FARM FINANCIAL RECORD STUDIES 1927

ANNUAL FARM BUSINESS REPORTS PREPARED FROM RECORDS KEPT IN THE ILLINOIS FARM FINANCIAL RECORD BOOK FOR 28 AREAS FOR 1927.

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

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STATEMENT CONCERNING THE ENCLOSED DATA

In 1927 a still larger number of financial records were completed by farmers thruout the state than in any previous year. The number has gradually grown since 1922 when summaries were made of about 270 records which were prepared for dissemination to the cooperating farmers. A total of thirty-two reports, including the Farm Bureau-Farm Management Service report were completed for the state and represent a report or more for each of the important farming-type areas of the state. About 85 counties cooperated in the accounting work in 1927. Included in this number are several counties that are taking up this project for the first time. There is therefore prospect for the completion of a larger number of records in the coming year than for the past year. Approximately 1300 records were summarized for the cooperating farmers for 1927.

H. C. M. CASE

December, 1928

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Departments of Farm Organization and Management

and Dairy Husbandry

and

DuPAGE, McHENRY, KANE, COOK AND LAKE COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Sixty Dairy Farms

and

DAIRY ENTERPRISE COST STUDY

on

Fifty-seven Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

June, 1928

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ANNUAL FARM BUSINESS REPORT

Dairy Farms in
DuPage, McHenry, Kane, Cook and Lake Counties, Illinois, 1927

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

The 60 dairy farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $708 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $224 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,980, while the one-third who were least successful lacked an average of $757 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2,737 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 60 dairy farmers EARNED 5 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 9.2 percent and the least successful third seven tenths of one percent. The average investment on the 60 farms was $34,494, which amounts to $224 an acre. The higher profit third had an average investment of $228 and the lower profit third $231 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $128 on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

There was little difference in average size of farm between the 20 most profitable and the 20 least profitable farms. The low profit group averaged 11 acres larger, but they had more land that was not tillable. The high profit group had about 10 acres per farm more plough land. Difference in size of farm could have had but little effect on the relative earnings of the two groups. There was little difference between the two groups in the acreage of different

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*E. A. Carncross, E. M. Phillips, H. P. Kelley, O. G. Barrett and H. C. Gilkerson, farm advisers in DuPage, McHenry, Kane, Cook and Lake counties respectively, cooperated in supervising and collecting the records used in this report.

crops. Investigations of costs and incomes per acre for the common crops have shown that under ordinary Illinois conditions the margin of profit is wider for corn, wheat, barley, alfalfa, and sweet clover pasture than for most other crops. The most profitable farms included in this report had a slightly higher percentage of their land in these crops.

One of the advantages of the most profitable farms was in their higher crop yields. They produced an average of 11 bushels more corn, 2 bushels more oats, 9 bushels more wheat and 6 bushels more barley per acre than the less profitable farms. The most profitable farms although a little smaller in size produced 958 bushels more grain per farm than the least profitable farms. This accounts for part of the difference between the two groups in the amount of feed purchased.

The farms covered by this report are dairy farms and derive nearly all of their income from livestock and livestock products. The 20 most profitable farms show a livestock investment of $30.29 an acre, and the 20 least profitable farms a corresponding investment of $26.89. This is based on all livestock except horses. For both groups this is a large livestock investment. It is five to six times as large as on farms in the vicinity of Champaign and Ford counties where sales of feed crops make up most of the farm income. Undoubtedly the greatest single advantage of the 20 most profitable farms included in this report over the 20 least profitable farms was in a greater efficiency in livestock management. The most successful operators secured a livestock income of $125 for each $100 invested in livestock as compared with a corresponding income of $107 for each $100 of livestock investment on the low profit farms. This advantage held true for all kinds of livestock but was greatest for dairy cattle.

Since the dairy enterprise is much the largest one on these farms each farm operator will profit by putting a great deal of attention on efficiency in management of the dairy enterprise. It is significant that of the farms covered by this report the 20 most profitable farms and the 20 least profitable farms had the same number of cows per farm. Each group averaged 19 dairy cows. With the same number of cows the most profitable farms averaged $456 more dairy sales and they had about a thousand dollars per farm less feed purchases. This indicates a greater efficiency in production as well as a lower feed cost for the most successful farm operators. In general the most successful operators make greater use of home grown feeds. Part of this may be explained in the fact that they had about twice as much sweet clover pasture as was grown on the less successful farms. Other phases of dairy management will be discussed in a special dairy enterprise report based on special dairy records kept on these farms.

On the expense side of the business the most successful operators kept their expenses a little lower all along the line. They had about 62 cents an acre less labor cost although they had less non-tillable pasture which takes little labor and they had more livestock per acre. They had $1.27 an acre less equipment costs. With a machinery and equipment cost of $4.49 an acre it is evident that the 20 least profitable farms need to hold down on their equipment expense. This is high even for dairy farms. The largest item of larger expense on the low profit farms was for purchased feed.

This discussion can be summed up by stating that the most profitable farms were successful both because of larger gross incomes and lower operating costs. They had an average gross income of $40.43 an acre and an operating expense of $19.49 an acre compared with corresponding income and expense figures of $29.21

and $27.54 respectively on the less profitable farms. The results were a net income of $20.94 an acre on the 20 most profitable farms and $1.67 an acre on the 20 least profitable farms.

This is the second year that a report of this type has been published covering dairy farms in this section of the state. A number of the same farms were included for both years although a considerably larger number were included for 1927 than for 1926. An interesting comparison for the two years is made in the following table. Average earnings were practically the same for the two years. Considering the larger number of farms included for 1927 all the figures are remarkably similar for the two years.

Comparative Income and Investment Figures
on Some Dairy Farms in the Chicago District

Items	1926	1927
Number of farms included	35	60
Average size of farm in acres	151	154
Average rate earned	4.9%	5.0%
Average value of land per acre	$ 135	$ 128
Average investment per acre	226	224
Investment in livestock per farm	4,404	4,673
Investment in cattle per farm	3,458	3,691
Investment in hogs per farm	338	342
Investment in poultry per farm	164	178
Gross income per acre	32.07	32.84
Operating cost per acre	20.92	21.56
Crop income less feed purchases per farm	000	000
Miscellaneous income per farm	41	49
Livestock income per farm	5,129	5,008
Gross income per farm	5,170	5,057
Cattle income per farm	484	601
Dairy sales per farm	3,763	3,782
Hog income per farm	601	329
Poultry income per farm	264	278

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

and $27.9% respectively on the less [illegible]
corn of 39%. 3% an acre on the [illegible]
20 least profitable farms.

This is the second year [illegible]
covering dairy farms in Ohio [illegible]
were included for both years; [illegible]
for 1937 than for 1936. In general [illegible]
the following table. Average [illegible]
were reasonably similar for [illegible]

Comparative I[illegible]
on Sand[illegible]

Item	
Number of farms included	
Average size of farm in acres	
Average rate earned	
Average value of farm per acre	
Average investment per farm	
Investment in livestock per farm	
Investment in cattle per farm	
Investment in hogs per farm	
Investment in poultry per farm	
Gross income per acre	
Operating cost per acre	
Crop income less feed purchased per farm	
Miscellaneous income per farm	
Livestock income per farm	
Gross income per farm	
Cattle income per farm	
Dairy sales per farm	
Hog income per farm	
Poultry income per farm	

Some parts of [illegible]
found by comparing the [illegible]
the same factors for the average [illegible]
public records.

DuPage, McHenry, Kane, Cook and Lake Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 60 farms	Twenty most profitable farms	Twenty least profitable farms
Rate earned	%	5.03 %	9.20 %	.72 %
Labor and management wage	$	$708	$1,980	$-757
Size of farm - acres	A	154 A	132.1 A	143.4 A
Percent of land area tillable	%	80.3 %	91.0 %	76.9 %
Acres in Corn	A	39.4 A	37.0 A	38.3 A
Oats	A	19.0 A	18.9 A	15.8 A
Wheat	A	6.4 A	6.2 A	4.1 A
Barley	A	15.6 A	14.7 A	10.3 A
Crop yields - Corn	bu.	35.2 bu.	37.0 bu.	25.4 bu.
Oats	bu.	50.7 bu.	55.5 bu.	53.5 bu.
Wheat	bu.	25.4 bu.	31.5 bu.	22.2 bu.
Barley	bu.	38.2 bu.	42.6 bu.	36.1 bu.
Percent in high profit crops*		46.5 %	46.3 %	44.8 %
Returns per $100 invested in all productive livestock	$	$ 118	$ 125	$ 107
For $100 in Cattle	$	$ 117	$ 125	$ 108
Hogs	$	$ 103	$ 110	$ 98
Poultry	$	$ 150	$ 162	$ 137
Investment per acre in productive livestock	$	$ 27.65	$ 30.29	$ 26.89
Receipts per acre from productive livestock	$	$ 32.52	$ 37.98	$ 29.04
Man labor cost per acre	$	$ 10.01	$ 10.30	$ 10.92
Crop acres per man	$	$ 50.8 A	53.9 A	45.2 A
Crop acres per horse	$	$		
(with tractor)	A	24.1 A	23.9 A	22.3 A
(without tractor)	A	18.8 A	19.1 A	15.6 A
Expense per $100 gross income	$	$ 66	$ 48	$ 94
Machinery cost per acre	$	$ 3.77	$ 3.22	$ 4.49
Building and fencing cost per acre	$	$ 1.50	$ 1.16	$ 1.81
Gross receipts per acre	$	$ 32.84	$ 40.43	$ 29.21
Total expenses per acre	$	$ 21.56	$ 19.49	$ 27.54
Net receipts per acre	$	$ 11.28	$ 20.94	$ 1.67
Farms with tractor	%	66.7 %	50.0 %	75.0 %
Value of land per acre	$	$ 128	$ 135	$ 135
Total investment per acre	$	$ 224	$ 228	$ 231

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

DuPage, McHenry, Kane, Cook and Lake Counties - 1927

		Your farm	Average of 60 farms	Twenty most profitable farms	Twenty least profitable farms
1	Capital Investment - Total	$_____	$ 34 494	$ 30 068	$ 33 065
2	Land		19 645	17 865	18 262
3	Farm improvements		6 495	4 563	6 924
4	Machinery and equipment		1 867	1 569	1 848
5	Feed and supplies		1 814	1 739	1 723
6	Livestock		4 673	4 332	4 308
7	Horses		444	413	414
8	Cattle		3 691	3 402	3 411
9	Hogs		342	303	315
10	Sheep		18	9	9
11	Poultry		178	205	159
12	Receipts-Net Increases-Total	_____	5 057	5 341	4 189
13	Feed and grain		---	275	---
14	Miscellaneous		49	49	24
15	Livestock - Total		5 008	5 017	4 165
16	Horses		---	---	---
17	Cattle		601	608	328
18	Hogs		329	296	277
19	Sheep		18	9	5
20	Poultry		110	115	82
21	Egg sales		168	210	150
22	Dairy sales		3 782	3 779	3 323
23	Expenses-Net Decreases-Total	_____	2 274	1 506	2 959
24	Farm improvements		231	153	259
25	Livestock		37	31	50
26	Horses		37	31	50
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		580	426	644
32	Feed and supplies		218	--	753
33	Livestock expense other than feed		33	26	31
34	Crop expense		207	185	191
35	Labor hired		496	291	575
36	Taxes, insurance, etc.		355	293	333
37	Miscellaneous		31	28	35
38	Dairy expense		86	73	88
39	Receipts less Expenses		2 783	3 835	1 230
40	Operator's and unpaid family labor		1 046	1 069	991
41	Net income from investment		1 737	2 766	239

Capital Investment - Total				
Land				
Farm improvements				
Machinery and equipment				
Feed and supplies				
Livestock				
Horses				
Cattle				
Hogs				
Sheep				
Poultry				
Receipts-Net Increase-Total				
Feed and grain				
Miscellaneous				
Livestock - Total				
Horses				
Cattle				
Hogs				
Sheep				
Poultry				
Dog sales				
Dairy sales				
Expenses-Net Decrease-Total				
Farm improvements				
Livestock				
Horses				
Cattle				
Hogs				
Sheep				
Poultry				
Machinery and equipment				
Feed and supplies				
Livestock expense etc.:				
Farm feed				
Crop expense				
Labor hired				
Taxes, insurance, etc.				
Miscellaneous				
Dairy expense				
Receipts less Expenses				
Operator's and unpaid family labor				
Net income from investment				

Find Your Farm Leaks

DuPage, McHenry, Kane, Cook and Lake Counties, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
	Corn	Oats	Barley	Cattle	Hogs	Poultry				Man	Horse				
											Tractor	No tractor			
12.0	56	71	59	257	243	290	42	46	6.50	85	38	33	31	54	294
11.0	53	68	56	237	223	270	40	44	7.00	80	36	31	36	51	274
10.0	50	65	53	217	203	250	38	42	7.50	75	34	29	41	48	254
9.0	47	62	50	197	183	230	36	40	8.00	70	32	27	46	45	234
8.0	44	59	47	177	163	210	34	38	8.50	65	30	25	51	42	214
7.0	41	56	44	157	143	190	32	36	9.00	60	28	23	56	39	194
6.0	38	53	41	137	123	170	30	34	9.50	55	26	21	61	36	174
5.0	35	50	38	117	103	150	28	32	10.00	50	24	19	66	33	154
4.0	32	47	35	97	83	130	26	30	10.50	45	22	17	71	30	134
3.0	29	44	32	77	63	110	24	28	11.00	40	20	15	76	27	114
2.0	26	41	29	57	43	90	22	26	11.50	35	18	13	81	24	94
1.0	23	38	26	337	23	70	20	24	12.00	30	16	11	86	21	74
-1.0	20	35	23	17	3	50	18	22	12.50	25	14	9	91	18	54
-2.0	17	32	20	--	-	30	16	20	13.00	20	12	7	96	15	34
-3.0	14	29	17	--	-	10	14	18	13.50	15	10	5	101	12	--

FARM ACCOUNTS SHOULD IMPROVE YOUR INCOME

Many cooperators in the farm account project have definitely improved their net incomes by $500 to $2000 a year. To do this they have studied the facts secured thru their accounts and have planned their businesses to strengthen the weak points and make the greatest use of the strong points. It usually has taken five or more years to get a new plan established but the increased net earnings have paid well for the effort. Of course, records can do no good so long as their influence remains within the pages of the account book. They must be studied and put to work in the business. To do this is the job of the manager of the farm business. He can, however, draw on the Illinois Agricultural Experiment Station, the Extension Service and other agencies for information needed. The chief purpose of the farm account is to locate the problems of the individual business and to point out the direction in which improvement can be made most profitably.

Profits Depend Upon These Factors

Records from hundreds of farms over a period of twelve years together with other studies made of the factors influencing farm earnings in Illinois show that some of the principles which should be observed if the farm is to be planned and operated on a profitable basis are that:

1. Good yields help reduce costs.
2. Growing a large percentage of the higher profit crops adds to the farm income.
3. Efficient feeding and handling of livestock reduce the cost of production.
4. The production of livestock adds to the farm income.
5. A well-planned farm helps to use available man labor to advantage.
6. Costs are reduced when the supply of horse and mechanical power fits the farm needs.
7. Buildings, machinery, equipment, and other costs should be kept under control.
8. A large volume of business is necessary for profitable farming.
9. Diversity of crop production helps to insure long-time profits.
10. Production planned in accordance with market demands helps make for success.
11. A good farm layout and well-developed farmstead make for economical operation.

Most of the points named above which make for more profitable farming can be measured from the financial records such as were used in preparing this report. The importance of others has been shown by other investigations. Those farms which are doing well in all of the factors mentioned above are showing fair earnings even during a severe agricultural depression. It will profit every farmer to examine his business with regard to each of these points.

PLANNING THE FARM FOR PROFIT

The net earnings on many farms can be improved by careful planning of the business to provide for better than average efficiency at each of the points named. Special attention should be given to those things which the farm accounts show are relatively weak. Each part of the farm business should add to the net farm income, either thru increasing the income or thru the reduction of costs.

Many men tend to develop a hobby while neglecting other parts of the farm business. Profits are increased more by increasing efficiency at the weakest point than at the strongest point in the business. The farms showing good earnings year after year have been successful not because of some single advantage over other farms but because the plan was well balanced and the business operated efficiently. A carefully worked out plan for the organization and operation of the farm should include:

1. A plan for soil improvement and maintenance.
2. A systematic crop plan.
3. A plan to supply good seed at low cost.
4. A well planned field arrangement.
5. A good selection of kinds, numbers and classes of livestock.
6. A plan and budget for use of feed raised and purchased.
7. A plan for the purchase, care and use of equipment.
8. An arrangement for the necessary operating capital by seasons and over a period of years.
9. A plan for the amount and efficient use of labor.
10. A plan for any new improvements to be made over a period of years.

A Plan for Soil Improvement and Maintenance.

Farm accounts have shown repeatedly that low yields are wasteful of labor, equipment, power and other items of operating cost. It costs very little more to operate an acre of high yielding land than an acre of low yielding land. Cost accounts have shown that a difference in yield may make a difference of 35 cents a bushel between farms in the same community in the cost of growing corn. As soils are so variable the first step should be to find out what the most urgent needs of your own soil are. Most farm bureaus have a plan for making soil tests. The Illinois soil survey is another good source of information on the soils in any community. Nearly all counties in the state have now been mapped and at least one map supplied to each farm bureau where it can be seen by anyone interested. Many farm operators have put off a soil improvement program because they thought the cost prohibitive. They have hoped that the necessary capital might be secured more easily later, but if yields are dwindling this is unlikely. At least a small start should be made. The returns from this small investment will help in raising funds to complete the program. There are few improvements more likely to pay their way than well considered soil improvement. Poor drainage and soil washing should not be left out of consideration since both are wasteful of labor, power, equipment and soil fertility.

A Systematic Crop Plan.

The soil and crop plans are dependent on each other. A fertile, well-drained soil can be depended upon to grow crops with fewer failures and a good crop plan is essential to the maintenance of soil fertility.

There are many things to consider in making a cropping plan. The selection and combination of crops was discussed at length in the "Farm Business Reports" of this series for 1926 and will not be repeated here. It is necessary that soil conditions, labor requirements, markets, storage room, power needs and equipment requirements be considered as well as weeds, insect pests and crop diseases. One of the most successful crop rotations on the accounting farms of central and northern Illinois is a five-year rotation as follows: (1) corn, (2) corn, (3) oats or barley or soybeans, (4) wheat, (5) clover. The clover may be sweet,

red, mammoth, alsike or any combination of them that suits the soil conditions and feed requirements. For soil improvement and pasture sweet clover has usually been found the most profitable. It is wasteful of seed, however, to sow it on soil that is deficient in lime.

Farm records have shown it advisable to keep a large portion of the tillable land in those crops that usually have the widest margin of profit between the acre cost and the acre income. Among the more profitable crops on most soils of Illinois are corn, alfalfa, wheat and sweet clover pasture. Among the least profitable crops common in Illinois are oats, timothy and bluegrass on tillable land. These latter crops all have too low an income per acre to meet the usual costs for interest and taxes and leave much margin for profit. They require only a small outlay for labor, power and equipment, however, and may have a place in a cropping plan if they do not occupy too large a portion of the tillable land.

It requires determination and perseverence to maintain a crop rotation, but in the long run it pays. Too many farm operators allow crop failures to break up their plans. When a crop fails a substitute crop must be used, but it is best to get back to the crop rotation as soon as possible. The substitute crop should be as near like the crop which failed as possible, especially in its effect on the soil, the feed supply, the labor required, and the crop which follows. It is advisable to have a plan which includes the best substitute crops when crops in the proposed rotation fail.

The Plan for a Seed Supply.

It is wasteful of land, labor, seasonal advantages, power and equipment to sow seed that is not known to be alive, vigorous, free from disease and of the most suitable variety. Most farm seeds can be produced at home if a plan is made to provide for them. They will then be acclimated and if selected with care will be adapted to soil conditions as well as to market and feed requirements. The work of preparing seed for sowing can usually be done in the winter and forms a very profitable type of winter employment. Raising and preparing seed on the farm avoids a considerable cash outlay which is an important factor in farm profits. This is one phase of better farm management that is just as easy for the tenant as for the landowner, and it offers a quick means of improving the farm income.

Field Arrangement.

The fields on most farms were laid out without a comprehensive plan for the farm as a whole. Each fence was put up to meet temporary needs and often maintained and replaced just because it happened to be put where it was a generation or more ago. Conditions have changed greatly within a generation. Labor is higher in cost, and equipment is larger. Under present conditions fields should be as large as conditions will justify and as quickly and easily reached from the farmstead as possible. This will reduce lost time in turning and in making many trips to and from the fields. There should be as many fields as there are years in the crop rotation so that the same kinds and amounts of crop may be grown each year. This gives a more uniform labor demand and a more uniform supply of feed and cash crops. In addition to the main crop fields it may be advisable to have some smaller fields near the farmstead on which to pasture hogs or other livestock.

Like the crop plan, the field arrangement is often dependent on a good soil improvement program. Too often the crops are patched around to get the corn or other important crop on the most productive land. This makes a systematic

field arrangement impossible. The longer a good soil program is followed the more uniform the soils become.

It usually is not desirable to rearrange the entire field plan in one year but the plan should be drawn up to provide for the whole farm and the fences put in the right place whenever they need rebuilding.

Planning the Kinds and Numbers of Livestock.

If the farm operator can handle livestock efficiently many accounts show that they add to the amount and regularity of profits. Any satisfactory cropping plan provides a considerable amount of pasture and roughage which is partially wasted if not eaten by livestock. Cattle are best suited to using large quantities of pasture and roughage although sheep may also be used for this purpose. While hogs need pasture and roughage the quantity that they can use is distinctly limited. The cattle may be either beef or dairy types or they may be a combination of beef and dairy types. The beef types are best adapted to use of cheap pasture and by-product roughage with little labor. Dairy cows require more grain and concentrates and more labor, but they provide a more regular and less speculative income and are better fitted to return a profit on high-priced land. There are more hogs than any other livestock except chickens on Illinois farms. Their chief function is to furnish a market for grain crops especially corn. Grain fed to hogs tends to cut down the feed surplus on the market and to provide a more concentrated product for shipment. Hogs provide the operator some choice as to whether he will sell corn for cash or thru hogs. The amount of corn fed may be varied to suit the relative markets for corn and hogs by varying the number of sows kept and the weight to which the hogs are fed.

The numbers of each kind of livestock to be kept should be determined by fitting them to the amounts of feed which the crop plan provides, at the same time giving full consideration to market prospects and labor supply.

Plan and Budget for Feed.

In estimating the feed supply it is necessary to estimate yields. This should be done conservatively since on most farms it is better to have a little surplus than to have to buy feed on years of short yield when crops are likely to be high in price. Feed requirements should always be planned in advance. Too often livestock is acquired with little thought as to the supply of feed.

On nearly all farms some horses or mules are necessary for power. The feed for these should be deducted first. Then the remaining feed can be apportioned to the other livestock. If some feed is to be bought the amount required should be planned in advance and the purchase made in the most economical way rather than on an emergency basis. Expense can often be saved by preparing mixed feeds at home. The facts are available thru the state experiment station and the farm bureau to any farm operator who wants to know the best combinations of feeds.

The following table will help in making a plan or budget of the amounts of feed necessary for different kinds of livestock under ordinary farm conditions. They are taken from actual records on farms in Illinois.

Table of Feed Requirements -- Farm Conditions

(Amounts given are per head, per year except as indicated otherwise)

Class of livestock	Grain pounds	Supplements	Legume hay or equivalent roughage	Non-legume roughage, straw and stover	Silage pounds	Pasture days
Work Horses						
Champaign-Piatt Counties 1920-1926	2650		1800	1900		175
Knox-Warren Counties 1923-1925	2750		2500	1750		130
Yearlings - grade colts	1000		2000	1500		200
Dairy Cattle (dairy cost records 1926)						
5000 lb. production	1100	500	1700	1200	5000	150
7000 lb. production	1600	550	1900	700	6700	150
9000 lb. production	1800	800	2300	300	7400	150
Hogs Breeding Herd (McLean Co. 1924-1926)						
Brood sow (per year)	1400	80				Pasture
Breeding herd and pigs per 100 lbs. gain	460	25				in
Fattening pigs after weaning per 100 lbs. gain	435	23				season
Beef Cattle - Herd (with silage)	(Cow and calf					
Cow	may easily		800-1000	1500	5000	180
Calf 6 months after weaning	use 500-1000		700-900	500	2500	
Yearling stocker	lbs. grain)		800	1000	3500	180
Sheep						
(1) Ewe (without silage)	125		300			Pasture
(2) Ewe (with silage)	150		150		300	in season
Lambs on full feed per 100 lbs. gain (25 lbs. gain per lamb)	400		500			
Poultry						
Laying flock (per 100 hens per year)	5400	600				
Pullets to 5 months of age						
Egg breeds (100 hen basis)	1800	200				
American breeds (100 hen basis)	2250	250				

Table of Feed Requirements -- Farm Conditions

(Amounts per 100 pounds gain, dry lot conditions)

Beef Cattle, fattening	Daily gain pounds	Days fed	Grain pounds	Supple-ments	Legume hay or equivalent roughage	Non-legume roughage, straw and stover	Silage pounds	Pasture days
With Silage								
Calves 400 lbs. to 550 lbs.	1.4	212	430	30	75	125	1400	10
Yearlings 550 lbs. to 750 lbs.	1.5	199	460	35	125	200	1500	15
Medium steers 750 lbs. to 950 lbs.	1.5	166	640	50	150	280	1700	10
Heavy steers 950 lbs. to 1100 lbs.	1.7	146	825	45	200	250	1300	10
Without Silage								
Calves 400 lbs. to 550 lbs.	1.7	209	650	5	300	85	--	8
Yearlings 550 lbs. to 750 lbs.	1.7	219	700	5	370	100	--	18
Medium steers 750 lbs. to 950 lbs.	1.9	155	875	5	400	95	--	12
Heavy steers 950 lbs. to 1100 lbs.	2.2	124	950	10	400	80	--	5

Plan for Purchase and Care of Machinery.

The equipment on many farms has been repaired and kept in use longer than would be the case in times of prosperity. In many cases this old equipment will have to be replaced before long if the farm business is to be continued. It is therefore a good time to make a study of the equipment needs and when buying becomes necessary to buy the equipment which will best fit the long time plan for the particular farm. One common mistake is to invest in equipment which can be used only a very few days in the year. The interest and depreciation and shelter expense on such machines may make the cost per day unreasonably high. It may be best to change the farm plan so as to make these machines unnecessary or to depend on hiring them for a few days. To illustrate, some small farms with only a few acres in small grain have found it best to feed this small grain as pasture or in the sheaf and to buy the few bushels of seed necessary. This avoids the necessity of arranging for equipment and labor for threshing. Some farms with trucks have found that when they charged the interest, depreciation and shelter cost against them the cost for a few days use each year was prohibitive.

On the other hand, some farms are doing without equipment which would more than save its cost in making more efficient use of labor or by increasing the yield and quality of crops produced. No rules for kinds and amounts of equipment can be laid down but every farm operator keeping accounts should study his relative labor and equipment costs and keep them in as good balance as possible.

There can be no argument against keeping equipment in good repair. If a machine is laid up for repair during a rush season serious losses are likely to result. Often a whole crew of men is stopped and their time wasted to say nothing of the delay in caring for a crop. Few such delays will occur if the equipment is systematically inspected and repaired during slack seasons and cared for during use.

