossible for the College of Agriculture to give as much assistance to each cooperator as was desired and the demand in Woodford county required considerable time which the farm adviser needed for other work. The farmers cooperating in this work felt they wanted more rather than less assistance with it.

This was the situation that lead to the organization of the Farm Bureau Farm Management Service in which 239 farmers about equally distributed, in Livingston, McLean, Tazewell and Woodford counties are cooperating. The University of Illinois cooperated with the farm bureaus in the four counties in organizing the project.

Plan of Organization

About sixty farm bureau members in each of the four counties have 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 work is under the direction of H. C. M. Case, in charge of the Department of Farm Organization and Management acting jointly 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 bureaus 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 H. 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. deWerff, the present Farm Adviser, has cooperated since the work was started.

The entire time of M. L. Mosher, one of the authors of this report, is given to the project. Each cooperator was visited on his farm at least three times during the year 1925. Whenever possible, the Farm Advisers will accompany him while returning these reports to the cooperators. This will be done during May.

A Farm Management tour was conducted in September, 1925 to six of the farms where similar work had been under way for three or more years. Such tours will be conducted each year visiting profitable farms in each county which will enable the cooperators to learn what practices are followed by the farmers whose farms are organized and operated most efficiently.

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

SURVEY OF FARM BUSINESS ON 113 FARMS

in

Gridley Township

McLean County, Illinois

Urbana, Illinois

June 1, 1926

SURVEY OF FARM BUSINESS ON 113 FARMS

TOWNSHIP, Mc LEAN COUNTY, ILLINOIS

1925

H.C.M. Case, R.H.Wilcox, G.W. Kuhlman

113 farmers in Gridley Township, Mc Lean County, in 1925, fell $1,047 short of meeting all their farm expenses, after allowing 5% returns upon the capital invested in their farm business. In other words, these men earned 1½% upon the capital invested, in addition to allowing themselves hired men's wages. The average wage estimated by the farmers was $614. for the year. The average investment per acre in farm property including buildings (except dwelling), livestock and other equipment, was $252 per acre.

These figures* on farm earnings were secured from a complete survey record of the farm business on 113 farms in Gridley Township for the year 1925. This study was made by the Department of Farm Organization and Management of the College of Agriculture, in order to determine the average results from a large number of farms in a typical grain growing section of east central Illinois. The principal crops grown in this area are corn and oats. Since legumes do not enter into the regular rotation the amount of land in clover and alfalfa is not sufficient to enable growing these crops on all the land one year out of twenty. With the limited acreage in legume hay and pasture, there is not enough livestock to make use of the roughages and low grade grain which will result from the grain system of farming. This area may be considered a typical grain producing community since 75% of the farm receipts are from the sale of grains. The average crop yields of 48.1 bushels of corn; 32.9 bushels of oats, and 15.4 bushels of wheat per acre indicate that the productivity of the soil is not high compared with the results from other farms growing more legumes and carrying more livestock in the same section of the state. This is an inevitable result of continuous grain farming.

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* The figures secured consisted of the opening and closing inventories of land, buildings (except dwelling), machinery, livestock and grain, the various farm receipts and expenses, and the value of operator's and unpaid family labor. A uniform rate of 5% was used in computing the interest charge on the investment.

Differences in Earnings Between the Farms

For purposes of comparison and analysis the 113 farms were divided into three equal groups according to the rate earned on the money invested in the farm and equipment. By comparing the farms in the upper one-third and the lower one-third an attempt was made to discover the factors which contributed to the success or failure of the farms in these two groups. There are wide differences in the earnings between the more successful and the less successful groups. The one-third (38 farms) more profitable of the 113 farms made 3½% on their investment, or, in other words, after allowing $610 to each operator for labor, they lacked $165 of making 5%; while the one-third less profitable showed a loss of ½% on their investment, or they lacked $1,780 of earning 5% interest. This means that there was a difference of $1,615 in farm earnings between the one-third that had the higher incomes and the one-third of the farms that had the lower incomes.

Factors Affecting Farm Income

Yields and Combinations of Crops: The one factor that had more to do with influencing farm earnings than any other single thing in the grain producing area was crop yields. The yields per acre on the group of farms making the higher incomes were as follows: corn, 52.7 bushels; oats, 35.7 bushels; and wheat 14.7 bushels. On the less profitable farms the yields for the same crops were corn, 41.5 bushels, and oats, 29.3 bushels. This shows that the yields of corn and oats were more than 20% higher on the more profitable farms. Practically no wheat was grown on the less profitable farms while the more profitable farms grew an average of 7 acres per farm. Otherwise, the two groups of farms grew about the same proportions of crops.

Livestock Performance: Although livestock production is of minor importance in this area, the more successful farms have added to their income $123 in returns for every $100 invested in productive livestock, as compared to $102 return per $100 invested in livestock on the farms that made the lower incomes. Examination of the income figures for each class of livestock shows this advantage to come largely from a greater volume of hog sales. In a smaller way, they also had some advantage in the poultry enterprise, as well as in cattle.

Cost Items: There is little difference in the total expenses on these farms. The better farmers spent $12.43 per acre and the poorer farmers spent $13.60 per acre. The difference is due to the fact that the more successful operators worked more acres per man and per horse and had a lower cost per acre in keeping up machinery, buildings and fences.

Receipts per Acre: The two factors, gross and net receipts per acre, measure clearly the size of the margin of profit in the farm business here. The gross receipts per acre were $21.37 on the more profitable farms and only $12.15 on those less profitable. The most significant influence here again is the size of the crop yields. The difference of 11 bushels of corn per acre on about 100 acres per farm at 60 cents per bushel, the value of the 1925 crop on January 1, 1926, makes a total of $600 per farm in favor of the better farmers. Another factor entering in is the sale price of the old 1924 corn on hand at the beginning of the year of this study. The high group had sales averaging $1.00 per bushel, while the low group averaged 89 cents. On total sales averaging over 2,000 bushels per farm, this difference in price along amounted to $220 in favor of the better farmers. It is to be remembered that in 1925 the man who held his 1924 corn through the winter took less than the price at cribbing time. The 1925 opening inventory was taken at $1.00 a bushel. Those who held until late spring lost considerably and old corn was inventoried at the end of the 1925 season at 70 cents a bushel.

Size of Farms: In comparing the efficiency of different farms, experience shows that in this section of the state of Illinois there is a size of farm that is generally most profitable to operate. Similar results are indicated by this study. The more profitable one-third of these farms averaged 210 acres. It would seem that the farm of this size approaches somewhat nearer the most profitable size than those in the less profitable group, which averaged only 175 acres. While size seems to have some influence on farm incomes, the plan of operation and the organization of the farm, regardless of its size, is the important thing. It should always be the aim of the operator to plan for his particular farm the organization which will give the largest income. And one should not overlook the fact that frequently the reason why a good many of the larger farms do not have the larger incomes is because they do not have as good an organization for their size as the small farms do.

Since the expenses per acre are necessarily somewhat higher on the small sized farm, there is every reason for the operator of the small farm to grow those crops that will give the largest net return per acre and to choose the kind of livestock that will help increase the volume of his business. This may also be accomplished to some extent through securing larger crop yields and through increasing the productivity of the livestock already kept. In view, however, of the small percent of land in legumes in Gridley Township, it is probable that the smaller farms might well increase the percent of land in the legume crops, and give special attention to having a large percentage of the remainder of their land in crops which will give the largest return per acre. The best organization of either the small or the large farm simply emphasizes some of the things that should be kept in mind in working out the plan for one's own farm and the practices to be followed in its operation.

GRIDLEY TOWNSHIP, MCLEAN COUNTY, ILLINOIS - 1925

Factors helping to analyze the farm business	Average of 113 farms	38 most profitable farms	38 least profitable farms
Rate earned	1.5%	3.54%	-.54%
Labor and Management wage	$-1,047.00	$-165.00	$-1780.00
Size of farm - acres	189	210	175
Percent of land area tillable	96%	97%	95%
Acreage of - corn -	87	99	79
oats	65	69	60
wheat	2.5	7	--
Crop yields - corn - bushels	48	53	42
oats - "	33	36	29
wheat - "	15	15	--
Returns per $100 invested in all productive livestock	$106	$123	$102
for $100 in cattle	64	73	58
swine	141	160	138
poultry	164	180	148
Percent of gross income from livestock	26%	22%	33%
Man labor cost per acre	$5.95	$5.78	$6.05
Crop acres per man	95	102	90
Crop acres per horse	22	23	20
Expense per $100 gross income	$78.	$58	$112
Machinery expense per acre	2.01	1.80	2.10
Bldg. & fencing exp. per acre	1.72	1.49	1.80
Gross receipts per acre	17.00	21.37	12.15
Total expenses per acre	13.20	12.43	13.60
Net receipts per acre	3.78	8.94	-1.45
Farms with tractor - percent	50%	52%	42%
Value of land per acre	$218	$221	$212
Total investment per acre	252	252	246

The figures preceded by a minus sign (-) indicate that there was a loss of this amount.

GRIDLEY TOWNSHIP, MCLEAN COUNTY, ILLINOIS - 1925

Items of Income and Expense per Farm	Average of 113 Farms	38 most profitable Farms	38 least profitable farms
1. Capital Investment - Total	$47642	$53084	$43035
2. Land	41201	46522	37046
3. Farm Improvements	3945	3904	3692
4. Machinery & Equipment	1029	1082	930
5. Livestock	1467	1576	1367
6. Horses	687	730	665
7. Cattle	370	420	316
8. Swine	275	287	255
9. Sheep	15	9	14
10. Poultry	120	130	117
11. Receipts - Net Increases - Total	3218	4500	2147
12. Feed & Grain	2318	3425	1378
13. Miscellaneous	30	40	20
14. Livestock	870	1035	749
15. Horses	29	36	25
16. Cattle	110	133	99
17. Swine	392	452	356
18. Sheep	11	12	6
19. Poultry	84	102	79
20. Egg sales	113	135	97
21. Dairy Sales	131	165	87
22. Expenses - Net Decreases - Total	1741	1820	1657
23. Farm Improvements	326	313	315
24. Livestock	41	31	46
25. Horses	31	23	36
26. Cattle	2	4	2
27. Swine	4	1	6
28. Poultry	4	3	2
29. Machinery & Equipment	381	379	368
30. Feed and Supplies	13	--	38
31. Livestock Expense, other than feed	38	35	33
32. Crop Expense	170	195	146
33. Labor Hired	368	419	335
34. Taxes, Insurance, etc.	395	440	367
35. Miscellaneous	9	8	9
36. Receipts less Expenses	1477	2680	490
37. Operator's and Unpaid Family Labor	758	798	723
38. Net Income from Investment	719	1882	-233

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

HANCOCK, BROWN, SCHUYLER, ADAMS AND PIKE COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-eight Farms

for

1925

Urbana, Illinois

April 21, 1926

ANNUAL FARM BUSINESS REPORT

HANCOCK, BROWN, SCHUYLER, ADAMS AND PIKE COUNTIES, ILLINOIS - 1925

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

The 38 farmers in this group of Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $1006. to pay for their labor, risk and management after paying expenses and allowing 5% interest 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 a labor and management wage of $2686, while the third who were least successful lacked $424 of having enough earnings to pay 5% interest on their capital when nothing was allowed for labor and management. There was, therefore, a difference of about $3110 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these 38 farmers earned 6.02% on their investments after allowing $600 to pay for their own labor. On the same basis the most successful third earned 11.11% and the least successful third 2.4%. The average investment on the 38 farms was $40,430, which amounts to $188 an acre. The higher profit third had an average investment of $167 and the lower profit third $203 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 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 about $725 a year on a group of Champaign County 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 the above named Counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000. greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

In size of farm both the high and low profit groups were slightly under the average but not sufficient to materially affect profits. Each group averaged around 200 acres per farm. All three groups averaged from 76 to 79% of tillable land which gave them close to the same amount of tillable land per farm. In acreage of the chief grain crops, the more successful group averaged about 7½ acres more corn and 10 acres less wheat than the less successful group. It is not probable that this favored the more successful farms, however, since wheat prices were relatively

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*J. H. Lloyd, W. P. Miller, L. E. McKinzie, Ray E.Miller, and F. N. Barret, farm advisers in Hancock, Brown, Schuyler, Adams and Pike Counties respectively, cooperated in supervising and collecting the records used in this report.

better than corn prices in 1925, and in most areas summarized for 1925 a larger acreage of wheat seemed to favor higher earnings. The average farm included in this report had about 60 acres of corn, 23 acres of oats, and 23 acres of wheat, making a total of 106 acres in grain out of a total of 215 acres in the farm. Of the remaining 50% of the farm, nearly 25% was non-tillable and usable only for pasture, leaving 25% for hay, tillable pasture, and miscellaneous crops.

In crop yields the only important difference between groups was in the case of corn. The high profit group had 28% more corn per acre than the low profit group which is sufficient to reduce the cost per bushel materially. The average of the 38 farms secured about 59 bushels of corn, 35 bushels of oats and 15 bushels of wheat per acre.

One of the greatest advantages which the more profitable group of farms had over the low profit group was in returns per $100 invested in productive livestock. They received more than twice the income from the same amount of investment. This advantage was secured chiefly in the hog and cattle enterprises. Hogs constituted much the largest source of income on the average farm in each group. The more successful group of farms derived 74% of their income from hogs and 25% from other livestock sources. The distribution of income on the average farm was as follows: 68.3% from hogs, 18.4% from cattle, 4.6% from dairy sales, 5.6% from poultry and eggs, 1.5% from sheep and 1.6% from miscellaneous sources. The low profit group sold some grain and derived only 80% of their income from livestock. The price situation was greatly in favor of the hog enterprise during 1925.

On the cost side of their businesses, the higher profit group had a little higher costs for man labor and worked fewer acres per man which was probably due chiefly to their having more livestock to care for. They had slightly less costs for equipment and buildings but their total operating costs were about $1.28 per acre higher than on the low profit group. The more successful group of farms had nearly twice the gross income of the low profit group which took care of their expenses and left them a net income nearly four times that of the latter group. It is the net receipts which pay interest and profits.

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, Brown, Schuyler, Adams and Pike Counties, 1925

Factors helping to analyze the farm business	Your farm	Average of 38 farms	13 most profitable farms	13 least profitable farms
Rate earned	%	6.02%	11.11%	2.40%
Labor and management wage	$	$1006.	$2686.	$-424.
Size of farm - Acres	A	215.5 A	204.8 A	193.7 A
Percent of land area tillable	%	76.3%	77.3%	79.4%
Acres in Corn	A	60.7 A	62.2 A	54.6 A
Oats	A	23.0 A	21.7 A	20.6 A
Wheat	A	22.6 A	15.2 A	25.2 A
Crop yields - Corn	bu.	58.6bu.	65.8bu.	51.3 bu.
Oats	bu.	34.9bu.	33.2bu.	30.3 bu.
Wheat	bu.	15.1bu.	13.0bu.	13.5 bu.
Returns per $100 invested in all productive livestock	$	$ 174.00	$ 220.00	$ 95.00
For $100 in Cattle	$	$ 95.00	$ 108.00	$ 77.00
Swine	$	$ 251.00	$ 318.00	$ 190.00
Poultry	$	$ 203.00	$ 219.00	$ 217.00
Percent of gross income from livestock	%	98.5%	99.2%	80.3%
Man labor cost per acre	$	$ 5.81	$ 6.44	$ 5.87
Crop acres per man	A	72.4 A	63.4 A	81.1 A
Crop acres per horse (with tractor)	A	23.0 A	22.0 A	26.0 A
(without tractor)	A	21.1 A	18.6 A	20.6 A
Expense per $100 gross income	$	$ 52.00	$ 41.00	$ 71.00
Machinery cost per acre	$	$ 1.95	$ 1.46	$ 1.74
Building & fencing cost per A	$	$ .90	$ .89	$ 1.03
Gross receipts per acre	$	$ 23.31	$ 31.62	$ 16.70
Total expenses per acre	$	$ 12.01	$ 13.11	$ 11.83
Net receipts per acre	$	$ 11.30	$ 18.51	$ 4.87
Farms with tractor	%	45 %	31 %	38 %
Value of land per acre	$	$ 136.00	$ 111.00	$ 151.00
Total investment per acre	$	$ 188.00	$ 167.00	$ 203.00

Hancock, Brown, Schuyler, Adams and Pike Counties, 1925

	Your farm	Average of 38 farms	13 most profitable farms	13 least profitable farms
1. Capital Investment - Total	$_____	$40430	$34116	$39381
2. Land		29248	22771	29276
3. Farm improvements		4223	4141	4464
4. Machinery and equipment		1245	1287	1028
5. Feed and supplies		2469	2564	2357
6. Livestock		3245	3353	2256
7. Horses		530	539	511
8. Cattle		1078	930	533
9. Swine		1364	1469	1033
10. Sheep		139	287	56
11. Poultry		134	128	123
12. Receipts-Net Increases-Total	_____	5024	6476	3236
13. Feed and grain		---	---	588
14. Miscellaneous		72	52	51
15. Livestock - Total		4952	6424	2597
16. Horses		---	15	---
17. Cattle		927	859	263
18. Swine		3433	4808	1859
19. Sheep		79	162	31
20. Poultry		104	103	91
21. Egg sales		180	182	189
22. Dairy sales		229	295	164
23. Expenses-Net Decreases-Total	_____	1777	1818	1488
24. Farm improvements		194	182	199
25. Livestock		5	--	30
26. Horses		5	--	30
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		420	299	337
32. Feed and supplies		3	176	---
33. Livestock expense other than feed		101	86	65
34. Crop expense		225	259	178
35. Labor hired		441	453	333
36. Taxes, Insurance, etc.		362	348	310
37. Miscellaneous		26	15	36
38. Receipts less Expenses	_____	3247	4658	1748
39. Operator's and unpaid family labor		812	866	804
40. Net income from investment		2435	3792	944

Find Your Farm Leaks - (Hancock, Brown, Schuyler, Adams and Pike Counties - 1925)

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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No tractor			
13.00	80	56	29	165	391	343	--	2.30	107	37	35	17	44	355
12.00	77	53	27	155	371	323	--	2.80	102	35	33	22	41	335
11.00	74	50	25	145	351	303	--	3.30	97	33	31	27	38	315
10.00	71	47	23	135	331	283	--	3.80	92	31	29	32	35	295
9.00	68	44	21	125	311	263	--	4.30	87	29	27	37	32	275
8.00	65	41	19	115	291	243	--	4.80	82	27	25	42	29	255
7.00	62	38	17	105	271	223	--	5.30	77	25	23	47	26	235
6.00	59	35	15	95	251	203	98	5.80	72	23	21	52	23	215
5.00	56	32	13	85	231	183	93	6.30	67	21	19	57	20	195
4.00	53	29	11	75	211	163	88	6.80	62	19	17	62	17	175
3.00	50	26	9	65	191	143	83	7.30	57	17	15	67	14	155
2.00	47	23	7	55	171	123	78	7.80	52	15	13	72	11	135
1.00	44	20	5	45	151	103	73	8.30	47	13	11	77	8	115
0.00	41	17	--	35	131	83	68	8.80	42	11	9	82	5	95
-1.00	38	14	--	25	111	63	63	9.30	37	9	7	87	--	75
-2.00	35	11	--	15	91	43	58	9.80	32	7	5	92	--	55

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100 worth of feed fed, and for each $100 invested in livestock.

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The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

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The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

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6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

MC DONOUGH COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

May 25, 1926

ANNUAL FARM BUSINESS REPORT

MC DONOUGH COUNTY, ILLINOIS - 1925

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

The 30 farmers in Mc Donough County who kept financial records in the Illinois Farm Account Project for 1925 had an average of $937 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $238 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $2,558 while the third who were least successful lacked an average of $807 of having enough income to pay 5% on their investments allowing nothing for labor and management.

There was, therefore, an average difference of about $3,365 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these 30 farmers earned 5.7% on their investments after allowing $600 each to pay for their own labor. On the same basis the most successful third earned 9.7% and the least successful third 1.4%. The average investment on the 30 farms was $42,847 which amounts to $238 an acre. The higher profit third had an average investment of $258 and the lower profit third $227 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 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 about $725 a year on a group of Champaign County 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 Mc Donough County. A field survey of earnings on all farms in one Mc Lean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

Size of farm had little influence on the average earnings of the different groups covered by this report since each group was within 20 acres of the average which was 180 acres per farm.

Good crop yields constituted one of the biggest factors in the success of the ten most profitable farms as compared with the ten which were least successful. The different groups had more than a third of their acreage in corn and the higher profit group secured

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*R. C. Doneghue, farm adviser in Mc Donough county cooperated in supervising and collecting the records used in this report.

nearly a third more corn per acre than the lower profit group. This advantage of about fifteen bushels per acre was secured at very little additional cost.

The ten most successful farmers also had a big advantage in livestock efficiency. They secured about 37% more income per $100 invested in livestock than did the ten least successful farmers. The most of this advantage was in the hog enterprize and hogs were much the largest source of income on the farms covered by this report. With only slightly more average investment in hogs the higher profit group secured nearly twice as much income from hogs. Because of their better yields of grain and their greater efficiency in feeding livestock the ten most successful farmers took care of their feed requirements and still had an average of $1,453 worth of feed and grain to sell. With less livestock income the ten least successful farmers had an average of only $65 worth of feed and grain to sell.