Plan for Operating Capital.

Some large industrial businesses have officers whose sole duty is to see that operating and investment capital is available when needed and at the lowest practical cost. This phase of farm management should not be overlooked. Most farm operators have to borrow some capital. In fact, it would often be unwise to keep a large bank balance in a checking account just to meet short time requirements. Probably many farms do not have enough operating capital available to buy at the best prices and meet obligations promptly. Borrowing to be sound, however, must be for a productive investment, that is, capital should only be borrowed for investment in an enterprise that will eventually return the capital with interest. The farm operator who keeps accounts and has them analyzed is in the best position to judge whether more capital can wisely be invested in a particular enterprise. He knows from past accounts also how much capital is likely to be needed in each phase of his business. Moreover, he is in the best position to prove his real needs to his banker or other creditor. If capital requirements are planned ahead instead of on an emergency basis the cost in interest and commissions is usually less and the terms more satisfactory.

Plan for Efficient Use of Labor

Labor is usually the largest item of operating cost on the farm. The fact that it may be furnished by the family does not alter the case. If the fam-

ily labor were not used on the farm it could be employed somewhere else and bring in a definite income. It requires careful planning to use labor efficiently. Farm work is so varied and seasonal that it takes better judgment to employ the available labor efficiently than is required in most other industries. A good crop rotation, a good field layout, a good selection of livestock and good equipment kept in repair all help greatly in labor efficiency. Tasks that can be done in slack seasons should not be allowed to interfere in the seasons of largest labor demand. Tasks that can be done in bad weather should be used to keep labor profitably employed at such times. This requires looking ahead and planning of work. Every farm operator should keep an up-to-date list of rainy day and wet weather jobs that will make profitable use of labor when it cannot be used in the field.

Plan for New Improvements

Even though the buildings and fences are already provided on most farms and cannot be changed as to type and location any new improvements should be built to fit into a definite plan. The farm as it is should be fully considered and a plan for improvements over a period of years laid out. Then each step as it is taken will be in the right direction, even though it should take many years to complete the undertaking. In general farm improvements have been allowed to run down during the agricultural depression and needed new buildings have been postponed. It is, therefore, an especially good time to make a plan for repairs and new buildings in order that the building program may avoid as many mistakes as possible when it is begun.

Make a Record of the Farm Plan

When a farm plan has been fully considered and decided upon it is best to make a complete record of it. Maps should be made showing field arrangement and location of improvements. The soil improvement and cropping plans should be shown for several years ahead. The proposed numbers of and kinds of livestock should be listed. The plan for amounts of feed needed should be recorded. In fact, the whole plan should be recorded and revised according to experience and facts revealed in farm accounts and other farm records.

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

DEKALB, OGLE, BOONE AND LEE COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-eight Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M90

ANNUAL FARM BUSINESS REPORT

DeKalb, Ogle, Boone and Lee Counties, Illinois 1927

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

The 38 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $248 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $201 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1467, while the one-third who were least successful lacked an average of $959 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2426 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 38 farmers EARNED 4 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 7.1 percent and the least successful third 1.2 percent. The average investment on the 38 farms was $44,199, which amounts to $201 an acre. The higher profit third had an average investment of $208 and the lower profit third $206 per acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $125 an acre on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in average size of farm between the high and low profit groups. In this case the 13 least profitable farms averaged 33 acres larger than the 13 most profitable farms. Of the extra acreage 20 acres was non-tillable land leaving only 13 acres difference in the amount of plow land. It is evident that size of farm had little if any influence on the relative earnings of the two groups. There was little

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* T. H. Roberts, Raymond Nelson, D. E. Warren, E. C. Foley and C. E. Yale, farm advisers in DeKalb, Ogle, Boone and Lee counties, cooperated in supervising and collecting the records used in this report.

difference between them in the acreage of the common crops. The low income group had about 8 acres more oats and 8 acres less wheat per farm.

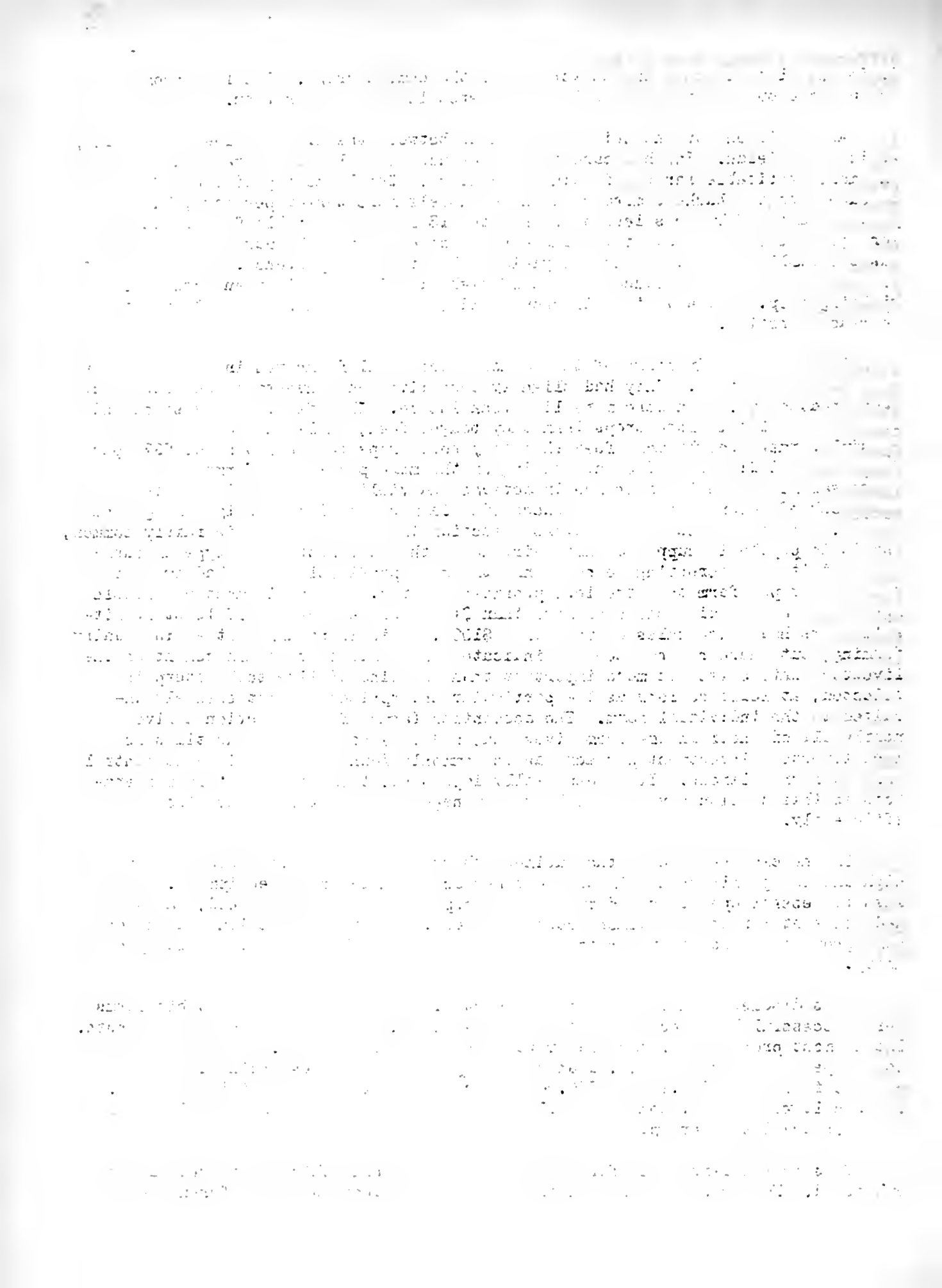
As a rule one of the chief differences between the high and low profit groups is in crop yields. In this case the difference in yield was large enough to give the more profitable farms a distinct advantage. The 13 most profitable farms produced about 7 bushels more corn and 4 bushels more barley per acre, but they produced about 3 bushels less oats than the 13 least profitable farms. The acreage of corn was about twice the acreage of oats, and the acreage of wheat was too small for a difference in yield to be of much importance. Ordinarily it costs little more to produce an acre of high yielding crop than an acre of low yielding crop. Any advantage in crop yields, therefore, has a direct effect in increased profits.

The greatest advantage of the 13 most successful farms was in more efficient livestock management. They had slightly less livestock investment per acre, but they produced $5.53 an acre more livestock income. They fed this livestock and still sold a little more crops than they bought feed, while the 13 least successful farmers bought more feed than they sold crops to the amount of $973 per farm. This indicates efficient feeding on the more profitable farms, since there was not a great difference in acreage and yield of crops. The greater livestock efficiency of the more successful farmers applied chiefly to hogs and cattle. Although this report covers a section in which dairying is fairly common, and it is popularly supposed that dairying is the most profitable type of farming, yet it is interesting to note that the more profitable farms had smaller dairy sales per farm than the less profitable farms. Of the 13 most profitable farms only 3 had dairy sales of more than $1000, while 7 of the 13 least profitable farms had dairy sales of more than $1000. This is no argument against dairy farming, but these records seem to indicate that efficiency in management of the livestock enterprises is more important than the kind of livestock enterprises selected, at least so long as the particular enterprises are not entirely unsuited to the individual farm. The accounting farms of this section derive nearly all of their income from livestock, and they have about four times as much livestock investment per acre as is commonly found on farms in east central and southern Illinois. It is especially important, therefore, that farm operators in this section have the ability to manage the livestock enterprises efficiently.

On the expense side of the business there was little difference between the high and low profit groups in the cost per acre for labor and equipment. The less successful operators had much larger expense for purchased feed, and they had somewhat larger improvement costs per acre. Greater production and use of home grown feeds would appear to be advantageous for the farms of the low profit group.

This discussion may be summed up by stating that the more profitable farms were successful both because of larger gross incomes and smaller operating costs. The 13 most profitable farms had average gross incomes of $29.88 an acre and total operating costs of $15.09 an acre compared with corresponding income and expense figures of $23.12 and $20.54 an acre on the 13 least profitable farms. The result was a net income of $14.79 an acre for the first group and $2.58 an acre for the latter group.

This is the first year for which a report covering this exact area has been published. No direct comparisons of the relative earnings for different years



are available. Judging from reports on other areas located in northern Illinois it appears that farm earnings in this section were on about the same level for 1926 and 1927.

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.

DeKalb, Ogle, Boone and Lee Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 38 farms	Thirteen most profitable farms	Thirteen least profitable farms
Rate earned	%	4.03 %	7.10 %	1.25 %
Labor and management wage	$	$248	$1,467	$-959
Size of farm - acres	A	219.9 A	178.4 A	211.4 A
Percent of land area tillable	%	83.6 %	87.8 %	80.3 %
Acres in Corn	A	70.9 A	60.0 A	62.3 A
Oats	A	30.4 A	24.3 A	32.0 A
Wheat	A	6.2 A	8.5 A	.8 A
Barley	A	22.8 A	21.1 A	22.1 A
Crop yields - Corn	bu.	36.0 bu.	38.0 bu.	31.2 bu.
Oats	bu.	30.4 bu.	37.9 bu.	41.1 bu.
Wheat	bu.	21.3 bu.	22.2 bu.	24.7 bu.
Barley	bu.	31.3 bu.	33.2 bu.	29.4 bu.
Returns per $100 invested in all productive livestock	$	$114	$ 140	$ 108
For $100 in Cattle	$	$106	$ 131	$ 101
Hogs	$	$132	$ 163	$ 119
Poultry	$	$163	$ 155	$ 177
Investment per acre in productive livestock	$	$ 19.62	$ 20.19	$ 21.16
Receipts per acre from productive livestock	$	$ 22.38	$ 28.36	$ 22.83
Man labor cost per acre	$	$ 6.71	$ 7.62	$ 7.04
Crop acres per man	A	77.2 A	72.2 A	74.4 A
Crop acres per horse (with tractor)	A	29.3 A	27.9 A	28.2 A
(without tractor)	A	20.4 A	18.3 A	19.2 A
Expense per $100 gross income	$	$ 64	$ 50	$ 89
Machinery cost per acre	$	$ 2.39	$ 2.60	$ 2.58
Building and fencing cost per acre	$	$ 1.54	$ 1.29	$ 2.26
Gross receipts per acre	$	$ 22.71	$ 29.88	$ 23.12
Total expenses per acre	$	$ 14.62	$ 15.09	$ 20.54
Net receipts per acre	$	$ 8.09	$ 14.79	$ 2.58
Farms with tractor		63 %	53 %	76 %
Value of land per acre	$	$125	$ 131	$ 120
Total investment per acre	$	$201	$ 208	$ 206

DeKalb, Ogle, Boone and Lee Counties - 1927

		Your farm	Average of 38 farms	Thirteen most profitable farms	Thirteen least profitable farms
1	Capital Investment - Total	$_____	$ 44 199	$ 37 191	$ 43 594
2	Land		27 458	23 383	25 356
3	Farm improvements		7 772	6 156	8 972
4	Machinery and equipment		1 749	1 614	1 826
5	Feed and supplies		2 317	1 947	2 512
6	Livestock		4 903	4 091	4 928
7	Horses		549	477	536
8	Cattle		2 422	2 097	2 327
9	Hogs		1 540	1 210	1 719
10	Sheep		224	115	180
11	Poultry		168	192	176
12	Receipts-Net Increases-Total	_____	4 995	5 331	4 889
13	Feed and grain		--	164	--
14	Miscellaneous		72	107	62
15	Livestock - Total		4 923	5 060	4 827
16	Horses		--	12	--
17	Cattle		1 569	1 689	1 126
18	Hogs		1 931	1 840	1 889
19	Sheep		166	77	204
20	Poultry		99	133	84
21	Egg sales		179	173	228
22	Dairy sales		1 079	1 136	1 296
23	Expenses-Net Decreases-Total	_____	2 272	1 780	3 452
24	Farm improvements		339	231	478
25	Livestock		5	-	21
26	Horses		5	-	21
27	Cattle		-	-	--
28	Hogs		-	-	--
29	Sheep		-	-	--
30	Poultry		-	-	--
31	Machinery and equipment		526	463	546
32	Feed and supplies		70	--	973
33	Livestock expense other than feed		86	68	105
34	Crop expense		251	197	225
35	Labor hired		531	447	617
36	Taxes, insurance, etc.		432	347	448
37	Miscellaneous		27	23	31
38	Dairy expense		5	4	8
39	Receipts less Expenses	_____	2 723	3 551	1 437
40	Operator's and unpaid family labor		944	912	890
41	Net income from investment		1 779	2 639	547

DeKalb, Ogle, Boone and Lee Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest.	Receipts	Man la-	Crop acres per			Expense	Gross	Size
							per acre	per acre	bor cost	Man	Horse		per $100	receipts	of
earned	Corn	Oats	Barley	Cattle	Hogs	Poultry	in L. S.	from L.S.	per acre		Tractor	No tractor	income	per acre	farm
11.0	57	51	52	176	272	303	33.62	36.38	3.20	112	43	34	29	44	360
10.0	54	48	49	166	252	283	31.62	34.38	3.70	107	41	32	34	41	340
9.0	51	45	46	156	232	263	29.62	32.38	4.20	102	39	30	39	38	320
8.0	48	42	43	146	212	243	27.62	30.38	4.70	97	37	28	44	35	300
7.0	45	39	40	136	192	223	25.62	28.38	5.20	92	35	26	49	32	280
6.0	42	36	37	126	172	203	23.62	26.38	5.70	87	33	24	54	29	260
5.0	39	33	34	116	152	183	21.62	24.38	6.20	82	31	22	59	26	240
4.0	36	30	31	106	132	163	19.62	22.38	6.70	77	29	20	64	23	220
3.0	33	27	28	96	112	143	17.62	20.38	7.20	72	27	18	69	20	200
2.0	30	24	25	86	92	123	15.62	18.38	7.70	67	25	16	74	17	180
1.0	27	21	22	76	72	103	13.62	16.38	8.20	62	23	14	79	14	160
0.0	24	18	19	66	52	83	11.62	14.38	8.70	57	21	12	84	11	140
-1.0	21	15	16	56	32	63	9.62	12.38	9.20	52	19	10	89	8	120
-2.0	18	12	13	46	12	43	7.62	10.38	9.70	47	17	8	94	5	100
-3.0	15	9	10	36	--	23	5.62	8.38	10.20	42	15	6	99	-	80

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

STEPHENSON COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1927

.

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 92

ANNUAL FARM BUSINESS REPORT

Stephenson County, Illinois, 1927

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

The 30 farmers in Stephenson County who kept financial records in the Illinois Farm Account Project for 1927 had an average of $250 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $195 an acre. This $250 is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,474, while the one-third who were least successful lacked an average of $819 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2,293 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 30 farmers EARNED 3.5 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 7.5 percent and the least successful third lacked one-half of one percent of having any return on their investments. The average investment on the 30 farms was $30,340, which amounts to $195 an acre. The higher profit third had an average investment of $191 and the lower profit third $198 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $121 on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The 10 most profitable farms averaged 25 acres larger in size and they had a higher percentage of tillable land. The result was that they had 38 acres more tillable land per farm than the 10 least profitable farms. This larger acreage of farm land helped in giving the more successful farmers a larger volume of business. It also enabled them to secure a higher efficiency in the use of labor, power, equipment and improvements. The less profitable farms averaged only 112 tillable acres per farm. This is too small a farm for any but the most

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*W. A. Herrington, farm adviser in Stephenson County, cooperated in supervising and collecting the records used in this report.

intensive types of farming.

One important advantage of the more profitable farms was in their higher crop yields. They produced about 5 bushels more corn, 13 bushels more oats and 2 bushels more barley per acre than the less profitable farms. The acreage of wheat was so small that the wheat yield had little influence on earnings. It usually costs but little more to produce an acre of high yielding crop than an acre of low yielding crop. Any advantage in crop yields therefore has a direct effect in increasing profits.

The greatest advantage of the 10 most profitable farms was in a greater efficiency in livestock management. Livestock and livestock products constitute almost the entire source of income on the accounting farms in Stephenson County. The average investment in livestock per acre is about four times as large as on the accounting farms of east-central and southern Illinois. These facts make it particularly important that farm operators in the Stephenson County area maintain a high degree of efficiency in livestock management. The 10 most profitable farms produced a livestock income of $134 for each $100 of livestock investment as compared with a corresponding income of $108 for each $100 of livestock investment on the 10 least profitable farms. The records show that this higher efficiency was maintained for cattle, hogs and poultry.

On the expense side of the business the more successful operators had lower costs per acre for labor, equipment, and improvements. They also bought considerably less feed. Their feed costs exceeded their crop sales by $216 per farm while the feed costs of the less successful operators exceeded their crop sales by $916 per farm.

This discussion may be summed up by stating that the more profitable farms were successful both because of larger gross incomes and because of lower expenses. The larger gross incomes were due to higher crop yields and to larger sales of dairy products, cattle and hogs. The lower costs were due to more efficient use of labor, power, equipment and improvements together with smaller purchases of feed. The more successful operators had relatively larger investments in cattle, and they had larger gross incomes from dairy products and cattle than the less successful operators. Seven of the ten most profitable farms had incomes of $1,000 or more from dairy products, while only 5 of the 10 least profitable farms had incomes of $1,000 or more from dairy products.

This is the first year for which a "Farm Business Report" has been issued including only records from Stephenson County. For other years the Stephenson County records have been combined with those of adjoining counties. Some allowance must be made, therefore, for the shift in territory included, but some interesting comparisons may be made from the following table of comparative income and investment figures for the last four years. It is evident that the level of farm earnings for this area was somewhat lower in 1927 than for the preceding two years. Reduced incomes from hogs appear to be the chief cause of lower farm earnings for 1927. Lower yields of corn and lower prices for hogs evidently were responsible for the reduced incomes from the hog enterprise.

Comparative Earnings on Some Farms in Stephenson County

Item	1924(1)	1925(2)	1926(3)	1927
Number of farms included	51	44	37	30
Average size of farms in acres	180	188	182	156
Average rate earned	3.7%	7.5%	5.6%	3.5%
Average value of land per acre	$ 120	$ 112	$ 118	$ 121
Average investment per acre	157	170	188	195
Investment in livestock per farm	2,781	3,259	4,035	3,527
Investment in cattle per farm	1,451	1,815	2,238	1,729
Investment in hogs per farm	659	765	1,028	1,042
Investment in poultry per farm	155	141	172	159
Gross income per acre	18.05	24.15	24.70	23.82
Operative costs per acre	11.49	11.46	14.22	16.99
Grain sales less feed purchases	189	286	---	---
Miscellaneous income per farm	65	91	79	57
Livestock income per farm	2,995	4,162	4,425	3,656
Gross income per farm	3,251	4,539	4,504	3,713
Cattle income per farm	422	715	712	718
Dairy sales per farm	798	957	1,156	1,288
Hog income per farm	1,444	2,127	2,195	1,295
Poultry income per farm	257	309	281	286

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

(1) Records from JoDaviess, Stephenson and Ogle counties included 1924
(2) Records from JoDaviess, Stephenson and Carroll counties included 1925
(3) Records from JoDaviess and Stephenson counties included 1926

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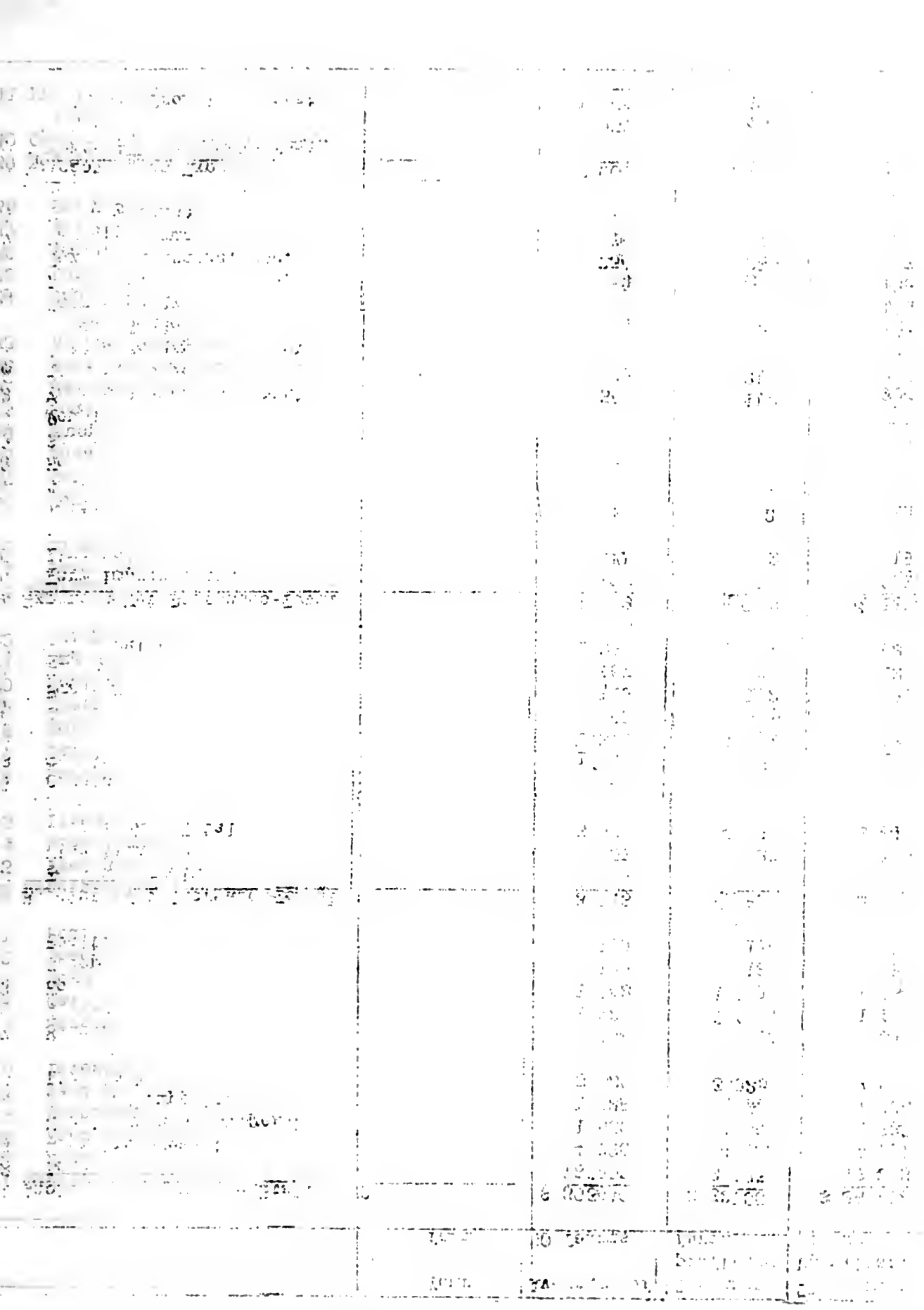
Stephenson County - 1927

Factors helping to analyze the farm business	Your farm	Average of 30 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.5 %	7.46 %	-.45 %
Labor and management wage	$	$250	$1,474	$-819
Size of farm - acres	A	155.9 A	168 A	143 A
Percent of land area tillable	%	83.4 %	89.4 %	78.3 %
Acres in Corn	A	41.0 A	49 A	36 A
Oats	A	21.9 A	24 A	20 A
Wheat	A	1.4 A	.3 A	2 A
Barley	A	12.8 A	16.4 A	12.1 A
Crop yields - Corn	bu.	34.6 bu.	38.2 bu.	32.6 bu.
Oats	bu.	34.3 bu.	41.9 bu.	29.1 bu.
Wheat	bu.	18.6 bu.	12.0 bu.	12.7 bu.
Barley	bu.	30.8 bu.	31.0 bu.	29.0 bu.
Returns per $100 invested in all productive livestock	$	$116	$ 134	$ 108
For $100 in Cattle	$	$107	$ 126	$ 87
Hogs	$	$138	$ 153	$ 137
Poultry	$	$164	$ 192	$ 161
Investment per acre in productive livestock	$	$ 20.23	$ 21.66	$ 18.46
Receipts per acre from productive livestock	$	$ 23.45	$ 28.95	$ 19.88
Man labor cost per acre	$	$ 7.22	$ 6.77	$ 7.56
Crop acres per man	A	66.4 A	76.1 A	59.2 A
Crop acres per horse (with tractor)	A	23.6 A	28.1 A	21.9 A
(without tractor)	A	17.5 A	16.1 A	14.3 A
Expense per $100 gross income	$	$ 71	$ 51	$ 104
Machinery cost per acre	$	$ 2.47	$ 2.46	$ 3.03
Building and fencing cost per acre	$	$ 1.26	$ 1.04	$ 1.41
Gross receipts per acre	$	$ 23.82	$ 29.11	$ 20.68
Total expenses per acre	$	$ 16.99	$ 14.83	$ 21.56
Net receipts per acre	$	$ 6.83	$ 14.28	$ - .88
Farms with tractor		50 %	50 %	70 %
Value of land per acre	$	$121	$ 120	$ 121
Total investment per acre	$	$195	$ 191	$ 198

Stephenson County - 1927

	Your farm	Average of 30 farms	Ten most profitable farms	Ten least profitable farms
1 Capital Investment - Total	$	$ 30 340	$ 32 155	$ 28 278
2 Land		18 907	20 173	17 293
3 Farm improvements		4 728	4 563	4 531
4 Machinery and equipment		1 550	1 596	1 732
5 Feed and supplies		1 628	1 898	1 662
6 Livestock		3 527	3 925	3 060
7 Horses		408	443	346
8 Cattle		1 729	2 054	1 412
9 Hogs		1 042	1 095	1 034
10 Sheep		189	187	88
11 Poultry		159	146	180
12 Receipts-Net Increases-Total		3 713	4 895	2 959
13 Feed and grain		---	---	---
14 Miscellaneous		57	27	113
15 Livestock - Total		3 656	4 868	2 846
16 Horses		---	---	---
17 Cattle		718	1 238	493
18 Hogs		1 295	1 581	1 174
19 Sheep		69	55	57
20 Poultry		119	152	71
21 Egg sales		167	179	226
22 Dairy sales		1 288	1 663	825
23 Expenses-Net Decreases-Total		1 712	1 663	2 130
24 Farm improvements		197	175	201
25 Livestock		20	2	19
26 Horses		20	2	19
27 Cattle		--	-	--
28 Hogs		--	-	--
29 Sheep		--	-	--
30 Poultry		--	-	--
31 Machinery and equipment		385	414	433
32 Feed and supplies		449	216	916
33 Livestock expense other than feed		55	58	67
34 Crop expense		144	166	124
35 Labor hired		188	307	125
36 Taxes, insurance, etc.		234	276	213
37 Miscellaneous		30	37	32
38 Dairy Expense		10	12	--
39 Receipts less Expenses		2 001	3 232	829
40 Operator's and unpaid family labor		937	831	957
41 Net income from investment		1 064	2 401	- 128

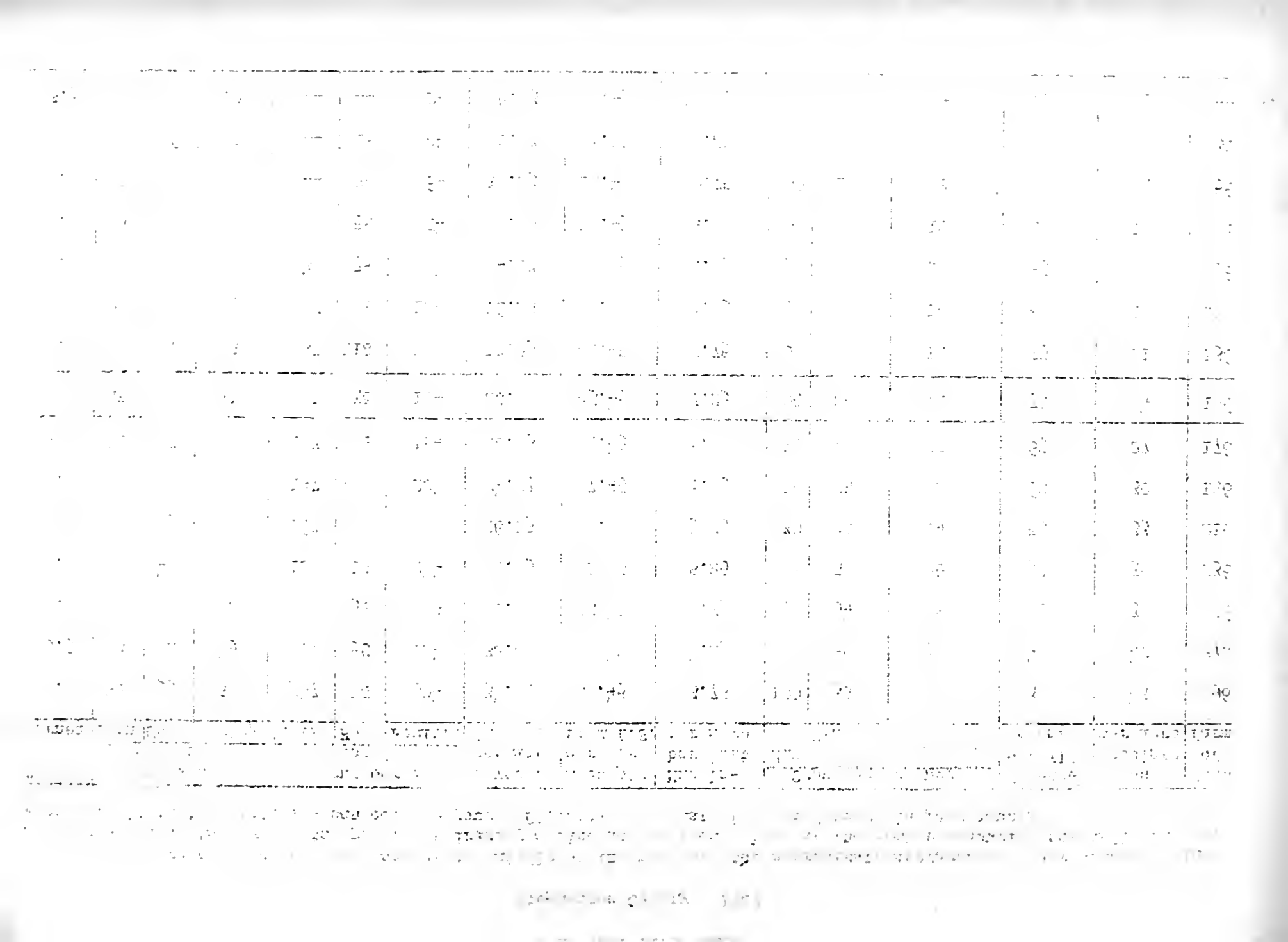


Find Your Farm Leaks

Stephenson County - 1927

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	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per Man	Crop acres per Horse		Expense per $100 income	Gross receipts per acre	Size of farm
earned	Corn	Oats	Barley	Cattle	Hogs	Poultry					Tractor	No tractor			
10.5	56	55	52	247	278	304	34.23	37.45	3.75	100	38	32	35	45	296
9.5	53	52	49	227	258	284	32.23	35.45	4.25	95	36	30	40	42	276
8.5	50	49	46	207	238	264	30.23	33.45	4.75	90	34	28	45	39	256
7.5	47	46	43	187	218	244	28.23	31.45	5.25	85	32	26	50	36	236
6.5	44	43	40	167	198	224	26.23	29.45	5.75	80	30	24	55	33	216
5.5	41	40	37	147	178	204	24.23	27.45	6.25	75	28	22	60	30	196
4.5	38	37	34	127	158	184	22.23	25.45	6.75	70	26	20	65	27	176
3.5	35	34	31	107	138	164	20.23	23.45	7.25	65	24	18	70	24	156
2.5	32	31	28	87	118	144	18.23	21.45	7.75	60	22	16	75	21	136
1.5	29	28	25	67	98	124	16.23	19.45	8.25	55	20	14	80	18	116
0.5	26	25	22	47	78	104	14.23	17.45	8.75	50	18	12	85	15	96
-0.5	23	22	19	27	58	84	12.23	15.45	9.25	45	16	10	90	12	76
-1.5	20	19	16	--	38	64	10.23	13.45	9.75	40	14	8	95	9	56
-2.5	17	16	13	--	18	44	8.23	11.45	10.25	35	12	6	100	6	36
-3.5	14	13	10	--	--	24	6.23	9.45	10.75	30	10	4	105	3	--



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

JO DAVIESS AND CARROLL COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-three Farms

for

1927

The farm account
is a guide to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 96

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

TO MEMBERS AND CHERICO RURAL PARK BUREAUS

Gentlemen:

ANNUAL FARM PLANNING SERVICE

In

1937

ANNUAL FARM BUSINESS REPORT

Jo Daviess and Carroll Counties, Illinois 1927

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

The 33 farmers in Jo Daviess and Carroll Counties who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $260 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. The average investment was $177 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $958 each to pay for his own labor, management, and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1364 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about $2322 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 33 farmers EARNED 2.4 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 5.7 percent and the least successful third lacked 1.2 percent of having any return on their investments. The average investment on the 33 farms was $36,465 which amounts to $177 an acre. The higher profit third had an average investment of $193 and the lower profit third $204 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $112 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The 11 most profitable farms averaged about 45 acres per farm larger than the 11 least profitable farms. This gave the more successful operators some advantage in building up a larger volume of business and in securing greater efficiency in use of labor, power and equipment. It probably was not one of the most important factors responsible for the difference in earnings between the two groups. The records indicate that the extra acreage on the more profit-

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

ANNUAL FARM BUSINESS REPORT

To Develop and Control Irrigation

Prepared by M. D. Anderson, R. T. Wright, H. C. D. Cox*

The US Congress in 20 Devices and Control Districts was formed in the 1111-mile Farm Economy Act of the 1922 Irrigated Project of 2000 of moving rivers to pay operating expenses and 6 percent on their investment, mainly for their Water Service and Rights. The Irrigation Districts was 1127 at June. The number of these farmers who did not have enough income to pay for their water, maintenance and operation. Many districts were in default. Title IA created in 1920 the RECLAMATION TRUST FUND. The Secretary of the Interior was authorized to make loans to districts for the construction of irrigation works. These loans were to be repaid in 20 annual installments without interest. The Secretary of the Interior was authorized to withdraw lands from entry, classify them as to their irrigability, and determine the charges which should be made per acre for the water right. Public notice of the lands to be irrigated was given, and after a period for filing objections, the Secretary of the Interior established the charges. Public hearings were held in the districts affected.

In addition to the above work, each Farm Credit Administration office has a staff of specialists, engaged in making studies, and in advising farmers and groups of farmers on their financial problems. These specialists work closely with the county agricultural agents. Where necessary, the Farm Credit Administration has employed additional specialists to assist in the preparation of applications and in the supervision of loans. Applications for loans are received in the local offices, and are investigated by the appraisers and examiners. The appraisers determine the value of the property offered as security for the loan, and the examiners determine the credit standing of the applicant. The applications are then forwarded to the Washington office for final action.

The Farm Credit Administration has also established a system of crop loans. These loans are made through local cooperative associations. The associations receive the loans from the Federal Intermediate Credit Banks, and make them to their members. The associations are responsible for the repayment of the loans. The Farm Credit Administration has also established a system of commodity loans. These loans are made to cooperative associations for the purpose of financing the marketing of agricultural commodities. The associations receive the loans from the Federal Intermediate Credit Banks, and make them to their members. The associations are responsible for the repayment of the loans.

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* M. D. Anderson, R. T. Wright, H. C. D. Cox, [illegible]

able farms was used for pasture. This is probably due to the fact that these farms have larger numbers of dairy cows than did the less profitable farms.

One of the chief advantages of the more profitable farms was in higher crop yields. They produced 10 bushels more corn, 5 bushels more oats, 7 bushels more wheat, and 8 bushels more barley per acre than the less profitable farms. Since it usually costs little more to produce an acre of high yielding crop than an acre of low yielding crop any advantage in yields has a direct effect in increasing net earnings.

The largest single advantage of the more successful operators was in their greater efficiency in livestock management, especially in the management of the dairy enterprise. Although this is a region of mixed livestock farming, all but one among the 11 most profitable farms might be classed as a dairy farm. They had average dairy sales of $1647 and an average of 18 cows per farm. One farm in the group had beef cows instead of dairy cows. At least four of these farms are in dairy test associations and have built up good efficient dairy herds by the most approved methods. Records are included for only two other farms which are in dairy test associations. One of these has been in the group making the most profit for the preceding three years but for 1927 fell slightly below the most profitable third. Among the 11 least profitable farms only five can be classed as dairy farms and only one belongs to a dairy test association. This one farm is small, has only about 75 acres of tillable land and 14 cows. This herd of 14 cows has not yet been built up to a high efficiency and did not pay well for the large amount of purchased feed. It is largely as a result of efficiency in the dairy enterprise that the 11 most profitable farms show an income of $130 for each $100 invested in cattle as compared with an income of $80 for each $100 invested in cattle on the least profitable farms. The most profitable farms also had some advantage in the production and sale of hogs. They had a smaller investment in hogs but produced almost as much income from this source as did the less profitable farms.

Farms of this section of the state usually have three or four times as large investment in livestock per acre as is found on farms in East Central and Southern Illinois. Efficiency in livestock management is therefore a very important factor in farm earnings.

On the expense side of the business the more profitable farms had lower average costs per acre for labor, equipment and improvements. This is true in spite of the fact that they did more dairying than the less profitable farms and dairying commonly takes more labor and equipment as well as better improvements than other types of farming. One factor helping the more successful operators to a lower cost per acre for labor, equipment and improvements was the larger size of their farms. The largest item of higher cost on the less profitable farms was for purchased feed. Feed prices were somewhat higher for 1927 than during the preceding two years. Much of this purchased feed was fed to hogs which were lower in price for 1927.

Some interesting comparisons of farm earnings for different years can be made from the following table. Allowance must be made for the shift in territory included from year to year, but most of the records have been secured from Jo Daviess, Stephenson and Carroll Counties where the type of farming is similar. It is evident that average net earnings were lower for 1927 than during the preceding four years. Higher feed prices, lower prices for hogs and lower yields of corn were important factors tending toward lower farm earnings. Incomes from both dairy and beef cattle were higher, however.

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

	1923[1]	1924[2]	1925[3]	1926[4]	1927[5]
Number of farms included	11	51	44	37	33
Average size of farms in acres	172	180	188	182	206
Average rate earned	3.4%	3.7%	7.5%	5.6%	2.4%
Average value of land per acre	$100	$120	$112	$118	$112
Average investment per acre	145	157	170	188	177
Investment in livestock per farm	2,660	2,781	3,259	4,035	4,454
Investment in cattle per farm	1,414	1,451	1,815	2,238	2,392
Investment in hogs per farm	623	659	765	1,028	1,352
Investment in poultry per farm	149	155	141	172	167
Gross income per acre	14.32	18.05	24.15	24.70	21.62
Operative costs per acre	9.34	11.49	11.46	14.22	17.40
Grain sales less feed purchases	---	189	286	---	---
Miscellaneous income per farm	41	65	91	79	91
Livestock income per farm	2,298	2,995	4,162	4,425	4,366
Gross income per farm	2,327	3,251	4,539	4,504	4,457
Cattle income per farm	363	422	715	712	1,147
Dairy sales per farm	799	798	957	1,156	1,162
Hog income per farm	864	1,444	2,127	2,195	1,746
Poultry income per farm	270	257	309	281	267

1 Only records from Jo Daviess County included 1923
2 Records from Jo Daviess, Stephenson, and Ogle Counties included 1924
3 Records from Jo Daviess, Stephenson and Carroll Counties included 1925
4 Records from Jo Daviess and Stephenson Counties included 1926
5 Records from Jo Daviess and Carroll Counties included 1927

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

Occupancy: Dairying on Farms in the Lake Region, 1925

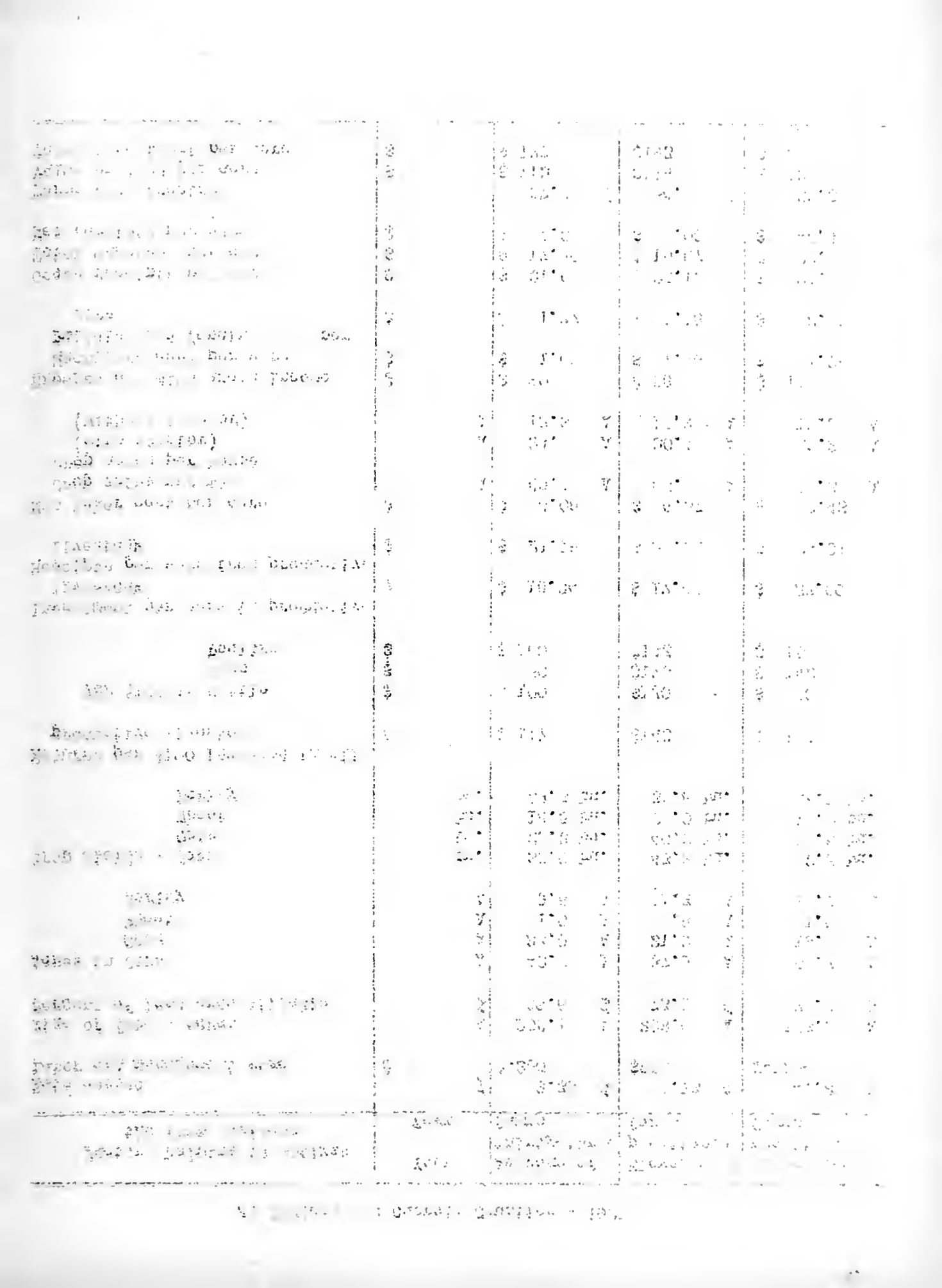
	[illegible]	[illegible]	[illegible]	[illegible]
Number of farms included	11	5	44	37
Average size of farms in acres	172	130	152	180
Average rate earned	[illegible]	6.7%	7.5%	[illegible]
Average value of land per acre	$100	$150	$110	$170
Average investment per acre	146	132	170	185
Investment in livestock per farm	$2,600	$2,781	$3,259	[illegible]
Investment in cattle per farm	1,414	1,491	1,615	$2,256
Investment in sheep per farm	620	606	708	[illegible]
Investment in poultry per farm	149	140	161	180
Gross income per acre	[illegible]	[illegible]	$34.15	$37.70
Operative costs per acre	9.34	17.49	11.41	14.22
Farm wages per farm	---	140	204	---
Miscellaneous income per farm	41	55	91	72
Live-stock income per farm	$1,298	$2,694	$1,778	$4,252
Gross income per farm	$3,425	$3,831	$4,896	$6,904
Cattle income per farm	508	430	711	712
Dairy sales per farm	790	---	---	$1,124
Hog income per farm	670	$1,110	$2,127	$3,180
Poultry income per farm	[illegible]	[illegible]	302	361

1) Principles from Jo Davison, Purdue University, 1925
2) Records from Jo Davison, Stephenson and Organization Practices, 1924
3) Records from Jo Davison, Stephenson and Overall Operating Practices, 1925
4) Records from Jo Davison and Stephenson Operation Practices 1927
5) Records from Jo Davison and Overall Operation, Purdue 1927

Some points of criticism and some of weaknesses to be found in your own farming, as compared with farming from your record in the following table, are suggested on the average farm as well as on farms of similar size and location.

Jo Daviess and Carroll Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of thirty-three farms	Eleven most profitable farms	Eleven least profitable farms
Rate earned	%	2.38 %	5.73 %	-1.22 %
Labor and management wage	$	$-260	$958	$-1364
Size of farm - acres	A	206.1 A	208.0 A	163.5 A
Percent of land area tillable	%	69.6 %	73.1 %	75.3 %
Acres in Corn	A	42.5 A	37.9 A	45.3 A
Oats	A	23.0 A	21.0 A	19.9 A
Wheat	A	1.0 A	.8 A	1.9 A
Barley	A	9.6 A	11.3 A	10.7 A
Crop yields - Corn	bu.	35.0 bu.	43.2 bu.	32.5 bu.
Oats	bu.	35.2 bu.	40.2 bu.	35.5 bu.
Wheat	bu.	18.5 bu.	25.0 bu.	18.0 bu.
Barley	bu.	29.3 bu.	36.8 bu.	28.1 bu.
Returns per $100 invested in all productive livestock	$	$ 117	$143	$ 104
For $100 in Cattle	$	$ 100	$130	$ 80
Hogs	$	$ 150	$178	$ 142
Poultry	$	$ 160	$143	$ 156
Investment per acre in productive livestock	$	$ 18.04	$ 17.86	$ 23.00
Receipts per acre from productive livestock	$	$ 21.18	$ 25.56	$ 24.01
Man labor cost per acre	$	$ 6.08	$ 6.57	$ 7.43
Crop acres per man	A	69.4 A	63.6 A	67.3 A
Crop acres per horse (with tractor)	A	24.5 A	20.4 A	27.2 A
(without tractor)	A	18.3 A	15.9 A	19.3 A
Expense per $100 gross income	$	$ 80	$ 58	$ 110
Machinery cost per acre	$	$ 1.62	$ 1.48	$ 1.78
Building and fencing cost per acre	$	$ 1.37	$ 1.18	$ 2.58
Gross receipts per acre	$	$ 21.62	$ 26.15	$ 24.59
Total expenses per acre	$	$ 17.40	$ 15.07	$ 27.08
Net receipts per acre	$	$ 4.22	$ 11.08	$ -2.49
Farms with tractor		57.6 %	54.5 %	27.3 %
Value of land per acre	$	$ 112	$118	$ 129
Total investment per acre	$	$ 177	$193	$ 204



Jo Daviess and Carroll Counties - 1927

		Your farm	Average of thirty-three farms	Eleven most profitable farms	Eleven least profitable farms
1	Capital Investment - Total	$_____	$36,465	$40,173	$33,296
2	Land		22,997	24,454	21,025
3	Farm improvements		5,466	7,379	4,720
4	Machinery and equipment		1,609	1,822	1,254
5	Feed and supplies		1,939	2,145	1,621
6	Livestock		4,454	4,373	4,676
7	Horses		468	535	464
8	Cattle		2,392	2,370	2,297
9	Hogs		1,352	1,218	1,697
10	Sheep		75	55	95
11	Poultry		167	195	123
12	Receipts-Net Increases-Total	_____	4,457	5,439	4,020
13	Feed and grain		--	--	--
14	Miscellaneous		91	123	95
15	Livestock - Total		4,366	5,316	3,925
16	Horses		--	--	--
17	Cattle		1,147	1,504	833
18	Hogs		1,746	1,863	1,940
19	Sheep		44	38	57
20	Poultry		106	87	100
21	Egg sales		161	177	104
22	Dairy sales		1,162	1,647	891
23	Expenses-Net Decreases-Total	_____	2,613	2,026	3,561
24	Farm improvements		283	246	422
25	Livestock		21	4	37
26	Horses		21	4	37
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		334	307	291
32	Feed and supplies		1,204	723	1,918
33	Livestock expense other than feed		71	57	97
34	Crop expense		168	173	185
35	Labor hired		279	258	349
36	Taxes, insurance, etc.		222	226	230
37	Miscellaneous		31	32	32
38	Receipts less Expenses	_____	1,844	3,413	459
39	Operator's and unpaid family labor		974	1,108	866
40	Net income from investment		870	2,305	-407

Find Your Farm Leaks

Jo Daviess and Carroll Counties - 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per A. in L.S.	Receipts per A. from L.S.	Man lab. cost per A.	Crop acres per			Expense per $100 income	Gross receipts per A.	Size of farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Horse				
											Tractor	No tractor			
9.4	56	56	32	240	290	300	32	35	2.50	105	38	32	45	43	340
8.4	53	53	30	220	270	280	30	33	3.00	100	36	30	50	40	320
7.4	50	50	28	200	250	260	28	31	3.50	95	34	28	55	37	300
6.4	47	47	26	180	230	240	26	29	4.00	90	32	26	60	34	280
5.4	44	44	24	160	210	220	24	27	4.50	85	30	24	65	31	260
4.4	41	41	22	140	190	200	22	25	5.00	80	28	22	70	28	240
3.4	38	38	20	120	170	180	20	23	5.50	75	26	20	75	25	220
2.4	35	35	18	100	150	160	18	21	6.00	70	24	18	80	22	200
1.4	32	32	16	80	130	140	16	18	6.50	65	22	16	85	19	180
0.4	29	29	14	60	110	120	14	15	7.00	60	20	14	90	16	160
-0.6	26	26	12	40	90	100	12	12	7.50	55	18	12	95	13	140
-1.6	23	23	10	20	70	80	10	9	8.00	50	16	10	100	10	120
-2.6	20	20	8	--	50	60	8	6	8.50	45	14	8	105	7	100
-3.6	17	17	6	--	30	40	6	3	9.00	40	12	6	110	4	80
-4.6	14	14	--	--	--	20	4	--	9.50	35	10	4	115	--	60

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UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

ROCK ISLAND, MERCER AND WHITESIDE COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-nine Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 85

ANNUAL FARM BUSINESS REPORT

Rock Island, Mercer and Whiteside Counties, Illinois, 1927

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

The 29 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $383 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $212 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,366, while the one-third who were least successful lacked an average of $421 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $1,787 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 29 farmers EARNED 4.2 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 6.4 percent and the least successful third 1.7 percent. The average investment on the 29 farms was $41,629, which amounts to $212 an acre. The higher profit third had an average investment of $212 and the lower profit third $210 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $142 on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc. not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in average size of farm between the high and low profit groups. In this case, however, the 10 most profitable farms averaged about 62 acres larger than the 10 least profitable farms. This larger size offered some advantage in the efficiency with which labor, power, equipment and improvements could be used. The more profitable farms show lower costs per acre for all of these items. These accounting studies of the farm business indicate that for a general type of farming 160 acres is too small for the most efficient operation. This observation does not apply, however, to the more intensive types of farming such as dairying and truck growing.

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*S. S. Carney, J. E. Harris and L. O. Wise, farm advisers in Rock Island, Mercer and Whiteside counties respectively, cooperated in supervising and collecting the records used in this report.

One of the biggest advantages of the more profitable farms was in their higher crop yields. They produced 7 bushels more corn, 8 bushels more barley and 14 bushels more oats per acre than the less profitable farms. The acreage of wheat was too small for a difference in yield to have much effect on profits. It usually costs but little more to produce an acre of high yielding crop than an acre of low yielding crop. Any advantage in yield, therefore, has a direct effect in increasing profits.