The labor cost per acre on these Mc Donough County farms is higher than most areas which have less livestock. This is to be expected and is more than balanced by a larger gross income per acre. The livestock sections also show a higher cost per acre for machinery and equipment as well as for buildings and fencing. For 1925 these McDonough County farms had sufficiently higher gross incomes than farmers in the grain selling sections to more than carry this extra expense.

The ten most profitable farms in this Mc Donough County report had nearly twice as large gross incomes per acre as did the ten least profitable farms and they also had about $3.00 per acre less expense. As a result the ten most profitable farms had nearly eight times as much net income per acre as did the ten least successful farms. It is the net income which pays interest and profits.

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.

Mc Donough County - 1925

Factors helping to analyze the farm business	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Rate earned	%	5.77%	9.69%	1.44%
Labor and management wage	$	$937.00	$2 558.00	$-807.00
Size of farm - Acres	A	180.3 A	161.8 A	174.4 A
Percent of land area tillable	%	%	%	%
Acres in Corn	A	68.7 A	66.5 A	61.6 A
Oats	A	22.7 A	22.4 A	15.0 A
Wheat	A	18.7 A	20.2 A	18.9 A
Crop yields - Corn	bu.	57.8 bu.	65.1 bu.	50.6 bu.
Oats	bu.	44.3 bu.	44.7 bu.	43.1 bu.
Wheat	bu.	21.9 bu.	23.3 bu.	21.5 bu.
Returns per $100 invested in all productive livestock	$	$177.00	$ 197.00	$ 144.00
For $100 in Cattle	$	$ 56.00	$ 53.00	$ 47.00
Swine	$	$237.00	$ 245.00	$ 193.00
Poultry	$	$183.00	$ 151.00	$ 201.00
Percent of gross income from livestock	%	80.1%	73.0 %	95.1 %
Man labor cost per acre	$	$ 6.84	$ 6.27	$ 7.75
Crop acres per man	A	69.2 A	77.8 A	58.0 A
Crop acres per horse (with tractor)	A	21.1 A	22.3 A	17.4 A
(without tractor)	A	17.6 A	17.6 A	16.2 A
Expense per $100 gross income	$	$ 52.46	$ 35.07	$ 83.50
Machinery cost per acre	$	$ 2.32	$ 2.27	$ 2.63
Building & fencing cost per A.	$	$ 1.68	$ 1.22	$ 1.31
Gross receipts per acre	$	$ 28.91	$ 38.51	$ 19.77
Total expenses per acre	$	$ 15.16	$ 13.50	$ 16.51
Net receipts per acre	$	$ 13.75	$ 25.01	$ 3.26
Farms with tractor	%	50.0 %	60.0 %	50.0 %
Value of land per acre	$	$179.00	$ 192.00	$ 169.00
Total investment per acre	$	$238.00	$ 258.00	$ 227.00

Mc Donough County - 1925

	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment - Total	$_____	$42 847	$41 768	$39 506
2. Land		32 248	31 047	29 427
3. Farm improvements		3 596	3 346	3 485
4. Machinery and equipment		1 454	1 715	1 302
5. Feed and supplies		2 691	2 933	2 301
6. Livestock		2 858	2 728	2 991
7. Horses		635	599	633
8. Cattle		760	556	981
9. Swine		1 266	1 388	1 191
10. Sheep		63	60	61
11. Poultry		134	125	125
12. Receipts-Net Increases-Total	$_____	5 204	6 231	3 449
13. Feed and Grain		908	1 453	65
14. Miscellaneous		130	230	105
15. Livestock - Total		4 166	4 548	3 279
16. Horses		---	---	---
17. Cattle		456	305	478
18. Swine		3 040	3 777	2 021
19. Sheep		74	60	56
20. Poultry		132	136	143
21. Egg sales		134	81	150
22. Dairy sales		330	189	431
23. Expenses-Net Decreases-Total	$_____	1 905	1 489	2 000
24. Farm improvements		303	197	228
25. Livestock		---	---	---
26. Horses		13	4	31
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		418	367	458
32. Feed and supplies		--	--	--
33. Livestock expenses other than feed		108	49	174
34. Crop expenses		173	147	145
35. Labor hired		408	318	471
36. Taxes, Insurance, etc.		441	347	460
37. Miscellaneous		41	60	33
38. Receipts less Expenses	$_____	3 299	4 742	1 449
39. Operator's and unpaid family labor		825	696	880
40. Net income from investment		2 474	4 046	568

Find Your Farm Leaks -- Mc Donough County - 1925

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 farms in your County.

Rate earned	Bushels per acre of			Returns per $100 invested in			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No Tractor			
10.75	93	65	36	126	377	323	---	3.34	105	35	32	17	50	320
11.75	88	62	34	116	357	303	---	3.84	100	33	30	22	47	300
10.75	83	59	32	106	337	283	---	4.34	95	31	28	27	44	280
9.75	78	56	30	96	317	263	100	4.84	90	29	26	32	41	260
8.75	73	53	28	86	297	243	95	5.34	85	27	24	37	38	240
7.75	68	50	26	76	277	223	90	5.84	80	25	22	42	35	220
6.75	63	47	24	66	257	203	85	6.34	75	23	20	47	32	200
5.75	58	44	22	56	237	183	80	6.84	70	21	18	52	29	180
4.75	53	41	20	46	217	163	75	7.34	65	19	16	57	26	160
3.75	48	38	18	36	197	143	70	7.84	60	17	14	62	23	140
2.75	43	35	16	26	177	123	65	8.34	55	15	12	67	20	120
1.75	38	32	14	16	157	103	60	8.84	50	13	10	72	17	100
0.75	33	29	12	6	137	83	55	9.34	45	11	8	77	14	80
-.25	28	26	10	--	117	63	50	9.84	40	9	6	82	11	60
-1.25	23	23	8	--	97	43	45	10.34	35	7	4	87	8	40
-2.25	18	20	--	--	77	23	40	10.84	30	5	2	92	5	20

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

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ANNUAL FARM BUSINESS REPORT

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Thirty-five Farms

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Urbana, Illinois

April 12, 1926

ANNUAL FARM BUSINESS REPORT

MASON, MACON, LOGAN, PIATT AND MC LEAN COUNTIES, ILLINOIS - 1925

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

The 35 farmers in this group of counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $44 to pay for their labor, risk and management after paying expenses and allowing 5% interest 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 a labor and management wage of $1337, while the third who were least successful lacked $1219 of having enough earnings to pay 5% on their capital, allowing nothing for their labor and management. There was, therefore, a difference of $2556 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way, these 35 farmers earned 4.11% on their investments after allowing $600 to pay for their own labor. On the same basis the most successful third earned 6.53% and the least successful third 2.30%. The average investment on the 35 farms was $60,436 which amounts to $236 an acre. The higher profit third had an average investment of $202, 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.

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 about $725 a year on a group of Champaign County 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 earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1,000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

Size of farm had little effect on the relative earnings of the different groups shown in this report. The average farm in the high and low profit groups were within ten acres of the average of all farms which was 256 acres. Neither was there any significant difference between groups in percent of land tillable. The average number of acres for each group in each kind of grain was quite uniform except that the higher profit group averaged about 10 acres less corn and 4 acres more wheat than the average of all farms. The average farm had about 97 acres of corn, 34 acres of oats, and 45 acres of wheat.

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*T. R. Isaacs, E. H. Walworth, J. H. Checkley, S. S. Davis, and H. F. Fahrnkopf, farm advisers in Mason, Macon, Logan, Piatt and McLean counties respectively, cooperated in supervising and collecting the records used in this report.

This group of 35 farm records is exceptional in comparison with other areas summarized in 1925 in that the more successful group of farms averaged no higher in crop yields than the less successful group. They had higher crop sales chiefly because they fed less of their grain to livestock. This factor is complicated for this area by the fact that the four most profitable farms in the upper third were located in the sandy soil area in Mason County. These four farms had more wheat and much less oats than other farms included in this summary. The average acreage of grain crops on the four most profitable farms was distributed as follows: 81 acres corn, 15 acres oats, and 70 acres wheat. The price situation favored these wheat farms in 1925 since wheat was relatively much higher in price than oats. They had another advantage too, in that land values are not so high in the sandy soil area which tended to increase the rate earned by reducing the amount of capital over which the income was distributed. These four farms tended to keep down the average yield on the higher profit group. While averages of all 35 farms in the summary were 53 bushels of corn, 35 bushels of oats, and 19 bushels of wheat, these four sandy soil farms averaged 38 bushels of corn, 22 bushels of oats, and 17 bushels of wheat to the acre.

The twelve farms making the best incomes had 42% larger returns per $100 invested in productive livestock. This advantage was gained chiefly in hogs and dairy products. The lower profit group had slightly larger sales of livestock products but about $1,000 less income from crops than the higher profit group. One of the chief differences in size of enterprises between these two groups of farms is in the relatively large size of the cattle enterprise on the lower profit farms. They had an investment of $2050 per farm in cattle while the higher profit farms had only $666. The latter group had a greater part of their cattle investment in dairy cows as shown by the larger dairy sales. This does not mean that beef cattle have no place in this area. They are known to be a profitable enterprise on some farms where they are properly fitted to the farm organization. Ill. Bulletin No. 261 discusses this problem more fully.

In use of man labor and horse power the more successful group of farms had a higher average efficiency. Their man labor cost per acre was 22% less than on the least successful farms and they handled more crop acres per man and per horse.

In all factors measuring operating expense the more successful farms had an advantage. They spent $43 out of every $100 income, while the lower profit third spent $63. They also had lower machinery and equipment costs and less cost for improvements. The more successful group had an operating cost of $9.92 an acre, while the least profitable farms had a corresponding cost of $13.32.

The higher profit group had a relatively small advantage in gross income per acre with $23.12, while the lower profit group had a gross income of $19.34. However, after subtracting expenses

the more successful group had over twice as large a net income. It is the net receipts which pay interest and profits.

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.

Mason, Macon, Logan, Piatt, and McLean Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 35 farms	12 most profitable farms	12 least profitable farms
Rate earned	%	4.11%	6.53%	2.30%
Labor and management wage	$	$ 44.	$1337.	$1219.
Size of farm - Acres	A.	256.3 A.	246.1 A.	254.6 A.
Percent of land area tillable	%	94.1%	91.4%	94.5%
Acres in Corn	A.	97.5 A.	87.6 A.	98.0 A.
Oats	A.	34.4 A.	26.7 A.	32.3 A.
Wheat	A.	44.7 A.	48.7 A.	41.8 A.
Crop yields - Corn	bu.	53.4bu.	50.9 bu.	55.7 bu.
Oats	bu.	35.0bu.	33.7 bu.	35.6 bu.
Wheat	bu.	18.6bu.	18.2 bu.	19.4 bu.
Returns per $100 invested in all productive livestock	$	$132.00	$155.00	$109.00
For $100 in Cattle	$	$105.00	$117.00	$ 75.00
Swine	$	$196.00	$191.00	$170.00
Poultry	$	$137.00	$145.00	$155.00
Percent of gross income from livestock	%	57.3%	56.3%	70.2%
Man labor cost per acre	$	$ 5.31	$ 4.74	$ 5.78
Crop acres per man	A.	106.2 A.	111.0 A.	102.6 A.
Crop acres per horse (with tractor)	A.	27.2 A.	30.4 A.	26.2 A.
(without tractor)	A.	24.7 A.	25.8 A.	24.0 A.
Expense per $100 gross income	$	$ 55.00	$ 43.00	$ 69.00
Machinery cost per acre	$	$ 1.93	$ 1.51	$ 2.27
Building and fencing cost per A	$	$ 1.10	$ .78	$ 1.36
Gross receipts per acre	$	$ 21.48	$ 23.12	$ 19.34
Total expenses per acre	$	$ 11.79	$ 9.92	$ 13.32
Net receipts per acre	$	$ 9.69	$ 13.20	$ 6.02
Farms with tractor	%	48.6%	50.0%	50.0%
Value of land per acre	$	$184.00	$157.00	$198.00
Total investment per acre	$	$236.00	$202.00	$261.00

Mason, Macon, Logan, Piatt, and McLean Counties - 1925

	Your farm	Average of 35 farms	12 most profitable farms	12 least profitable farms
1. Capital Investment - Total	$____	$60436	$49700	$66535
2. Land		47051	38713	50410
3. Farm improvements		4504	3492	5467
4. Machinery and equipment		1697	1762	1843
5. Feed and supplies		3986	3248	4530
6. Livestock		3198	2485	4285
7. Horses		827	680	926
8. Cattle		1219	666	2050
9. Swine		918	905	1187
10. Sheep		110	90	35
11. Poultry		124	144	87
12. Receipts-Net Increases-Total	____	5506	5690	4925
13. Feed and grain		2301	2425	1442
14. Miscellaneous		49	61	28
15. Livestock - Total		3156	3204	3455
16. Horses		---	---	---
17. Cattle		698	299	1332
18. Swine		1869	2062	1829
19. Sheep		34	51	21
20. Poultry		94	95	92
21. Egg sales		82	125	49
22. Dairy sales		379	572	132
23. Expenses-Net Decreases-Total	____	2246	1689	2621
24. Farm improvements		283	191	347
25. Livestock		13	12	15
26. Horses		13	12	15
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		494	371	579
32. Feed and supplies		---	---	---
33. Livestock expense other than feed		58	58	60
34. Crop expense		258	189	262
35. Labor hired		585	413	700
36. Taxes, Insurance, etc.		501	438	543
37. Miscellaneous		54	17	115
38. Receipts less Expenses	____	3260	4001	2304
39. Operator's and unpaid family labor		777	753	771
40. Net income from investment		2483	3248	1533

Find Your Farm Leaks - (Mason, Macon, Logan, Piatt and McLean Counties - 1925)

The numbers between the lines across the middle of the page are 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 the average farm in your locality.

Rate earned	Bushels per acre of			Returns per $100 invested in			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Trac-tor	No Tractor			
11.11	88	70	33	175	336	277	92	1.80	141	41	38	20	42	396
10.11	83	65	31	165	316	257	87	2.30	136	39	36	25	39	376
9.11	78	60	29	155	296	237	82	2.80	131	37	34	30	36	356
8.11	73	55	27	145	276	217	77	3.30	126	35	32	35	33	336
7.11	68	50	25	135	256	197	72	3.80	121	33	30	40	30	316
6.11	63	45	23	125	236	177	67	4.30	116	31	28	45	27	296
5.11	58	40	21	115	216	157	62	4.80	111	29	26	50	24	276
4.11	53	35	19	105	196	137	57	5.30	106	27	24	55	21	256
3.11	48	30	17	95	176	117	52	5.80	101	25	22	60	18	236
2.11	43	25	15	85	156	97	47	6.30	96	23	20	65	15	216
1.11	38	20	13	75	136	77	42	6.80	91	21	18	70	12	196
0.11	33	15	11	65	116	57	37	7.30	86	19	16	75	9	176
-1.11	28	10	9	55	96	37	32	7.80	81	17	14	80	6	156
-2.11	23	--	7	45	76	17	27	8.30	76	15	12	85	3	136
-3.11	18	--	5	35	56	7	22	8.80	71	13	10	90	-	116
-4.11	13	--	-	25	36	-	17	9.30	66	11	8	95	-	96

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100. worth of feed fed, and for each $100. invested in livestock.

Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

FORD COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-one Farms

for

1925

Urbana, Illinois

April 23, 1926

ANNUAL FARM BUSINESS REPORT

FORD COUNTY, ILLINOIS - 1925

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

The 31 farmers in Ford County who kept financial records for 1925 in the Illinois Farm Account Project lacked an average of $1011 of having enough earnings to pay 5% on their average investment of $253 an acre after paying expenses but allowing nothing for their own labor, risk and management. The one-third of these farms which made the best profits had an average of $865 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $254 an acre. This is called their labor and management wage. The least successful third of the 31 farms lacked an average of $2819 of having enough income to pay 5% on their average capital of $261 an acre, allowing nothing for their labor and management. From these figures it is clear that there was a difference of $3684 between the high and low profit groups in the labor and management wage secured by the average farm operator.

Expressed in another way, the average of these 31 farm operators earned only 2.5% on his investment after allowing $600 to pay for his own labor. On the same basis the most successful third earned 5.5% and the least successful third lost .52% on their average farm investment after paying expenses and allowing $600 to pay for the operator's labor. This latter group had an average of only $491 left after paying actual expenses. This $491 was all that remained to pay for the labor performed by members of the family, worth $816 at the going rate for farm help, and interest on an average capital of $61,924 per farm. The terms investment per farm and investment per acre are used to include capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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 about $725 a year on a group of Champaign County 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 Ford County. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

The average size of the farms covered by this report was 251.6 acres. The higher profit third averaged 257.6 acres and the

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* G. T. Swaim, farm adviser in Ford County, cooperated in supervising and collecting the records used in this report.

lower profit third 237.5 acres. This difference of 20 acres per farm between the last two groups probably had little effect on farm earnings since both groups were large enough for efficient organization. In percent of land tillable there was no significant difference between groups. The average farm had about 103 acres of corn, 72 acres of oats, and 7 acres of wheat. The higher profit group had about 10 acres more corn and 11 acres more wheat than the lower profit group; in fact the latter group had no wheat.

In crop yields the 10 most successful farms had an advantage over the ten least successful farms of about 15% in the case of both corn and oats. The yield of crops in Ford County was somewhat reduced by a dry season during the summer of 1925. The average farm covered by this report harvested about 47 bushels of corn, 27 bushels of oats and 22 bushels of wheat to the acre.

The 10 most successful farms secured about 38% more income per $100 invested in productive livestock than the 10 least successful farms which, considering the fact that the average farm in each group received about half of its income from livestock, was a large advantage. Examination of the income figures shows that this advantage came chiefly from the hog enterprise which was the largest single source of livestock income on these farms. With less than twice the investment in hogs the higher profit group received nearly three times the income received by the lower profit group from this source. The more successful group also showed a higher income from dairy products, cattle, sheep and poultry.

In man labor cost per acre the higher profit group had an advantage of about 37 cents an acre although they handled only two more acres per man. In horse labor their advantage was relatively greater. The tractor farms in the higher profit third had 32 crop acres per horse which was about a third more acres than were handled on tractor farms of the low profit group. On non-tractor farms, the relation was the same except in a less degree.

The 10 most successful farmers spent for operating the farm $44 out of every $100 income, while the 10 least successful farmers had an operating expense of $113 for every $100 taken in, with the family labor included as an expense. If they had had to pay for this family labor they would, therefore, have operated at a loss not including any interest on the investment. Expressing the income and expenses on the acre basis shows that this unsatisfactory relation between income and expenses on the low profit farms was due more to low income per acre than to high expenses. While they spent $1 more per acre, their gross income was less than half that of the higher profit farms. This left them with a net loss of $1.37 an acre while the 10 most successful farmers had net receipts amounting to $13.98 an acre with which to pay interest and profits. The more profitable farms evidently secured their larger incomes from better yields of crops, greater efficiency in producing livestock, and in more timely marketing. Their larger hog, cattle and sheep enterprises were also an advantage since 1925 prices were

much more favorable to livestock than to corn and oats. The farmers of the higher profit group took care of their livestock requirements and still received nearly three times as much income from feed and grain as the farmers of the lower profit group. This probably indicates efficient feeding as well as good marketing.

A comparison of the 1925 earnings on these 31 farms with the earnings of farms in the corresponding area for 1924 shows the effect of the low grain prices and adverse weather conditions prevailing in 1925. The Ford County report for 1924 was combined with that of Champaign and part of McLean County including in all 52 farms. The average rate earned on these 52 farms for 1924 was 7.43% compared with 2.5% on the 31 farms included in this report for 1925. The labor and management wage on the 52 farms for 1924 was $1868 compared with a labor and management loss on the 31 farms for 1925 of $1011. The average difference in income for labor and management between the two years was, therefore, $2879 per farm.

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.