Another big advantage of the more successful farm operators was in their greater efficiency in livestock management. They secured a livestock income of $148 for each $100 of livestock investment as compared with a corresponding income of $123 on the less profitable farms. The records show that this advantage was realized for cattle, hogs and poultry. Cattle and hogs constitute the two largest enterprises on farms of this section. Any advantage in efficiency in handling these enterprises, therefore, has a correspondingly big effect on earnings. It is significant that the farms covered by this report derive nearly all of their income from livestock and livestock products. The average investment per acre in livestock is larger than for most other sections of the state. It is very important that farm operators of this area have the ability to produce and market cattle and hogs efficiently.

On the expense side of the business the 10 most profitable farms show lower costs per acre for labor, power, equipment and improvements. Larger size helped some in this direction. There was little difference between the two groups in the amount of livestock to be cared for. It is significant that the 10 most profitable farms, although 63 acres larger in size, had about $144 per farm less total operating costs including operator and family labor at hired labor prices. Expressed in another way, the more successful operators secured $2,338 more income per farm with a little less operating cost.

We may sum up this discussion by stating that the 10 most profitable farms were successful both because of larger gross incomes and because of lower operating costs. The larger gross incomes were due to larger crop yields and to larger incomes from hogs and cattle. The lower operating costs were due to more efficient use of labor, power, equipment and improvements together with lower feed costs due to better crop yields and more efficient use of feed. Labor and equipment costs were unusually high on the farms of the low profit group. Even when allowance is made for the large amount of livestock kept, the labor cost of $9.02 an acre and the equipment cost of $3.12 an acre are out of line with these costs on the average farm. Such costs would be justified only if practically all of the farms included were specialized dairy farms. The average dairy income for the group was $1,023 per farm. A group of 35 dairy farms in northern Illinois shows an average income from dairy products of $3,700 per farm. They have about the same number of acres per farm as the low profit farms included in this report. Their average cost for labor is $10.23 and for equipment $3.82. All of these farms are highly specialized dairy farms. Ways in which some of the farms in the farm accounting project have increased their efficiency in the use of labor and equipment are indicated on pages 6 to 13 of this report.

Some interesting comparisons of incomes and investments can be made from the following table. Allowance must be made for the fact that there was a shift in territory included. The type of farming is similar thruout the area included for both years, however, and the figures are comparable. Evidently average earnings were on about the same level for 1926 and 1927 with a little advantage in

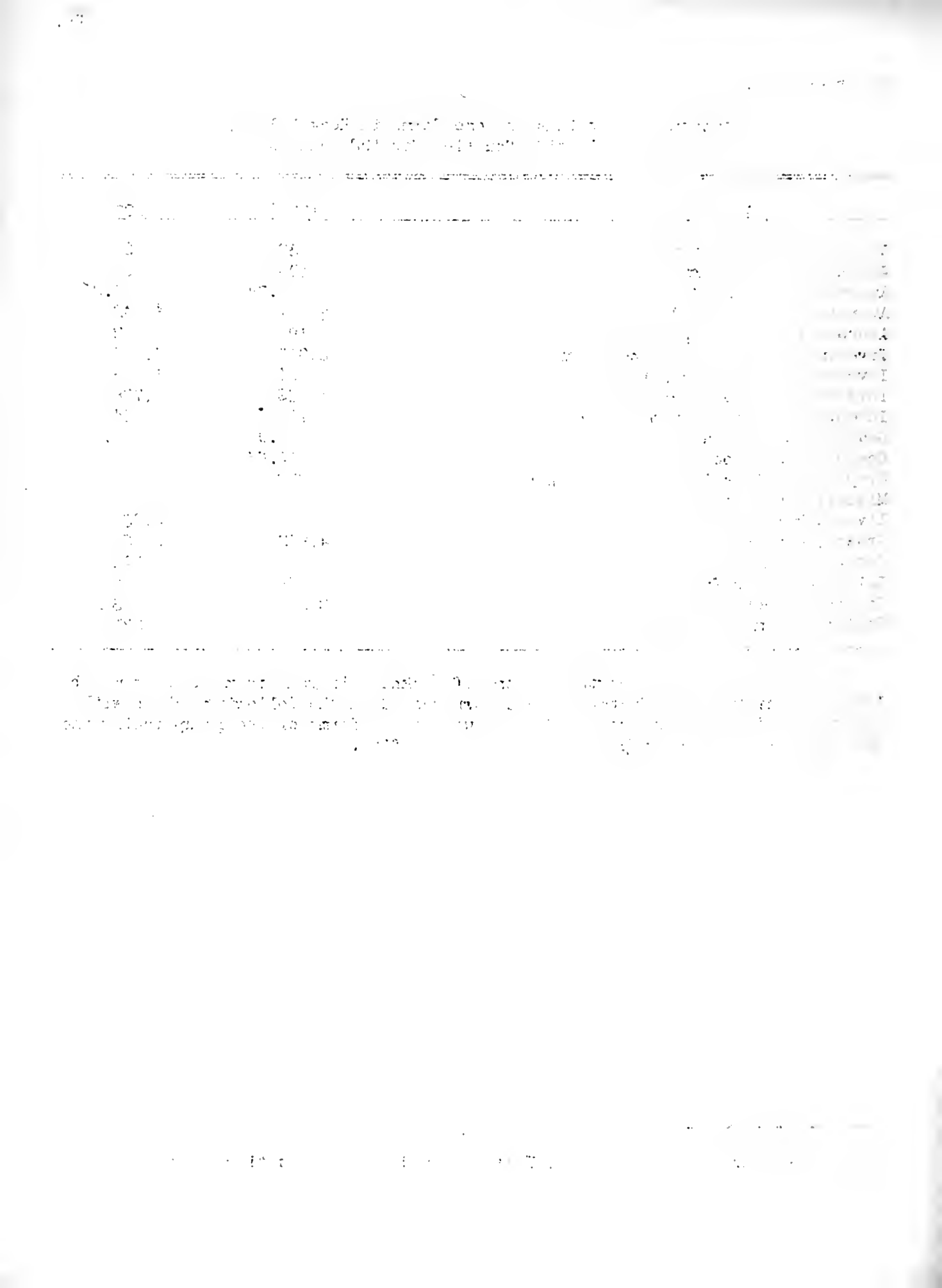
favor of 1926.

Comparative earnings on some farms in Rock Island, Mercer and Whiteside Counties for 1926 and 1927

Items	1926[1]	1927
Number of farms included	32	29
Average size of farms in acres	194	196
Average rate earned	4.7%	4.2%
Average value of land per acre	$ 131	$ 142
Average investment per acre	196	212
Investment in livestock per farm	3,917	4,546
Investment in cattle per farm	1,594	1,969
Investment in hogs per farm	1,532	1,778
Investment in poultry per farm	178	154
Gross income per acre	24.96	26.80
Operating cost per acre	15.66	17.85
Crop income less feed purchases per farm	000	000
Miscellaneous income per acre	41	34
Livestock income per farm	4,811	5,231
Gross income per farm	4,852	5,265
Cattle income per farm	796	1,374
Dairy sales per farm	558	674
Hog income per farm	2,991	2,853
Poultry income per farm	318	271

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.

[1]Records from Rock Island, Whiteside and Carroll Counties included for 1926.



Rock Island, Mercer, and Whiteside Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 29 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	4.22 %	6.36 %	1.70 %
Labor and management wage	$	$383	$1,366	$ -421
Size of farm - acres	A	196.4 A	227.3 A	165.5 A
Percent of land area tillable	%	83 %	85.7 %	81.7 %
Acres in Corn	A	67.6 A	80.1 A	59.1 A
Oats	A	21.4 A	23.4 A	19.9 A
Wheat	A	5.8 A	7.0 A	4.4 A
Barley	A	8.9 A	16.0 A	5.6 A
Crop yields - Corn	bu.	42.8 bu.	45.6 bu.	38.3 bu.
Oats	bu.	38.5 bu.	43.7 bu.	29.6 bu.
Wheat	bu.	14.3 bu.	10.1 bu.	17.6 bu.
Barley	bu.	30.1 bu.	31.2 bu.	22.5 bu.
Returns per $100 invested in all productive livestock	$	$137	$ 148	$ 123
For $100 in Cattle	$	$115	$ 121	$ 98
Hogs	$	$159	$ 176	$ 155
Poultry	$	$173	$ 197	$ 169
Investment per acre in productive livestock	$	$ 19.45	$ 19.67	$ 21.00
Receipts per acre from productive livestock	$	$ 26.63	$ 29.10	$ 25.84
Man labor cost per acre	$	$ 7.61	$ 6.74	$ 9.02
Crop acres per man	A	67.3 A	79.3 A	58.3 A
Crop acres per horse (with tractor)	A	26.2 A	29.5 A	27.2 A
(without tractor)	A	17.6 A	22.6 A	14.8 A
Expense per $100 gross income	$	$ 67	$ 54	$ 86
Machinery cost per acre	$	$ 2.56	$ 2.16	$ 3.12
Building and fencing cost per acre	$	$ 1.32	$ 1.28	$ 1.38
Gross receipts per acre	$	$ 26.80	$ 29.23	$ 26.04
Total expenses per acre	$	$ 17.85	$ 15.72	$ 22.47
Net receipts per acre	$	$ 8.95	$ 13.51	$ 3.57
Farms with tractor		48 %	50 %	40 %
Value of land per acre	$	$142	$ 146	$ 139
Total investment per acre	$	$212	$ 212	$ 210

Rock Island, Mercer and Whiteside Counties - 1927

		Your farm	Average of 39 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$_____	$ 41 629	$ 48 302	$ 34 838
2	Land		27 920	33 095	23 040
3	Farm improvements		5 279	5 696	4 403
4	Machinery and equipment		1 449	1 407	1 353
5	Feed and supplies		2 435	2 854	1 733
6	Livestock		4 546	5 250	4 309
7	Horses		581	689	581
8	Cattle		1 969	2 245	2 158
9	Hogs		1 778	2 003	1 446
10	Sheep		63	124	6
11	Poultry		154	189	115
12	Bees		1	--	3
13	Receipts-Net Increases-Total	_____	5 265	6 648	4 310
14	Feed and grain		--	--	--
15	Miscellaneous		34	32	33
16	Livestock - Total		5 231	6 616	4 277
17	Horses		--	--	--
18	Cattle		1 374	2 007	896
19	Hogs		2 853	3 674	2 151
20	Sheep		59	108	6
21	Poultry		135	219	80
22	Egg sales		136	170	119
23	Dairy sales		674	438	1 023
24	Bees		--	--	2
25	Expenses-Net Decreases-Total	_____	2 490	2 696	2 649
26	Farm improvements		260	292	229
27	Livestock		23	6	30
28	Horses		23	6	30
29	Cattle		--	-	--
30	Hogs		--	-	--
31	Sheep		--	-	--
32	Poultry		--	-	--
33	Machinery and equipment		503	492	517
34	Feed and supplies		474	356	818
35	Livestock expense other than feed		114	124	87
36	Crop expense		213	274	163
37	Labor hired		480	654	424
38	Taxes, insurance, etc.		391	478	336
39	Miscellaneous		30	20	40
40	Dairy expense		2	--	5
41	Receipts less Expenses	_____	2 775	3 952	1 661
42	Operator's and unpaid family labor		1 017	879	1 070
43	Net income from investment		1 758	3 073	591

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Find Your Farm Leaks

Rock Island, Mercer and Whiteside Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
										Man	Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry					Tractor	No tractor			
11.2	64	59	28	185	300	315	33.45	40.63	4.10	102	40	32	32	48	336
10.2	61	56	26	175	280	295	31.45	38.63	4.60	97	38	30	37	45	316
9.2	58	53	24	165	260	275	29.45	36.63	5.10	92	36	28	42	42	296
8.2	55	50	22	155	240	255	27.45	34.63	5.60	87	34	26	47	39	276
7.2	52	47	20	145	220	235	25.45	32.63	6.10	82	32	24	52	36	256
6.2	49	44	18	135	200	215	23.45	30.63	6.60	77	30	22	57	33	236
5.2	46	41	16	125	180	195	21.45	28.63	7.10	72	28	20	62	30	216
4.2	43	38	14	115	160	175	19.45	26.63	7.60	67	26	18	67	27	196
3.2	40	35	12	105	140	155	17.45	24.63	8.10	62	24	16	72	24	176
2.2	37	32	10	95	120	135	15.45	22.63	8.60	57	22	14	77	21	156
1.2	34	29	8	85	100	115	13.45	20.63	9.10	52	20	12	82	18	136
0.2	31	26	6	75	80	95	11.45	18.63	9.60	47	18	10	87	15	116
-0.8	28	23	4	65	60	75	9.45	16.63	10.10	42	16	8	92	12	96
-1.8	25	20	-	55	40	55	7.45	14.63	10.60	37	14	6	97	9	76
-2.8	22	17	-	45	20	35	5.45	12.63	11.10	32	12	4	102	6	56

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

WILL COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-seven Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 88

ANNUAL FARM BUSINESS REPORT

Will County, Illinois 1927

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

The 27 farmers in Will County who kept financial records in the Illinois Farm Account Project for 1927 had an average of $513 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $230 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,975, while the one-third who were least successful lacked an average of $726 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2,701 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 27 farmers EARNED 4.6 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 8.2 percent and the least successful third 1.5 percent. The average investment on the 27 farms was $46,087, which amounts to $230 an acre. The higher profit third had an average investment of $218 and the lower profit third $228 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $172 an acre on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 per farm at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

There was a difference of only 11 acres in average size between the high and low profit farms, but the more profitable farms had a higher percentage of tillable land and therefore had 29 acres more tillable land per farm than the 10 least profitable farms. This helped some in giving them a larger volume of business.

Investigations of costs and incomes per acre have shown that under ordinary

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

MEDINA FARM BUSINESS ASSOCIATION

Will County, Illinois 2017

F ed by: R. Kelli on, E. L. Wright, P. G. M. Geno

Illinois conditions there is a wider margin of profit for corn, wheat, alfalfa and sweet clover than for other common crops. It is significant that the more profitable farms had a little higher percentage of their tillable land in these crops than did the less profitable farms. The more successful operators also had more acres of barley which under favorable conditions in Northern Illinois may be classed as a profitable crop.

In most reports of this type higher crop yields are shown to be one of the chief advantages of the more profitable farms. In this case, however, there was little difference in yields. The more profitable farms produced about 8 bushels more oats and 6 bushels more wheat per acre, but they produced nearly 3 bushels less corn than did the less profitable farms. A larger acreage of wheat and better wheat yields undoubtedly account for some of the larger incomes from crops on the more profitable farms.

The greatest advantage of the most successful farm operators was due to their greater efficiency in livestock management. Good livestock management includes selection of the right kinds and numbers of livestock, keeping them in good producing condition and marketing the product to the best advantage, all of this to be done without unnecessary expense.

Seven of the 10 most profitable farms had dairy sales amounting to over $1,000. Only four of the 10 least profitable farms had as much as $1,000 dairy sales. The average dairy sales per farm for the latter group was raised by one large dairy farm with dairy sales amounting to nearly $5,000.

The more profitable farms evidently fed more efficiently than the less profitable farms since they had only a few more acres in crops, their yields were only slightly better, and yet they fed about as much livestock and had an average net increase from crops of $2,363 per farm. The net increase from crops and feed was only $22 per farm on the 10 least profitable farms.

The greater efficiency in livestock management may be expressed in another way by stating that the more profitable farms produced a livestock income of $145 for each $100 of livestock investment as compared with a livestock income of only $109 per $100 invested on the less profitable farms.

On the expense side of the business the more successful operators had slightly higher costs for labor and equipment but lower costs for improvements. The higher labor and equipment costs were evidently due to more dairying and the income more than justified the extra expense.

We may sum up this discussion by stating that the more profitable farms were successful because of much larger gross incomes with very little more expense than on the less profitable farms. The more successful farmers had average gross incomes amounting to $31.99 an acre compared with just half as much or $15.98 an acre for the less successful farmers. There was only $1.48 an acre difference in their operating costs. The result was a net income of $17.84 an acre for the more successful operators and $3.31 an acre for the less successful ones.

This is the fourth consecutive year for which a "Farm Business Report" has been published for Will County. The farms included each year have been mostly the same identical ones. Some interesting comparisons of investments and earn-

ings are shown in the following table. It is evident that for the last three years earnings have been on about the same level. Earnings for 1924 were generally higher over the state than in any other year since 1919. The cause was higher prices for the grain crops owing to a short United States crop of corn and a short world crop of wheat.

Comparative Earnings on Will County Farms

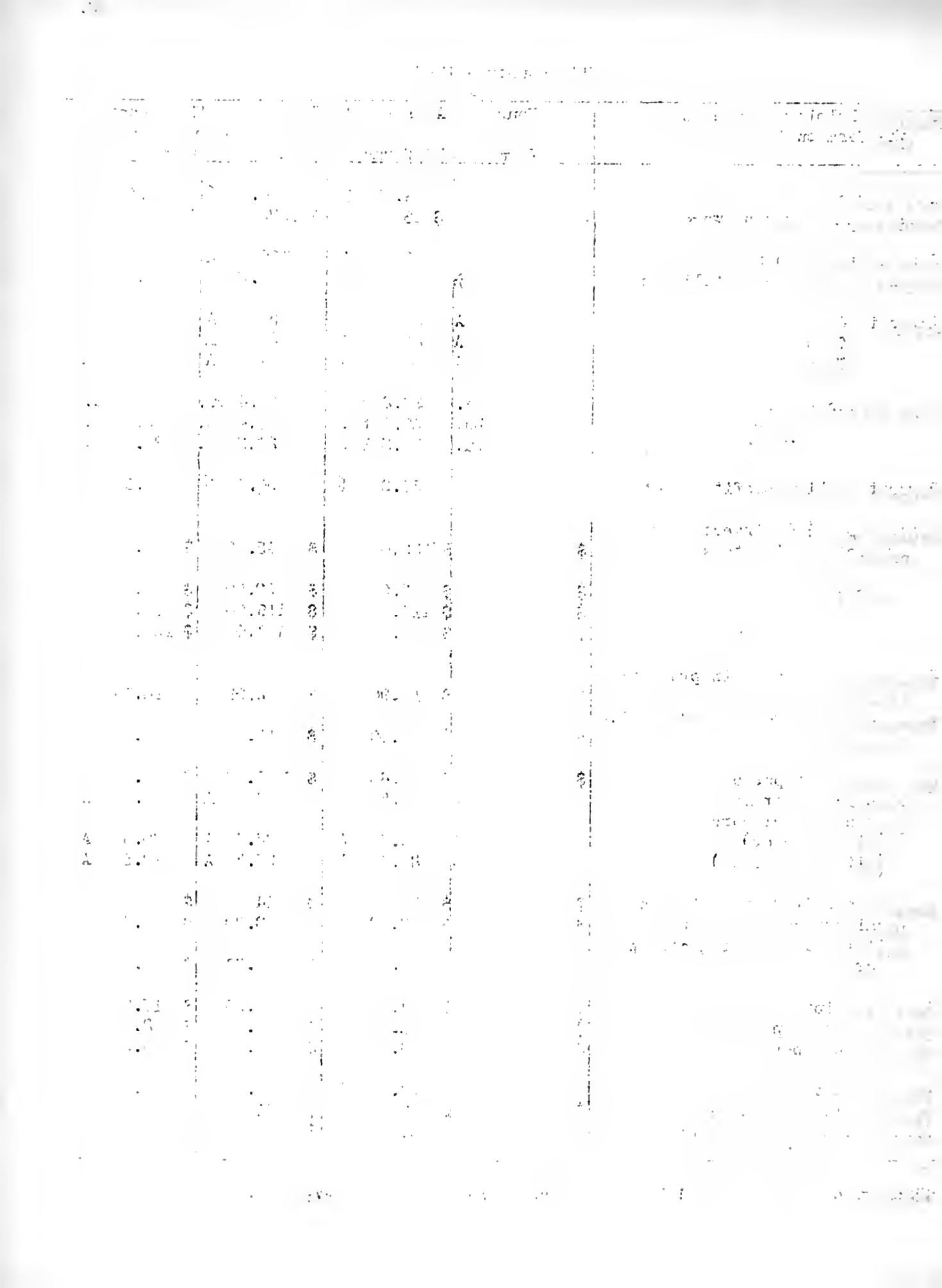
Item	1924	1925	1926	1927
Number of farm records	34	33	30	27
Average size of farm in acres	188	186	179	200
Average rate earned	6.3%	4.1%	4.3%	4.6%
Average value of land per acre	$ 167	$ 165	$ 166	$ 172
Average investment per acre	227	230	227	230
Investment in livestock per farm	2,738	2,844	2,690	2,986
Investment in cattle per farm	1,425	1,520	1,487	1,496
Investment in hogs per farm	539	610	501	777
Investment in poultry per farm	158	147	157	182
Gross income per acre	28.74	22.89	23.26	23.62
Operating cost per acre	14.50	13.40	13.48	13.02
Grain sales less feed purchases per farm	2,379	1,169	1,319	1,749
Miscellaneous income per farm	174	131	105	69
Livestock income per farm	2,856	2,949	2,739	2,905
Cattle income per farm	522	536	481	635
Dairy sales per farm	1,031	1,077	1,034	1,214
Hog income per farm	977	1,006	890	782
Poultry income per farm	267	271	299	249
Gross income per farm	5,409	4,249	4,163	4,723

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 - 1927

Factors helping to analyze the farm business	Your farm	Average of 27 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	4.60 %	8.18 %	1.45 %
Labor and management wage	$	$513	$1,975	$-726
Size of farm - acres	A	200 A	190 A	179 A
Percent of land area tillable	%	88 %	91.3 %	80.7 %
Acres in Corn	A	56 A	57 A	48 A
Oats	A	26 A	27 A	27 A
Wheat	A	36 A	31 A	17 A
Crop yields - Corn	bu.	27.2 bu.	35.4 bu.	38.1 bu.
Oats	bu.	38.7 bu.	43.4 bu.	35.3 bu.
Wheat	bu.	24.2 bu.	27.2 bu.	21.3 bu.
Percent in high profit crops*		59.2 %	56.4 %	54.9 %
Returns per $100 invested in all productive livestock	$	$ 122.00	$ 145.00	$ 109.00
For $100 in Cattle	$	$ 122.00	$ 152.00	$ 102.00
Hogs	$	$ 114.00	$ 119.00	$ 116.00
Poultry	$	$ 146.00	$ 151.00	$ 150.00
Investment per acre in productive livestock	$	$ 11.90	$ 12.99	$ 14.14
Receipts per acre from productive livestock	$	$ 14.50	$ 18.84	$ 15.40
Man labor cost per acre	$	$ 6.40	$ 6.97	$ 6.30
Crop acres per man	A	97.5 A	92.3 A	88.3 A
Crop acres per horse (with tractor)	A	32.6 A	32.8 A	30.8 A
(without tractor)	A	23.7 A	25.5 A	20.5 A
Expense per $100 gross income	$	$ 55	$ 44	$ 79
Machinery cost per acre	$	$ 2.62	$ 2.70	$ 2.41
Building and fencing cost per acre	$	$ 1.00	$ .77	$ 1.20
Gross receipts per acre	$	$ 23.62	$ 31.99	$ 15.98
Total expenses per acre	$	$ 13.02	$ 14.15	$ 12.67
Net receipts per acre	$	$ 10.60	$ 17.84	$ 3.31
Farms with tractor		70.0 %	50.0 %	70.0 %
Value of land per acre	$	$ 172	$ 161	$ 164
Total investment per acre	$	$ 230	$ 218	$ 228

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



Will County - 1927

		Your farm	Average of 37 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$	$ 46 087	$ 41 458	$ 40 766
2	Land		34 460	30 532	29 347
3	Farm improvements		4 778	4 561	4 869
4	Machinery and equipment		1 790	1 559	1 584
5	Feed and supplies		2 073	1 648	1 987
6	Livestock		2 986	3 168	2 979
7	Horses		519	655	354
8	Cattle		1 496	1 677	1 657
9	Hogs		777	594	784
10	Sheep		10	21	3
11	Poultry		182	221	175
12	Bees		2	--	6
13	Receipts-Net Increases-Total		4 723	6 079	2 861
14	Feed and grain		1 749	2 363	22
15	Miscellaneous		69	85	83
16	Livestock - Total		2 905	3 631	2 756
17	Horses		4	54	--
18	Cattle		635	953	634
19	Hogs		782	711	788
20	Sheep		21	55	4
21	Poultry		91	101	79
22	Egg sales		158	176	185
23	Dairy sales		1 214	1 581	1 066
24	Expenses-Net Decreases-Total		1 689	1 723	1 348
25	Farm improvements		201	146	214
26	Livestock		--	--	15
27	Horses		--	--	15
28	Cattle		--	--	--
29	Hogs		--	--	--
30	Sheep		--	--	--
31	Poultry		--	--	--
32	Machinery and equipment		525	513	432
33	Feed and supplies		--	--	--
34	Livestock expense other than feed		52	94	36
35	Crop expense		156	179	172
36	Labor hired		367	359	206
37	Taxes, insurance, etc.		330	340	242
38	Miscellaneous		30	37	25
39	Dairy expense		28	55	6
40	Receipts less Expenses		3 034	4 356	1 513
41	Operator's and unpaid family labor		914	966	921
42	Net income from investment		2 120	3 390	592

Find Your Farm Leaks

Will County, 1927

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	Bushels per acre of			Returns per $100 invested in			Invest. per acre	Receipts per acre	Man labor cost	Crop acres per Man	Crop acres per Horse		Expense per $100	Gross receipts	Size of
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry	in L. S.	from L.S.	per acre		Tractor	No tractor	income	per acre	farm
11.6	48	59	38	262	254	286	25.90	28.50	2.90	133	47	38	20	45	340
10.6	45	56	36	242	234	266	23.90	26.50	3.40	128	45	36	25	42	320
9.6	42	53	34	222	214	246	21.90	24.50	3.90	123	43	34	30	39	300
8.6	39	50	32	202	194	226	19.90	22.50	4.40	118	41	32	35	36	280
7.6	36	47	30	182	174	206	17.90	20.50	4.90	113	39	30	40	33	260
6.6	33	44	28	162	154	186	15.90	18.50	5.40	108	37	28	45	30	240
5.6	30	41	26	142	134	166	13.90	16.50	5.90	103	35	26	50	27	220
4.6	27	38	24	122	114	146	11.90	14.50	6.40	98	33	24	55	24	200
3.6	24	35	22	102	94	126	9.90	12.50	6.90	93	31	22	60	21	180
2.6	21	32	20	82	74	106	7.90	10.50	7.40	88	29	20	65	18	160
1.6	18	29	18	62	54	86	5.90	8.50	7.90	83	27	18	70	15	140
0.6	15	26	16	42	34	66	3.90	6.50	8.40	78	25	16	75	12	120
-0.4	12	23	14	22	14	46	1.90	4.50	8.90	73	23	14	80	9	100
-1.4	9	20	12	2	4	26	----	2.50	9.40	68	21	12	85	6	80
-2.4	6	17	10	-	-	6	----	----	9.90	63	19	10	90	-	60

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

KENDALL AND GRUNDY COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-four Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 86

ANNUAL FARM BUSINESS REPORT

Kendall and Grundy Counties, Illinois, 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 24 farmers in Kendall and Grundy Counties who kept financial records in the Illinois Farm Project for 1927 had an average of $817 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $212 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $2023, while the one-third who were least successful lacked an average of $426 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2449 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 24 farmers EARNED 5.2 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 7.8 percent and the least successful third 2.5 percent. The average investment on the 24 farms was $46,890, which amounts to $212 an acre. The higher profit third had an average investment of $192 and the lower profit third $223 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $158 on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in average size of farm between the high and low profit groups. In this case, however, the 8 most profitable farms averaged 45 acres larger than the 8 least profitable farms. This larger size helped in giving a larger volume of business. It also made possible a greater efficiency in use of labor, power, equipment, and improvements. The cost per acre for each of these items was lower on the more profitable farms. Of the 45 extra acres on the more profitable farms 25 acres were in corn, 7 in oats, 1 in wheat, 1 in barley, 5 in alfalfa, 4 in sweet clover, and 2 in miscellaneous crops and pasture.

Investigations of costs and incomes per acre for different crops have shown that under ordinary Illinois conditions the margin of profit is wider for corn,

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

ANNUAL FARM BUSINESS REPORT

Perry and Shelby Counties, Illinois, 1971

[illegible]

wheat, alfalfa and sweet clover pasture than for other common crops. It is significant that the 8 most profitable farms had 55 percent of their tillable land in these crops as compared with 50 percent on the 8 least profitable farms.

The greatest advantage of the more profitable farms was in larger crop yields. They produced about 5 bushels more corn, 7 bushels more oats, 8 bushels more wheat and 4 bushels more barley per acre than the less profitable farms. It usually costs little more to produce an acre of high yielding crop than an acre of low yielding crop. Any advantage in yield, therefore, has a direct effect in increasing profits. Figured on their entire acreage the 8 most profitable farms produced 2160 bushels more grain per farm than the 10 least profitable farms.

Another important advantage of the more profitable farms was due to their greater efficiency in livestock management. They had $2.61 an acre less livestock investment but they produced practically the same livestock income per acre as did the less profitable farms. Expressed in another way, the 8 most profitable farms secured a livestock income of $117 for each $100 of livestock investment as compared with a livestock income of $92 for each $100 of livestock investment on the 8 least profitable farms. These farms have about twice as much investment in livestock per acre as is commonly found on farms in east central and southern Illinois. Efficiency in livestock management is therefore important.

On the expense side of the business the more successful farm operators had lower costs per acre for labor, power, equipment and improvements. Larger size of farm was a help in this direction, but it is evident that more efficient management was realized by them than by the less successful operators. Some suggestions for increasing the efficiency in use of labor, power, equipment and improvements are presented on pages 6 to 13 of this report.

This discussion can be summed up by stating that the most profitable farms were successful both because of larger gross incomes and lower expenses. The larger gross incomes were due to larger crop yields, a higher percentage of the more profitable crops and to a greater efficiency in livestock management. The lower expenses were due to more efficient use of labor, power, equipment and improvements. The 8 most profitable farms had an average gross income of $25.37 an acre and an average total expense of $10.27 an acre compared with corresponding income and expense figures of $18.44 and $12.96 respectively on the 8 least profitable farms. The result was a net operating income of $15.09 an acre on the more profitable farms and $5.46 an acre on the less profitable farms.

This is the third consecutive year for which a "Farm Business Report" has been published for Kendall and Grundy Counties. Most of the farms on which records were kept have been the same identical ones for the three years. It is interesting to compare the income and investment figures in the following table. It appears that average net earnings were somewhat higher for 1927 than for the two preceding years on these farms. The improvement in incomes evidently was due to larger returns from crops. As crop yields were no higher these larger returns from crops must have been due chiefly to the better grain prices which prevailed for 1927. At the time this report is written twenty-three similar reports have been prepared for different sections of the state. This one shows the highest average rate of earnings on the investment. Most sections of the state did not show much improvement in crop incomes for 1927. In heavy feed buying sections the higher feed costs more than equaled the improvement in grain prices, and in most of the heavy grain selling sections the quality of grain produced was too low to bring more than was realized the year before. Incomes from hogs were lower in most instances for 1927.

Comparative Earnings on Some Farms in Kendall and Grundy Counties

	1925	1926	1927
Number of farms included	21	34	24
Average size of farm in acres	179	202	220
Average rate earned	4.7%	4.2%	5.2%
Average value of land per acre	$155	$161	$158
Average investment per acre	223	223	212
Investment in livestock per farm	2804	2900	2922
Investment in cattle per farm	1165	1205	1035
Investment in hogs per farm	771	776	865
Investment in poultry per farm	139	140	148
Gross income per acre	24.78	22.09	23.02
Operating cost per acre	14.20	12.61	11.85
Crop income less feed purchases per farm	1234	1454	2641
Miscellaneous income per farm	85	50	45
Livestock income per farm	3110	2965	2394
Gross income per farm	4429	4469	5080
Cattle income per farm	763	629	483
Dairy sales per farm	325	364	446
Hog income per farm	1557	1503	1046
Poultry income per farm	352	352	341

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.

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Kendall and Grundy Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 24 farms	Eight most profitable farms	Eight least profitable farms
Rate earned	%	5.25 %	7.83 %	2.45 %
Labor and management wage	$	$ 817	$2023	$-426
Size of farm - acres	A	220.7 A	238.2 A	192.8 A
Percent of land area tillable	%	91.6 %	92.6 %	89.7 %
Acres in Corn	A	86.5 A	91.5 A	66.5 A
Oats	A	42.7 A	46.9 A	39.4 A
Wheat	A	11.7 A	14.3 A	13.0 A
Barley	A	18.4 A	16.7 A	15.5 A
Crop yields - Corn	bu.	36.0 bu.	38.0 bu.	33.4 bu.
Oats	bu.	44.6 bu.	49.6 bu.	42.3 bu.
Wheat	bu.	18.7 bu.	23.4 bu.	15.0 bu.
Barley	bu.	33.5 bu.	34.4 bu.	30.2 bu.
Percent in high profit crops*		54.3 %	55.2 %	50.0 %
Returns per $100 invested in all productive livestock	$	$ 111.00	$ 117.00	$ 92.00
For $100 in Cattle	$	$ 86.00	$ 88.00	$ 92.00
Hogs	$	$ 139.00	$ 132.00	$ 109.00
Poultry	$	$ 222.00	$ 330.00	$ 149.00
Investment per acre in productive livestock	$	$ 9.77	$ 9.55	$ 12.16
Receipts per acre from productive livestock	$	$ 10.83	$ 11.13	$ 11.22
Man labor cost per acre	$	$ 6.02	$ 5.18	$ 6.05
Crop acres per man	A	98.3 A	117.6 A	82.1 A
Crop acres per horse (with tractor)	A	28.0 A	35.0 A	23.4 A
(without tractor)	A	20.5 A	23.7 A	19.0 A
Expense per $100 gross income	$	$ 52.00	$ 40.00	$ 70.00
Machinery cost per acre	$	$ 1.80	$ 1.46	$ 1.77
Building and fencing cost per acre	$	$ 1.14	$ .90	$ 1.84
Gross receipts per acre	$	$ 23.02	$ 25.37	$ 18.44
Total expenses per acre	$	$ 11.85	$ 10.27	$ 12.96
Net receipts per acre	$	$ 11.15	$ 15.09	$ 5.46
Farms with tractor		66.7 %	62.5 %	75.0 %
Value of land per acre	$	$ 158	$ 147	$ 155
Total investment per acre	$	$ 212	$ 192	$ 223

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

Kendall and Grundy Counties - 1927

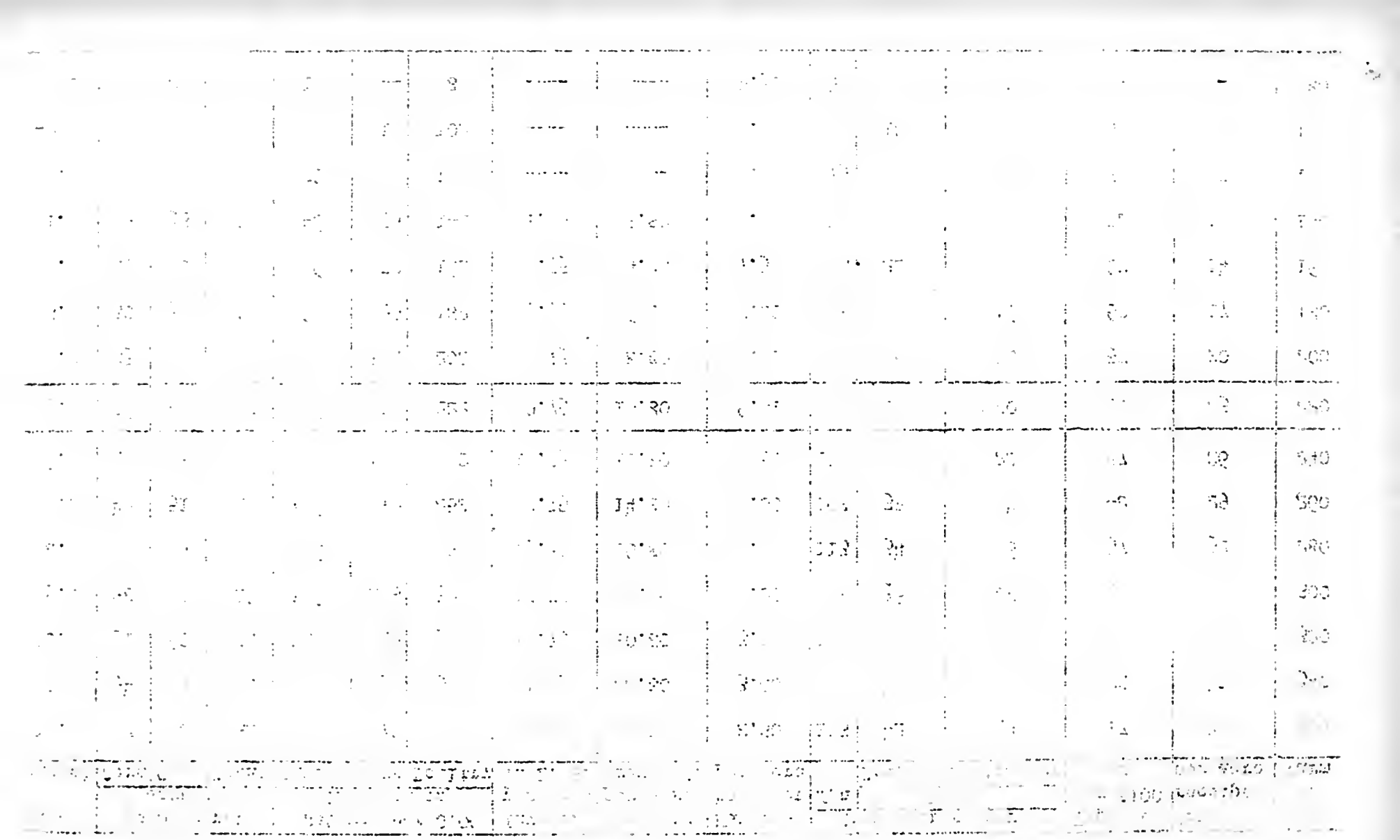
		Your farm	Average of 24 farms	Eight most profitable farms	Eight least profitable farms
1	Capital Investment - Total	$_____	$46,890	$45,844	$43,104
2	Land		34,890	34,950	30,000
3	Farm improvements		4,843	3,761	6,306
4	Machinery and equipment		1,709	1,348	1,693
5	Feed and supplies		2,526	2,704	2,042
6	Livestock		2,922	3,081	3,063
7	Horses		637	565	666
8	Cattle		1,035	1,275	776
9	Hogs		865	983	910
10	Sheep		219	134	479
11	Poultry		148	124	178
12	Bees		18	--	54
13	Receipts-Net Increases-Total	_____	5,080	6,042	3,556
14	Feed and grain		2,641	3,316	1,377
15	Miscellaneous		45	75	14
16	Livestock - Total		2,394	2,651	2,165
17	Horses		--	--	--
18	Cattle		483	588	359
19	Hogs		1,046	952	937
20	Sheep		76	74	121
21	Poultry		197	266	129
22	Egg sales		144	198	124
23	Dairy sales		446	573	490
24	Bees		2	--	5
25	Expenses-Net Decreases-Total	_____	1,690	1,593	1,642
26	Farm improvements		253	214	355
27	Livestock		11	3	15
28	Horses		11	3	15
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry		--	--	--
33	Machinery and equipment		398	349	342
34	Feed and supplies		--	--	--
35	Livestock expense other than feed		42	33	50
36	Crop expense		207	230	177
37	Labor hired		402	381	307
38	Taxes, insurance, etc.		351	355	368
39	Miscellaneous		26	28	28
40	Receipts less Expenses	_____	3,390	4,449	1,914
41	Operator's and unpaid family labor		929	854	860
42	Net income from investment		2,461	3,595	1,054

Find Your Farm Leaks

Kendall and Grundy Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per Man	Crop acres per Horse		Expense per $100 income	Gross receipts per acre	Size of farm
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry					Tractor	No tractor			
12.2	57	66	32	156	279	362	23.75	24.80	2.50	133	42	34	17	44	360
11.2	54	63	30	146	259	342	21.75	22.80	3.00	128	40	32	22	41	340
10.2	51	60	28	136	239	322	19.75	20.80	3.50	123	38	30	27	38	320
9.2	48	57	26	126	219	302	17.75	18.80	4.00	118	36	28	32	35	300
8.2	45	54	24	116	199	282	15.75	16.80	4.50	113	34	26	37	32	280
7.2	42	51	22	106	179	262	13.75	14.80	5.00	108	32	24	42	29	260
6.2	39	48	20	96	159	242	11.75	12.80	5.50	103	30	22	47	26	240
5.2	36	45	18	86	139	222	9.75	10.80	6.00	98	28	20	52	23	220
4.2	33	42	16	76	119	202	7.75	8.80	6.50	93	26	18	57	20	200
3.2	30	39	14	66	99	182	5.75	6.80	7.00	88	24	16	62	17	180
2.2	27	36	12	56	79	162	3.75	4.80	7.50	83	22	14	67	14	160
1.2	24	33	10	46	59	142	1.75	2.80	8.00	78	20	12	72	11	140
0.2	21	30	8	36	39	122	----	----	8.50	73	18	10	77	8	120
-0.8	18	27	6	26	19	102	----	----	9.00	68	16	8	82	5	100
-1.8	15	24	4	16	--	82	----	----	9.50	63	14	6	87	-	80



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

LA SALLE COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-two Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 86

ANNUAL FARM BUSINESS REPORT

LaSalle County, Illinois 1927

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

The 32 farmers in LaSalle County who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $72 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. The average investment was $276 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $1191 each to pay for his own labor, management, and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1309 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of $2500 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 32 farmers EARNED 3.7 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 5.8 percent and the least successful third 1.5 percent. The average investment on the 32 farms was $61,784 which amounts to $276 an acre. The higher profit third had an average investment of $270 and the lower profit third $283 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $214 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The 10 most profitable farms averaged 20 acres per farm larger than the 10 least profitable farms. They also had a higher percentage of tillable land which gave them an average of 35 acres more tillable land per farm. It is doubtful whether the difference in size was an important cause of higher earnings. As a rule in investigations of this type it is found that there is little difference in acreage between the high and low profit groups, especially when both

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* W. W. McLaughlin and L. C. Cunningham, farm advisers in LaSalle County, cooperated in supervising and collecting the records used in this report.

groups average as high as 200 acres per farm.

There does appear to be an important difference between the two groups in the use which was made of their acreage. Investigations of relative costs and incomes per acre for the different crops have shown that under ordinary Illinois conditions the margin of profit is wider for corn, wheat, alfalfa and sweet clover pasture than for other major crops commonly grown in this state. It is interesting to note that the 10 most profitable farms covered by these records had 59 percent of their tillable land in these crops, compared with 46 percent on the 10 least profitable farms. For specific crops we note that the more profitable farms had about 30 acres more corn and 20 acres more wheat per farm than the 10 least profitable farms. They also had about 13 acres more barley per farm and for the northern part of the state barley stands close to the above named crops in its usual margin of profit. The oat acreage was 10 acres per farm less on the more profitable farms. The acreage of legumes was practically the same for both groups.

In studies of this type it is usually found that one of the greatest advantages of the more profitable over the less profitable farms is in their higher yields of crops. We do not find the usual amount of difference in this case. The fact that the 10 most profitable farms did produce 3 bushels more corn, 8½ bushels more oats and 2 bushels more wheat per acre than the 10 least profitable farms is a distinct advantage to them, however. It usually costs very little more to produce an acre of high yielding than an acre of low yielding crop.

The average net increase from crops on the more profitable farms was $4226 per farm as compared with only $789 on the less profitable farms. Evidently part of this was due to a larger acreage of corn and wheat, part to somewhat higher yields and part to the fact that the farms of the more profitable group had less livestock to feed. Another factor that was not recorded in these accounts was the quality of grain produced. At least two of the more successful operators received a premium for corn sold because it was higher than average in quality. Since 1927 was a season of great variation in quality of corn this may have had some influence on relative incomes.

When the livestock enterprises are considered this report shows an unusual situation. In nearly all reports of this type one of the largest advantages of the more profitable farms is found to be in their greater efficiency with livestock. In this case, however, the records show more livestock on the low profit farms, and they indicate a higher efficiency with livestock on them than on the more profitable farms. It seems evident that the more successful operators had such an advantage in their crop production that it overcame the advantage that some of the lower profit farms had in their livestock enterprises.

On the expense side of the business the more successful farmers had some advantage. They had $1.38 less labor cost per acre, 46 cents less equipment cost and 49 cents less improvements cost per acre than the less successful operators.

We may sum up this discussion by noting that the more profitable farms were successful chiefly because of larger gross incomes but partly because of less expenses. Their average gross income was $28.31 and their average expense $12.70 an acre. The less profitable farms had a corresponding gross in-

come of $19.78 and an expense of $15.38 per acre. This resulted in net incomes of $15.61 and $4.40 an acre respectively.

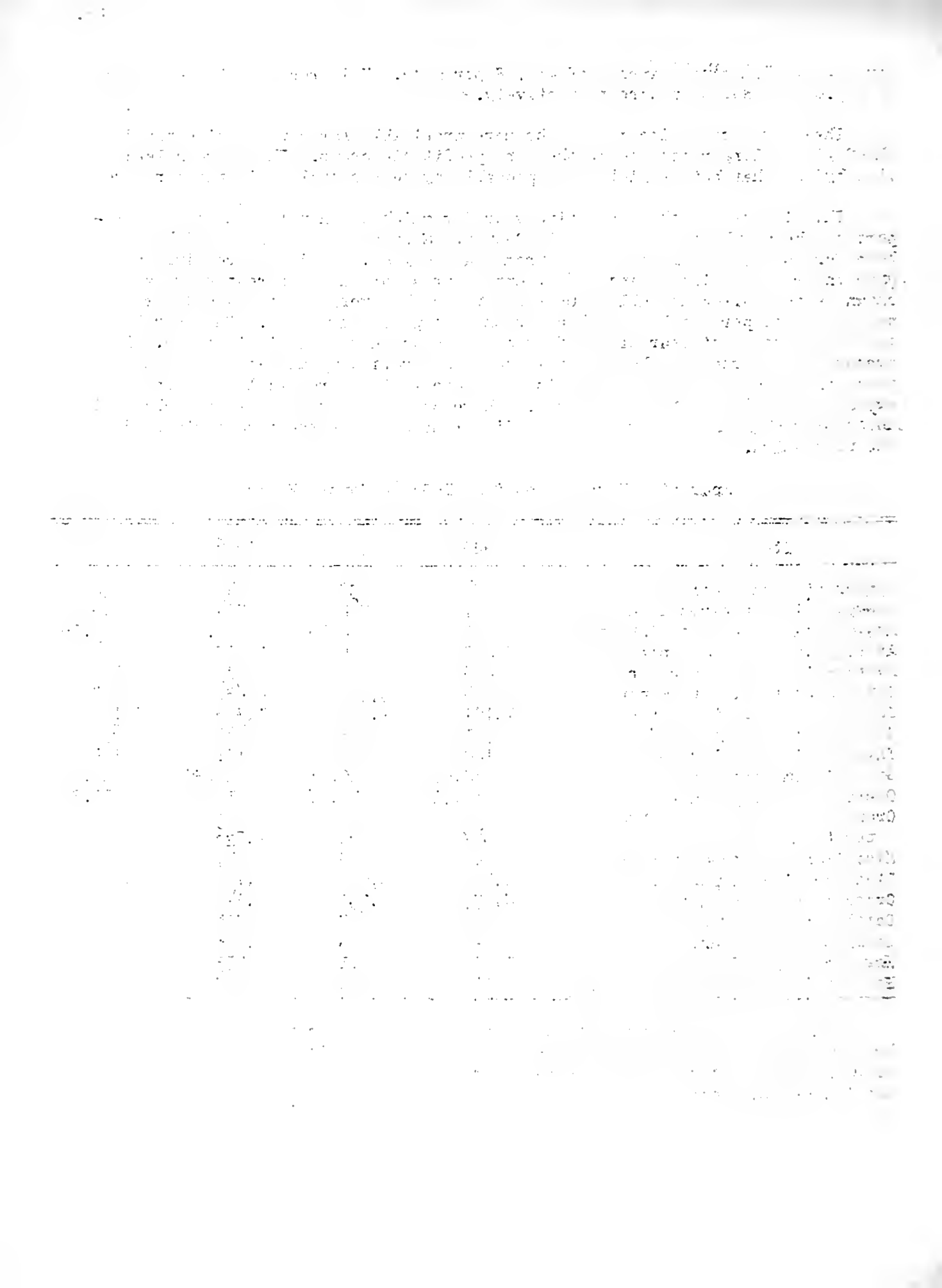
The larger gross incomes of the more profitable farms were evidently due chiefly to a larger acreage of the more profitable crops. They were helped also by somewhat better yields and probably by better quality in the corn crop.

This is the fourth consecutive year for which an annual farm business report has been published for LaSalle County. Most of the records used have been for the same identical farms from year to year. It is interesting to compare the relative income and investment figures for the different years as shown in the following table. On these farms the average rate earned for 1927 was about one percent better than for the two preceding years. The year 1924 was easily the best year of the four on these as on most Illinois farms. The average rate earned as shown in this table has varied up and down with the price of the grain crops. Gross incomes have varied more widely than operating expenses as shown on the acre basis. There seems to have been little change in the relative amount of investment in different parts of the farm business during the four years.

Comparative Earnings on Some LaSalle County Farms

Item	1924	1925	1926	1927
Number of farms included	34	32	40	32
Average size of farms in acres	247	242	204	224
Average rate earned on investment	7.2%	2.7%	2.5%	3.7%
Average value of land per acre	$ 217	$ 216	$ 217	$ 214
Average investment per acre	274	279	283	276
Investment in livestock per farm	2,848	3,304	2,836	2,808
Investment in cattle per farm	1,101	1,345	1,335	1,135
Investment in hogs per farm	551	728	469	699
Investment in poultry per farm	120	143	121	128
Gross income per acre	32.67	20.81	22.30	24.09
Operating cost per acre	12.91	13.28	15.25	13.82
Grain income less feed purchases per farm	5,347	1,891	1,769	2,578
Miscellaneous income per farm	82	65	27	44
Livestock income per farm	2,650	3,075	2,749	2,774
Gross income per farm	8,079	5,031	4,545	5,396
Cattle income per farm	464	617	356	486
Dairy sales per farm	644	743	1,148	820
Hog income per farm	1,103	1,211	953	1,073
Poultry income per farm	180	229	193	228

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



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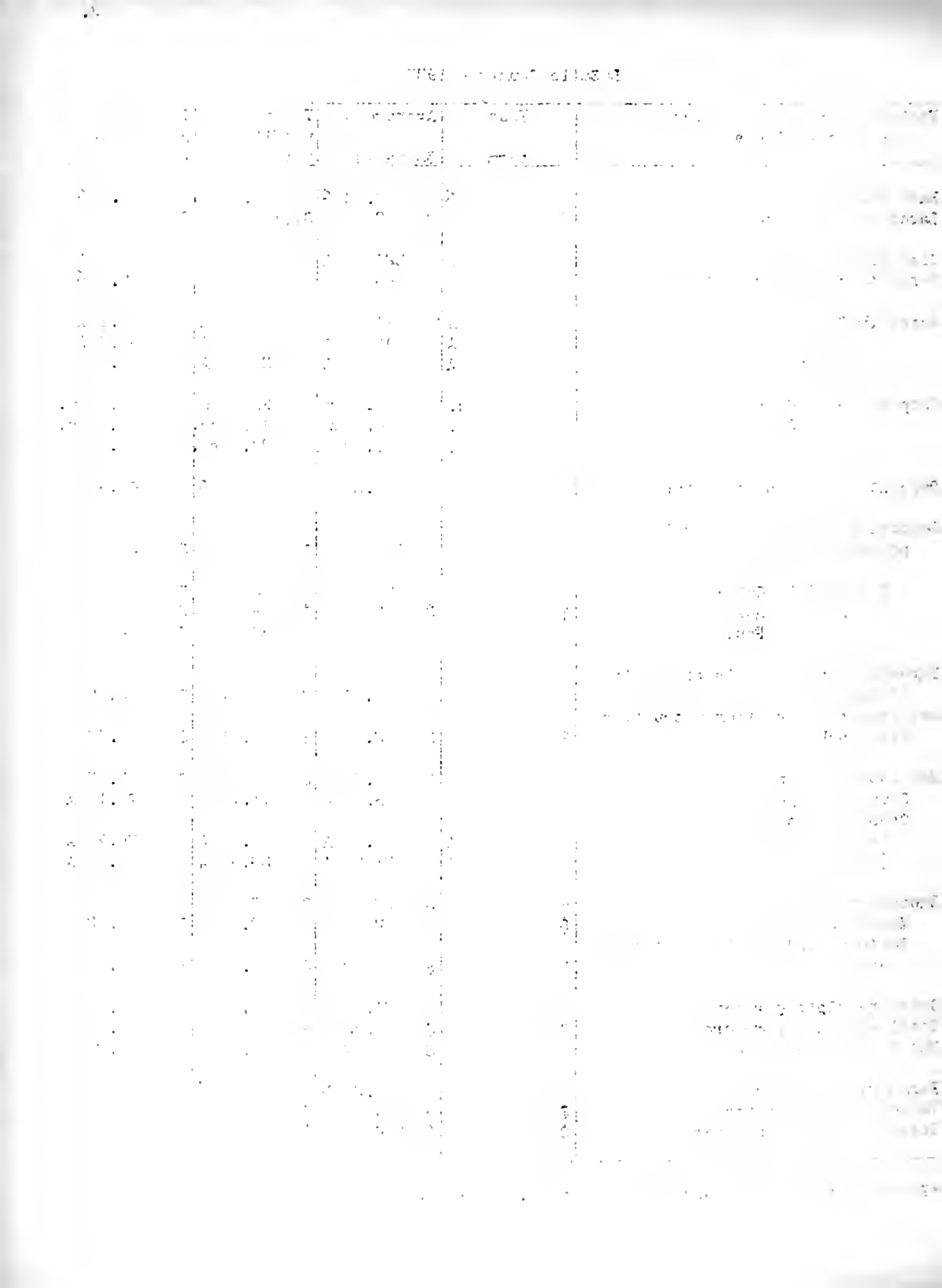
LaSalle County - 1927