Ford County - 1925

Factors helping to analyze the farm business	Your farm	Average of 31 farms	10 most profitable farms	10 least profitable farms
Rate earned	%	2.5%	5.5%	-0.52%
Labor and management wage	$	$-1011.	$865.	$-2819.
Size of farm - Acres	A	251.6A	257.6 A	237.5 A
Percent of land area tillable	%	93.4%	95.4%	93.7%
Acres in Corn	A	102.7A	104.8 A	94.6 A
Oats	A	71.9A	72.6 A	74.2 A
Wheat	A	7.0A	11.4 A	-- A
Crop yields - Corn	bu.	46.8bu	51.2 bu	44.4 bu.
Oats	bu.	27.1bu	28.4 bu	24.3 bu.
Wheat	bu.	22.5bu	23.8 bu	-- bu.
Returns per $100 invested in all productive livestock	$	$ 127.00	$139.00	$ 101.00
For $100 in Cattle	$	$ 91.00	$114.00	$ 72.00
Swine	$	$ 185.00	$212.00	$ 149.00
Poultry	$	$ 173.00	$199.00	$ 135.00
Percent of gross income from livestock	%	46.3%	48.6%	50.8%
Man labor cost per acre	$	$ 5.18	$ 5.14	$ 5.51
Crop acres per man	A	110.0A	112.3A	110.3 A
Crop acres per horse (with tractor)	A	29.2A	32.0 A	24.4 A
(without tractor)	A	22.1A	22.8 A	18.8 A
Expense per $100 gross income	$	$ 64.00	$ 44.00	$ 113.00
Machinery cost per acre	$	$ 1.88	$ 1.89	$ 1.87
Building & fencing cost per A	$	$ .93	$ .83	$ 1.27
Gross receipts per acre	$	$ 17.45	$ 24.83	$ 10.45
Total expenses per acre	$	$ 11.12	$ 10.85	$ 11.82
Net receipts per acre	$	$ 6.33	$ 13.98	$ - 1.37
Farms with tractor	%	80.0%	80.0%	80.0%
Value of land per acre	$	$ 200.00	$204.00	$ 195.00
Total investment per acre	$	$ 253.00	$254.00	$ 261.00

Ford County - 1925

	Your farm	Average of 31 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment - Total	$_____	$63659	$65549	$61924
2. Land		50220	52513	46285
3. Farm improvements		4842	4770	5987
4. Machinery and equipment		1575	1367	1891
5. Feed and supplies		4561	3741	5671
6. Livestock		2461	3158	2090
7. Horses		770	818	803
8. Cattle		734	1098	636
9. Swine		581	603	377
10. Sheep		211	492	73
11. Poultry		165	147	201
12. Receipts-Net Increases-Total	_____	4391	6397	2483
13. Feed and grain		2293	3135	1190
14. Miscellaneous		66	150	31
15. Livestock - Total		2032	3112	1262
16. Horses		---	11	---
17. Cattle		327	565	263
18. Swine		1003	1429	512
19. Sheep		73	142	24
20. Poultry		130	174	93
21. Egg sales		172	170	170
22. Dairy sales		327	621	200
23. Expenses-Net Decreases-Total	_____	1997	2013	1992
24. Farm improvements		233	214	301
25. Livestock		26	---	46
26. Horses		26	---	46
27. Cattle		---	---	---
28. Swine		---	---	---
29. Sheep		---	---	---
30. Poultry		---	---	---
31. Machinery and equipment		473	488	443
32. Feed and supplies		---	---	---
33. Livestock expense other than feed		63	97	42
34. Crop expense		171	143	181
35. Labor hired		501	544	492
36. Taxes, Insurance, etc.		498	494	458
37. Miscellaneous		32	33	29
38. Receipts less Expenses	_____	2394	4384	491
39. Operator's and unpaid family labor		802	781	816
40. Net income from investment		1592	3603	- 325

Find Your Farm Leaks - (Ford County - 1925)

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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Horse				
										Trac-tor	No tractor			
9.5	68	48	36	161	325	313	81	1.68	145	43	36	29	38	390
8.5	65	45	34	151	305	293	76	2.18	140	41	34	34	35	370
7.5	62	42	32	141	285	273	71	2.68	135	39	32	39	32	350
6.5	59	39	30	131	265	253	66	3.18	130	37	30	44	29	330
5.5	56	36	28	121	245	233	61	3.68	125	35	28	49	26	310
4.5	53	33	26	111	225	213	56	4.18	120	33	26	54	23	290
3.5	50	30	24	101	205	193	51	4.68	115	31	24	59	20	270
2.5	47	27	22	91	185	173	46	5.18	110	29	22	64	17	250
1.5	44	24	20	81	165	153	41	5.68	105	27	20	69	14	230
0.5	41	21	18	71	145	133	36	6.18	100	25	18	74	11	210
-0.5	38	18	16	61	125	113	31	6.68	95	23	16	79	8	190
-1.5	35	15	14	51	105	93	26	7.18	90	21	14	84	5	170
-2.5	32	12	12	41	85	73	21	7.68	85	19	12	89	2	150
-3.5	29	9	10	31	65	53	16	8.18	80	17	10	94	--	130
-4.5	26	6	8	21	45	33	11	8.68	75	15	8	99	--	110
-5.5	23	3	6	11	25	13	6	9.18	70	13	--	104	--	90

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

CHAMPAIGN COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

April 27, 1926

ANNUAL FARM BUSINESS REPORT

CHAMPAIGN COUNTY, ILLINOIS - 1925

Prepared by H. C. M. Case, R. R. Hudelson, R. C. Ross*

The 30 farmers in Champaign County who kept financial records for 1925 in the Illinois Farm Account Project lacked an average of $201 of having sufficient income to pay 5% on their average capital of $251 an acre when they had paid all expenses of running the business but had allowed nothing to pay for their labor, risk and management. The one-third of these farmers who made the best profits had income enough to pay operating expenses, return 5% interest on the capital invested and still allow an average of $1,174 each to pay for the operator's labor, risk and management. This $1,174 is called the labor and management wage. The least successful third lacked an average of $1,291 per farm of having income enough to pay running expenses and return 5% on the investment without allowing anything to pay for the operator's labor, risk and management. From the above it can be seen that there was a difference in pay for labor and management between the high and low thirds of $2,465 per farm.

To express the year's earnings in another way, the average of these 30 farms earned 3.52% on the investment after allowing the operator $600. to pay for his labor. On the same basis the 10 most profitable farms earned 6.01% and the 10 least profitable farms 1.19%. The average investment on the 30 farms was $53,997 per farm including the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. This amounts to an investment per acre of $251. The average investment per acre on the 10 most profitable farms was $250 and on the 10 least profitable farms $260.

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 about $725 per year on one group of Champaign County farms where this phase of the business was given special study.

The income figures given in this report should not be considered as representative of all farms in Champaign County. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1,000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

The average farm covered by this report contained 215 acres. The 10 most successful farms averaged 227 acres while the 10 least successful ones averaged 191 acres. The more successful group, therefore, had 36 acres more land per farm. It is doubtful whether this was of much advantage, however, since both groups were large enough for efficient organization. In percent of land tillable,

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*C. C. Burns, farm adviser in Champaign County, cooperated in supervising and collecting the records used in this report.

there was no significant difference between groups. In acreage of the chief grain crops, the high profit group had 11 acres more corn and 20 acres more wheat per farm but about the same amount of oats as the low profit group. This extra acreage of wheat was of considerable advantage since wheat prices were better than corn and oats prices during 1925.

The 10 most successful farms, with a yield of 58 bushels of corn per acre, had a large advantage over the less successful group with 44 bushels. The farmers keeping detailed cost accounts in Champaign and Piatt Counties have shown that increasing the yield by practical methods has a very large effect in reducing the cost per bushel of grain. As a general rule, costs do not increase in proportion to the increase in yield.

The 10 most successful farms also had an advantage of nearly 10% in returns per $100 invested in productive livestock. The livestock enterprises were small, however, on the average of these Champaign County farms and this was a minor advantage. Accounts from other sections of the State have shown that a relatively large investment in livestock, especially hogs, was distinctly profitable for 1925.

The average farm covered by this report derived 33% of its income from livestock sources including poultry and dairy products. The more successful group derived only 25% of its income from livestock, but this reduction from the average was due chiefly to larger grain yields and more income from crops; in fact, they actually had a little more income from livestock than the average. In a like manner the low profit group, with nearly 50% income from livestock showed this higher percentage because they were low in crop yields and crop income. They were actually under the average in amount of income from livestock.

In man labor and horse power efficiency, there was not a large difference between groups. The 10 most successful farms as compared with the 10 least successful farms had a little higher man labor cost per acre but handled about 8 more crop acres per man, and on the tractor farms about 10 more crop acres per horse. They also had larger equipment costs, probably due to the fact that a higher percentage of them owned tractors.

One of the largest advantages of the 10 most successful farmers was in the amount of expenses per $100 income. While they spent only $45 out of each $100 income in running the farm, the 10 least successful farmers spent $79. Examination of the gross income and operating expenses on the acre basis shows that the more successful farmers spent about 6% more per acre but they secured 85% more income, leaving a net income nearly five times that of the less successful group. It is the net receipts which pay interest and profits.

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.

Champaign County - 1925

Factors helping to analyze the farm business	Your farm	Average of 30 farms	10 most profitable farms	10 least profitabl farms
Rate earned	%	3.52%	6.01%	1.19%
Labor and management wage	$	$-201.	$1174.	$-1291.
Size of farm - Acres	A	214.7A	226.8A	191.2A
Percent of land area tillable	%	95.9%	96.0%	94.0%
Acres in Corn	A	92.0A	96.3A	85.4A
Oats	A	45.1A	41.5A	42.4A
Wheat	A	18.5A	28.0A	8.5A
Crop yields - Corn	bu.	52.0bu.	57.9bu.	43.9bu
Oats	bu.	33.8bu.	37.0bu.	34.3bu
Wheat	bu.	16.8bu.	17.5bu.	15.0bu
Returns per $100 invested in all productive livestock	$	$ 138.00	$ 139.00	$ 127.00
For $100 in Cattle	$	$ 96.00	$ 90.00	$ 91.00
Swine	$	$ 208.00	$ 214.00	$ 187.00
Poultry	$	$ 175.00	$ 167.00	$ 194.00
Percent of gross income from livestock	%	33.4%	25.4%	49.6%
Man labor cost per acre	$	$ 5.38	$ 5.54	$ 5.36
Crop acres per man	A	109.5A	109.9A	101.6A
Crop acres per horse (with tractor)	A	32.6A	36.6A	26.8A
(without tractor)	A	20.7A	18.2A	22.2A
Expense per $100 gross income	$	$ 57.00	$ 45.00	$ 79.00
Machinery cost per acre	$	1.89	2.00	1.47
Building & fencing cost per A	$	.99	.98	.99
Gross receipts per acre	$	$ 20.67	$ 27.25	$ 14.58
Total expenses per acre	$	11.82	12.24	11.48
Net receipts per acre	$	8.85	15.01	3.10
Farms with tractor	%	60.0%	60.0%	40.0%
Value of land per acre	$	$ 201.00	$ 198.00	$ 210.00
Total investment per acre	$	$ 251.00	$ 250.00	$ 260.00

Champaign County - 1925

		Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
1.	Capital Investment - Total	$____	$53 997	$56 608	$49 678
2.	Land		43 219	44 910	40 065
3.	Farm improvements		3 256	3 452	3 074
4.	Machinery and equipment		1 486	1 639	1 015
5.	Feed and supplies		4 382	4 901	3 815
6.	Livestock		1 654	1 706	1 709
7.	Horses		642	629	708
8.	Cattle		572	591	550
9.	Swine		256	218	294
10.	Sheep		37	57	46
11.	Poultry		148	211	111
12.	Receipts-Net Increases-Total	____	4 438	6 180	2 787
13.	Feed and grain		2 841	4 375	1 369
14.	Miscellaneous		115	234	35
15.	Livestock - Total		1 482	1 571	1 383
16.	Horses		---	---	---
17.	Cattle		182	144	287
18.	Swine		609	607	547
19.	Sheep		33	54	36
20.	Poultry		167	285	100
21.	Egg sales		120	132	125
22.	Dairy sales		371	349	288
23.	Expenses-Net Decreases-Total	____	1 846	2 063	1 500
24.	Farm improvements		213	223	189
25.	Livestock		26	33	47
26.	Horses		26	33	47
27.	Cattle		--	--	--
28.	Swine		--	--	--
29.	Sheep		--	--	--
30.	Poultry		--	--	--
31.	Machinery and equipment		405	454	281
32.	Feed and supplies		--	--	--
33.	Livestock expense other than feed		37	58	20
34.	Crop expense		206	219	191
35.	Labor hired		462	543	330
36.	Taxes, insurance, etc.		467	501	411
37.	Miscellaneous		30	32	31
38.	Receipts less Expenses	____	2 592	4 117	1 287
39.	Operator's and unpaid family labor		691	713	694
40.	Net income from investment		1 901	3 404	593

Find Your Farm Leaks - (Champaign County - 1925)

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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Horse Tractor	Horse No Tractor			
10.50	80	55	31	166	348	315	68	1.90	145	47	34	22	35	355
9.50	76	52	29	156	328	295	63	2.40	140	45	32	27	33	335
8.50	72	49	27	146	308	275	58	2.90	135	43	30	32	31	315
7.50	68	46	25	136	288	255	53	3.40	130	41	28	37	29	295
6.50	64	43	23	126	268	235	48	3.90	125	39	26	42	27	275
5.50	60	40	21	116	248	215	43	4.40	120	37	24	47	25	255
4.50	56	37	19	106	228	195	38	4.90	115	35	22	52	23	235
3.50	52	34	17	96	208	175	33	5.40	110	33	20	57	21	215
2.50	48	31	15	86	188	155	28	5.90	105	31	18	62	19	195
1.50	44	28	13	76	168	135	23	6.40	100	29	16	67	17	175
0.50	40	25	11	66	148	115	18	6.90	95	27	14	72	15	155
-0.50	36	22	9	56	128	95	13	7.40	90	25	12	77	13	135
-1.50	32	19	7	46	108	75	8	7.90	85	23	10	82	11	115
-2.50	28	16	5	36	88	55	3	8.40	80	21	8	87	9	95
-3.50	24	--	--	26	68	35	--	8.90	75	19	6	92	7	75
-4.50	20	--	--	16	48	15	--	9.40	70	17	4	97	5	55

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

COLES COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

COLES COUNTY, ILLINOIS

for

1925

Urbana, Illinois

March 30, 1926

ANNUAL FARM BUSINESS REPORT

COLES COUNTY, ILLINOIS - 1925

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

The 30 farmers in Coles County who kept financial records for 1925 in the Illinois Farm Account Project had an average of $169.00 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average capital of $243.00 an acre. This is termed their labor and management wage. The most successful one-third of these farmers had an average labor and management wage of $1,565.00, while the least successful third lacked an average of $1,116.00 of paying 5% on their capital even when no charge was made for their labor and management. This amounts to a difference in return for labor and management of $2,681.00 per farm between the high and low groups.

Expressed in another way these 30 farmers earned 4.18% on their investment after allowing $600.00 to pay for their labor. On the same basis the high third earned 7.16% and the low third 1.21%. The average capital of the 30 farms was $44,817.00, which amounted to $243.00 an acre. For the high third the investment was $263.00 an acre, and for the low third $246.00.

In addition to the earnings discussed above, 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 a year on a group of Champaign County farms where this phase of the farm business was given special study.

Size of farm had little influence on the relative earnings of the high and low groups since both are within six acres of the average for all farms which was about 185 acres. Neither was there any significant difference in per cent of land tillable. In acres of the chief grain crops there was little difference. The average farm had 66.8 acres of corn, 26.3 acres of oats and 29.2 acres of wheat.

In crop yields the high third had about 16% more corn, 30% more oats and 50% more wheat than the low third. This was sufficient to affect profits materially.

The most successful group had $55. greater returns per $100. invested in productive livestock. Examination of the income figures shows this advantage to come largely from

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*Melvin Thomas and C. E. Johnson, Farm Advisers in Coles County cooperated in supervising and collecting the records used in this report.

The most successful group had $55. greater returns per $100. invested in productive livestock. Examination of the income figures shows this advantage to come largely from a greater volume of hog sales. In a smaller way they also had some advantage in dairy sales. The two groups were quite close together in per cent of income from livestock, both being about 10% higher than the average which was 74.4% on the 30 farms. However, it must not be overlooked that the total returns from both grain and livestock were about twice as great on the better managed farms.

In cost of man labor per acre, the more successful group of farms stood a little higher than the average which is probably explained in part at least by their higher sales of dairy products and hogs. Other items of cost were fairly uniform between groups except that the lower profit third had a somewhat greater expense for machinery. Total expenses per acre differed little between them.

The two factors, gross and net receipts per acre illustrate clearly the importance of a margin of profit in the farm business. The higher profits group having only twice as great gross receipts and about the same expenses had over six times as large net receipts per acre. It is the net receipts which pay interest and profits.

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. Further information can be secured by making a similar comparison with the more profitable and less profitable groups of farms.

Coles County - 1925

Factors helping to analyze the farm business	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Rate earned	%	4.18%	7.16%	1.21%
Labor & Management Wage	$	$169.	$1565.	$1116.
Size of Farm - Acres		184.5	178.6	180.8
Per cent of land area tillable		92.2%	94.0%	92.5%
Acreage of - Corn		66.8	67.5	68.6
Oats		26.3	25.8	26.9
Wheat		29.2	28.4	22.2
Crop Yields - Corn - Bushels		49.8	54.4	46.2
Oats - Bushels		32.2	37.1	28.2
Wheat - Bushels		20.3	24.7	16.0
Returns per $100. invested in all productive live stock	$	$160.00	$180.00	$125.00
For $100 in Cattle	$	97.00	112.00	84.00
Swine	$	244.00	259.00	224.00
Poultry		188.00	190.00	163.00
Per cent of gross income from live stock	%	74.4%	86.7%	85.0%
Man Labor Cost per Acre	$	$ 5.79	$ 6.35	$ 5.98
Crop Acres per Man		82.7	77.8	78.6
Crop Acres per Horse		25.5	24.3	27.0
Expense per $100. Gross Income	$	$ 58.00	$ 44.00	$ 84.00
Machinery Cost per Acre	$	1.90	1.75	2.23
Building & Fencing Cost per Acre	$	1.13	1.17	1.33
Gross Receipts per Acre	$	$ 22.03	$ 31.30	$ 15.70
Total Expenses per Acre	$	11.98	12.46	12.73
Net Receipts per Acre	$	10.05	18.84	2.98
Farms with Tractor - Per cent	%	53.0%	70.0%	50.0%
Value of Land per Acre	$	$185.00	$195.00	$189.00
Total Investment per Acre		243.00	263.00	246.00

Coles County - 1925

		Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
1.	Capital Investment - Total	$____	$44817	$47000	$44500
2.	Land		$34205	$34875	$33091
3.	Farm Improvements		$ 4446	$ 4583	$ 4816
4.	Machinery and Equipment		$ 1199	$ 1515	$ 1257
5.	Feed and Supplies		$ 2583	$ 2815	$ 2968
6.	Livestock		$ 2384	$ 3212	$ 2368
7.	Horses		$ 491	$ 506	$ 467
8.	Cattle		$ 920	$ 1376	$ 1062
9.	Swine		$ 784	$ 1155	$ 627
10.	Sheep		$ 45	$ 41	$ 51
11.	Poultry		$ 144	$ 134	$ 161
12.	Receipts - Net Increases -Total	$____	$ 4064	$ 5590	$ 2838
13.	Feed and Grain		$ 974	$ 668	$ 332
14.	Miscellaneous		$ 67	$ 75	$ 92
15.	Livestock - Total		$ 3023	$ 4847	$ 2414
16.	Horses		$ ----	$ ----	$ ----
17.	Cattle		$ 546	$ 719	$ 833
18.	Swine		$ 1769	$ 3062	$ 1073
19.	Sheep		$ 21	$ 27	$ 19
20.	Poultry		$ 142	$ 124	$ 104
21.	Egg Sales		$ 129	$ 132	$ 149
22.	Dairy Sales		$ 416	$ 783	$ 236
23.	Expenses - Net Decreases -Total	$____	$ 1543	$ 1530	$ 1588
24.	Farm Improvements		$ 209	$ 209	$ 241
25.	Livestock		$ 17	$ 24	$ 25
26.	Horses		$ 17	$ 24	$ 25
27.	Cattle		----	----	----
28.	Swine		----	----	----
29.	Sheep		----	----	----
30.	Poultry				
31.	Machinery and Equipment		$ 351	$ 313	$ 403
32.	Feed and Supplies		$ ----	$ ----	$ ----
33.	Livestock Expense other than feed		$ 37	$ 33	$ 35
34.	Crop Expense		$ 172	$ 164	$ 182
35.	Labor hired		$ 400	$ 438	$ 370
36.	Taxes, Insurance, etc.		$ 336	$ 329	$ 316
37.	Miscellaneous		$ 21	$ 20	$ 16
38.	Receipts, less Expenses	$____	$ 2521	$ 4060	$ 1250
39.	Operator's and Unpaid Family Labor		$ 668	$ 695	$ 711
40.	Net Income from Investment		$ 1853	$ 3365	$ 539

Find Your Farm Leaks - (Coles County - 19)

The numbers between the lines in the middle of the page are the approximate averages for your county for 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 Corn	Bushels per Acre of Oats	Bushels per Acre of Wheat	Returns per $100 Invested in Cattle	Returns per $100 Invested in Hogs	Returns per $100 Invested in Poultry	Percent Income from L.S.	Man Lab. Cost per Acre	Crop Acres per Man	Crop Acres per Horse	Expense per $100 Income	Gross Rect. per A.	Size of Farm
11.20	71	53	34	167	384	328	--	2.30	132	39	23	43	325
10.20	68	50	32	157	364	308	--	2.80	125	37	28	40	305
9.20	65	47	30	147	344	288	99	3.30	118	35	33	37	285
8.20	62	44	28	137	324	268	94	3.80	111	33	38	34	265
7.20	59	41	26	127	304	248	89	4.30	104	31	43	31	245
6.20	56	38	24	117	284	228	84	4.80	97	29	48	28	225
5.20	53	35	22	107	264	208	79	5.30	90	27	53	25	205
4.20	50	32	20	97	244	188	74	5.80	83	25	58	22	185
3.20	47	29	18	87	224	168	69	6.30	76	23	63	19	165
2.20	44	26	16	77	204	148	64	6.80	69	21	68	16	145
1.20	41	23	14	67	184	128	59	7.30	62	19	73	13	125
0.20	38	20	12	57	164	108	54	7.80	55	17	78	10	105
-1.20	35	17	10	47	144	88	49	8.30	48	15	83	7	85
-2.20	32	14	8	37	124	68	44	8.80	41	13	88	4	65
-3.20	29	11	6	27	104	48	39	9.30	34	11	93	1	45
-4.20	26	8	4	17	84	28	34	9.80	27	9	98	--	25

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

DOUGLAS, SHELBY, CHRISTIAN, MOULTRIE COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-two Farms

for

1925

Urbana, Illinois

April 27, 1926

ANNUAL FARM BUSINESS REPORT

DOUGLAS, SHELBY, CHRISTIAN, MOULTRIE COUNTIES, ILLINOIS - 1925

Prepared by H. C. M. Case, R. R. Hudelson, R. C. Ross, K. H. Myers*

The 32 farmers in this group of Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $174 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $202 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $1748, while the third who were least successful lacked $1280 of having enough earnings to pay 5% on their investment, allowing nothing for their labor and management. There was, therefore, a difference of about $3028 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these 32 farmers earned 3.96% on their investments after allowing $600 each to pay for their own labor. On the same basis the most successful third earned 8.43% and the least successful third 0.46%. The average investment on the 32 farms was $39,062, which amounts to $202 an acre. The higher profit third had an average investment of $160 and the lower profit third $192 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 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 about $725 a year on a group of Champaign County 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 the above named Counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

Size of farm had little influence on the relative earnings of the different groups. Both the high and low profit groups averaged a little larger than the average of all farms, which was 193 acres. All were within 3% of the same percentage of tillable land. In acres of the chief grain crops, the only significant difference was in the fact that the high profit group had about 10 acres more corn per farm than the average. The average farm had 72 acres of corn, 28 acres of oats and 19 acres of wheat, making a total of 119 acres in grain and

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* F. W. Garrett, C. J. Robinson, C. E. Hay, and C. C. Turner, farm advisers in Douglas, Shelby, Christian and Moultrie Counties respectively, cooperated in supervising and collecting the records used in this report.

leaving 76 acres for hay, pasture, and other uses.