Factors helping to analyze the farm business	Your farm	Average of 32 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.73 %	5.78 %	1.55%
Labor and management wage	$	$- 72	$1,191	$-1,309
Size of farm - acres	A	224 A	228 A	208 A
Percent of land area tillable	%	93 %	97 %	89.5 %
Acres in Corn	A	86 A	97 A	67.1 A
Oats	A	46 A	38 A	47.9 A
Wheat	A	14 A	35 A	4.3 A
Crop yields - Corn	bu.	38.43bu.	39.9 bu.	36.9 bu.
Oats	bu.	44.05bu.	46.0 bu.	37.5 bu.
Wheat	bu.	22.09bu.	23.8 bu.	21.6 bu.
Percent in high profit crops*		53.3 %	59.5 %	46.4 %
Returns per $100 invested in all productive livestock	$	$ 123	$ 108	$ 125
For $100 in Cattle	$	$ 107	$ 95	$ 123
Hogs	$	$ 150	$ 128	$ 137
Poultry	$	$ 176	$ 134	$ 152
Investment per acre in productive livestock	$	$ 10.04	$ 8.77	$ 12.40
Receipts per acre from productive livestock	$	$ 12.35	$ 9.51	$ 15.46
Man labor cost per acre	$	$ 6.28	$ 5.74	$ 7.12
Crop acres per man	A	93.3 A	111.1 A	76.1 A
Crop acres per horse (with tractor)	A	31.3 A	38.4 A	26.7 A
(without tractor)	A	21.0 A	23.4 A	17.8 A
Expense per $100 gross income	$	$ 57	$ 45	$ 78
Machinery cost per acre	$	$ 2.71	$ 2.56	$ 3.02
Building and fencing cost per acre	$	$ 1.40	$ 1.11	$ 1.60
Gross receipts per acre	$	$ 24.09	$ 28.31	$ 19.78
Total expenses per acre	$	$ 13.82	$ 12.70	$ 15.38
Net receipts per acre	$	$ 10.27	$ 15.61	$ 4.40
Farms with tractor		73.3 %	67 %	70 %
Value of land per acre	$	$ 214	$ 215	$ 216
Total investment per acre	$	$ 276	$ 270	$ 283

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



LaSalle County - 1927

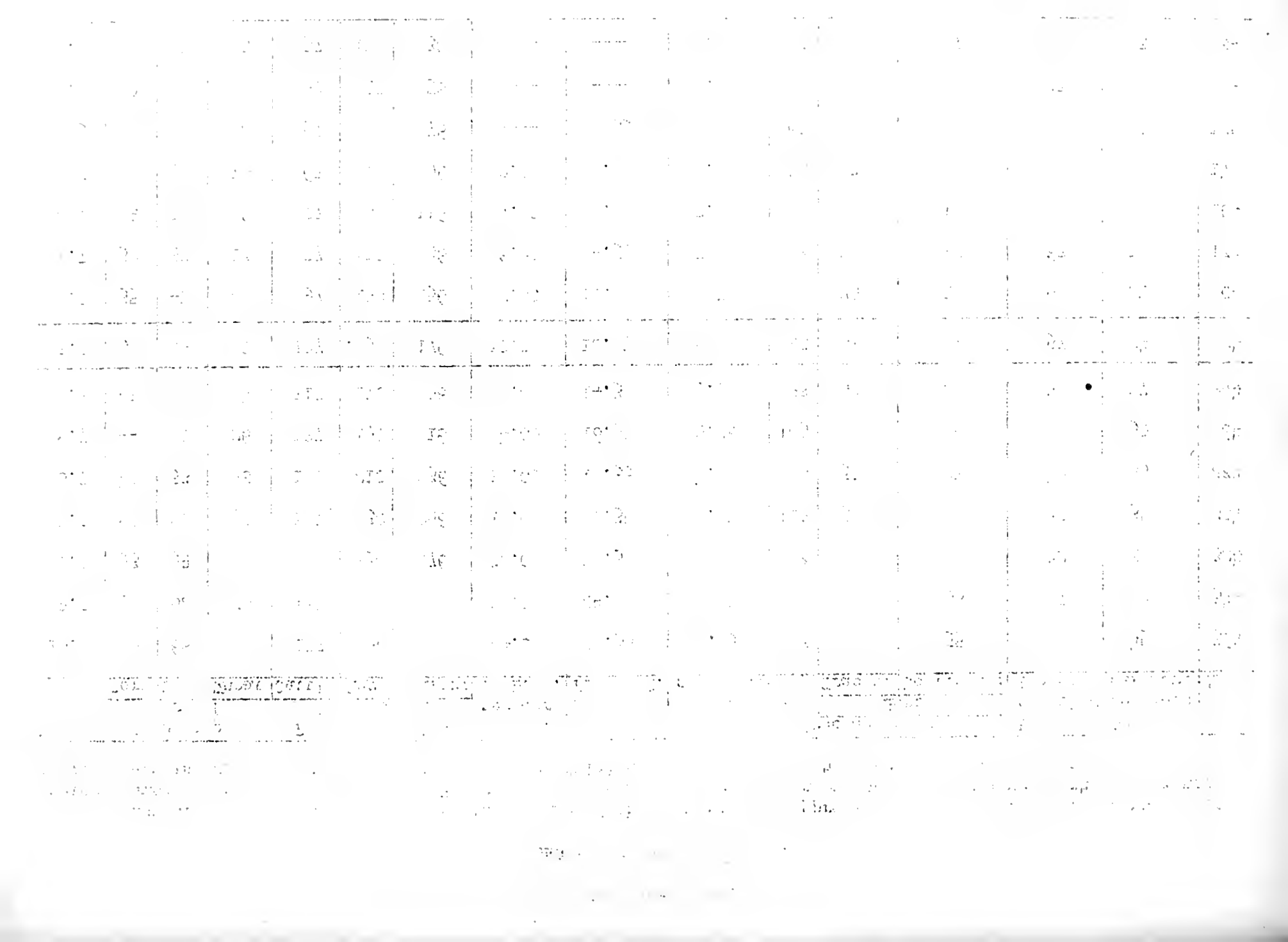
		Your farm	Average of 32 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$	$ 61 784	$ 61 528	$ 58 869
2	Land		47 858	49 092	44 938
3	Farm improvements		5 898	4 371	6 396
4	Machinery and equipment		2 001	2 031	1 850
5	Feed and supplies		3 219	3 555	2 552
6	Livestock		2 808	2 479	3 133
7	Horses		616	541	642
8	Cattle		1 135	845	1 314
9	Hogs		699	689	753
10	Sheep		230	305	292
11	Poultry		128	99	132
12	Receipts-Net Increases-Total		5 396	6 454	4 114
13	Feed and grain		2 578	4 226	789
14	Miscellaneous		44	60	27
15	Livestock - Total		2 774	2 168	3 298
16	Horses		8	--	77
17	Cattle		486	447	799
18	Hogs		1 073	785	1 110
19	Sheep		159	312	96
20	Poultry		94	47	75
21	Egg sales		134	74	150
22	Dairy sales		820	503	991
23	Expenses-Net Decreases-Total		2 140	1 984	2 325
24	Farm improvements		313	252	333
25	Livestock		--	34	--
26	Horses		--	34	--
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		606	583	629
32	Feed and supplies		--	--	--
33	Livestock expense other than feed		79	57	99
34	Crop expense		241	232	226
35	Labor hired		451	398	606
36	Taxes, insurance, etc.		418	398	403
37	Miscellaneous		32	30	29
38	Receipts less Expenses		3 256	4 470	1 789
39	Operator's and unpaid family labor		955	911	875
40	Net income from investment		2 301	3 559	914

Find Your Farm Leaks

LaSalle County, 1927

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	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
										Man	Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry					Tractor	No tractor			
10.7	59	65	36	177	290	316	24.00	26.35	2.75	128	45	35	22	45	364
9.7	56	62	34	167	270	296	22.00	24.35	3.25	123	43	33	27	42	344
8.7	53	59	32	157	250	276	20.00	22.35	3.75	118	41	31	32	39	324
7.7	50	56	30	147	230	256	18.00	20.35	4.25	113	39	29	37	36	304
6.7	47	53	28	137	210	236	16.00	18.35	4.75	108	37	27	42	33	284
5.7	44	50	26	127	190	216	14.00	16.35	5.25	103	35	25	47	30	264
4.7	41	47	24	117	170	196	12.00	14.35	5.75	98	33	23	52	27	244
3.7	38	44	22	107	150	176	10.00	12.35	6.25	93	31	21	57	24	224
2.7	35	41	20	97	130	156	8.00	10.35	6.75	88	29	19	62	21	204
1.7	32	38	18	87	110	136	6.00	8.35	7.25	83	27	17	67	18	184
0.7	29	35	16	77	90	116	4.00	6.35	7.75	78	25	15	72	15	164
-0.3	26	32	14	67	70	96	2.00	4.35	8.25	73	23	13	77	12	144
-1.3	23	29	12	57	50	76	----	2.35	8.75	68	21	11	82	9	124
-2.3	20	26	10	47	30	56	----	----	9.25	63	19	9	87	6	104
-3.3	17	23	8	37	110	36	----	----	9.75	58	17	7	92	3	84



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

MARSHALL-PUTNAM, STARK AND BUREAU COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty-six Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 87

ANNUAL FARM BUSINESS REPORT

Marshall-Putnam, Stark and Bureau Counties, Illinois, 1927

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

The 46 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $21 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. The average investment was $244 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $1,461 each to pay for his own labor, management and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1,281 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about $2,742 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 46 farmers EARNED 3.7 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 6.4 percent and the least successful third lacked 1.1 percent of having any return on their investments. The average investment on the 46 farms was $50,336 which amounts to $244 an acre. The higher profit third had an average investment of $227 and the lower profit third $259 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $180 an acre for the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in average size between the farms of the high and low profit groups. In this case, however, the 15 most profitable farms were about 39 acres per farm larger than the 15 least profitable farms. This larger size evidently provided an opportunity for more efficient use of labor, equipment and improvements. These items of cost were all less per acre on the more profitable farms.

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

One of the chief advantages of the more profitable over the less profitable farms was in higher yields of corn and oats. The more profitable farms produced 6 bushels more corn and nearly 7 bushels more oats per acre than the less profitable farms. Corn and oats are the chief grain crops. The acreage of wheat and barley per farm is too low for a difference in yield to make much difference in profits. On their entire acreage the more profitable farms had 1,427 bushels more corn and oats than the less profitable farms. It usually costs but little more to produce an acre of high yielding crop than an acre of low yielding crop. Any advantage in yield, therefore, has a direct effect in increased profits.

The one greatest advantage of the more successful farm operators was in their greater success with livestock. They had a little less investment per acre in livestock, but they secured nearly $6 an acre more livestock income than the less successful operators. Expressed in another way, the more profitable farms produced a livestock income of $125 for each $100 of livestock investment as compared with a corresponding income of only $78 for each $100 of investment on the less profitable farms. This is a great advantage when it is considered that these farms derive so large a part of their income from livestock. Farms of this area usually have three times as much investment per acre in livestock as do farms in parts of east central and southern Illinois. It is correspondingly important that farm operators of this and other sections of western and northern Illinois have the ability to produce and market livestock efficiently, especially hogs and cattle.

On the expense side of the business the more profitable farms show lower costs per acre for labor, equipment and improvements. Larger size was a help in this direction, but as the average farm even in the low profit group contained 193 acres they had no serious handicap in size. Some suggestions for reducing costs for labor and equipment are discussed on pages 6 to 13 of this report.

This discussion may be summed up by stating that the more profitable farms were successful both because of larger gross income per acre and because of lower operating expense per acre. Larger gross income per acre was due to better yields of the main crops and to larger incomes from hogs and cattle. Lower operating costs were due chiefly to more efficient use of labor, power, equipment, and improvements. The 15 most profitable farms had an average gross income per acre of $26.44 with a total operating cost per acre of $11.84. The corresponding income and expense figures for the 15 least profitable farms were $16.85 and $13.96 respectively. The results were a net income of $14.60 an acre on the more profitable farms and $2.89 on the less profitable farms.

Since most of the farms included for this area for 1926 and 1927 were the same identical ones, some interesting comparisons of income and investment figures can be made from the following table. Only a few records from Bureau County were included for 1927. It is evident that average net incomes were on nearly the same level for both years with a little advantage in favor of 1927. Cattle incomes were larger and hog incomes smaller for 1927. This reflects the changed price situation with respect to cattle and hogs.

Comparative income and investment figures on some farms in Marshall-Putnam, Stark and Bureau Counties.

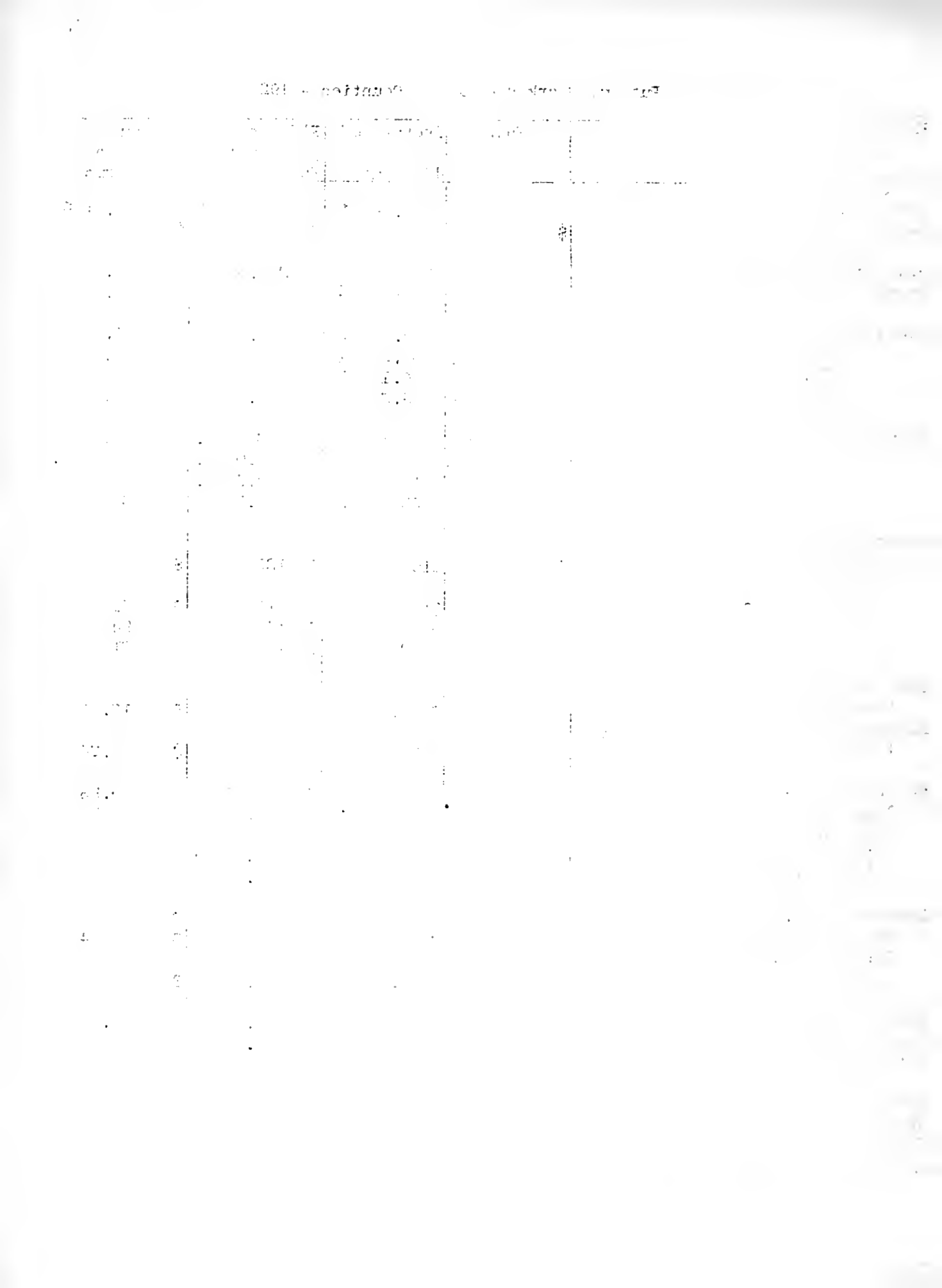
Item	1926[1]	1927
Number of farms included	41	46
Average size of farm in acres	195	207
Average rate earned	4.4%	3.7%
Average value of land per acre	$ 195	$ 180
Average investment per acre	258	244
Investment in livestock per farm	3,285	4,114
Investment in cattle per farm	1,112	1,296
Investment in hogs per farm	1,333	1,712
Investment in poultry per farm	116	128
Gross income per acre	24.32	22.08
Operating cost per acre	13.03	13.10
Crop income less feed purchases per farm	1,018	1,071
Miscellaneous income per farm	48	46
Livestock income per farm	3,686	3,446
Cattle income per farm	622	1,108
Dairy income per farm	206	267
Hog income per farm	2,599	1,826
Poultry income per farm	192	167
Gross income per farm	4,752	4,563

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.

[1]Records from Marshall-Putnam and Stark counties only for 1926.

Marshall-Putnam, Stark and Bureau Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 46 farms	Fifteen most profitable farms	Fifteen least profitable farms
Rate earned	%	3.68 %	6.42 %	1.11 %
Labor and management wage	$	$-21	$1,461	$-1,281
Size of farm - acres	A	206.6 A	231.8 A	193.0 A
Percent of land area tillable	%	88.6 %	90.1 %	90.1 %
Acres in Corn	A	79.2 A	89.4 A	76.5 A
Oats	A	33.2 A	37.5 A	33.3 A
Wheat	A	6.1 A	3.1 A	6.1 A
Barley	A	8.3 A	10.1 A	7.1 A
Crop yields - Corn	bu.	42.1 bu.	43.2 bu.	37.2 bu.
Oats	bu.	42.3 bu.	44.0 bu.	37.2 bu.
Wheat	bu.	18.9 bu.	23.6 bu.	18.0 bu.
Barley	bu.	32.8 bu.	30.9 bu.	36.7 bu.
Returns per $100 invested in all productive livestock	$	$104	$ 125	$ 78
For $100 in Cattle	$	$100	$ 119	$ 69
Hogs	$	$117	$ 145	$ 94
Poultry	$	$130	$ 148	$ 71
Investment per acre in productive livestock	$	$ 15.96	$ 15.36	$ 17.04
Receipts per acre from productive livestock	$	$ 16.68	$ 19.13	$ 13.28
Man labor cost per acre	$	$ 6.41	$ 5.81	$ 6.83
Crop acres per man	A	88.8 A	105.5 A	80.0 A
Crop acres per horse (with tractor)	A	28.4 A	30.0 A	28.2 A
(without tractor)	A	18.2 A	21.1 A	18.2 A
Expense per $100 gross income	$	$ 59	$ 45	$ 83
Machinery cost per acre	$	$ 2.12	$ 1.69	$ 2.34
Building and fencing cost per acre	$	$ .97	$ .81	$ 1.17
Gross receipts per acre	$	$ 22.08	$ 26.44	$ 16.85
Total expenses per acre	$	$ 13.10	$ 11.84	$ 13.96
Net receipts per acre	$	$ 8.98	$ 14.60	$ 2.89
Farms with tractor		67 %	60 %	73 %
Value of land per acre	$	$180	$ 171	$ 189
Total investment per acre	$	$244	$ 227	$ 259



Marshall-Putnam, Stark and Bureau Counties - 1927

		Your farm	Average of 46 farms	Fifteen most profitable farms	Fifteen least profitable farms
1	Capital Investment - Total	$	$ 50 336	$ 52 656	$ 49 962
2	Land		37 290	39 733	36 448
3	Farm improvements		4 567	4 248	4 947
4	Machinery and equipment		1 739	1 703	1 880
5	Feed and supplies		2 626	2 869	2 485
6	Livestock		4 114	4 103	4 202
7	Horses		640	679	570
8	Cattle		1 296	1 475	1 286
9	Hogs		1 712	1 496	1 876
10	Sheep		336	330	362
11	Poultry		128	123	108
12	Bees		2	--	--
13	Receipts-Net Increases-Total		4 563	6 126	3 252
14	Feed and grain		1 071	1 671	636
15	Miscellaneous		46	22	53
16	Livestock - Total		3 446	4 433	2 563
17	Horses		--	--	--
18	Cattle		1 108	1 702	591
19	Hogs		1 826	2 131	1 644
20	Sheep		75	114	--
21	Poultry		75	104	19
22	Egg sales		92	88	55
23	Dairy sales		267	293	254
24	Bees and goats		3	1	--
25	Expenses-Net Decreases-Total		1 873	1 915	1 875
26	Farm improvements		200	188	226
27	Livestock		9	4	9
28	Horses		9	4	8
29	Cattle		-	-	-
30	Hogs		-	-	-
31	Sheep		-	-	1
32	Poultry		-	-	-
33	Machinery and equipment		437	392	451
34	Feed and supplies		--	--	--
35	Livestock expense other than feed		69	63	68
36	Crop expense		195	194	203
37	Labor hired		492	517	498
38	Taxes, insurance, etc.		445	526	396
39	Miscellaneous		26	31	24
40	Receipts less Expenses		2 690	4 211	1 377
41	Operator's and unpaid family labor		833	829	820
42	Net income from investment		1 857	3 382	557

Find Your Farm Leaks

Marshall-Putnam, Stark and Bureau Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
										Man	Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry					Tractor	No tractor			
10.7	63	63	33	170	257	270	30	31	2.90	123	42	32	25	43	346
9.7	60	60	31	160	237	250	28	29	3.40	118	40	30	30	40	326
8.7	57	57	29	150	217	230	26	27	3.90	113	38	28	35	37	306
7.7	54	54	27	140	197	210	24	25	4.40	108	36	26	40	34	286
6.7	51	51	25	130	177	190	22	23	4.90	103	34	24	45	31	266
5.7	48	48	23	120	157	170	20	21	5.40	98	32	22	50	28	246
4.7	45	45	21	110	137	150	18	19	5.90	93	30	20	55	25	226
3.7	42	42	19	100	117	130	16	17	6.40	88	28	18	60	22	206
2.7	39	39	17	90	97	110	14	15	6.90	83	26	16	65	19	186
1.7	36	36	15	80	77	90	12	13	7.40	78	24	14	70	16	166
0.7	33	33	13	70	57	70	10	11	7.90	73	22	12	75	13	146
-0.3	30	30	11	60	37	50	8	9	8.40	68	20	10	80	10	126
-1.3	27	27	9	50	17	30	6	7	8.90	63	18	8	85	7	106
-2.3	24	24	7	40	--	10	4	5	9.40	58	16	6	90	4	86
-3.3	21	21	5	30	--	--	2	3	9.90	53	14	4	95	-	66

UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

HENRY COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Sixty Farms

for

1927

The farm account is a guide
to more profitable farm management if its
facts are studied and used.

Urbana, Illinois

April, 1928

M 70

ANNUAL FARM BUSINESS REPORT

Henry County, Illinois 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case[1]

The 60 farmers in Henry County who kept financial records in the Illinois Farm Account Project for 1927 had an average of $409 TO PAY FOR THEIR LABOR, MANAGEMENT AND RISK after paying expenses and allowing 5 percent interest on their average investment of $231 an acre. This is called their LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,997, while the one-third who were least successful lacked an average of $1,074 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about $3,071 in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 60 farmers EARNED 4.3 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 7.3 percent and the least successful third 1.1 percent. The average investment on the 60 farms was $47,572, which amounts to $231 an acre. The higher profit third had an average investment of $242 and the lower profit third $229 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $163 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $413 at farm prices on a group of 200 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for repairs and upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality. Comparing the farms in the Henry County survey with the Henry County record keepers, the latter group averaged $1,000 a farm larger net incomes than the former.

Farms of the higher profit group averaged 229 acres while those of the lower profit group averaged 200 acres. It is doubtful whether this difference in size had any important effect upon the relative earnings of the two groups. Both had about the same percentage of tillable land and the average value placed on the land was exactly the same for both groups. The 20 most profitable farms had nearly ten thousand dollars larger investment per farm, but this was due to a larger acreage and a larger investment in improvements, equipment, feed, and livestock.

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

Although they were 29 acres per farm larger, the 20 most profitable farms had no more acres of oats than the low profit group. They had 22 acres more corn and 5 acres more wheat.

The fact that the more successful farms had higher yields was a very important factor in their favor. They raised 13.4 bushels more corn, 5 bushels more oats, and 4 bushels more wheat per acre than the less successful farms. With this large advantage in yield and some advantage in acreage the more profitable farms had an average of 2,020 bushels more corn, 115 bushels more oats, and 159 bushels more wheat per farm than the 20 least profitable farms. These larger yields coupled with efficient feeding enabled the more successful farm operators to feed and sell more than twice as much livestock and to sell two and a half times as much grain as the less successful group. This gave them a gross income nearly two and a half times that of the latter group, while their operating expenses were only $670 a farm larger.

Investigations of costs and incomes per acre for different crops have shown that under average Illinois conditions corn, wheat, alfalfa and sweet clover give a larger margin of income above cost than other common crops. It is significant, therefore, that the more profitable farms included in this report had 11 percent more of their tillable land in these crops than did the low profit group.

The greater efficiency of the more successful operators in livestock production and marketing is shown by the fact that they realized an income of $118 for every $100 invested in productive livestock while the less successful farmers realized only $74 income for each $100 of livestock investment. This advantage held true for cattle, hogs and poultry. The 20 most profitable farms had a livestock investment of $22.44 an acre and a livestock income of $26.54 an acre, while the 20 least profitable farms had a similar investment of $16.95 and an income of $12.55 an acre. In spite of this smaller amount of livestock the latter group sold less than half as much grain per farm as their more successful neighbors.

The man labor cost was $1.15 an acre higher on the farms of the higher profit group but this expense was more than justified by the larger amount of livestock and larger yields. This does not bear out the frequently stated claim that under existing conditions it is better to cut down operations so that the operator can do all of his own work. The more successful group worked about 10 crop acres less per man but they handled a great deal more livestock. There was very little difference in horse efficiency between the two groups. In each group 60 percent of the farms had tractors.

Taking all sources of income together, the 20 most successful operators took in a gross income of $32.30 an acre with a total operating expense of $14.60 an acre. This compares with a gross income of $15.25 and an operating expense of $12.76 an acre on the 20 least profitable farms. This leaves net incomes of $17.70 and $2.49 an acre respectively. There is no evidence that this great difference is due to anything but differences in organization and operation of the two groups of farms along the lines indicated on pages 6 to 13.

It is interesting to note that the average rate earned on the investment by the Henry County farms enrolled in the farm account project was practically the same for 1926 and 1927. Earnings for both years were considerably lower than for 1925 when crop yields were exceptionally good in Henry County and when hog

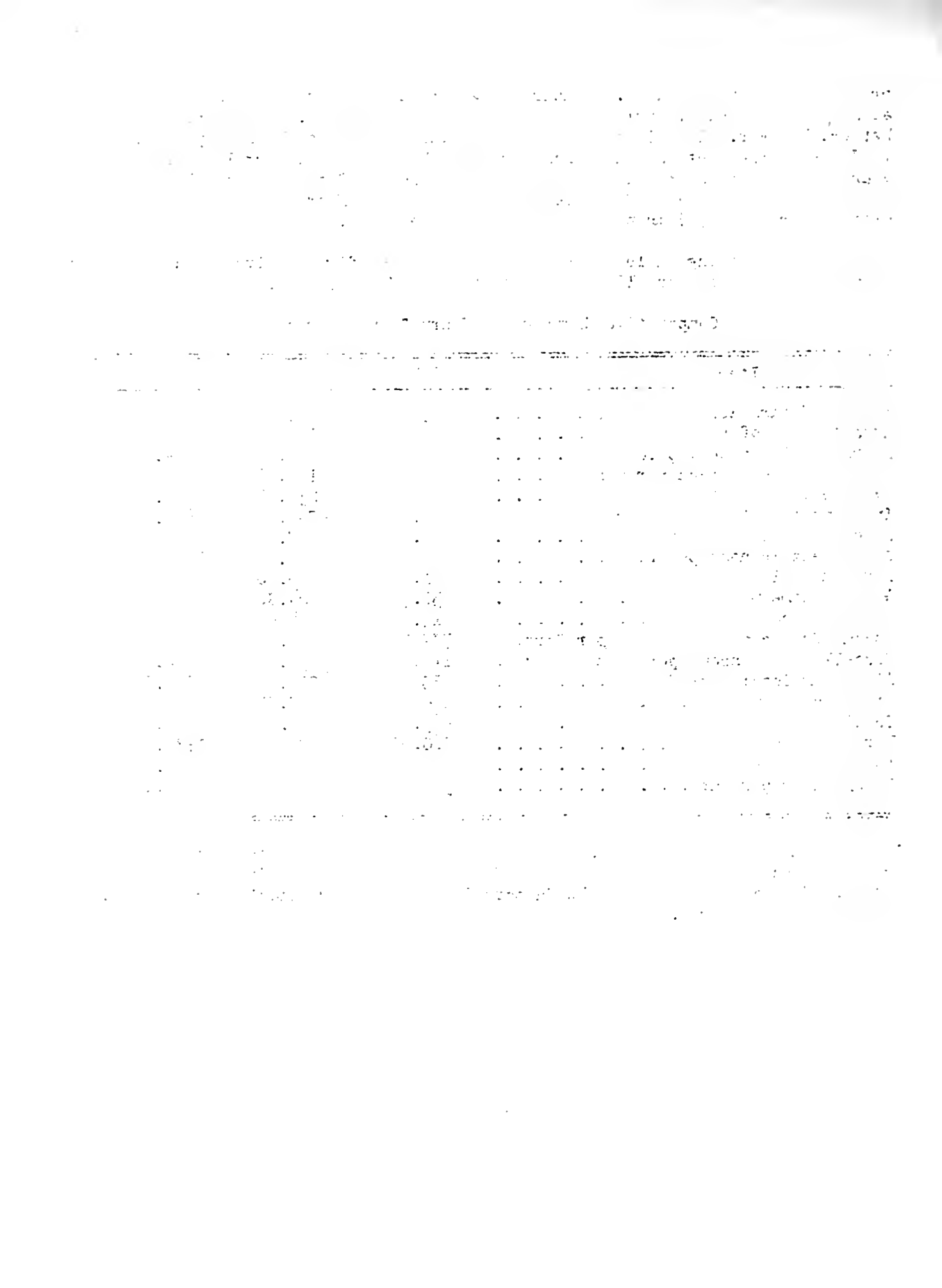
prices were very favorable. Comparing 1927 with 1926 hog prices were not so good, altho the big break in prices came toward the end of 1927. Cattle prices were better, however. This is reflected in the income figures shown on page 4. For 1927 the average net increase from hogs was about $1,000 a farm less than the year before, but the net increase from cattle was $300 greater and the net increase from crops nearly $700 greater than in 1926. Henry County had a better crop of corn for 1927 than most sections of the state.

The following table of income and investment figures gives an interesting comparison for the years 1925, 1926 and 1927 in Henry County.

Comparative Earnings on Henry County Farms

Item	1925	1926	1927
Number of farm accounts	45	59	60
Average size of farm, acres	202	199	205
Average rate earned, percent	7.1	4.3	4.3
Average value of land per acre	$ 172.00	$ 169.00	$ 163.00
Average investment per acre	238.00	239.00	231.00
Investment in livestock per farm	3957.00	4388.00	4653.00
Investment in cattle per farm	1653.00	1917.00	2142.00
Investment in hogs per farm	1542.00	1744.00	1731.00
Investment in poultry per farm	161.00	164.00	164.00
Gross income per acre	30.39	24.80	23.76
Operating cost per acre	13.52	14.54	13.69
Income from crops and feeds per farm	787.00	68.00	745.00
Miscellaneous income per farm	114.00	55.00	56.00
Livestock income per farm	5253.00	4810.00	4083.00
Gross income per farm	6154.00	4933.00	4884.00
Cattle income per farm	1265.00	1178.00	1479.00
Hog income per farm	3260.00	2894.00	1886.00
Poultry income per farm	291.00	275.00	286.00
Dairy sales per farm	373.00	427.00	402.00

Some points of strength and some of weakness in your own farm business may be found by comparing the factors from your own account with those for the average farm as well as with the factors for the more profitable farms and the less profitable farms.



Henry County - 1927

Factors helping to analyze the farm business	Your farm	Average of 60 farms	20 most profitable farms	20 least profitable farms
Rate earned	%	4.35%	7.32%	1.09%
Labor and management wage	$	$ 409	$1,997	$-1,074
Size of farm - acres	A	205.5 A	229.3 A	200.1 A
Percent of land area tillable	%	86 %	85 %	82 %
Acres in Corn	A	77.0 A	88.8 A	66.1 A
Oats	A	29 A	28.4 A	29.0 A
Wheat	A	8.2 A	12.0 A	6.6 A
Crop yields - Corn	bu.	43.3bu.	50.0 bu.	36.6 bu.
Oats	bu.	41.5bu.	45.3 bu.	40.4 bu.
Wheat	bu.	22.4bu.	24.6 bu.	20.7 bu.
Percent in high profit crops*		53 %	59 %	48 %
Returns per $100 invested in all productive livestock	$	$ 103	$ 118	$ 74
For $100 in Cattle	$	$ 89	$ 101	$ 65
Hogs	$	$ 118	$ 144	$ 80
Poultry	$	$ 169	$ 197	$ 128
Investment per acre in productive livestock	$	$ 19.22	$ 22.44	$ 16.95
Receipts per acre from productive livestock	$	$ 19.87	$ 26.54	$ 12.55
Man labor cost per acre	$	$ 7.03	$ 7.62	$ 6.47
Crop acres per man	A	81.2 A	74.1 A	84.5 A
Crop acres per horse (with tractor)	A	26.7 A	28.3 A	25.0 A
(without tractor)	A	17.9 A	16.9 A	17.3 A
Expense per $100 gross income	$	$ 58	$ 45	$ 84
Machinery cost per acre	$	$ 2.33	$ 2.53	$ 2.17
Building and fencing cost per acre	$	$ 1.01	$ 1.09	$ .94
Gross receipts per acre	$	$ 23.76	$ 32.30	$ 15.25
Total expenses per acre	$	$ 13.69	$ 14.60	$ 12.76
Net receipts per acre	$	$ 10.07	$ 17.70	$ 2.49
Farms with tractor		67 %	60 %	60 %
Value of land per acre	$	$ 163	$ 167	$ 167
Total investment per acre	$	$ 231	$ 242	$ 229

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

Henry County - 1927

		Your farm	Average of 60 farms	20 most profitable farms	20 least profitable farms
1	Capital Investment - Total	$_____	$ 47 572	$ 55 432	$ 45 866
2	Land		33 457	38 335	33 354
3	Farm improvements		4 857	5 882	4 281
4	Machinery and equipment		1 873	2 042	1 778
5	Feed and supplies		2 732	3 361	2 311
6	Livestock		4 653	5 812	4 142
7	Horses		509	625	455
8	Cattle		2 142	3 246	1 818
9	Hogs		1 731	1 689	1 663
10	Sheep		107	82	47
11	Poultry		164	170	159
12	Receipts-Net Increases-Total	_____	4 884	7 407	3 053
13	Feed and grain		745	1 227	499
14	Miscellaneous		56	95	43
15	Livestock - Total		4 083	6 085	2 511
16	Horses		--	--	--
17	Cattle		1 479	2 839	809
18	Hogs		1 886	2 464	1 111
19	Sheep		30	72	14
20	Poultry		148	151	111
21	Egg sales		138	191	96
22	Dairy sales		402	368	370
23	Expenses-Net Decreases-Total	_____	1 891	2 378	1 708
24	Farm improvements		207	250	189
25	Livestock		20	14	12
26	Horses		20	14	12
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		478	580	435
32	Feed and supplies		--	--	--
33	Livestock expense other than feed		74	77	76
34	Crop expense		199	215	177
35	Labor hired		522	776	448
36	Taxes, insurance, etc.		366	438	342
37	Miscellaneous		25	28	29
38	Receipts less Expenses	_____	2 993	5 029	1 345
39	Operator's and unpaid family labor		923	971	846
40	Net income from investment		2 070	4 058	499

Find Your Farm Leaks

Henry County, 1927

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	Bushels per acre of			Returns per $100 invested in			Invest. per A.	Receipts per acre	Man lab. cost per	Crop acres per			Expense per $100	Gross receipts	Size of
											Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry	in L.S.	from L.S.	acre	Man	Tractor	No tractor	income	per A.	farm
11.35	64	62	36	159	258	309	33.22	33.87	3.50	115	41	32	23	45	340
10.35	61	59	34	149	238	289	31.22	31.87	4.00	110	39	30	28	42	320
9.35	58	56	32	139	218	269	29.22	29.87	4.50	105	37	28	33	39	300
8.35	55	53	30	129	198	249	27.22	27.87	5.00	100	35	26	38	36	280
7.35	52	50	28	119	178	229	25.22	25.87	5.50	95	33	24	43	33	260
6.35	49	47	26	109	158	209	23.22	23.87	6.00	90	31	22	48	30	240
5.35	46	44	24	99	138	189	21.22	21.87	6.50	85	29	20	53	27	220
4.35	43	41	22	89	118	169	19.22	19.87	7.00	80	27	18	58	24	200
3.35	40	38	20	79	98	149	17.22	17.87	7.50	75	25	16	63	21	180
2.35	37	35	18	69	78	129	15.22	15.87	8.00	70	23	14	68	18	160
1.35	34	32	16	59	58	109	13.22	13.87	8.50	65	21	12	73	15	140
0.35	31	29	14	49	38	89	11.22	11.87	9.00	60	19	10	78	12	120
-0.65	28	26	12	39	18	69	9.22	9.87	9.50	55	17	8	83	9	100
-1.65	25	23	10	29	-	49	7.22	7.87	10.00	50	15	6	88	6	80
-2.65	22	20	8	19	-	29	5.22	5.87	10.50	45	13	4	93	3	60

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

KNOX, FULTON, AND WARREN COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-four Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 91

ANNUAL FARM BUSINESS REPORT

Knox, Fulton, and Warren Counties, Illinois 1927

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

The 34 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $230 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. The average investment was $208 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $1619 each to pay for his own labor, management and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $2089 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about $3708 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 34 farmers EARNED 3.2 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 6.7 percent and the least successful third one-tenth of one percent. The average investment on the 34 farms was $51,181 which amounts to $208 an acre. The higher profit third had an average investment of $224 and the lower profit third $188 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $152 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in average size of farm between high and low profit groups. In this case, however, the more profitable farms were 63 acres per farm smaller than the less profitable farms. The records show, however, that all of the extra acreage in the less profitable farms were non-tillable land. In fact, the more profitable farms averaged about 22 acres per farm more tillable land. Size of farm evidently had little

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* L. R. Marchant, A. R. Kemp, J. E. Watt, J. H. Baird and A. A. Olsen, farm advisers in Knox, Fulton, and Warren Counties, cooperated in supervising and collecting the records used in this report.

influence on the relative earnings of the two groups. The average farm in either group was large enough for efficient operation.

One of the greatest advantages of the 11 most profitable farms was in their higher crop yields. They produced about 18 bushels more corn, 22 bushels more oats, 5 bushels more wheat and 5 bushels more barley per acre than the 11 least profitable farms. Since it usually costs but little more to produce an acre of high yielding crop than an acre of low yielding crop, these higher yields had a direct effect in increasing net earnings. Figured on their entire acreage the 11 most profitable farms produced 3043 bushels more grain per farm than the 11 least profitable farms. This was almost enough to account for the $2483 average crop income on the more profitable farms as compared with only $87 per farm for the less profitable farms.

The second greatest advantage of the more successful farm operators was in more efficient livestock management. They secured a livestock income of $139 for each $100 of livestock investment compared with a corresponding income of only $86 for the less successful operators. The records show that this advantage held true for cattle, hogs and poultry. There was only about 50 cents an acre difference between the two groups in the amount of livestock investment but the more successful operators secured $6.87 more livestock income per acre. The accounting farms of this section of the state have over twice as much livestock investment per acre as most farms in east-central and southern Illinois. This fact lends greater importance to any advantage in livestock management which the farm operator may have. Some factors in livestock management are discussed on pages 9 to 11 of this report. Other phases of livestock management are discussed in publications of the Illinois Agricultural Experiment Station. A list of these publications will be sent on request.

On the expense side of the business the more profitable farms show slightly larger costs per acre for labor, equipment, and improvements. This extra expense was due to the higher percentage of crop land, however. The more successful operators worked more crop acres per man and per horse than the less successful operators but they had fewer non-tillable acres. Little labor and equipment are needed for non-tillable land. The total expenses and net decreases per farm were about the same for both groups but the 11 most profitable farms had average gross incomes of $6550 as compared with $3125 for the 11 least profitable farms. Figured on an acre basis the more profitable farms had average gross incomes of $27.94 and total expenses of $12.89 per acre compared with $10.51 and total expenses of $10.33 on the less profitable farms. The results were a net income of $15.05 an acre on the more profitable farms and only 18 cents an acre on the less profitable farm.

This is the first year for which a report has been published covering Fulton County. For 1926 a report was published covering accounting farms in Knox, Warren and Henderson Counties. It is of interest to note that the average rate earned for all accounting farms covered by that report was 3.7 percent as compared with 3.2 percent for all farms included in this report. These figures agree quite well with reports from other sections in showing that the general level of farm earnings in west central Illinois was about the same for the last two years. For both years earnings were lower than for 1924 and 1925.

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

Knox, Fulton and Warren Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 34 farms	Eleven most profitable farms	Eleven least profitable farms
Rate earned	%	3.19 %	6.71 %	.09 %
Labor and management wage	$	$-230	$1,619	$-2,089
Size of farm - acres	A	246.3 A	234.4 A	297.4 A
Percent of land area tillable	%	76.4 %	90.9 %	64.3 %
Acres in Corn	A	79.5 A	88.2 A	73.8 A
Oats	A	32.1 A	36.4 A	28.6 A
Wheat	A	14.9 A	20.7 A	17.7 A
Barley	A	6.9 A	6.4 A	10.7 A
Crop yields - Corn	bu.	38.7 bu.	46.2 bu.	28.1 bu.
Oats	bu.	33.9 bu.	42.2 bu.	20.4 bu.
Wheat	bu.	14.8 bu.	17.4 bu.	12.9 bu.
Barley	bu.	22.1 bu.	23.7 bu.	18.1 bu.
Returns per $100 invested in all productive livestock	$	$ 115	$ 139	$ 86
For $100 in Cattle	$	$ 99	$ 99	$ 64
Hogs	$	$ 130	$ 171	$ 98
Poultry	$	$ 166	$ 195	$ 168
Investment per acre in productive livestock	$	$ 13.45	$ 12.07	$ 11.51
Receipts per acre from productive livestock	$	$ 15.51	$ 16.73	$ 9.86
Man labor cost per acre	$	$ 5.98	$ 6.26	$ 5.25
Crop acres per man	A	80.8 A	94.3 A	69.7 A
Crop acres per horse (with tractor)	A	28.6 A	34.7 A	25.9 A
(without tractor)	A	17.9 A	19.3 A	16.9 A
Expense per $100 gross income	$	$ 65.00	$ 46.00	$ 98.00
Machinery cost per acre	$	$ 2.11	$ 1.98	$ 1.85
Building and fencing cost per acre	$	$ 1.09	$ 1.22	$ .89
Gross receipts per acre	$	$ 18.71	$ 27.94	$ 10.51
Total expenses per acre	$	$ 12.08	$ 12.89	$ 10.33
Net receipts per acre	$	$ 6.63	$ 15.05	$ .18
Farms with tractor		59 %	58 %	64 %
Value of land per acre	$	$ 152	$ 173	$ 136
Total investment per acre	$	$ 208	$ 224	$ 188

Knox, Fulton and Warren Counties - 1927

		Your farm	Average of 34 farms	Eleven most profitable farms	Eleven least profitable farms
1	Capital Investment - Total	$	$ 51 181	$ 52 572	$ 55 768
2	Land		37 446	40 632	40 505
3	Farm improvements		5 325	4 658	6 597
4	Machinery and equipment		1 787	1 528	2 029
5	Feed and supplies		2 562	2 366	2 326
6	Livestock		4 061	3 388	4 311
7	Horses		687	812	587
8	Cattle		1 398	1 071	1 372
9	Hogs		1 689	1 264	2 084
10	Sheep		137	55	131
11	Poultry		146	180	136
12	Bees		4	6	1
13	Receipts-Net Increases-Total		4 608	6 550	3 125
14	Feed and grain		670	2 483	87
15	Miscellaneous		68	58	88
16	Livestock - Total		3 870	4 009	2 950
17	Horses		49	85	19
18	Cattle		1 032	772	595
19	Hogs		2 033	2 212	1 680
20	Sheep		90	52	73
21	Poultry		117	189	122
22	Egg sales		148	177	153
23	Dairy sales		399	522	307
24	Bees		2	--	1
25	Expenses-Net Decreases-Total		2 067	2 086	2 143
26	Farm improvements		268	287	265
27	Livestock		--	3	--
28	Horses		--	--	--
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry		--	--	--
33	Bees		--	3	--
34	Machinery and equipment		519	463	549
35	Feed and supplies		--	--	--
36	Livestock expense other than feed		75	84	69
37	Crop expense		221	281	184
38	Labor hired		564	531	632
39	Taxes, insurance, etc.		392	413	414
40	Miscellaneous		28	24	30
41	Receipts less Expenses		2 541	4 464	982
42	Operator's and unpaid family labor		908	937	929
43	Net income from investment		1 633	3 527	53

Find Your Farm Leaks

Knox, Fulton and Warren Counties, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per Man	Crop acres per Horse		Expense per $100 income	Gross receipts per acre	Size of farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry					Tractor	No tractor			
10.2	60	55	29	169	270	306	27.45	29.51	2.50	115	42	32	30	40	386
9.2	57	52	27	159	250	286	25.45	27.51	3.00	110	40	30	35	37	366
8.2	54	49	25	149	230	266	23.45	25.51	3.50	105	38	28	40	34	346
7.2	51	46	23	139	210	246	21.45	23.51	4.00	100	36	26	45	31	326
6.2	48	43	21	129	190	226	19.45	21.51	4.50	95	34	24	50	28	306
5.2	45	40	19	119	170	206	17.45	19.51	5.00	90	32	22	55	25	286
4.2	42	37	17	109	150	186	15.45	17.51	5.50	85	30	20	60	22	266
3.2	39	34	15	99	130	166	13.45	15.51	6.00	80	28	18	65	19	246
2.2	36	31	13	89	110	146	11.45	13.51	6.50	75	26	16	70	16	226
1.2	33	28	11	79	90	126	9.45	11.51	7.00	70	24	14	75	13	206
0.2	30	25	9	69	70	106	7.45	9.51	7.50	65	22	12	80	10	186
-0.8	27	22	7	59	50	86	5.45	7.51	8.00	60	20	10	85	7	166
-1.8	24	19	5	49	30	66	3.45	5.51	8.50	55	18	8	90	4	146
-2.8	21	16	-	39	10	46	1.45	3.51	9.00	50	16	6	95	-	126
-3.8	18	13	-	29	--	26	----	1.51	9.50	45	14	4	100	-	106

UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

HENDERSON COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1927

The farm account
is a guide to more profitable farm management
if its facts are studied and used

Urbana, Illinois

May, 1928

M 84

ANNUAL FARM BUSINESS REPORT

Henderson County, Illinois 1927

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

The 30 farmers in Henderson County who kept financial records in the Illinois Farm Account Project for 1927 had an average of $293 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $187 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $2429, while the one-third who were least successful lacked an average of $1716 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their labor and management. There was an average difference of $4145 per farm in the amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 30 farmers EARNED 4.1 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 8.2 percent and the least successful third lacked one fourth of one percent of having any return on their investments. The average investment on the 30 farms was $45,938, which amounts to $187 an acre. The higher profit third had an average investment of $174 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. The land alone was valued at $134 on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in size between the farms of the high profit group and those of the low profit group. In this case, however, the 10 most profitable farms averaged 303 acres as compared with 239 acres for the 10 least profitable farms. Most farms in either group were large enough for efficient management, but evidently the most successful farmers were helped some in realizing lower costs per acre for labor, equipment and improvements by the larger size of their farms. There was not much difference between the two groups in the percentage of tillable land.

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* E. D. Walker, farm adviser in Henderson County, cooperated in supervising and collecting the records used in this report.

Investigations of the costs and incomes per acre for different crops have shown that for ordinary Illinois conditions the margin of profit is wider for corn, wheat, alfalfa and sweet clover pasture than for other common crops. It is significant that the 10 most profitable farms had 61 percent of their tillable land in these crops as compared with 50 percent on the 10 least profitable farms.

It is often claimed that crop yields are usually better on smaller farms. In this case, although the more profitable farms were larger, crop yields averaged practically the same for both groups. As a rule higher crop yields constitute one of the chief advantages in favor of the more profitable farms.

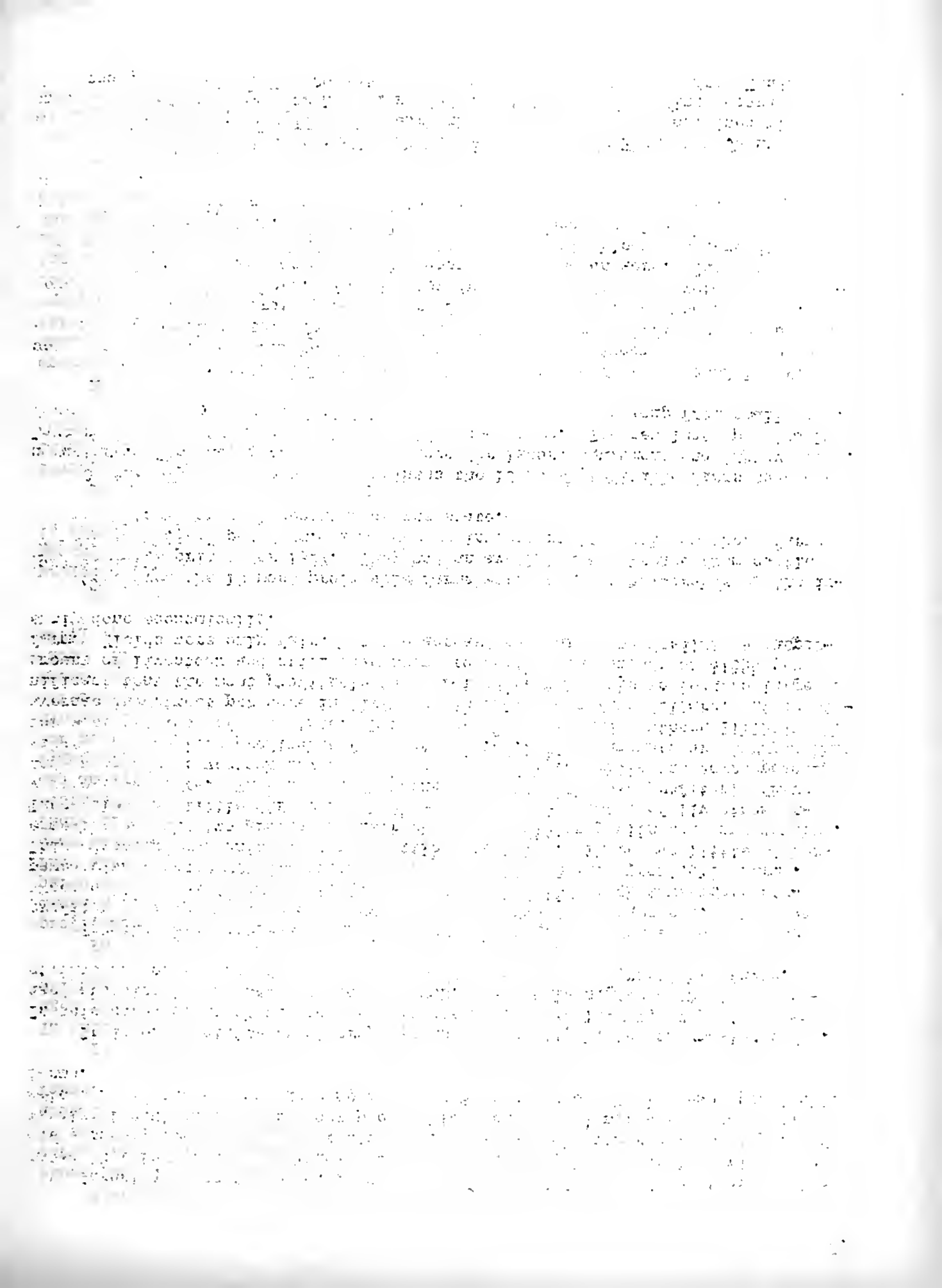
For the farms covered by this report the greatest advantage of the more profitable group was a greater efficiency in livestock management. They produced a livestock income of $129 for each $100 of livestock investment compared with a corresponding income of only $80 on the less profitable farms. This advantage was chiefly in the cattle enterprise. There was little difference between the two groups in their relative efficiency with hogs and poultry. There also was little difference between them in the amount of livestock investment per acre. This is shown by the fact that the more profitable farms had an average livestock investment per acre of $15.09 while the corresponding figure for the less profitable farms was $14.75. These amounts are larger than for most sections of the state. For parts of eastern and southern Illinois the average investment per acre in livestock is only about five dollars. It is significant that the most profitable farms raised enough crops to feed so large an amount of livestock and still have crops to sell to the amount of $1554 per farm. Yields were only fair, but the acreage was large and feeding was apparently done economically.

Of course the 10 most profitable farms were helped considerably by the improved cattle prices for 1927. They had an average net increase from cattle amounting to $3570 per farm. The average investment in cattle on these farms is larger than for most sections of the state.

On the expense side of the business the 10 most profitable farms had some advantage. They had lower costs per acre for labor, equipment and improvements. Larger size gave them some advantage in these items. The ten least profitable farms averaged 239 acres, however, and so had no real handicap from small size.

We may sum up this discussion by stating that the most successful farm operators were successful both because of larger gross incomes and because of smaller operating costs. The larger gross incomes were chiefly from crops and cattle. The lower operating costs were due to more efficient use of labor, equipment and improvements. The 10 most profitable farms had average gross incomes of $24.72 an acre and operating costs of $10.38 an acre. The corresponding income and expense figures for the 10 least profitable farms were $13.15 and $13.62 respectively. The results were a net income of $14.34 an acre on the more profitable farms and a net loss of 47 cents an acre on the less profitable farms.