In crop yields the different groups averaged very close together. Considering all grain crops together, there was no significant difference. It may be noted here that the more successful farmers as shown by profits earned were on land of lower average value. They had more livestock per farm and apparently farmed more efficiently, yet succeeded in producing no greater yields than farmers of the low profit group.

The 11 most successful farms secured 24% more income per $100 invested in productive livestock than the 11 least successful farms. This was their chief advantage on the income side of the business. A study of the income figures shows this advantage to be due chiefly to a greater efficiency with hogs and cattle, hogs constituting the largest livestock enterprise and contributing nearly two-thirds of the livestock income. From about the same number of acres of tillable land and with about the same yields, the farmers of the more successful group took care of their feed requirements and still received over 50% more income from crops than those of the less successful group. This indicates efficient feeding. Their livestock income was more than 50% larger than that of the latter group also. Both groups had about the same percentage of income from livestock.

The 11 most successful farmers were considerably more efficient in holding down expenses. They spent only $41 out of every $100 income in running the business while the 11 least successful farmers spent $94 out of every $100 income. The latter group had about $1.00 an acre larger labor cost and their machinery cost was considerably higher. All together, the less successful group spent nearly $4.00 an acre more in running the business than the more successful group of farmers.

This advantage in expenses coupled with a gross income about 50% higher gave the higher profit group of farmers a net income of $13.45 per acre to pay interest and profits while the lower profit group had only $0.87 an acre above operating costs.

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 farm of the group making the best profits and the group making the least profits.

Douglas, Shelby, Christian and Moultrie Counties - 1925

Factors helping to analyze the farm business		Your farm	Average of 32 farms	11 most profitable farms	11 least profitable farms
Rate earned	%		3.96%	8.43%	0.46%
Labor and management wage	$		$174.	$1748.	$-1280.
Size of farm - acres	A.		193.4 A	215.9 A	213.7 A
Per cent of land area tillable	%		89.7%	91.1%	88.1%
Acres in Corn	A		72.3 A	81.9 A	72.0 A
Oats	A		28.3 A	28.3 A	33.7 A
Wheat	A		19.0 A	20.3 A	18.2 A
Crop yields - Corn	bu.		42.5 bu.	41.1 bu.	42.9 bu.
Oats	bu.		27.1 bu.	22.9 bu.	25.5 bu.
Wheat	bu.		19.2 bu.	21.4 bu.	16.6 bu.
Returns per $100 invested in all productive livestock	$		$148.00	$ 165.00	$ 133.00
For $100 in Cattle	$		$ 92.00	$ 112.00	$ 93.00
Swine	$		$226.00	$ 226.00	$ 199.00
Poultry	$		$151.00	$ 174.00	$ 138.00
Percent of gross income from livestock	%		66.2%	68.0%	66.0%
Man labor cost per acre	$		$ 5.87	$ 4.87	$ 5.86
Crop acres per man	A		80.4 A	84.9 A	72.4 A
Crop acres per horse (with tractor)	A		25.5 A	26.6 A	23.5 A
(without tractor)	A		18.4 A	17.0 A	19.8 A,
Expense per $100 gross income	$		$ 61.00	$ 41.00	$ 94.00
Machinery cost per acre	$		$ 1.98	$ .98	$ 2.63
Building & fencing cost per A	$		$ .81	$ .63	$ .85
Gross receipts per acre	$		$ 20.18	$ 22.67	$ 14.04
Total expenses per acre	$		$ 12.25	$ 9.22	$ 13.17
Net receipts per acre	$		$ 7.93	$ 13.45	$ .87
Farms with tractor	%		53.1%	36.4%	72.7%
Value of land per acre	$		$156.00	$ 122.00	$ 148.00
Total investment per acre	$		$202.00	$ 160.00	$ 192.00

Budget, income, statistics on utility companies -

Entries leading to debits for item centers	Item code	Income per the budget	Income distribution	Income per contribution
State shared				
Labor and administrative	5a	[illegible]	[illegible]	[illegible]
Size of farm - acres				
Fair rent of landowner's buildings				
Interest-bearing				
Cash				
Other				
Farm plant - cost				
Sale				
Trade				
Expense for farm-interest-on all outstanding liabilities				
For sale in stock				
Sales				
Equity				
Payment of wages income from livestock				
Man labor used per acre				
Cost other per acre				
Cost other per acre				
Acre income				
Acre income (continued)				
Income per acre cross income				
Expenses per acre				
Multiple a section work per a				
Farm energy per crop				
Total expenses per farm				
Or depreciation per farm				
Farm with tractor				
Value of land per farm				
Total investment per farm				

Douglas, Shelby, Christian, and Moultrie Counties - 1925

	Your farm	Average of 31 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment - Total	$_____	$39062	$34457	$40987
2. Land		30081	26280	31719
3. Farm improvements		2984	2699	3047
4. Machinery and equipment		1117	954	1379
5. Feed and supplies		2591	2048	2885
6. Livestock		2289	2476	1957
7. Horses		628	612	519
8. Cattle		581	657	693
9. Swine		751	935	509
10. Sheep		172	133	51
11. Poultry		157	139	185
12. Receipts-Net Increases-Total	_____	3902	4895	3001
13. Feed and grain		1272	1536	965
14. Miscellaneous		46	30	54
15. Livestock - Total		2584	3329	1982
16. Horses		---	20	---
17. Cattle		400	677	416
18. Swine		1601	2023	1015
19. Sheep		90	91	17
20. Poultry		87	71	81
21. Egg sales		148	173	152
22. Dairy sales		258	274	301
23. Expenses-Net Decreases-Total	_____	1614	1257	1993
24. Farm improvements		156	137	182
25. Livestock		6	--	21
26. Horses		6	--	21
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		382	211	562
32. Feed and supplies		--	--	--
33. Livestock expense other than feed		37	20	40
34. Crop expense		196	164	245
35. Labor hired		381	317	431
36. Taxes, Insurance, etc.		416	388	467
37. Miscellaneous		40	20	45
38. Receipts less Expenses	_____	2288	3638	1008
39. Operator's and unpaid family labor		755	734	821
40. Net income from investment		1533	2904	187

Find Your Farm Leaks - (Douglas, Shelby, Christian and Moultrie Counties, Illinois - 1925)

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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No tractor			
10.96	77	48	33	162	366	291	--	2.37	115	39	32	26	34	333
9.96	72	45	31	152	346	271	96	2.87	110	37	30	31	32	313
8.96	67	42	29	142	326	251	91	3.37	105	35	28	36	30	293
7.96	62	39	27	132	306	231	86	3.87	100	33	26	41	28	273
6.96	57	36	25	122	286	211	81	4.37	95	31	24	46	26	253
5.96	52	33	23	112	266	191	76	4.87	90	29	22	51	24	233
4.96	47	30	21	102	246	171	71	5.37	85	27	20	56	22	213
3.96	42	27	19	92	226	151	66	5.87	80	25	18	61	20	193
2.96	37	24	17	82	206	131	61	6.37	75	23	16	66	18	173
1.96	32	21	15	72	186	111	56	6.87	70	21	14	71	16	153
0.96	27	18	13	62	166	91	51	7.37	65	19	12	76	14	133
-0.04	22	15	11	52	146	71	46	7.87	60	17	10	81	12	113
-1.04	17	12	9	42	126	51	41	8.37	55	15	8	86	10	93
-2.04	12	9	7	32	106	31	36	8.87	50	13	6	91	8	73
-3.04	--	--	--	22	86	11	31	9.37	45	11	--	96	6	53
-4.04	--	--	--	12	66	--	26	9.87	40	9	--	101	4	33

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100. worth of feed fed, and for each $100. invested in livestock.

Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1934 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

JERSEY, GREENE AND MORGAN COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty Farms

for

1925

Urbana, Illinois

April 26, 1926

ANNUAL FARM BUSINESS REPORT

JERSEY, GREENE AND MORGAN COUNTIES, ILLINOIS - 1925

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

The 40 farmers in this group of counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $1153 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $159 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $2316 while the third who were least successful lacked $131 of having sufficient earnings to pay 5% interest on their capital, allowing nothing for their labor and management. There was, therefore, a difference of about $2447 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these 40 farmers earned 7.1% on their investments after allowing $600 each to pay for their own labor. On the same basis the most successful third earned 12.3% and the least successful third 3.07%. The average investment on the 40 farms was $29,412, which amounts to $159 an acre. The higher profit third had an average investment of $130 and the lower profit third $194 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 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 about $725 a year on a group of Champaign County 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 the above named counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

The average farm covered by this report had 185 acres, 79% of which was tillable. The 13 most profitable farms had 183 acres, 82% tillable and the 13 least profitable farms, 166 acres, 60% tillable. The higher profit group, therefore, had about 50 acres more tillable land than the low profit group. This is difficult to reconcile with the fact that the group of low profit farms had a higher average value per acre. It is true, however, that all but two of the farms

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*R. L. Eyman, R. J. Laible, and F. A. Fisher, farm advisers in Jersey, Greene, and Morgan Counties respectively, cooperated in supervising and collecting the records used in this report.

in the high profit group are in Jersey County and most of them on land that although tillable is rolling in character. This land is usually not valued so highly as in smoother areas although the soil is usually good and, with careful management to prevent washing, it is quite productive. Only five farms of the low profit group were in Jersey County. In acres of the important grain crops, the only significant difference is in the larger acreage of wheat on the high profit farms.

In crop yields the 13 most profitable farms had no advantage. In fact they were slightly lower in corn and wheat yields. This seems to justify the lower value on the land.

The high profit group had $58 more returns per $100 invested in productive livestock than the low profit group. This advantage came chiefly from a higher efficiency in growing and marketing hogs. The farms in both groups had exactly the same average amount of livestock income per farm but the 13 most profitable farms with a smaller investment in hogs at the beginning of the year secured an income from this source about 18% larger than that of the 13 least profitable farms. The largest sources of income on the farms of the high profit group were hog sales and grain sales, chiefly wheat. Third in rank was the income from dairy sales. The largest source of income on farms of the less successful group was from hog sales followed in order by sales of dairy products and cattle. The income from each of these last two sources was only about one-third that from the hog enterprise. It is evident that the more successful farms were favored by the 1925 price situation on their chief products, hogs and wheat. The chief reason for the lower profit group of farms having a higher percentage of their income from livestock was that they had so much less crop sales. Both groups had the same average amount of livestock income per farm.

The more profitable group of farms had an average of about 75 cents less cost per acre for man labor and they handled nearly 50% more crop acres per man than the low profit group. They also handled nearly 25% more crop acres per horse. This advantage in man labor and horse power efficiency is partly explained by the larger number of crop acres per farm and the larger wheat acreage on the more successful farms. As wheat requires labor chiefly at such times as not to conflict with the demand for labor on corn, it does not add proportionately to the total demand for man and horse labor. The larger farms have the advantage of more crop acres to spread their labor and power costs over, since the small farm cannot reduce its supply of man and horse power below a certain minimum.

The 13 most successful farm operators keeping these records spent only $39 out of each $100 income in running the farm, while the 13 least successful operators spent $70. This advantage of the most successful operators was due both to lower expenses and to higher gross income per acre. They had less expense for man labor, for machinery and equipment and for buildings and fencing when expressed on the acre basis. Their expenses were about $3.70 an acre lower and

their gross income about $6.40 higher, leaving a net income over two and a half times that of the less successful group. It is the net receipts which pay interest and profits.

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.

Jersey, Greene and Morgan Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 40 farms	13 most profitable farms	13 least profitable farms
Rate earned	%	7.1%	12.3%	3.07%
Labor and management wage	$	$1 153.	$2 316.	$-131.
Size of farm - Acres	A.	185.5 A	183.2 A	166.5 A
Percent of land area tillable	%	79.1%	81.8%	59.9%
Acres in Corn	A	53.5 A	56.1 A	44.2 A
Oats	A	18.9 A	20.0 A	17.0 A
Wheat	A	27.9 A	36.5 A	15.4 A
Crop yields - Corn	bu.	54.6bu	55.7bu.	58.9bu.
Oats	bu.	22.6bu	25.3bu.	23.4bu.
Wheat	bu.	16.3bu	17.2bu.	20.0bu.
Returns per $100 invested in all productive livestock	$	$ 177.00	$ 204.00	$ 146.00
For $100 in Cattle	$	$ 114.00	$ 132.00	$ 114.00
Swine	$	$ 295.00	$ 297.00	$ 244.00
Poultry	$	$ 198.00	$ 189.00	$ 203.00
Percent of gross income from livestock	%	72.2%	62.6%	91.0%
Man labor cost per acre	$	$ 6.15	$ 5.73	$ 6.50
Crop acres per man	A	66.9 A	78.9 A	53.2 A
Crop acres per horse	A	19.5 A	20.3 A	16.4 A
Expense per $100 gross income	$	$ 52.00	$ 39.00	$ 70.00
Machinery cost per acre	$	$ 2.10	$ 1.47	$ 2.11
Building & fencing cost per A	$	$ 1.07	$ .82	$ 2.04
Gross receipts per acre	$	$ 23.35	$ 26.28	$ 19.87
Total expenses per acre	$	$ 12.08	$ 10.24	$ 13.90
Net receipts per acre	$	$ 11.27	$ 16.04	$ 5.97
Farms with tractor	%	30.0%	7.70%	23.1%
Value of land per acre	$	$ 115.00	$ 97.00	$ 136.00
Total investment per acre	$	$ 159.00	$ 130.00	$ 194.00

Jersey, Greene and Morgan Counties - 1925

	Your farm	Average of 40 farms	13 most profitable farms	13 least profitable farms
1. Capital Investment - Total	$_____	$29 412	$23 900	$32 355
2. Land		21 374	17 833	22 678
3. Farm improvements		3 025	1 904	3 953
4. Machinery and equipment		1 024	842	985
5. Feed and supplies		1 847	1 604	2 157
6. Livestock		2 142	1 717	2 582
7. Horses		422	401	412
8. Cattle		819	635	1 030
9. Swine		618	515	699
10. Sheep		169	34	338
11. Poultry		114	132	103
12. Receipts-Net Increases-Total	_____	4 332	4 814	3 309
13. Feed and grain		1 087	1 717	238
14. Miscellaneous		117	85	59
15. Livestock - Total		3 128	3 012	3 012
16. Horses		---	---	---
17. Cattle		415	291	580
18. Swine		1 845	1 809	1 537
19. Sheep		75	30	111
20. Poultry		99	106	70
21. Egg sales		135	146	133
22. Dairy sales		559	630	581
23. Expenses-Net Decreases-Total	_____	1 539	1 142	1 672
24. Farm improvements		198	150	340
25. Livestock		34	24	29
26. Horses		34	24	29
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		389	269	352
32. Feed and supplies		--	--	--
33. Livestock expense other than feed		44	43	40
34. Crop expense		148	106	140
35. Labor hired		439	316	439
36. Taxes, insurance, etc.		252	203	291
37. Miscellaneous		35	31	41
38. Receipts less Expenses	_____	2 793	3 672	1 637
39. Operator's and unpaid family labor		702	734	643
40. Net income from investment		2 091	2 938	994

Find Your Farm Leaks - (Jersey, Greene and Morgan Counties, Illinois - 1925)

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	Bushels per acre of			Returns per $100 invested in			Percent income	Man lab. cost per	Crop acres per		Expense per $100	Gross rect.	Size of
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry	from L.S.	acre	Man	Horse	income	per A.	farm
14.10	76	43	30	184	435	338	--	2.65	102	34	17	44	325
13.10	73	40	28	174	415	318	--	3.15	97	32	22	41	305
12.10	70	37	26	164	395	298	97	3.65	92	30	27	38	285
11.10	67	34	24	154	375	278	92	4.15	87	28	32	35	265
10.10	64	31	22	144	355	258	87	4.65	82	26	37	32	245
9.10	61	28	20	134	335	238	82	5.15	77	24	42	29	225
8.10	58	25	18	124	315	218	77	5.65	72	22	47	26	205
7.10	55	22	16	114	295	198	72	6.15	67	20	52	23	185
6.10	52	19	14	104	275	178	67	6.65	62	18	57	20	165
5.10	49	16	12	94	255	158	62	7.15	57	16	62	17	145
4.10	46	13	10	84	235	138	57	7.65	52	14	67	14	125
3.10	43	10	8	74	215	118	52	8.15	47	12	72	11	105
2.10	40	7	6	64	195	98	47	8.65	42	10	77	8	85
1.10	37	--	--	54	175	78	42	9.15	37	8	82	5	65
0.10	34	--	--	44	155	58	37	9.65	32	6	87	--	45
-0.90	31	--	--	34	135	38	32	10.15	27	4	92	--	--

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

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1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

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The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

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Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

MONTGOMERY, MACOUPIN, BOND AND MADISON COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

April 23, 1926

ANNUAL FARM BUSINESS REPORT

MONTGOMERY, MACOUPIN, BOND AND MADISON COUNTIES, ILLINOIS - 1925

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

The 30 farmers in this group of Counties who kept financial records for 1925 in the Illinois Farm Account Project had an average of $913.00 to pay for their labor, risk and management after paying all expenses and allowing 5% interest on their average investment of $124.00 per acre. The most successful one-third of these farmers had an average labor and management wage of $2005, while the least successful third lacked an average of $411. of paying 5% interest on their capital even when no charge was made for their labor and management. This amounts to a difference in return for labor and management of $2416 per farm between the high and low groups.

Expressed in another way, these 30 farmers earned 6.5% on their investments after allowing $556 as pay for their labor. On the same basis the high third earned 11.9% and the low third 1.2%. The average capital of these 30 farms was $23,550,of the top third, $20,547, and of the low third, $24,268.

In addition to the earnings discussed above, 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 per year on a group of Champaign County 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 group of Counties. A field survey of earnings on all farms in one McLean County township indicated that farm operators keeping accounts averaged substantially larger net farm incomes than those keeping no financial records.

Size of farm had little influence on the relative earnings of the high and low groups since both averaged within 10 acres of the average on all 30 farms which was 190 acres per farm. When the acres of land cropped are considered, even less variation between the high and low groups is noticed. The average farm had 50 acres of corn, 24 acres of oats and 23 acres of wheat.

In crop yields the high third produced about 23% more corn, slightly more oats, and nearly twice as many bushels of wheat per acre as did the low third. This was sufficient to affect profits materially.

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*A. E. Snyder, E. W. Rusk, W. E. Foard and Alfred Raut, farm advisers in Montgomery, Macoupin, Bond and Madison Counties respectively, cooperated in supervising and collecting the records used in this report.

The most successful group had $42 greater returns per $100 invested in productive livestock than the low group. Examination of the income figures show this advantage to come largely from the greater volume of hog and dairy sales. A favorable price of hogs and relatively cheap feed late last year made the hog farmer's income rise sharply while the declining price of corn and oats was distinctly unfavorable to the farmer who had held over any considerable portion of these crops from a year ago. The return of $357. per $100 invested in hogs reflects a high efficiency in feeding and management of the farmers of the high profits group. Further, it will be noted that the total receipts are more than twice as large on the better managed farms.

From an inspection of the distribution of the capital of these 30 farms it is noted that the most profitable group of farms had land investments below the average but had heavy investments in livestock. The advantage of such a distribution of capital was accentuated by the relatively favorable livestock prices as compared with unfavorable grain prices in 1925. This is the reverse of the farm produce price situation of the previous year. These facts indicate that the record of a farm business for a single year may not be a trustworthy guide in planning the future business. However, the records of a series of years should prove helpful in pointing out the type of farming best suited to the individual farm and farmer.

In cost of man labor, the more successful group of farms had a higher cost per acre than the average which is explained in part by their higher sales of dairy products and hogs.

The two factors, gross and net receipts per acre, illustrate clearly the importance of a margin of profit in the farm business. The higher profits group having twice as large expenses per acre had nearly four times as large net receipts per acre. It is net receipts which pay interest and profits.

Some points of strength and some of weakness may be found by comparing the factors of your own record in the following tables with the same factors on the average farm. Further information can be secured by making a similar comparison with the more profitable and less profitable groups of farms.

Montgomery, Macoupin, Bond and Madison Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Rate earned	%	6.5%	11.9%	1.2%
Labor and management wage	$	$913.	$2005.	$-411.
Size of farm - Acres	A.	190 A.	187 A.	200 A.
Percent of land area tillable	%	81.8%	80.3%	77.6%
Acres in Corn	A.	50 A.	53 A.	44 A.
Oats	A.	24 A.	25 A.	29 A.
Wheat	A.	23 A.	24 A.	20 A.
Crop yields - Corn	bu.	47.0 bu.	48.1 bu.	39.0 bu.
Oats	bu.	26.2 bu.	24.5 bu.	23.9 bu.
Wheat	bu.	16.3 bu.	20.0 bu.	10.9 bu.
Returns per $100 invested in all productive livestock	$	$160.	$171.	$ 129.
For $100 in Cattle	$	$109.	$ 90.	$ 104.
Swine	$	$285.	$357.	$ 168.
Poultry	$	$213.	$199.	$ 201.
Percent of gross income from livestock	%	79.3%	79.1%	83.8%
Man labor cost per acre	$	$ 5.06	$ 5.59	$ 3.77
Crop acres per man	A.	75.3 A.	74.0 A.	78.7 A.
Crop acres per horse (With tractor)	A.	24.4 A.	27.2 A.	22.9 A.
(Without tractor)	A.	16.8 A.	21.2 A.	14.0 A.
Expense per $100 gross income	$	$ 66.00	$ 54.00	$ 86.00
Machinery cost per acre	$	$ 1.93	$ 2.38	$ 1.44
Building & fencing cost per A	$	$ .77	$ .78	$ .70
Gross receipts per acre	$	$ 20.48	$ 28.21	$ 10.32
Total expenses per acre	$	$ 8.69	$ 11.44	$ 5.61
Net receipts per acre	$	$ 11.79	$ 16.77	$ 4.71
Farms with tractor	%	33%	40%	30%
Value of land per acre	$	$ 82.00	$ 68.00	$ 83.00
Total investment per acre	$	$124.00	$110.00	$ 122.00

Montgomery, Macoupin, Bond and Madison Counties, 1925

	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment - Total	$____	$23550	$20547	$24268
2. Land		15565	12785	16571
3. Farm improvements		2875	2502	2862
4. Machinery and equipment		1234	1217	1249
5. Feed and supplies		1728	1502	1746
6. Livestock		2148	2541	1840
7. Horses		475	454	594
8. Cattle		1031	1369	584
9. Swine		402	484	356
10. Sheep		69	53	125
11. Poultry		171	181	181
12. Receipts-Net Increases-Total	____	3437	4494	1858
13. Feed and grain		255	148	114
14. Miscellaneous		122	192	30
15. Livestock - Total		3060	4154	1714
16. Horses		4	20	--
17. Cattle		493	384	306
18. Swine		1387	2458	634
19. Sheep		60	75	83
20. Poultry		176	173	196
21. Egg sales		200	202	159
22. Dairy sales		740	842	336
23. Expenses-Net Decreases-Total	____	1192	1352	918
24. Farm improvements		146	141	132
25. Livestock		---	---	---
26. Horses		---	---	26
27. Cattle		---	---	---
28. Swine		---	---	---
29. Sheep		---	---	---
30. Poultry		---	---	---
31. Machinery and equipment		367	446	292
32. Feed and supplies		---	---	---
33. Livestock expense other than feed		59	33	34
34. Crop expense		137	161	107
35. Labor hired		253	357	106
36. Taxes, Insurance, etc.		203	188	189
37. Miscellaneous		27	26	32
38. Receipts less Expenses	____	2245	3142	940
39. Operator's and unpaid family labor		710	692	648
40. Net income from investment		1535	2450	292

[illegible]

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Rate earned	Bushels per acre of			Returns per $100 invested in			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No tractor			
13.5	68	47	23	180	460	355	--	3.25	110	39	31	38	55	330
12.5	65	44	22	170	435	335	--	3.50	105	37	29	42	50	310
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It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

CUMBERLAND, CLARK AND CRAWFORD COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Nineteen Farms

for

1925

Urbana, Illinois

April 19, 1926

ANNUAL FARM BUSINESS REPORT

CUMBERLAND, CLARK AND CRAWFORD COUNTIES, ILLINOIS - 1925

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

The 19 farmers in the above Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $623 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $123 an acre. This is called their labor and management wage.

Expressed in another way these 19 farmers earned 5.51% on their investments after allowing $600 to pay for their own labor. The average investment on the 19 farms was $19,659, which amounts to $123 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 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 about $725 a year on a group of Champaign County 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 earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged considerable higher net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

The average size of these farms was 160 acres, 75% of which was tillable. The average farm had about 46 acres of corn, 18 acres of oats, and 7 acres of wheat with yields at the rate of 44 bushels of corn, 20 bushels of oats and 14 bushels of wheat.

On the average these 19 farms derived 86% of their income from livestock. They received $163 income for every $100 invested in livestock. Cattle were lowest with $78 income for every $100 of investment and hogs were highest with $232 received for every $100 invested. Cattle constituted a minor enterprise on these farms, the average farm having only 11 head of cattle. A good share of these were milk cows kept to supply the family table. Hogs were favored in price during 1925 and they make up much the largest livestock enterprise on these farms. More than half of the 1925 income on these 19 farms came from hogs. Poultry raising constituted a profitable enterprise, with $194 income for each

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*E. A. Whalin, W. W. Merritt, and H. F. Crosby, farm advisers in Cumberland, Clark and Crawford Counties respectively, cooperated in supervising and collecting the records used in this report.

$100 invested in addition to poultry products used by the farm family. As a source of income on the average of the 19 farms, poultry ranked next after hogs.

With a man labor cost per acre of $5.19 these farms were about the average of central Illinois, although in crop acres worked per man they were a little under the average. Those farms in the group which had no tractors are low in horse power efficiency, with only 13.8 crop acres per horse.

The average farm in this group spent $59 for operating expenses out of every $100 income. Their gross income per acre was $16.69 out of which they spent $9.91 for operating costs, leaving a net of $6.78 to pay interest and profits.

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.

Cumberland, Clark and Crawford Counties, 1925

Factors helping to analyze the farm business	Your farm	Average of 19 farms
Rate earned	%	5.51%
Labor and management wage	$	$623.
Size of farm - Acres	A.	160.0 A.
Percent of land area tillable	%	75.4%
Acres in Corn	A.	46.4 A.
Oats	A.	18.3 A.
Wheat	A.	6.9 A.
Crop yields - Corn	bu.	44.0 bu.
Oats	bu.	19.8 bu.
Wheat	bu.	13.7 bu.
Returns per $100 invested in all productive livestock	$	$163.00
For $100 in Cattle	$	$ 78.00
Swine	$	$232.00
Poultry	$	$194.00
Percent of gross income from livestock	%	86.1%
Man labor cost per acre	$	$ 5.19
Crop acres per man	A.	68.2 A.
Crop acres per horse (with tractor)	A.	23.9 A.
(without tractor)	A.	13.8 A.
Expense per $100 gross income	$	$ 59.00
Machinery cost per acre	$	$ 1.46
Building and fencing cost per acre	$	$ .96
Gross receipts per acre	$	$ 16.69
Total expenses per acre	$	$ 9.91
Net receipts per acre	$	$ 6.78
Farms with tractor	%	36.8%
Value of land per acre	$	$ 88.00
Total investment per acre	$	$123.00

Cumberland, Clark and Crawford Counties, 1925

	Your farm	Average of 19 farms
1. Capital Investment - Total	$_____	$19659
2. Land		14109
3. Farm improvements		1706
4. Machinery and equipment		774
5. Feed and supplies		1427
6. Livestock		1643
7. Horses		378
8. Cattle		494
9. Swine		512
10. Sheep		59
11. Poultry		200
12. Receipts - Net Increases - Total	_____	2671
13. Feed and grain		316
14. Miscellaneous		56
15. Livestock - Total		2299
16. Horses		19
17. Cattle		242
18. Swine		1440
19. Sheep		69
20. Poultry		88
21. Egg sales		282
22. Dairy sales		159
23. Expenses - Net Decreases - Total	_____	931
24. Farm improvements		153
25. Livestock		---
26. Horses		---
27. Cattle		---
28. Swine		---
29. Sheep		---
30. Poultry		---
31. Machinery and equipment		234
32. Feed and supplies		---
33. Livestock expense other than feed		27
34. Crop expense		123
35. Labor hired		175
36. Taxes, Insurance, etc.		196
37. Miscellaneous		23
38. Receipts less Expenses	_____	1740
39. Operator's and unpaid family labor		655
40. Net income from investment		1085

Find Your Farm Leaks - (Cumberland, Clark and Crawford Counties - 1925)

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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No tractor			
12.50	72	34	28	148	372	334	--	1.70	138	38	28	25	31	300
11.50	68	32	26	138	352	314	--	2.20	128	36	26	30	29	280
10.50	64	30	24	128	332	294	--	2.70	118	34	24	35	27	260
9.50	60	28	22	118	312	274	--	3.20	108	32	22	40	25	240
8.50	56	26	20	108	292	254	--	3.70	98	30	20	45	23	220
7.50	52	24	18	98	272	234	96	4.20	88	28	18	50	21	200
6.50	48	22	16	88	252	214	91	4.70	78	26	16	55	19	180
5.50	44	20	14	78	232	194	86	5.20	68	24	14	60	17	160
4.50	40	18	12	68	212	174	81	5.70	58	22	12	65	15	140
3.50	36	16	10	58	192	154	76	6.20	48	20	10	70	13	120
2.50	32	14	8	48	172	134	71	6.70	38	18	8	75	11	100
1.50	28	12	6	38	152	114	66	7.20	28	16	6	80	9	80
0.50	24	10	4	28	132	94	61	7.70	18	14	4	85	7	60
-1.50	20	8	--	18	112	74	56	8.20	--	12	--	90	5	40
-2.50	16	6	--	8	92	54	51	8.70	--	10	--	95	--	--
-3.50	12	4	--	--	72	34	46	9.20	--	8	--	100	--	--

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100. worth of feed fed, and for each $100. invested in livestock.

Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

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RICHLAND, MARION AND EFFINGHAM FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Eighteen Farms

for

1925

Urbana, Illinois

April 6, 1926

ANNUAL FARM BUSINESS REPORT

RICHLAND, MARION AND EFFINGHAM COUNTIES, ILLINOIS - 1925

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

The 18 farmers in Richland, Marion and Effingham Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $290.00 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $59 an acre. This is called their labor and management wage.

Expressed in another way, these 18 farm operators earned an average 3.4% on their investment after allowing $600 to pay for their own labor. The average capital per farm was $11,818, which is equivalent to $59 an acre. The investment per acre includes capital in land, buildings, equipment, livestock and crops as listed in the table on page 4.

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, constitute an additional income. On a group of Champaign County farms where this phase of the farm business was given special study, this additional income amounted to about $725 per farm.

The income figures given in this report should not be considered as representative of all farms in the counties named. A field survey of earnings on all farms in one McLean County township has shown conclusively that the farmers keeping financial records averaged higher net incomes for 1925 than those without such records.

The average size of these farms was 200 acres with 31.2 acres of corn, 21.4 acres of oats and 9.2 acres of wheat, 82.8% of the land being tillable.

Crop yields were low, being on the average about 26 bushels of corn, 15 bushels of oats, and 13 bushels of wheat to the acre.

Livestock returns were better than for crops with an average of $152.00 income per $100.00 invested in all productive livestock. As distributed among the various classes of livestock this amounted to $115.00 for each $100.00 invested in cattle, $258.00 for hogs and $227.00 for poultry. The average farm derived 80% of its income from livestock.

The average cost of man labor was low at $3.70 an acre with each man handling 99.6 crop acres. Horse labor was above the average in efficiency with 24.8 crop acres worked per horse.

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*W. B. Bunn, F. J. Blackburn, and F. W. Wascher, Farm Advisers in Richland, Marion and Effingham Counties, respectively, cooperated in supervising and collecting the records used in this report.

One reason for the low man labor and horse cost in this area is the relatively large acreage devoted to hay. These 18 farms had 47% of their crop acres in hay, the larger share of it being red-top. Red-top and timothy hay are low cost crops, due mainly to not having the annual expense of preparing the seed bed and cultivating the crop.

Ten year detailed cost accounting records on a group of farms in Franklin County showed an average annual operating cost per acre on red-top of $3.72 and on timothy of $4.17 as against $19.31 for corn and $18.08 for wheat. On land which does not have too high fixed charges for taxes and interest these low cost crops seem to have a definite place in the cropping system, particularly where it has not yet been found feasible to apply limestone and introduce the higher yielding legume hays with their soil building advantages.

Machinery and equipment costs as well as building and fencing costs were low, possibly indicating under equipment on some farms.

Chiefly on account of a low volume of sales per acre, the ratio of expenses to income is too high on these farms. The average operator spent $76.00 out of every $100.00 income for operating expenses. His gross income was only $8.26 an acre while expenses were $6.26, leaving a net of $2.00 an acre to pay interest and profits.

Some strong and weak points of your business may be found by comparing each factor for your own farm with the corresponding factor on the average farm shown in the following tables.

Richland, Marion, Effingham Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 18 farms
Rate earned	%	3.40%
Labor and management wage	$	$ 290
Size of farm - Acres	A.	200.5 A.
Percent of land area tillable	%	82.8%
Acreage of - Corn	A.	31.2 A.
Oats	A.	21.4 A.
Wheat	A.	9.2 A.
Crop Yields - Corn	bu.	25.8 bu.
Oats	bu.	15.0 bu.
Wheat	bu.	12.8 bu.
Returns per $100 invested in all productive livestock	$	$ 152.00
For $100 in - Cattle	$	$ 115.00
Swine	$	$ 258.00
Poultry	$	$ 227.00
Percent of gross income from livestock	%	80.0%
Man Labor Cost per Acre	$	$ 3.70
Crop Acres per Man	A.	99.6 A.
Crop Acres per Horse	A.	24.8 A.
Expense per $100 gross income	$	$ 76.00
Machinery cost per acre	$	$ .79
Building and fencing cost per acre	$	$ .42
Gross Receipts per Acre	$	$ 8.26
Total Expenses per Acre	$	$ 6.26
Net Receipts per Acre	$	$ 2.00
Farms with Tractor - Percent	%	11.1%
Value of Land per Acre	$	$ 40.00
Total Investment per Acre	$	$ 59.00

Richland, Marion, Effingham Counties - 1925

	Your farm	Average of 18 farms
1. Capital Investment - Total	$_____	$11818
2. Land		8023
3. Farm Improvements		1155
4. Machinery and Equipment		531
5. Feed and Supplies		869
6. Livestock		1240
7. Horses		390
8. Cattle		423
9. Swine		95
10. Sheep		139
11. Poultry		193
12. Receipts - Net Increases - Total	$_____	$ 1657
13. Feed and Grain		219
14. Miscellaneous		111
15. Livestock - Total		1327
16. Horses		10
17. Cattle		174
18. Swine		253
19. Sheep		118
20. Poultry		134
21. Egg Sales		333
22. Dairy Sales		305
23. Expenses - Net Decreases - Total	$_____	$ 614
24. Farm Improvements		85
25. Livestock		---
26. Horses		---
27. Cattle		---
28. Swine		---
29. Sheep		---
30. Poultry		---
31. Machinery and Equipment		158
32. Feed and Supplies		---
33. Livestock Expense other than feed		8
34. Crop Expense		102
35. Labor hired		100
36. Taxes, Insurance, etc.		144
37. Miscellaneous		17
38. Receipts less Expenses	$_____	$ 1043
39. Operator's and Unpaid Family Labor		642
40. Net Income from Investment		401

Find Your Farm Leaks - (Richland, Marion, Effingham Counties - 1925)

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

Rate	Bushels per acre of			Returns per $100 invested in			Percent income	Man lab. cost per	Crop acres per		Expense per $100	Gross rect.	Size of
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry	from L.S.	acre	Man	Horse	income	per A.	farm
11.40	50	39	29	195	338	387	---	---	180	41	28	24.25	360
10.40	47	36	27	185	328	367	---	---	170	39	34	22.25	340
9.40	44	33	25	175	318	347	---	.70	160	37	40	20.25	320
8.40	41	30	23	165	308	327	---	1.20	150	35	46	18.25	300
7.40	38	27	21	155	298	307	---	1.70	140	33	52	16.25	280
6.40	35	24	19	145	288	287	---	2.20	130	31	58	14.25	260
5.40	32	21	17	135	278	267	100	2.70	120	29	64	12.25	240
4.40	29	18	15	125	268	247	90	3.20	110	27	70	10.25	220
3.40	26	15	13	115	258	227	80	3.70	100	25	76	8.25	200
2.40	23	12	11	105	248	207	70	4.20	90	23	82	6.25	180
1.40	20	9	9	95	238	187	60	4.70	80	21	88	4.25	160
0.40	17	6	7	85	228	167	50	5.20	70	19	94	2.25	140
-1.40	14	3	5	75	218	147	40	5.70	60	17	100	----	120
-2.40	11	0	3	65	208	127	30	6.20	50	15	106	----	100
-3.40	8	--	1	55	198	107	20	6.70	40	13	112	----	80
-4.40	5	--	--	45	188	87	10	7.20	30	11	118	----	60

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

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The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

WABASH, EDWARDS AND LAWRENCE COUNTY FARM BUREAUS

cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-two Farms

for

1925

Urbana, Illinois

April 5, 1926

ANNUAL FARM BUSINESS REPORT

WABASH, EDWARDS and LAWRENCE COUNTIES, ILLINOIS - 1925

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

The thirty-two farmers in Wabash, Edwards, and Lawrence Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $733 to pay for their labor, risk and management after paying expenses and allowing 5% on their average investment of $120 an acre. This is what is called their labor and management wage. The one-third of these farmers who were most successful had a labor and management wage of $1776., while the least successful third lacked $315. of having enough earnings to pay 5% on their investment, allowing nothing for their labor and management.

Expressed in another way, these thirty-two farmers earned 6.2% on their investment after allowing $600. to pay for their labor. On the same basis the third of them making the best profits earned 10.7% while the low profit third earned 1.6% . The average investment for thirty farms was $22,524. per farm which was equal to $120. an acre. The high profit third had an investment of $114. an acre and the low third $109.

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 about $725. per farm on a group of Champaign County farms where this phase of the farm business was given special study.

These income figures should not be considered as representative of all farms in the counties named. A field survey of earnings on farms with no financial records has shown conclusively that their average net incomes are less than those of farms in the same locality on which records are kept.

Size of farm had little effect on the earnings of the different groups since the higher and lower thirds were within ten acres of the average of the thirty-two farms, which was 188 acres. The two groups did differ materially in acres of corn and wheat, the more successful third having about 60 acres of corn and 30 acres of wheat, while the lower third had 35 acres of corn and 10 acres of wheat.

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* J. R. Spencer, H. C. Gilkerson and H. C. Wheeler, farm advisers in Wabash, Edwards and Lawrence Counties, respectively, cooperated in supervising and collecting the records used in this report.

In yields the higher profit group was only slightly above the average but the low group was sufficiently below the average to affect profits. The most successful third had some advantage in percentage of tillable land with 8% above the average and 15% above the lower third.

On returns per $100. invested in productive livestock the most successful group of these farms was far ahead of the low group having within one dollar of twice as large returns. The average was in between with $181. returns for $100 invested. The greater part of this advantage came from hog sales, the high profit group netting nearly twice as much for hogs as the low profit group. The lower third had a high investment in cattle without corresponding returns. This seems to explain, at least in part, the fact that the lower profit group had the higher percentage of their income from livestock. Another factor in the ratio is the relatively low yields on the low profit farms resulting in low sales of crops.

In man labor and horse power efficiency there was not a large difference between the groups, the high profit third having a little higher man labor cost and a little advantage in horse power efficiency.

On account of their larger volume of sales the most successful third of these farmers had a much better ratio of expenses to income. With a gross income of $21.95 an acre and expenses of $9.67 their net income of $12.28 was several times that of the lower group with only $10.85 gross income and $9.11 expenses per acre, leaving a net of only $1.74 an acre to pay interest and profit. The chief items of expense are fairly uniform between different groups in this summary which leads to the conclusion that the most successful third derive their advantage chiefly by securing larger crop yields and greater efficiency with livestock, probably coupled with more timely marketing.

Some strong and weak points of 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 with the group making the best profits and the group making the least profits.

Wabash, Edwards and Lawrence Counties

Factors helping to analyze the farm business	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Rate Earned	%	6.25%	10.77%	1.60%
Labor & Management Wage	$	733.	1776.	-315.
Size of Farm - Acres		187.6	195.5	190.6
Per cent of land area tillable	%	81.1%	89.1	73.6
Acres in Corn		45.1	60.3	34.5
Oats		19.3	23.2	22.8
Wheat		25.7	29.5	10.2
Crop Yields - Corn - Bushels		41.6	41.6	32.4
Oats - Bushels		29.4	32.5	24.0
Wheat - Bushels		22.2	22.5	20.2
Returns per $100. invested in all productive livestock	$	181.00	233.00	117.00
For $100 in Cattle	$	80.00	103.00	56.00
Swine	$	303.00	379.00	235.00
Poultry	$	279.00	266.00	230.00
Per cent of gross income from livestock		80.8%	66.6	96.9
Man labor Cost per Acre	$	$ 4.70	$ 4.92	$ 4.06
Crop Acres per Man		74.2	81.6	72.1
Crop Acres per Horse		21.9	21.1	19.2
Expense per $100. gross income	$	56.00	44.00	84.00
Machinery Cost Per Acre	$	1.52	1.64	1.38
Building & Fencing Cost per Acre	$	.82	.57	.84
Gross Receipts per Acre	$	17.22	21.95	10.85
Total Expenses per Acre	$	9.71	9.67	9.11
Net Receipts per Acre	$	7.51	12.28	1.74
Farms with tractor - per cent		37.5%	10.0%	50.0%
Value of Land per Acre		83.00	80.00	75.00
Total Investment per Acre		120.00	114.00	109.00

Wabash, Edwards and Lawrence Counties

	Your farm	Average of 32 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment-Total	$	$22524	$22280	$20856
2. Land	$	15701	15544	14380
3. Farm Improvements	$	2407	2125	2682
4. Machinery & Equipment	$	857	943	625
5. Feed and Supplies	$	1822	2115	1142
6. Livestock	$	1737	1553	2027
7. Horses	$	430	492	443
8. Cattle	$	694	434	1072
9. Swine	$	418	418	311
10. Sheep	$	20	21	10
11. Poultry	$	175	188	191
12. Receipts-Net Increases-Total		$ 3230	4291	2067
13. Feed and Grain	$	516	1318	----
14. Miscellaneous	$	104	114	64
15. Livestock-Total		2610	2859	2003
16. Horses	$	8	28	----
17. Cattle	$	298	341	347
18. Swine	$	1482	1749	916
19. Sheep	$	32	30	25
20. Poultry	$	116	126	81
21. Egg Sales	$	374	381	350
22. Dairy Sales	$	300	204	284
23. Expenses-Net Decreases-Total		$ 1175	1124	1188
24. Farm Improvements	$	153	111	161
25. Livestock	$	---	---	27
26. Horses	$	---	---	27
27. Cattle	$	---	---	
28. Swine	$	---	---	---
29. Sheep	$	---	---	---
30. Poultry	$	---	---	---
31. Machinery & Equipment	$	285	320	263
32. Feed and Supplies		---	---	29
33. Livestodk Exp. other than feed		30	23	36
34. Crop expense	$	205	228	178
35. Labor hired	$	234	194	226
36. Taxes, Insurance, etc	$	247	234	245
37. Miscellaneous	$	21	14	23
38. Receipts, less expenses	$	$ 2055	3167	879
39. Operator's and Unpaid Family labor		647	767	548
40. Net Income from Investment		1408	2400	331

Find Your Farm Leaks - (Wabash, Edwards, Lawrence Counties - 1925)

The numbers between the lines at 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			Percent income from L. S.	Man lab. cost per acre	Crop acres per		Expense per $100 income	Gross rect. per A.	Size of farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Horse			
13.25	63	51	36	150	443	419	----	1.20	145	36	14	31	328
12.25	60	48	34	140	423	399	----	1.70	135	34	20	29	308
11.25	57	45	32	130	403	379	----	2.20	125	32	26	27	288
10.25	54	42	30	120	383	359	----	2.70	115	30	32	25	268
9.25	51	39	28	110	363	339	----	3.20	105	28	38	23	248
8.25	48	36	26	100	343	319	100	3.70	95	26	44	21	228
7.25	45	33	24	90	323	299	90	4.20	85	24	50	19	208
6.25	42	30	22	80	303	279	80	4.70	75	22	56	17	188
5.25	39	27	20	70	283	259	70	5.20	65	20	62	15	168
4.25	36	24	18	60	263	239	60	5.70	55	18	68	13	148
3.25	33	21	16	50	243	219	50	6.20	45	16	74	11	128
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UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

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CLINTON COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Sixty Farms

for

1925

Urbana, Illinois

April 8, 1926

ANNUAL FARM BUSINESS REPORT

CLINTON COUNTY, ILLINOIS - 1925

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

The 60 farmers in Clinton County who kept financial records in the Illinois Farm Account Project for 1925 had an average of $764 to pay for their labor, risk and management after paying expenses and allowing 5% on their average investment of $105 an acre. This is what is called their labor and management wage. The one-third of these farmers who were most successful had a labor and management wage of $1576 while the least successful third had only $35 to pay for labor, risk and management.

Expressed in another way these 60 farmers earned 5.94% on their investment after allowing $600. to pay for their labor. On the same basis the third of them making the best profits earned 9.04% and the low profit third earned 1.71%. The average total investment on the 60 farms was $17,370, equivalent to $105 an acre. The high profit third had an investment of $104 and the low profit third $106 an acre. The different groups are strikingly uniform in this respect. The investment per acre includes the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4.

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, amounted to about $725 a year on a group of Champaign County 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 Clinton County. A field survey of earnings on all farms in one township in McLean County showed that the farmers keeping financial records averaged substantially higher net incomes for 1925 than those without such records.

Size of farm had little influence on the relative earnings of the different groups since the high and low earnings groups varied only about 3 acres from the average, which was 165 acres. Neither was there much difference in relative acreage of the chief grain crops. The average farm had about 31 acres of corn, 23 acres of oats, and 43 acres of wheat. The higher profit group averaged a little higher in acres of corn and wheat and a little lower in acres of oats. There was no significant difference between the groups in percent of land tillable.

In crop yields, the high profit third had an advantage of about fifteen percent which was sufficient to affect profits materially.

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*C. H. Rehling, Farm Adviser in Clinton County, cooperated in supervising and collecting the records used in this report.

In returns per $100. invested in productive livestock, the high third had $11. more than the low third. Analysis of income figures shows this advantage to be due to egg and dairy sales. In fact, the low profit group had more income per $100. invested in hogs. There was no significant difference between the groups in percent of income from livestock, the average being about 74 percent. It should be noted, however, that the more successful group had nearly twice as large sales both of crops and livestock.

Neither group had much advantage in man labor and horse power efficiency. The average farm had a man labor cost per acre of $6.84, which is slightly higher than the average in most of the county summaries, owing to the large amount of dairying done in Clinton County.

In expenses per $100. of income, the most successful third of these farms had a distinct advantage, spending for operations only $53 out of every $100. taken in, while the low third spent $86. This advantage is due entirely to a larger volume of sales since the higher group had larger total expenses per acre and a larger cost for machinery. This larger machinery cost is apparently due to a greater amount of dairy equipment since the higher profit third had nearly twice as large dairy sales.

The relation between gross and net returns for these groups illustrates the necessity for a margin above costs in farming. It should be noted that the higher profit group with a gross income less than twice that of the low group, and with expenses larger, still have a net income six times that of the low third. It is the net receipts which pay interest and profits.

A comparison of the data in the 1924 Clinton County report with the corresponding data for 1925 shows the stability of the type of farming followed by the Clinton County farmers who keep these records. While the earnings of most of the central Illinois farm operators who kept records in this project were materially lower for 1925 than for 1924, the Clinton County farmers show an average rate earned of 4.7% in 1924 and 5.9% in 1925, or a gain of a little more than 1%. The Clinton County group had a little higher expense in 1925 but corn and oat yields were about 1/3 better and all livestock sales were higher, particularly hog and poultry sales. The proportion of income from different sources remained about the same both years. The average Clinton County farm in this project for 1925 derived its income from the following sources: dairy products, 36½%, crops, 22%, eggs, 16½%, hogs, 8½%, cattle, 7½%, poultry, 4½%, and miscellaneous small items, 4½%. The high and low profit groups had about the same income distribution. They differed more in the relative success in each enterprise than in the proportionate size of the different enterprises. The result was a larger income from about the same type of organization on the more successful farms. The Clinton County records for 1923, 1924, and 1925 show about the same distribution of income as to enterprises and the respective

average earnings for the three years were 4.5%, 4.7%, and 5.9%. This stability of income is undoubtedly associated with the fact that these farmers do not carry all their eggs in one basket. With a larger number of important productive enterprises than the average central Illinois farm, they are never wholly dependent on the yield or price of a single product.

The importance of the dairy enterprise on these farms lends value to the following statements of fact taken from a report of the Department of Farm Management on "Cost of Producing Farm Products on 13 Farms in Washington, Clinton, and Madison Counties" for 1924.

"The cost of producing one hundred pounds of milk varied from $1.28 on farm #486 with an average production of 7,586 pounds per cow, to $4.54 on farm #475 with an average production of 3,492 pounds per cow.

"The twelve farms produced milk at a cost of $1.84 per hundredweight and the average production was 6,158 pounds per cow. The herds averaged 12 cows each.

"The cost of feed varied from $1.14 to $3.52 for each 100 pounds of milk produced. The income varied from $2.06 to $3.14 for each 100 pounds of milk produced. One of the most striking differences between farms is production per cow which varied from 3,492 pounds on farm #475 to 8,214 pounds on farm #482."

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 - 1925

Factors helping to analyze the farm business	Your farm	Average of 60 farms	20 most profitable farms	20 least profitable farms
Rate earned	%	5.94%	9.04%	1.71%
Labor and management wage	$	$764.	$1576.	$ 35.
Size of farm - Acres	A.	165.2 A	168.3 A	162.1 A
Percent of land area tillable	%	82.4%	83.8%	79.3%
Acres in Corn	A	31.2 A	32.6 A	29.2 A
Oats	A	22.6 A	21.6 A	23.5 A
Wheat	A	43.4 A	46.5 A	42.2 A
Crop yields - Corn	bu.	37.9bu.	40.7bu.	34.5 bu.
Oats	bu.	22.9bu.	25.0bu.	21.5 bu.
Wheat	bu.	14.9bu.	16.2bu.	13.5 bu.
Returns per $100. invested in all productive livestock	$	$168.00	$172.00	$161.00
For $100 in Cattle	$	$151.00	$ 156.00	$136.00
Swine	$	$166.00	$ 158.00	$189.00
Poultry	$	$232.00	$ 244.00	$216.00
Percent of gross income from livestock	%	73.9%	72.4%	77.8%
Man labor cost per acre	$	$ 6.84	$ 6.82	$ 6.79
Crop acres per man	A	61.0A	62.0 A	64.5 A
Crop acres per horse - (all farms)	A	21.3 A	22.3 A	21.4 A
(farms without tractor)	A	19.9 A	20.0 A	19.8 A
Expense per $100. gross income	$	$ 66.00	$ 53.00	$ 86.00
Machinery cost per acre	$	$ 1.75	$ 2.36	$ 1.49
Building & fencing cost per acre	$	$ 1.10	$ 1.16	$ 1.22
Gross receipts per acre	$	$ 18.19	$ 23.50	$ 13.63
Total expenses per acre	$	$ 11.94	$ 12.52	$ 11.81
Net receipts per acre	$	$ 6.25	$ 10.98	$ 1.82
Farms with tractor	%	18.3%	30.0%	10.0%
Value of land per acre	$	$ 64.00	$ 61.00	$ 66.00
Total investment per acre	$	$105.00	$ 104.00	$106.00

Clinton County - 1925

	Your farm	Average of 60 farms	20 most profitable farms	20 least profitable farms
1. Capital Investment - Total	$____	$17370	$17437	$17216
2. Land		10650	10260	10793
3. Farm improvements		2708	2660	2680
4. Machinery and equipment		1099	1178	1068
5. Feed and supplies		1211	1322	1263
6. Livestock		1702	2017	1412
7. Horses		425	427	343
8. Cattle		865	1109	677
9. Swine		134	151	141
10. Sheep		14	30	12
11. Poultry		264	300	239
12. Receipts-Net Increases-Total	____	3005	3955	2210
13. Feed and grain		657	825	442
14. Miscellaneous		126	267	41
15. Livestock - Total		2222	2863	1727
16. Horses		---	---	---
17. Cattle		224	349	113
18. Swine		255	293	284
19. Sheep		14	25	15
20. Poultry		135	133	150
21. Egg sales		495	652	376
22. Dairy sales		1099	1411	789
23. Expenses-Net Decreases-Total	____	1012	1198	945
24. Farm improvements		181	195	198
25. Livestock		13	4	20
26. Horses		13	4	20
27. Cattle		--	--	--
28. Swine		--	--	--
29. Sheep		--	--	--
30. Poultry		--	--	--
31. Machinery and equipment		290	398	241
32. Feed and supplies		---	---	---
33. Livestock expense other than feed		25	28	18
34. Crop expense		167	181	165
35. Labor hired		169	239	131
36. Taxes, insurance, etc.		140	126	149
37. Miscellaneous		27	27	23
38. Receipts less Expenses	____	1993	2757	1265
39. Operator's and unpaid family labor		961	909	970
40. Net income from investment		1032	1848	295

Find Your Farm Leaks - (Clinton County - 1925)

The numbers between the lines at 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			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm, acres
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	All farms	With tractor			
13.90	62	47	31	311	326	392	--	2.80	101	37	36	26	42	325
12.90	59	44	29	291	306	372	--	3.30	96	35	34	31	39	305
11.90	56	41	27	271	286	352	--	3.80	91	33	32	36	36	285
10.90	53	38	25	251	266	332	99	4.30	86	31	30	41	33	265
9.90	50	35	23	231	246	312	94	4.80	81	29	28	46	30	245
8.90	47	32	21	211	226	292	89	5.30	76	27	26	51	27	225
7.90	44	29	19	191	206	272	84	5.80	71	25	24	56	24	205
6.90	41	26	17	171	186	252	79	6.30	66	23	22	61	21	185
5.90	38	23	15	151	166	232	74	6.80	61	21	20	66	18	165
4.90	35	20	13	131	146	212	69	7.30	56	19	18	71	15	145
3.90	32	17	11	111	126	192	64	7.80	51	17	16	76	12	125
2.90	29	14	9	91	106	172	59	8.30	46	15	14	81	9	105
1.90	26	11	7	71	86	152	54	8.80	41	13	12	86	6	85
0.90	23	8	5	51	66	132	49	9.30	36	11	10	91	3	65
-1.90	20	5	3	31	46	112	44	9.80	31	9	8	96	0	45
-2.90	17	2	1	11	26	92	39	10.30	26	7	6	101	--	25

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

3. Returns from Livestock. The best measure of general success with livestock from the simple farm account is expressed in amount of returns for each $100.00 invested in livestock. Since horses are usually kept as a source of power and not for profit, they are excluded from this figure. The amount of returns for each $100.00 invested in livestock can be affected adversely by having an abnormally high inventory at the beginning and end of the year as well as by having low sales. A better measure of success is the amount of income for each $100.00 worth of feed fed, but this cannot be included in the general summary until more of the account keepers will keep the feed records on pages 38 and 39 of the account book. In general it may be said that from 70 to 85% of the cost of producing meat animals is feed cost. Numerous Illinois farm records have reflected the improvement in profits when the farmers keeping them adopted better practices along the line of breeding, sanitation, and feeding to get more return for each $100. worth of feed fed, and for each $100. invested in livestock.

Twenty-five McLean County farms keeping enterprise cost records on hogs for 1924 show the importance of getting a maximum of pork for the quantity of feed fed. Of this group, 4 farms produced pork at a cost of less than $8.00, 9 farms between $8.00 and $9.00, 5 farms between $9.00 and $10.00, 4 farms between $10.00 and $11.00, and 3 farms above $12.00 per hundred pounds. With hogs selling at $8.00 per hundred, 16% of these farms would still have made some profit, while with hogs at $10.00, 28% would have no profit. Eight of these farms following the McLean County system of sanitation produced 100 pounds of pork with an average of 102 pounds less feed than 8 others paying little attention to sanitation.

The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.82 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

MONROE AND RANDOLPH COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

April 6, 1926

ANNUAL FARM BUSINESS REPORT

MONROE AND RANDOLPH COUNTIES, ILLINOIS - 1925

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

The 30 farmers in Monroe and Randolph Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $756 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $86 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $1634 while the third who were least successful had only $13 to pay for labor, risk and management.

Expressed in a different way these thirty farmers earned 6.67% on their investment after allowing $600 each to pay for their own labor. On the same basis the most successful third of them earned 12.52% while the least successful third earned 0.84%. The average investment of the thirty farms was $14,805 which amounts to $86 an acre. The most successful third had a corresponding investment of $92 and the lowest third, $78 an acre. The investment per acre includes capital in land, building, equipment, livestock and crops as listed in the table on page 4.

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, amounted to about $725 on a group of Champaign County 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 Monroe and Randolph Counties. A field survey of earnings on all farms in a township in McLean County indicated that farms on which financial records are kept average considerably higher in net incomes than farms in the same locality on which no accounts are kept.

Size of farm had little influence on the relative earnings of the higher and lower profit groups. Both are within ten acres of the average of the 30 farms which is 172.6 acres. In percent of land tillable, the more successful third had an advantage of about 7%. The average farm had about 25 acres of corn, 15 acres of oats and 45 acres of wheat. This is over 50% of the grain acreage in wheat. The average farm in the higher profit group had about 10 acres more wheat than the average of the less successful group.

The average farm in the more successful third had 40% more corn, 60% more oats, and 75% more wheat per acre than the

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*P. G. Ewald and E. C. Secor, farm advisers in Monroe and Randolph Counties respectively, cooperated in supervising and collecting the records used in this report.

average farm in the lower profit group. This is decidedly significant as affecting cost per bushel of grain and comparative earnings.

In returns per $100 invested in productive livestock the higher profit group had an advantage of 16% over the average while the low third was 3% under the average. The difference was even greater on hogs and poultry and it was especially in these two classes of livestock that the more successful group excelled. The lower profit group had a larger percentage of income from livestock. This was evidently due chiefly to lower crop sales resulting from lower yields. The two groups had practically the same amount of investment in livestock. The higher profit group had 37% more income from livestock and over five times as much income from crops as the lower profit group.

The higher profit third had a marked advantage in the portion of income spent in operating the business. They spent $49 for operations out of every $100 taken in, while the average spent $63 and the less successful third, $93. This advantage was due entirely to a larger volume of sales since the more successful third had slightly larger expenses per acre than the average.

A comparison of these groups of farms in gross and net earnings per acre emphasizes the necessity for a margin of income above expenses in the farm business. The most successful group with only about twice as large gross earnings and with larger expenses has seventeen times as large net earnings as the lower profits third. It is the net receipts which pay interest and profits.

In machinery and building expense the more successful third spent more than the low third which may indicate under equipment on some farms of the latter group. The same tendency is shown in the comparative investments in equipment on page 4.

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.

Monroe and Randolph Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Rate Earned	%	6.67%	12.52%	0.84%
Labor & Management Wage	$	$756.	$1634.	$ 13.
Size of Farm - Acres	A	172.6 A	165.0 A	169.6 A
Percent of land area tillable	%	79.3%	81.5%	74.0%
Acreage of - Corn	A	24.8 A	21.7 A	19.5 A
Oats	A	14.6 A	14.1 A	14.7 A
Wheat	A	44.7 A	50.3 A	38.8 A
Crop Yields - Corn	Bu.	40.5 Bu.	52.8 Bu.	37.3 Bu.
Oats	Bu.	26.2 Bu.	34.2 Bu.	21.2 Bu.
Wheat	Bu.	18.8 Bu.	22.3 Bu.	12.5 Bu.
Returns per $100. invested in all productive livestock	$	$144.00	$ 168.00	$140.00
For $100 in Cattle	$	$122.00	$ 138.00	$133.00
Swine	$	$147.00	$ 158.00	$117.00
Poultry	$	$215.00	$ 250.00	$208.00
Percent of gross Income from Livestock	%	44.8%	39.3%	63.1%
Man Labor Cost per Acre	$	$ 5.98	$ 6.14	$ 6.25
Crop Acres per Man	A	62.4 A	60.0 A	49.5 A
Crop Acres per Horse	A	20.3 A	24.0 A	16.3 A
Expense per $100. gross Income	$	$ 63.00	$ 49.00	$ 93.00
Machinery Cost per Acre	$	$ 1.35	$ 1.99	$ 1.02
Building & Fencing Cost per Acre	$	$ .63	$ .85	$ .47
Gross Receipts per Acre	$	$ 15.45	$ 22.57	$ 10.00
Total Expenses per Acre	$	$ 9.72	$ 11.03	$ 9.34
Net Receipts per Acre	$	$ 5.73	$ 11.54	$ .66
Farms with Tractor - Percent	%	40%	50%	20%
Value of Land per Acre	$	$ 54.00	$ 56.00	$ 50.00
Total Investment per Acre	$	$ 86.00	$ 92.00	$ 78.00

Monroe and Randolph Counties - 1925

	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment - Total	$___	$14805	$15203	$13162
2. Land		9341	9243	8512
3. Farm Improvements		1923	1950	1787
4. Machinery and Equipment		959	1255	579
5. Feed and Supplies		1352	1627	1119
6. Livestock		1230	1128	1165
7. Horses		460	334	506
8. Cattle		394	373	363
9. Swine		196	228	83
10. Sheep		32	15	70
11. Poultry		148	178	143
12. Receipts - Net Increases - Total	___	2666	3724	1695
13. Feed and Grain		1354	2207	380
14. Miscellaneous		116	53	245
15. Livestock - Total		1196	1464	1070
16. Horses		8	---	12
17. Cattle		144	136	152
18. Swine		311	407	135
19. Sheep		28	15	66
20. Poultry		147	209	133
21. Egg Sales		191	280	175
22. Dairy Sales		367	417	397
23. Expenses - Net Decreases - Total	___	854	960	630
24. Farm Improvements		109	140	79
25. Livestock		---	7	---
26. Horses		---	7	---
27. Cattle		---	---	---
28. Swine		---	---	---
29. Sheep		---	---	---
30. Poultry		---	---	---
31. Machinery and Equipment		234	328	174
32. Feed and Supplies		---	---	---
33. Livestock Expense other than feed		13	11	12
34. Crop Expense		138	170	113
35. Labor hired		208	152	106
36. Taxes, Insurance, etc.		139	140	126
37. Miscellaneous		13	12	20
38. Receipts less Expenses	___	1812	2764	1065
39. Operator's and Unpaid Family Labor		824	860	954
40. Net Income from Investment		988	1904	111

Find Your Farm Leaks - (Monroe, Randolph Counties - 1925)

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	Bushels per acre of			Returns per $100 invested in			Percent income	Man lab. cost per	Crop acres per		Expense per $100	Gross rect.	Size of
Earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry	from L.S.	acre	Man	Horse	income	per A.	farm
13.65	61	47	33	192	217	320	80	2.50	97	34	28	29	313
12.65	58	44	31	182	207	305	75	3.00	92	32	33	27	293
11.65	55	41	29	172	197	290	70	3.50	87	30	38	25	273
10.65	52	38	27	162	187	275	65	4.00	82	28	43	23	253
9.65	49	35	25	152	177	260	60	4.50	77	26	48	21	233
8.65	46	32	23	142	167	245	55	5.00	72	24	53	19	213
7.65	43	29	21	132	157	230	50	5.50	67	22	58	17	193
6.65	40	26	19	122	147	215	45	6.00	62	20	63	15	173
5.65	37	23	17	112	137	200	40	6.50	57	18	68	13	153
4.65	34	20	15	102	127	185	35	7.00	52	16	73	11	133
3.65	31	17	13	92	117	170	30	7.50	47	14	78	9	113
2.65	28	14	11	82	107	155	25	8.00	42	12	83	7	93
1.65	25	11	9	72	97	140	20	8.50	37	10	88	5	73
0.65	22	8	7	62	87	125	15	9.00	32	8	93	3	53
-1.65	19	5	5	52	77	110	10	9.50	27	6	98	1	33
-2.65	16	2	3	42	67	95	5	10.00	22	4	103	0	13

Using the Farm Account Analysis

Analyses of several hundred farm accounts each year show that the farm which is above the average in all important factors is very rare and the few that have been found were especially profitable. This is true even though we are dealing only with those farms on which accounts are kept and these in general are known to be above the average of all farms in earnings. Every farm operator who has kept a financial record can profit by comparing his record in detail with those who were more and those who were less successful than he. One year's account may not tell the whole story but it does serve to indicate points of weakness or strength which good judgment will prompt the operator to examine carefully. Continuation of the financial record year by year will serve to verify or explain conclusions drawn from this record and to indicate progress toward improvement in the various factors.

The following is a brief discussion of the bearing of certain factors on farm profits. This discussion is based upon farms keeping the more detailed cost accounts under supervision of the University as well as upon the many records of farmers keeping the simple farm accounts.

1. Net and Gross Earnings. Net earnings have been expressed in three ways in these analyses each way serving a different purpose. As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management. It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business. Other degrees of ownership are represented in mortgaged farms. The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability. He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision. Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.

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The percent of the total farm receipts derived from livestock is an indication of the balance between crop and livestock enterprises. In the 1924 summary it was pointed out that 1924 prices favored the grain selling farm, but in 1925 this situation was completely reversed. As compared with the five-year average of farm prices from 1909 to 1914, grain prices for December 1925 were only 10% higher while hog prices were 45% higher. In the long run those farms have paid best which had a good balance of crop and livestock enterprises.

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As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volumé of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

SALINE, GALLATIN, WHITE, JOHNSON AND PULASKI COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

April 6, 1926

ANNUAL FARM BUSINESS REPORT

SALINE, GALLATIN, WHITE, JOHNSON, PULASKI COUNTIES, ILLINOIS - 1925

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

The 30 farmers in this group of counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $633 to pay for their labor, risk and management after paying expenses and 5% on their average investment of $115 an acre. This is called their labor and management wage. The one-third of these farmers who were most successful had a labor and management wage of $1603 while the least successful third lacked $263 of making 5% on their investment allowing nothing for their labor and management. This amounts to an average difference in income from labor and management between the two groups of $1866.

Expressed in another way, these 30 farmers earned 5.72% on their investment after allowing $600 to pay for their labor. On the same basis, the most successful third earned 9.37% while the low profit third earned 1.32%. The average investment on the 30 farms was $23,171, which amounted to $115 per acre. The higher profit third had an investment of $127 an acre while the low third had $103. Investment per acre includes capital in land, buildings, equipment, livestock and crops as listed in the table on page 4.

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 about $725 a year on a group of Champaign County 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 group of counties. A field survey of earnings on all farms in one McLean County township indicated that farm operators keeping accounts averaged considerably higher in net incomes than the average of farms in the same locality keeping no financial records.

Size of farm had little influence on the relative earnings of the different groups of farms since the high third and the low third are within ten acres of the average for the thirty farms which was 202 acres. Neither was there much difference in percent of tillable land. Each group averaged about 85 percent tillable. There was no significant difference between groups in the acreage of the chief grain crops except that the high profit third had about 10 acres more corn than the average for all farms.

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*J. E. Whitchurch, C. W. Simpson, E. W. Creighton, J. G. McCall and E. A. Bierbaum, farm advisers in Saline, Gallatin, White, Johnson and Pulaski Counties respectively, cooperated in supervising and collecting the records used in this report.

In crop yields, the more successful third had over 30% more corn and oats to the acre but only a slight advantage in wheat yields. This difference in yields is quite significant as corn is the major crop in point of acreage and the larger yield reduced the cost per bushel materially.

In returns per $100 invested in productive livestock, the higher profit third of these farms averaged 17% larger returns than the low third. Examination of the sources of income shows this advantage to come from higher sales of cattle, hogs, and poultry and dairy products. The low third derived a higher percentage of their income from livestock than the average but the income figures show this to be due primarily to lower sales of crops rather than to a larger investment in livestock. The higher profit third had 48% more income from livestock but they had over four times as much income from crop sales as the low third.

In man labor and horse power efficiency, there was not a great difference between groups altho the high profit third had some advantage in crop acres per man and crop acres per horse on the tractor farms.

Chiefly on account of their larger yields and greater volume of crop sales the most successful third of these farms had a large advantage in amount of expenses per $100 of gross income. While they spent for operating $45 out of each $100 taken in, the low third spent $87.

The relation between gross and net income per acre for the different groups of farms, emphasizes the necessity for a margin of income above expenses in the farm business. The more successful group of farms with an average gross income per acre twice that of the low group and with expenses about equal, have a net income nine times that of the low group. It is the net receipts which pay interest and profits.

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.

Saline, Gallatin, White, Johnson and Pulaski Counties - 1925

Factors helping to analyze the farm business	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Rate earned	%	5.72%	9.37%	1.32%
Labor and management wage	$	$633.	$1603.	$-263.
Size of farm - Acres	A.	202.0 A.	206.2 A.	195.3 A.
Percent of land area tillable	%	84.8%	84.8%	85.3%
Acres in Corn	A.	54.6 A.	65.2 A.	53.3 A.
Oats	A.	13.2 A.	13.5 A.	12.5 A.
Wheat	A.	27.4 A.	28.0 A.	25.6 A.
Crop yields - Corn	bu.	40.4 bu.	45.8 bu.	35.3 bu.
Oats	bu.	27.1 bu.	32.0 bu.	20.3 bu.
Wheat	bu.	19.4 bu.	20.1 bu.	19.0 bu.
Returns per $100 invested in all productive livestock	$	$190.00	$ 193.00	$ 165.00
For $100 in Cattle	$	$122.00	$ 130.00	$ 90.00
Swine	$	$259.00	$ 263.00	$ 255.00
Poultry	$	$229.00	$ 252.00	$ 197.00
Percent of gross income from livestock	%	65.7%	52.8%	75.3%
Man labor cost per acre	$	$ 4.75	$ 4.98	$ 4.72
Crop acres per man	A.	72.0 A.	77.5 A.	67.9 A.
Crop acres per horse (with tractor)	A.	27.1 A.	29.4 A.	22.0 A.
(without tractor)	A.	18.5 A.	17.3 A.	20.0 A.
Expense per $100 gross income	$	$ 59.00	$ 45.00	$ 87.00
Machinery cost per acre	$	$ 1.41	$ 1.64	$ 1.36
Building and fencing cost per acre	$	$ .78	$ .70	$ .81
Gross receipts per acre	$	$ 15.95	$ 21.59	$ 10.75
Total expenses per acre	$	$ 9.39	$ 9.71	$ 9.39
Net receipts per acre	$	$ 6.56	$ 11.88	$ 1.36
Farms with tractor	%	35.5%	50.0%	30.0%
Value of land per acre	$	$ 80.00	$ 95.00	$ 71.00
Total investment per acre	$	$115.00	$ 127.00	$ 103.00

Saline, Gallatin, White, Johnson, and Pulaski Counties - 1925

	Your farm	Average of 31 farms	10 most profitable farms	10 least profitable farms
1. Capital Investment - Total	$_____	$23171	$26151	$20046
2. Land		16244	19566	13814
3. Farm improvements		2652	2126	2293
4. Machinery and equipment		923	986	842
5. Feed and supplies		1774	1883	1616
6. Livestock		1578	1590	1481
7. Horses		571	528	604
8. Cattle		489	550	402
9. Swine		333	340	272
10. Sheep		20	2	32
11. Poultry		165	170	171
12. Receipts-Net Increases-Total	_____	3222	4452	2099
13. Feed and grain		998	1913	443
14. Miscellaneous		106	187	75
15. Livestock - Total		2118	2352	1581
16. Horses		---	14	---
17. Cattle		214	306	109
18. Swine		1078	1075	848
19. Sheep		38	---	35
20. Poultry		142	172	92
21. Egg sales		252	296	245
22. Dairy sales		394	489	252
23. Expenses-Net Decreases-Total	_____	1218	1363	1085
24. Farm improvements		157	145	158
25. Livestock		4	---	10
26. Horses		4	---	10
27. Cattle		---	---	---
28. Swine		---	---	---
29. Sheep		---	---	---
30. Poultry		---	---	---
31. Machinery and equipment		284	339	266
32. Feed and supplies		---	---	---
33. Livestock expense other than feed		20	17	18
34. Crop expense		178	178	181
35. Labor hired		282	387	173
36. Taxes, Insurance, etc.		269	278	250
37. Miscellaneous		24	19	29
38. Receipts less Expenses	_____	2004	3089	1014
39. Operator's and unpaid family labor		678	639	749
40. Net income from investment		1326	2450	265

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Rate earned	Bushels per acre of			Returns per $100 invested in			Percent income from L.S.	Man lab. cost per acre	Crop acres per			Expense per $100 income	Gross rect. per A.	Size of farm
										Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry			Man	Tractor	No Tractor			
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The average cost of operating 68 two-plow tractors in Champaign County in 1925 was $238. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

Those farmers making best use of their labor and power usually have a well balanced selection of crops and livestock which uses the available labor on profitable work throughout the year. A good crop rotation on fields of good size and shape quickly reached from the farm buildings helps in making efficient use of labor and power. Other helps are implements of suitable size kept in good condition to do a maximum amount of work, especially during the rush seasons. All implements should be put in first class condition before the crop season begins so as to cause no avoidable delays.

Livestock offers the chief means of keeping labor profitably employed during the dull season and its use will help in labor efficiency even if the livestock enterprises no more than pay running expenses including a share of labor cost. Livestock farms usually have more land in pasture, too, which by reducing crop acres cuts down the peak demand for power and labor. Farms with a large amount of livestock, however, usually show less crop acres per man than do grain farms, which does not detract from their actual labor efficiency so long as the livestock enterprises are profitable. Adding livestock enterprises usually does not increase labor and power expense in proportion to the increased income.

It is possible to attempt to handle too many crop acres per man or per horse and thus lose in efficiency by getting low yields, but the more common case is to handle too few acres. The greatest efficiency comes from a well thought out plan taking advantage of all known conditions and providing for adjustments to probable emergencies.

5. Expenses per $100. Gross Income. With higher costs for labor, implements, and supplies of all kinds including such newer items as gasoline, oil, and tires, the

opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.

Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also in keeping one man profitably occupied throughout the year. Such farms show large items of expense such as labor, power, machinery and buildings when expressed on the acre basis. To remedy this condition, it is necessary to increase the volume of business by renting or buying more land, or by raising products which give a larger volume of sales per acre. Such products are alfalfa, dairy products, poultry products, fruit, etc. Farm operators who are good buyers, feeders and sellers of livestock can also get volume of business by carrying on feeding operations.

It is also possible for a farm operator to have too large a unit for efficient management although the point at which the size becomes too large varies widely with the managing ability of the particular operator. This condition is likely to show itself in low yields and low efficiency with livestock.

Balanced Farming

Accumulating evidence from farm records bears out the statement that year by year with changing price relations and varied weather favoring first one and then another product, a well balanced selection of crop and livestock enterprises pays best in the long run, both because it insures income and because it makes more economical use of power, labor and equipment.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

SUMMARY

of

ANNUAL FARM BUSINESS REPORTS

on

One Thousand Forty-eight Farms

for

1925

Urbana, Illinois

June 30, 1926

SUMMARY OF ANNUAL FARM BUSINESS REPORTS

on

TWENTY-SIX LOCAL FARMING AREAS IN ILLINOIS

for 1925

Prepared by H. C. M. Case and R. R. Hudelson

Separate 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, as well as to others interested in keeping farm financial records. In these farm business reports the data included herewith was fully discussed with a view to aiding the individual account keeper to use 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 this summary it is of particular interest to note the general level of earnings for 1925 and the relation of type of farming to net earnings under prevailing price and weather conditions.

In considering the data in the following tables it should be kept in mind that the rank and file of all farmers make less average net earnings than do those farmers who keep accounts. While there are many efficient and successful farm operators who keep no financial records the selection of the group who keep accounts eliminates a large number of the more careless and unbusinesslike operators who would generally rank near the bottom in net earnings. A comparative study of earnings on 113 McLean County farms located in a solid block whose operators had not been keeping accounts, with a larger number of farms in the same locality whose operators kept accounts indicated that the account keeping farmers earned about 2 percent more on their capital investment than did those who had not been keeping financial records. In considering the following data it would, therefore, seem to be necessary to deduct about 2% from the earnings shown, if it is desired to estimate the rates earned by the average farmer in the particular locality.

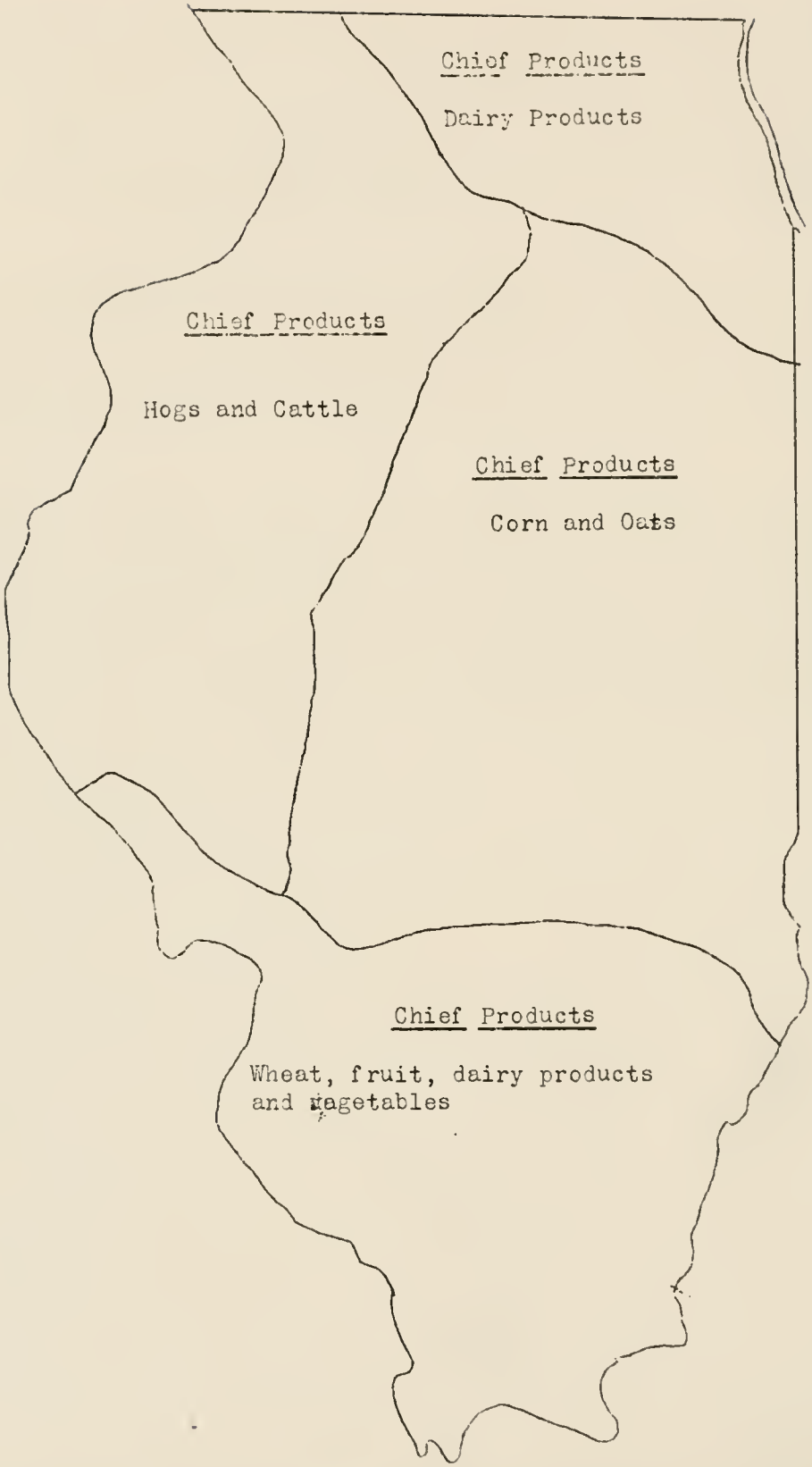
Net earnings on farms in Illinois for 1925 were at least one-fourth less than for 1924 as judged by more than a thousand completed accounts kept by individual farm operators under the supervision of representatives of the University. This condition of reduced earnings was not uniform over the state, however, but varied widely with the type of farming and seasonal conditions prevailing in each part of the state.

The northeastern section where dairy farms predominate showed only slightly lower earnings for 1925 than for 1924. The western and northwestern

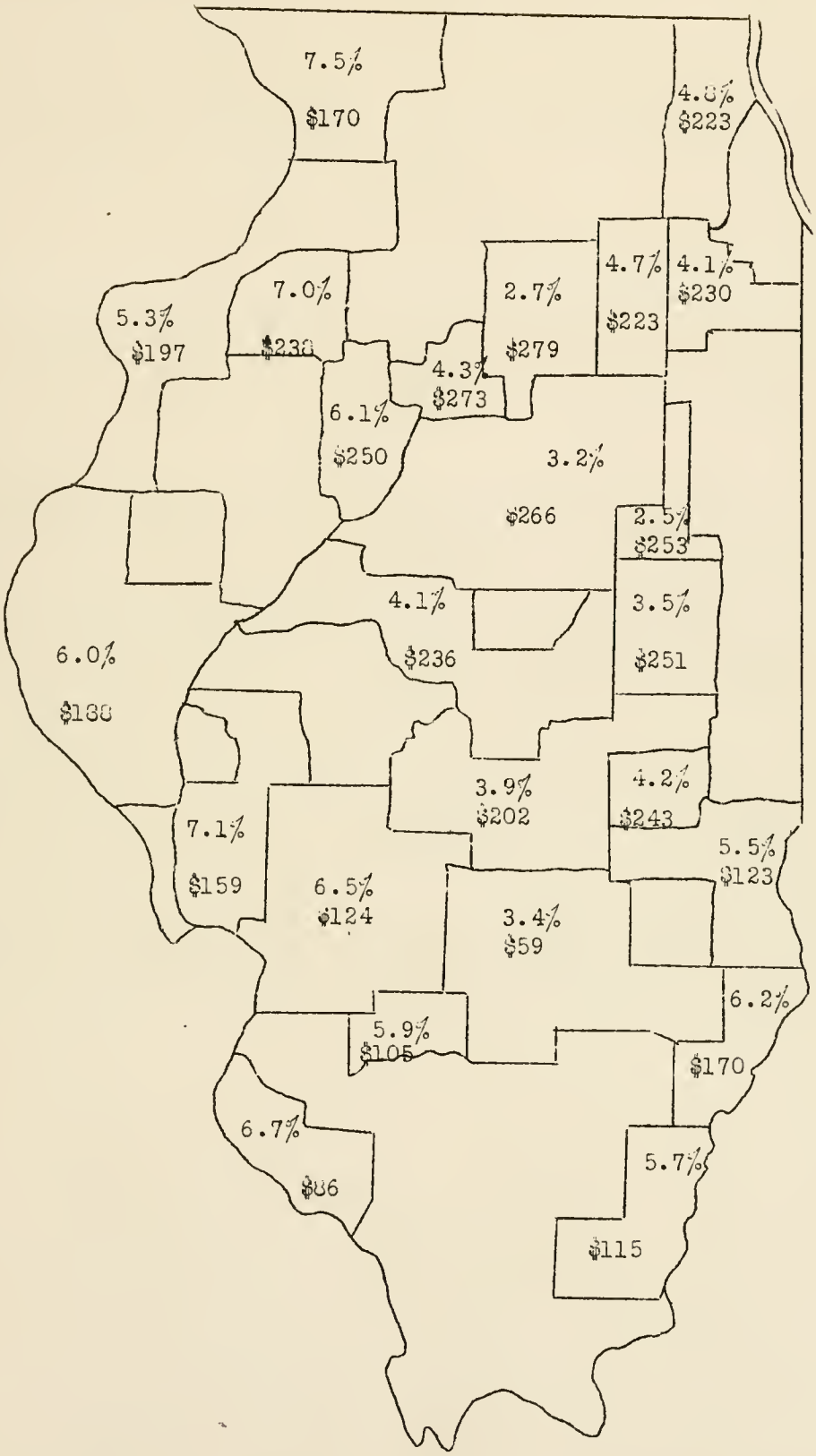
sections in which hogs and beef cattle constitute the chief farm products and where most farm operators feed their entire corn crop showed a little better earnings in 1925 than in 1924. These sections were favored not only by better hog prices but by better yields due to an exceptionally favorable season. Forty-five farms in Henry County averaged 65 bushels of corn to the acre which is much above their usual average. Southern Illinois with its varied enterprises, including wheat, dairy products, fruit and vegetables, had about the same net earnings in 1925 and 1924.

Central and eastern Illinois were hardest hit by prevailing price conditions during 1925. In this large section constituting more than a third of the state the various county averages agreed closely in indicating that rates earned dropped sharply to less than half of what they were in 1924. In this area corn and oats are important products, and prices on these grains were low through the season for marketing the 1925 crop.

In considering the following data it should be borne in mind that all inventory values have been greatly reduced since 1920. In practically all of the accounts included in this summary, the land has been inventoried at one-half to two-thirds of what it would have sold for in 1919. If the farm operators represented in this report had entered their property in the inventories at 1919 values, rates earned would be about half as high as is shown in these records.



Sections of Illinois having widely different types of farming and affected differently by price conditions.



Rate earned and investment per acre on farms keeping accounts for 1925. Figures given are averages for 30 to 240 farms in each section as outlined. The average of all farms has been found to be about 2% less than the average of farm keeping accounts.

SUMMARY OF 1048 RECORDS BY AREAS
1925

County or Area	Lake DuPage Kane	Ken-dall Grundy	Will	Jo Daviess Stephenson Carroll	Whiteside Henderson Rock Island Mercer	Henry	Stark Peoria
1. Rate earned	4.78%	4.74%	4.13%	7.45%	5.27%	7.08%	6.06%
2. Labor & Management wage	$564.	$569.	$197.	$1345.	$700.	$1575.	$1008.
3. Size of farm - acres	167.8	178.7	185.6	187.9	204.9	202.5	187.1
4. Percent of land area tillable	83.1%	88.6%	88.4%	75.7%	79.%	84.7%	88.5%
5. Acres in - Corn	44.0	67.0	58.4	42.8	65.2	76.9	78.4
6. Oats	29.1	40.6	33.1	27.2	28.8	33.4	42.2
Wheat	6.6	7.6	21.5	1.6	10.8	6.4	5.
6. Crop yields - corn (bu)	34.9	47.7	44.5	53.2	46.6	65.0	61.4
oats (bu)	38.5	51.4	46.7	49.5	41.9	58.0	54.4
wheat (bu)	21.6	24.8	25.8	25.7	19.4	20.4	25.7
7. Returns per $100 invested in all productive livestock	$152.	$139.	$125.	$135.	$153.	$142.	$123.
8. For $100 in - Cattle	$145.	$ 94.	$106.	$ 85.	$100.	$ 90.	$ 85.
9. Swine	$183.	$196.	$164.	$235.	$219.	$198.	$182.
10. Poultry	$186.	$236.	$181.	$206.	$184.	$174.	$162.
11. Percent of Gross income from livestock	94.5%	70.2%	69.4%	91.7%	98.6%	85.4%	76.5%
12. Man labor cost per acre	$ 8.06	$ 6.51	$ 6.26	$ 5.43	$ 5.85	$ 6.60	$ 6.09
13. Crop acres per man	85.9	90.2	92.1	63.7	71.1	80.3	87.8
14. Crop acres per horse (with tractor)	27.0	26.6	31.2	22.8	27.7	23.9	22.2
(without tractor)	18.1	20.5	19.4	16.5	16.7	18.7	19.1
15. Expense per $100 gross income	$62.	$57.	$59.	$49.	$57.	$44.	$46.
16. Machinery cost per acre	$ 3.08	$ 1.99	$ 2.80	$ 1.75	$ 1.96	$ 2.43	$ 2.40
17. Building and fencing cost per acre	$ 1.58	$ 1.98	$ 1.34	$ 1.20	$ 1.16	$ 1.12	$ 1.07
18. Gross receipts per acre	$28.04	$24.28	$22.89	$24.15	$23.89	$30.39	$27.94
19. Total expenses per acre	$17.40	$14.20	$13.40	$11.46	$13.52	$13.52	$12.80
20. Net receipts per acre	$10.64	$10.58	$ 9.49	$12.69	$10.37	$16.87	$15.14
21. Farms with tra tors	53%	38%	64%	45%	47%	66.6%	60%
22. Value of land per acre	$146.	$155.	$165.	$112.	$137.	$172.	$189.
23. Total investments per acre	$223.	$223.	$230.	$170.	$197.	$238.	$250.

Summary of 1048 Records by Areas
1925

County or Area	Lake DuPage Kane	Ken-dall Grundy	Will	Jo Daviess Stephenson Carroll	Whiteside Henderson Rock Island Mercer	Henry	Stark Peoria
Capital Investments-Total	$37 376	$39 919	$42 647	$32 027	$40 323	$43 286	$46 767
Land	24 511	27 709	30 644	21 039	28 050	34 631	35 417
Farm Improvement	5 319	5 170	4 600	4 852	5 051	4 756	3 930
Machinery and equipment	1 964	1 520	1 842	1 318	1 419	1 554	1 411
Feed and supplies	2 255	2 716	2 717	1 559	2 629	3 186	3 037
Livestock	3 327	2 804	2 844	3 259	3 174	3 957	2 972
Receipts-Total	4 705	4 429	4 249	4 539	4 896	6 154	5 228
Feed and grain	169	1 234	1 169	286	-----	707	1 122
Miscellaneous	92	85	131	91	67	114	107
* Livestock	4 444	3 110	2 949	4 162	4 829	5 253	3 999
Expenses-Total	1 954	1 712	1 691	1 352	2 000	1 938	1 702
Farm Improvements	265	354	249	225	237	227	201
Livestock	23	20	-----	14	-----	27	-----
Machinery and equipment	516	356	519	329	402	492	449
Feed and supplies	-----	-----	-----	-----	300	-----	-----
Livestock expense other than feed	169	46	87	65	86	50	65
Crop expense	159	224	152	126	158	222	174
Labor hired	387	338	320	218	428	536	447
Tax, insurance, etc.	399	344	330	331	359	356	343
Miscellaneous	36	30	34	44	30	28	23
Receipts less expenses	2 751	2 717	2 558	3 187	2 896	4 216	3 526
Operators and unpaid family labor	965	826	796	802	771	800	693
Net income from investment	1 786	1 891	1 762	2 385	2 125	3 416	2 833
Number of Records in Report	28	21	33	44	34	45	30

1925

County or Area	Mc-Donough	Hancock Brown Schyler Adams Pike	Marshall Putnam	LaSalle	Wood-ford	Aver-age of 225 farms	Ford
1. Rate earned	5.77%	6.02%	4.33%	2.7%	3.35%	3.21%	2.5%
2. Labor & Management Wage	$937.	$1006.	$163.	$-87.	$-119.		$-1011.
3. Size of farm - acres	180.3	215.5	227.2	241.8	190.	232.	251.6
4. Percent of land area tillable		76.3%	88.2%	92.1%	86.6%	89.7%	93.4%
5. Acres in - Corn	68.7	60.7	87.8	91.4	75.3	92.	102.7
Oats	22.7	23.0	50.3	64.9	54.3	54.	71.9
Wheat	18.7	22.6	11.0	10.	3.3	15.	7.
6. Crop yields - Corn(bu)	57.8	58.6	63.0	51.6	55.5	55.	46.8
Oats(bu)	44.3	34.9	48.2	47.2	41.5	39.	27.1
Wheat(bu)	21.9	15.1	25.5	25.9	17.	18.	22.5
7. Returns per $100 invested in all productive livestock	$177.	$174.	$122.	$125.	$148.	$109.	$127.
8. For $100 in - Cattle	$ 56.	$ 95.	$ 43.	$ 98.	$ 83.	$ 96.	$ 91.
9. Swine	$237.	$251.	$186.	$183.	$225.	$212.	$185.
10. Poultry	$183.	$203.	$105.	$162.	$187.	$234.	$173.
11. Percent of Gross income from livestock	80.1%	98.5%	53.5%	61.1%	51.2%	58.7%	46.3%
12. Man labor cost per acre	$ 6.84	$ 5.81	$ 5.98	$ 5.76	$ 6.68	$ 6.85	$ 5.18
13. Crop acres per man	69.2	72.4	88.5	94.	88.3	89.	110.0
14. Crop acres per horse (with tractor)	21.1	23.0	27.2	26.8	24.	25.9	29.2
(without tractor)	17.6	21.1	23.0	21.1	19.	19.1	22.1
15. Expense per $100 gross income	$52.46	$52.	$53.	$64.	$60.	$64.14	$54.0
16. Machinery cost per acre	$ 2.32	$ 1.95	$ 2.46	$ 2.53	$ 2.	$ 2.21	$ 1.88
17. Building and fencing cost per acre	$ 1.68	$ .90	$ 1.35	$ 1.22	$ .91	$ 1.07	$ .93
18. Gross receipts per acre	$28.91	$23.31	$25.15	$20.81	$22.06	$23.09	$17.45
19. Total expenses per acre	$15.16	$12.01	$13.33	$13.28	$13.16	$14.81	$11.12
20. Net receipts per acre	$13.75	$11.30	$11.82	$ 7.53	$ 8.90	$ 8.28	$ 6.33
21. Farms with tractors	50.%	45.%	55.%	68.7%	52.%		80.%
22. Value of land per acre	$179.	$136.	$209.	$216.	$211.	$191.55	$200.
23. Total investments per acre	$238.	$188.	$273.	$279.	$266.	$258.15	$253.

Summary of 1048 Records by Areas (Cont'd)
1925

County or Area	Mc-Donough	Hancock Brown Schyler Adams Pike	Marshall Putnam	LaSalle	Wood-ford	Average of 225 Farms	Ford
Capital Investments-Total	$42 847	$40 430	$62 085	$67 466	$50 513	$59 890	$63 659
Land	32 248	29 248	47 510	52 182	40 163	44 440	50 220
Farm Improvements	3 596	4 223	4 985	5 167	3 331	5 694	4 842
Machinery and equipment	1 454	1 245	1 729	2 112	1 368	1 815	1 575
Feed and grain	2 691	2 469	4 433	4 701	3 428	4 842	4 561
Livestock	2 858	3 245	3 428	3 304	2 223	3 099	2 461
Receipts-Total	5 204	5 024	5 714	5 031	4 192	5 356	4 391
Feed and grain	908	-----	2 559	1 891	1 996	2 097	2 293
Miscellaneous	130	72	95	65	48	113	66
Livestock	4 166	4 952	3 060	3 075	2 148	3 146	2 032
Expenses-Total	1 905	1 777	2 259	2 392	1 592	2 514	1 997
Farm improvements	303	194	307	294	173	247	233
Livestock	13	5	-----	47	-----	62	26
Machinery and equipment	418	420	560	612	379	513	473
Feed and supplies	-----	3	-----	-----	-----	126	-----
Livestock expense other than feed	108	101	77	54	43	47	63
Crop expense	173	225	215	241	177	234	171
Labor hired	408	441	589	573	362	668	501
Tax, insurance, etc.	441	362	441	509	430	493	498
Miscellaneous	41	26	45	62	28	54	32
Receipts less expense	3 299	3 247	3 455	2 639	2 600	2 842	2 394
Operators and unpaid family labor	825	812	769	819	908	922	802
Net income from investment	2 474	2 435	2 686	1 820	1 692	1 920	1 592
Number of Records in Report	30	38	27	32	44		31

SUMMARY OF 1048 RECORDS BY AREAS (Cont'd)
1925

County or Area	Mason Macon Logan Piatt McLean	Champaign	Douglas Shelby Christian Moultrie	Coles	Cumberland Clark Crawford	Wabash Edwards Lawrence	Richland Marion Effingham
1. Rate earned	4.11%	3.52%	3.96%	4.18%	5.51%	6.25%	3.4%
2. Labor and Management Wage	$44.	-$201.	$174.	$169.	$623.	$733.	$290.
3. Size of farm - acres	256.3	214.7	193.4	184.5	160.0	187.6	200.5
4. Percent of land area tillable	94.1%	95.9%	89.7%	92.2%	75.4%	81.1%	82.8%
5. Acres in - Corn (bu)	97.5	92.	72.3	66.8	46.4	45.1	31.2
Oats (bu)	34.4	45.1	28.3	26.3	18.3	19.3	21.4
Wheat (bu)	44.7	18.5	19.0	29.2	6.9	25.7	9.2
6. Crop yields - Corn (bu)	53.4	52.0	42.5	49.8	44.0	41.6	25.8
Oats (bu)	35.0	33.8	27.1	32.2	19.8	29.4	15.0
Wheat (bu)	18.6	16.8	19.2	20.3	13.7	22.2	12.8
7. Returns per $100 invested in productive livestock	$132.00	$138.	$148.	$160.	$163.	$181.	$152.
8. For $100 in Cattle	$105.	$ 96.	$ 92.	$ 97.	$ 78.	$ 80.	$115.
9. Swine	$196.	$208.	$236.	$244.	$232.	$303.	$258.
10. Poultry	$137.	$175.	$151.	$188.	$194.	$279.	$227.
11. Percent of Gross Income from livestock	57.3%	33.4%	66.2%	74.4%	86.1%	80.8%	80.0%
12. Man labor cost per acre	$5.31	$5.38	$5.87	$5.79	$5.19	$4.70	$3.70
13. Crop acres per man	106.2	109.5	80.4	82.7	68.2	74.2	99.6
14. Crop acres per horse (with tractor)	27.2	32.6	25.5	25.5	23.9	21.9	24.8
(without tractor)	24.7	20.7	18.4	-----	13.8	-----	-----
15. Expense per $100 gross income	$55.	$57.	$61.	$58.	$59.	$56.	$76.
16. Machinery cost per acre	$1.93	$1.89	$1.98	$1.[illegible]	$1.46	$1.52	$.79
17. Building and fencing cost per acre	$1.10	$ .99	$ .81	$1.13	$ .96	$ .82	$.42
18. Gross receipts per acre	$21.48	$20.67	$20.18	$22.03	$16.69	$17.22	$8.26
19. Total expenses per acre	$11.79	$11.82	$12.25	$11.98	$ 9.91	$ 9.71	$6.26
20. Net receipts per acre	$ 9.69	$ 8.85	$ 7.93	$10.05	$ 6.78	$ 7.51	$2.00
21. Farms with tractor	48.6%	60.%	53.1%	53.%	36.8%	37.5%	11.1%
22. Value of land per acre	$184.	$201.	$156.	$185.	$[illegible]88.	$[illegible]983.	$40.
23. Total investments per acre	$236.	$251.	$202.	$243.	$[illegible]23.	[illegible]30	$59.

Summary of 1048 Records by Areas (Cont'd)
1925

County or Area	Mason Macon Logan Piatt McLean	Champaign	Douglas Shelby Christian Moultrie	Coles	Cumber-land Clark Crawford	Wabash Edwards Lawrence	Richland Marion Effingham
Capital Investment-Total	$60 436	$53 997	$39 062	$44 817	$19 659	$22 524	$11 818
Land	47 051	43 219	30 081	34 205	14 109	15 701	8 023
Farm improvement	4 504	3 256	2 984	4 446	1 706	2 407	1 155
Machinery and equipment	1 697	1 486	1 117	1 199	774	857	531
Feed and supplies	3 986	4 382	2 591	2 583	1 427	1 822	869
Livestock	3 198	1 654	2 289	2 384	1 643	1 737	1 240
Receipts-Total	5 506	4 438	3 902	4 064	2 671	3 230	1 657
Feed and Grain	2 301	2 841	1 272	974	316	516	219
Miscellaneous	49	115	46	67	56	104	111
Livestock	3 156	1 482	2 584	3 023	2 299	2 610	1 327
Expenses-Total	2 246	1 846	1 614	1 543	931	1 175	614
Farm Improvements	283	213	156	209	153	153	85
Livestock	13	26	6	17	-----	-----	-----
Machinery and equipment	494	405	382	351	234	285	158
Feed and supplies	-----	-----	-----	-----	-----	-----	-----
Livestock expense other than feed	58	37	37	37	27	30	8
Crop expense	258	206	196	172	123	205	102
Labor hired	585	462	381	400	175	234	100
Tax, insurance, etc.	501	467	416	336	196	247	144
Miscellaneous	54	30	40	21	23	21	17
Receipts less expenses	3 260	2 592	2 288	2 521	1 740	2 055	1 043
Operators and unpaid family labor	777	691	755	668	655	647	642
Net income from investment	2 483	1 901	1 533	1 853	1 085	1 408	401
Number of Reco ds in Report	35	30	31	30	19	32	18

SUMMARY OF 1048 RECORDS BY AREAS (Cont'd)
1925

County or Area	Montgomery Bond Macoupin Madison	Jersey Greene Morgan	Clinton	Monroe Randolph	Saline Gallatin White Johnson Pulaski
1. Rate earned	6.5%	7.1%	5.94%	6.67%	5.72%
2. Labor & Management wage	$913.	$1153.	$764.	$756.	$633.
3. Size of farm - acres	190.0	185.5	165.2	172.6	202.
4. Percent of land area tillable	81.8%	79.1%	82.4%	79.3%	84.8%
5. Acres in - Corn (bu)	50.0	53.5	31.2	24.8	54.6
Oats (bu)	24.0	18.9	22.6	14.6	13.2
Wheat (bu)	23.0	27.9	43.4	44.7	27.4
6. Crop yields - Corn (bu)	47.0	54.6	37.9	40.5	40.4
7. Oats (bu)	26.2	22.6	22.9	26.2	27.1
Wheat (bu)	16.3	16.3	14.9	18.8	19.4
7. Returns per $100 invested in all productive livestock	$160.	$177.	$168.	$144.	$190.
8. For $100 in - Cattle	$109.	$114.	$151.	$122.	$122.
9. Swine	$285.	$295.	$166.	$147.	$259.
10. Poultry	$213.	$198.	$232.	$215.	$229.
11. Percent of Gross income from livestock	79.3%	72.2%	73.9%	44.8%	65.7%
12. Man labor cost per acre	$ 5.06	$6.15	$6.84	$5.98	$4.75
13. Crop acres per man	75.3	66.9	61.0	62.4	72.
14. Crop acres per horse (with tractor)	24.4	19.5	1.4	20.3	27.1
(without tractor)	16.8	-----	19.9	-----	18.5
15. Expense per $100 gross income	$66.	$52.	$66.00	$63.	$59.
16. Machinery cost per acre	$ 1.93	$ 2.10	$ 1.75	$ 1.35	$ 1.41
17. Building and fencing cost per acre	$ .77	$ 1.07	$ 1.10	$ .63	$ .78
18. Gross receipts per acre	$20.48	$23.35	$18.19	$15.45	$15.95
19. Total expenses per acre	$ 8.69	$12.08	$11.94	$ 9.72	$ 9.39
20. Net receipts per acre	$11.79	$11.27	$ 6.25	$ 5.73	$ 6.56
21. Farms with tractors	33%	30%	18.3%	40.0%	35.5%
22. Value of land per acre	$82.00	$115.	$64.	$54.	$80.00
23. Total investments per acre	$124.	$159.	$105.	$86.	$115.

Summary of 1048 Records by Areas (Cont'd)
1925

County or Area	Montgomery Bond Macoupin Madison	Jersey Greene Morgan	Clinton	Monroe Randolph	Saline Gallatin White Johnson Pulaski
Capital Investment-Total	$23 550	$29 412	$17 370	$14 805	$23 171
Land	15 565	21 374	10 650	9 341	16 244
Farm improvement	2 875	3 025	2 708	1 923	2 652
Machinery and equipment	1 234	1 024	1 099	959	923
Feed and supplies	1 728	1 847	1 211	1 352	1 774
Livestock	2 148	2 142	1 702	1 230	1 578
Receipts-Total	3 437	4 332	3 005	2 666	3 222
Feed and grain	255	1 087	657	1 354	998
Miscellaneous	122	117	126	116	106
Livestock	3 060	3 128	2 222	1 196	2 118
Expenses-Total	1 192	1 539	1 012	854	1 218
Farm improvements	146	198	181	109	157
Livestock	-----	34	13	-----	4
Machinery and equipment	367	389	290	234	284
Feed and supplies	-----	-----	-----	-----	-----
Livestock expense other than feed	59	44	25	13	20
Crop expense	137	148	167	138	178
Labor hired	253	439	169	208	282
Tax, insurance, etc.	203	252	140	139	269
Miscellaneous	27	35	27	13	24
Receipts less expenses	2 245	2 793	1 993	1 812	2 004
Operators labor and family labor	710	702	961	824	678
Net income from investment	1 535	2 091	1 032	988	1 326
Number of Records in Report	30	40	60	30	31