This is the first year that a report including only Henderson County farms has been published. For previous years the records have been combined with those of adjoining counties. For 1926 a report was published including records from Henderson, Knox and Warren Counties, most of the records coming from Henderson



County farms. It is interesting to compare income and investment figures for the last two years as shown in the following table. There was not much difference in average earnings for the two years. Gross incomes were somewhat less for 1927, but so were operating costs. Hog incomes dropped sharply, but there was some improvement in incomes from crops and cattle.

Comparative Earnings on Some Henderson County Farms

Items	1926[1]	1927
Number of farms included	32	30
Average size of farms in acres	252	245
Average rate earned on investment	3.7%	4.1%
Average value of land per acre	$ 138	$ 134
Average investment per acre	196	187
Investment in livestock per farm	4,740	4,491
Investment in cattle per farm	2,223	2,068
Investment in hogs per farm	1,625	1,532
Investment in poultry per farm	117	105
Gross income per acre	20.66	19.51
Operating cost per acre	13.39	11.85
Crop income less feed purchases per farm	000	822
Miscellaneous income per farm	77	33
Livestock income per farm	5,122	3,935
Gross income per farm	5,199	4,790
Cattle income per farm	1,507	1,655
Dairy sales per farm	284	214
Hog income per farm	3,028	1,828
Poultry income per farm	203	155

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.

[1] Records from Henderson, Knox and Warren Counties included for 1926.

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Henderson County - 1927

Factors helping to analyze the farm business	Your farm	Average of 30 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	4.10 %	8.23 %	-.247%
Labor and management wage	$	$ 293	$2,429	$-1,716
Size of farm - acres	A	245.5 A	303.4 A	239 A
Percent of land area tillable	%	82.4 %	81.1 %	84.2 %
Acres in Corn	A	87.3 A	127.5 A	66.0 A
Oats	A	25.3 A	34.8 A	17.0 A
Wheat	A	16.7 A	18.0 A	21.0 A
Crop yields - Corn	bu.	38.5 bu.	37.7 bu.	37.7 bu.
Oats	bu.	33.1 bu.	32.1 bu.	33.5 bu.
Wheat	bu.	18.6 bu.	17.4 bu.	18.4 bu.
Percent in high profit crops*		55.3 %	61.6 %	50.0 %
Returns per $100 invested in all productive livestock	$	$ 111	$ 129	$ 80
For $100 in Cattle	$	$ 96	$ 136	$ 55
Hogs	$	$ 131	$ 117	$ 119
Poultry	$	$ 144	$ 145	$ 120
Investment per acre in productive livestock	$	$ 14.36	$ 15.09	$ 14.75
Receipts per acre from productive livestock	$	$ 15.91	$ 19.43	$ 11.81
Man labor cost per acre	$	$ 6.06	$ 5.44	$ 6.61
Crop acres per man	A	88.3 A	104.2 A	74.8 A
Crop acres per horse (with tractor)	A	27.7 A	30.6 A	26.7 A
(without tractor)	A	20.4 A	25.8 A	18.5 A
Expense per $100 gross income	$	$ 61	$ 42	$ 104
Machinery cost per acre	$	$ 1.64	$ 1.29	$ 2.27
Building and fencing cost per acre	$	$ 1.00	$ .76	$ 1.33
Gross receipts per acre	$	$ 19.51	$ 24.72	$ 13.15
Total expenses per acre	$	$ 11.85	$ 10.38	$ 13.62
Net receipts per acre	$	$ 7.66	$ 14.34	$ -.47
Farms with tractor		73 %	80 %	80 %
Value of land per acre	$	$ 134	$ 126	$ 134
Total investment per acre	$	$ 187	$ 174	$ 194

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

Factors	
[illegible]	
Rate of interest	
Ratio of [illegible]	
Size of farm	
Percent of [illegible]	
Acres in Crop	
[illegible]	
[illegible]	
Crop yield	
[illegible]	
Percent of [illegible]	
Returns per [illegible]	
Profits	
[illegible]	
[illegible]	
Investment per [illegible]	
Living [illegible]	
Receipts per [illegible]	
Livestock	
Man labor [illegible]	
Crop [illegible]	
Crop [illegible]	
([illegible]	
([illegible]	
Expense per [illegible]	
Machinery [illegible]	
Building [illegible]	
[illegible]	
Gross receipts per [illegible]	
Total expense per [illegible]	
Net profit per [illegible]	
Farms with [illegible]	
Value of farm per [illegible]	
Total investment per [illegible]	

* Percent of all [illegible] farms [illegible]

Henderson County - 1927

		Your farm	Average of 30 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$_____	$45,938	$52,909	$46,433
2	Land		33,003	38,199	32,090
3	Farm improvements		4,533	5,056	5,278
4	Machinery and equipment		1,414	1,477	1,751
5	Feed and supplies		2,497	2,770	2,532
6	Livestock		4,491	5,407	4,782
7	Horses		704	783	697
8	Cattle		2,068	2,836	2,505
9	Hogs		1,532	1,620	1,339
10	Sheep		82	54	117
11	Poultry		105	114	124
12	Receipts-Net Increases-Total	_____	4,790	7,502	3,144
13	Feed and grain		822	1,554	269
14	Miscellaneous		33	31	53
15	Livestock - Total		3,935	5,917	2,822
16	Horses		30	21	--
17	Cattle		1,655	3,570	960
18	Hogs		1,828	1,825	1,466
19	Sheep		53	45	87
20	Poultry		74	82	50
21	Egg sales		81	86	96
22	Dairy sales		214	288	163
23	Expenses-Net Decreases-Total	_____	2,013	2,245	2,244
24	Farm improvements		247	232	319
25	Livestock		--	--	3
26	Horses		--	--	3
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		404	392	543
32	Feed and supplies		--	--	--
33	Livestock expense other than feed		78	62	82
34	Crop expense		219	274	236
35	Labor hired		592	747	566
36	Taxes, insurance, etc.		442	510	460
37	Miscellaneous		31	28	35
38	Receipts less Expenses	_____	2,777	5,257	900
39	Operator's and unpaid family labor		895	903	1,014
40	Net income from investment		1,882	4,354	- 114

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Find Your Farm Leaks

Henderson County, 1927

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	Bushels per acre of			Returns per $100 invested in			Invest. per A.	Receipts per A.	Man lab. cost per A.	Crop acres per			Expense per $100	Gross receipts	Size of
										Man	Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry	in L.S.	from L.S.			Tractor	No Tractor	income	per A.	Farm
11.1	59	54	33	166	271	284	28.36	29.91	2.50	123	42	34	25	41	385
10.1	56	51	31	156	251	264	26.36	27.91	3.00	118	40	32	30	38	365
9.1	53	48	29	146	231	244	24.36	25.91	3.50	113	38	30	35	35	345
8.1	50	45	27	136	211	224	22.36	23.91	4.00	108	36	28	40	32	325
7.1	47	42	25	126	191	204	20.36	21.91	4.50	103	34	26	45	29	305
6.1	44	39	23	116	171	184	18.36	19.91	5.00	98	32	24	50	26	285
5.1	41	36	21	106	151	164	16.36	17.91	5.50	93	30	22	55	23	265
4.1	38	33	19	96	131	144	14.36	15.91	6.00	88	28	20	60	20	245
3.1	35	30	17	86	111	124	12.36	13.91	6.50	83	26	18	65	17	225
2.1	32	27	15	76	91	104	10.36	11.91	7.00	78	24	16	70	14	205
1.1	29	24	13	66	71	84	8.36	9.91	7.50	73	22	14	75	11	185
0.1	26	21	11	56	51	64	6.36	7.91	8.00	68	20	12	80	8	165
-0.9	23	18	9	46	31	44	4.36	5.91	8.50	63	18	10	85	5	145
-1.9	20	15	7	36	11	24	2.36	3.91	9.00	58	16	8	90	--	125
-2.9	17	12	5	26	--	--	--	--	9.50	53	14	6	95	--	105

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

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MC DONOUGH COUNTY FARM BUREAU

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ANNUAL FARM BUSINESS REPORT

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Twenty-eight Farms

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The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 98

ANNUAL FARM BUSINESS REPORT

McDonough County, Illinois, 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 28 farmers in McDonough County who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $642 of having enough income to pay operating expenses and 5 percent on their investments allowing nothing for their labor, management and risk. The average investment was $220 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $565 each to pay for his own labor, management and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1,901 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2,466 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 28 farmers EARNED 1.6 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 4.7 percent and the least successful third lacked 1.6 percent of having any return on their investments. The average investment on the 28 farms was $39,911, which amounts to $220 an acre. The higher profit third had an average investment of $232 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. The land alone was valued at $163 on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The 10 most profitable farms averaged 20 acres less land than the 10 least profitable farms. They had a higher percentage of tillable land, however, which gave them about 20 acres more plow land per farm than on the 10 least profitable farms. Size of farm was evidently not an important factor in determining relative earnings between the two groups. The lower percentage of tillable land and lower value of land per acre on the less profitable farms

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*R. C. Doneghue, farm adviser in McDonough County, cooperated in supervising and collecting the records used in this report.

indicate that they had land that was somewhat less productive. There was little difference between the two groups in the acreage of corn and oats, but the most profitable farms had more acres of wheat.

One of the greatest advantages of the most profitable farms was in their higher crop yields. They produced fifteen bushels more corn, five bushels more oats and two bushels more wheat than the least profitable farms. It usually costs little more to produce an acre of high yielding crop than an acre of low yielding crop. Any advantage in yield, therefore, reduces the cost per bushel of grain and increases the profit in the business.

Another big advantage of the most successful farm operators was in securing a higher efficiency in livestock management. In proportion to their investment they secured larger returns from cattle, hogs and poultry. The investment per acre in livestock was practically the same for both groups, but the most successful operators secured over three dollars an acre more livestock income than the least successful operators. The most successful operators fed as much or more livestock and still had an income from crops amounting to $1,159 per farm, while the least successful operators bought more feed than they sold crops to the amount of $470 per farm.

The most successful farm operators made more efficient use of labor, equipment and improvements as is shown by the fact that they had less acres of rough non-tillable land which takes little labor and equipment, and yet they had lower costs per acre for these items. Some plans for securing greater efficiency in use of labor and equipment are discussed on pages 6 to 13 of this report.

This discussion may be summed up by stating that the most profitable farms were successful both because of larger gross incomes per acre and lower operating costs per acre. They produced ten dollars per acre more income and had four dollars per acre less expense than the least profitable farms. The results were a net income of $10.91 an acre on the ten most profitable farms and a net loss of $3.21 an acre on the ten least profitable farms.

Most of the farms of the low profit group did too small a volume of business. Every farm must have a set of equipment, a set of improvements and a year's productive employment for at least one man. Expenses, therefore, cannot be reduced below a certain minimum. Any farm operator whose accounts show that he is not securing a gross income of at least $3,000 a year should give serious consideration to some means of increasing the volume of business. Some cooperators in the farm accounting project have increased their gross incomes by one or more of the following means: (1) by increasing the size of the dairy or poultry enterprises; (2) by increasing the acreage of the more intensive crops such as alfalfa, corn and sweet clover pasture; (3) by adopting fruit or truck crops; (4) by improving the yield of crops, or (5) by increasing the number of acres farmed. The best plan for the individual farm will depend upon the labor supply, the soil conditions, the available markets and the available capital.

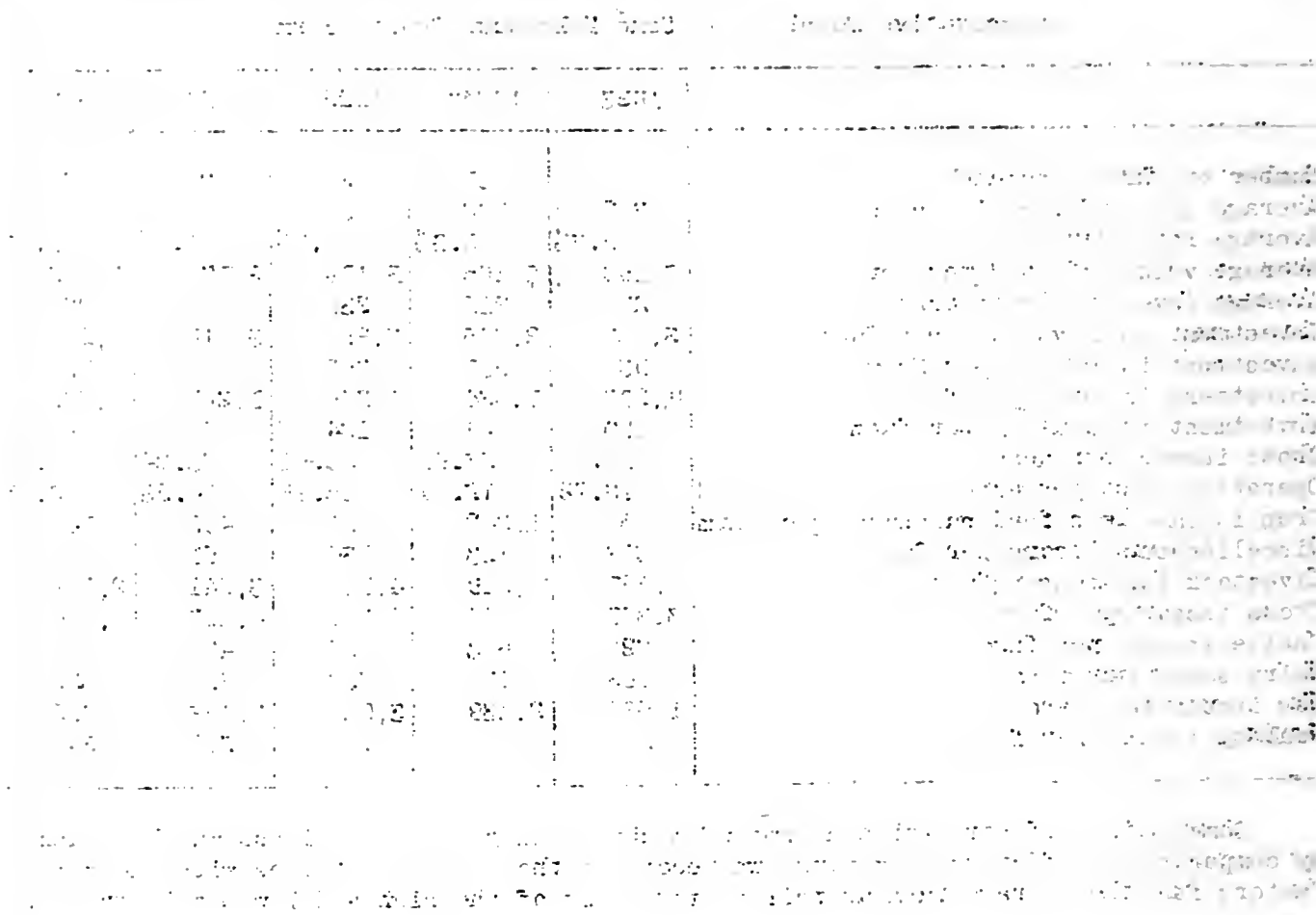
Some interesting comparisons of income and investment figures for the last five years can be made from the following table. Average rates earned for 1927 were less than for any of the preceding four years. Lower prices for hogs and lower crop yields were the chief causes of lower earnings for 1927. The fact that low earnings have prevailed for so long a period makes their effects more severe than when one difficult season comes in a period of reasonable prosperity.

Comparative Earnings on Some McDonough County Farms

	1923	1924*	1925	1926	1927
Number of farms included	18	51	30	26	28
Average size of farm in acres	202	202	180	180	181
Average rate earned	2.7%	5.3%	5.7%	3.8%	1.6%
Average value of land per acre	$ 182	$ 165	$ 179	$ 176	$ 163
Average investment per acre	227	216	238	236	220
Investment in livestock per farm	3,037	2,765	2,858	3,118	3,247
Investment in cattle per farm	936	957	760	957	939
Investment in hogs per farm	1,237	1,034	1,266	1,287	1,535
Investment in poultry per farm	150	143	134	155	180
Gross income per acre	19.86	23.66	28.91	23.24	17.48
Operating cost per acre	13.72	12.14	15.16	14.23	13.91
Crop income less feed purchases per farm	357	1,342	908	495	148
Miscellaneous income per farm	213	123	130	61	54
Livestock income per farm	2,799	3,319	4,166	3,641	2,968
Gross income per farm	3,369	4,784	5,204	4,197	3,170
Cattle income per farm	726	693	456	488	468
Dairy sales per farm	163	170	330	291	325
Hog income per farm	1,568	2,139	3,040	2,493	1,795
Poultry income per farm	295	238	266	325	346

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

*Records for Adams and Hancock Counties were included for 1924.



McDonough County - 1927

Factors helping to analyze the farm business	Your farm	Average of 28 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	1.62 %	4.70 %	-1.58 %
Labor and management wage	$	$-642	$565	$-1,901
Size of farm - acres	A	181.3 A	176 A	196 A
Percent of land area tillable	%	83.4 %	93.8 %	73.7 %
Acres in Corn	A	58.3 A	56.0 A	59.0 A
Oats	A	26.7 A	28.0 A	24.0 A
Wheat	A	14.4 A	22.0 A	10.0 A
Crop yields - Corn	bu.	37.3 bu.	45.9 bu.	30.3 bu.
Oats	bu.	27.5 bu.	31.9 bu.	26.9 bu.
Wheat	bu.	13.9 bu.	13.7 bu.	11.5 bu.
Returns per $100 invested in all productive livestock	$	$ 124	$135	$ 107
For $100 in Cattle	$	$ 97	$ 90	$ 82
Hogs	$	$ 132	$163	$ 117
Poultry	$	$ 186	$210	$ 163
Investment per acre in productive livestock	$	$ 13.24	$ 12.35	$ 12.60
Receipts per acre from productive livestock	$	$ 16.37	$ 16.64	$ 13.52
Man labor cost per acre	$	$ 7.06	$ 6.79	$ 7.04
Crop acres per man	A	75.8 A	89.4 A	66.8 A
Crop acres per horse (with tractor)	A	27.0 A	35.4 A	18.5 A
(without tractor)	A	20.0 A	19.4 A	21.8 A
Expense per $100 gross income	$	$ 80	$ 54	$ 124
Machinery cost per acre	$	$ 2.11	$ 1.57	$ 2.75
Building and fencing cost per acre	$	$ 1.12	$ 1.06	$ 1.19
Gross receipts per acre	$	$ 17.48	$ 23.80	$ 13.67
Total expenses per acre	$	$ 13.91	$ 12.89	$ 16.88
Net receipts per acre	$	$ 3.57	$ 10.91	$ -3.21
Farms with tractor		60.7 %	40.0 %	80.0 %
Value of land per acre	$	$ 163	$177	$ 150
Total investment per acre	$	$ 220	$232	$ 203

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McDonough County - 1927

		Your farm	Average of 28 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$	$ 39 911	$ 40 824	$ 39 818
2	Land		29 623	31 075	29 496
3	Farm improvements		3 663	3 154	3 812
4	Machinery and equipment		1 339	1 326	1 530
5	Feed and supplies		2 039	2 176	1 780
6	Livestock		3 247	3 093	3 200
7	Horses		562	554	534
8	Cattle		939	1 050	922
9	Hogs		1 535	1 292	1 488
10	Sheep		28	28	51
11	Poultry		180	169	205
12	Bees		3	--	--
13	Receipts-Net Increases-Total		3 170	4 189	2 679
14	Feed and grain		148	1 159	--
15	Miscellaneous		54	101	30
16	Livestock - Total		2 968	2 929	2 649
17	Horses		--	--	--
18	Cattle		468	430	434
19	Hogs		1 795	1 703	1 614
20	Sheep		23	43	22
21	Poultry		177	185	115
22	Egg sales		169	178	198
23	Dairy sales		325	390	266
24	Bees		11	--	--
25	Expenses-Net Decreases-Total		1 551	1 408	2 173
26	Farm improvements		203	186	234
27	Livestock		59	44	84
28	Horses		59	44	84
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry		--	--	--
33	Machinery and equipment		383	276	539
34	Feed and supplies		--	--	470
35	Livestock expense other than feed		80	79	60
36	Crop expense		166	151	182
37	Labor hired		308	335	243
38	Taxes, insurance, etc.		324	311	336
39	Miscellaneous		28	26	25
40	Receipts less Expenses		1 619	2 781	506
41	Operator's and unpaid family labor		972	860	1 136
42	Net income from investment		647	1 921	-630

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Find Your Farm Leaks

McDonough County, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
										Man	Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry					Tractor	No tractor			
8.6	58	48	28	167	272	326	27.24	30.37	3.50	110	41	34	45	39	320
7.6	55	45	26	157	252	306	25.24	28.37	4.00	105	39	32	50	36	300
6.6	52	42	24	147	232	286	23.24	26.37	4.50	100	37	30	55	33	280
5.6	49	39	22	137	212	266	21.24	24.37	5.00	95	35	28	60	30	260
4.6	46	36	20	127	192	246	19.24	22.37	5.50	90	33	26	65	27	240
3.6	43	33	18	117	172	226	17.24	20.37	6.00	85	31	24	70	24	220
2.6	40	30	16	107	152	206	15.24	18.37	6.50	80	29	22	75	21	200
1.6	37	27	14	97	132	186	13.24	16.37	7.00	75	27	20	80	18	180
0.6	34	24	12	87	112	166	11.24	14.37	7.50	70	25	18	85	15	160
-0.4	31	21	10	77	92	146	9.24	12.37	8.00	65	23	16	90	12	140
-1.4	28	18	8	67	72	126	7.24	10.37	8.50	60	21	14	95	9	120
-2.4	25	15	6	57	52	106	5.24	8.37	9.00	55	19	12	100	6	100
-3.4	22	12	4	47	32	86	3.24	6.37	9.50	50	17	10	105	3	80
-4.4	19	9	-	37	12	66	1.24	4.37	10.00	45	15	8	110	-	60
-5.4	16	6	-	27	--	46	----	2.37	10.50	40	13	6	115	-	40

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

HANCOCK COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-one Farms

for

1927

The farm account
is a guide to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 81

ANNUAL FARM BUSINESS REPORT

Hancock County, Illinois 1927

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

The 31 farmers in Hancock County who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $655 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. The average investment was $195 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $1038 each to pay for his own labor, management and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $2325 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about $3363 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 31 farmers EARNED 1.6 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 5.7 percent and the least successful third lacked 2 percent of having any return on their investments. The average investment on the 31 farms was $42,540 which amounts to $195 an acre. The higher profit third had an average investment of $197 and the lower profit third $201 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $145 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The farms of the high and low profit groups averaged within ten acres of the same size. Difference in size, therefore, cannot be considered as a cause for any difference in relative earnings. The percentage of tillable land and the value per acre were also about the same, which indicates little difference in the quality of soil. Investigations of costs and incomes per acre for the different crops have shown that for

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*J. E. Lloyd, farm adviser in Hancock County, cooperated in supervising and collecting the records used in this report.

ordinary Illinois conditions the margin of profit is wider for corn, wheat, alfalfa and sweet clover pasture than for other common crops. It is interesting to note that the more profitable farms had a little higher percentage of land in these crops, although the difference was not great.

One of the greatest advantages of the 10 most profitable farms was in their higher crop yields. They produced 6 bushels more corn, 7 bushels more oats and 7 bushels more wheat per acre than the 10 least profitable farms. It usually costs but little more to produce an acre of high yielding crop than an acre of low yielding crop. Hence, any advantage in yield applies directly to increased profits. Figured on a basis of the acreage per farm the more profitable farms produced 1,430 bushels more corn, oats and wheat than the less profitable farms. This combined with more efficient feeding enabled them to feed their livestock and still have an income from crops of $563 per farm. The less profitable farms bought more feed than they sold crops to the amount of $1,536 per farm. This was the largest item of operating cost on the less profitable farms.

Another great advantage of the more successful farm operators was in their greater efficiency in livestock management. Both the high and low profit groups had about the same investment in livestock per acre. The amounts were $14.85 and $14.93 respectively. The more successful operators secured $2.65 more livestock income per acre. As has been noted they did this and still had crops to sell while the less successful operators bought over $1,500 more feed than they sold crops. The average livestock investment per acre is higher in the region of Hancock County than in most sections of the state. Efficiency in livestock management and feeding is therefore essential to success in farm management in this area. To have the right kinds and numbers of livestock, to keep them thrifty and to feed them most economically are major problems on Hancock County farms. The data in this report indicate that the more successful farm operators maintained a higher degree of efficiency in the handling of cattle, hogs and poultry. They had a slightly smaller amount of gross income from hogs and poultry, but their average investment in these enterprises was less.

On the expense side of the business the more successful operators show somewhat lower costs for labor, equipment and improvements. These were smaller items of difference, however, than the difference in feed costs previously discussed. They handled 103 crop acres per man as compared with 77 acres on the less successful farms. The differences in total labor, equipment and improvement costs were small, but it is important that the more successful operators had larger crop and livestock incomes and still had lower costs.

We may sum up this discussion by noting that the more successful farm operators succeeded both because of larger gross incomes and lower costs. The larger gross incomes were due to larger crop yields and more efficient livestock management. The lower costs were due to lower feed purchases and to a less extent to lower costs for labor, equipment and improvements.

For previous years the records from Hancock County have been combined with those of adjoining counties. Allowance must be made for the shifting in territory included therefore in making comparisons from the following table. The type of farming is very much the same in all counties included, however,

as is proved by the similarity in investment and income figures for the different years. We may safely conclude that average farm incomes were lower in this area for 1927 than for any other year in the last four. Lower yields of the grain crops and lower prices for hogs evidently were the largest factors behind the lower earnings for 1927. It is evident from these tables that hogs usually contribute more than half of the gross income on these farms. It will profit the average farm operator, therefore, to follow the most efficient methods possible in managing his hog enterprise. A thorough knowledge of market and price movements for hogs and corn will be worth while to the individual farm operator in this section of the state.

Comparative Earnings on Farms in Hancock and Adjoining Counties

Item	1924[1]	1925[2]	1926[3]	1927
Number of farm records	51	38	32	31
Average size of farm in acres	202	215	236	218
Average rate earned	5.3%	6.0%	3.4%	1.8%
Average value of land per acre	$ 165	$ 136	$ 137	$ 143
Average investment per acre	216	188	190	195
Investment in livestock per farm	2,765	3,245	3,859	3,579
Investment in cattle per farm	957	1,078	1,528	1,147
Investment in hogs per farm	1,034	1,364	1,483	1,560
Investment in poultry per farm	143	134	149	157
Gross income per acre	23.66	23.31	19.91	16.55
Operating cost per acre	12.14	12.01	13.42	12.97
Grain income less feed purchases per farm	1,342	000	000	000
Miscellaneous income per farm	123	72	112	44
Livestock income per farm	3,319	4,952	4,599	3,558
Gross income per farm	4,784	5,024	4,711	3,602
Cattle income per farm	693	927	958	750
Dairy sales per farm	170	229	210	269
Hog income per farm	2,139	3,433	3,078	2,176
Poultry income per farm	238	284	261	277

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.

[1]Records from Hancock, Adams and McDonough Counties.
[2]Records from Hancock, Adams, Brown, Schuyler and Pike Counties.
[3]Records from Hancock and Adams Counties.

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Comparative Earnings [illegible]
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Hancock County - 1927

Factors helping to analyze the farm business	Your farm	Average of 31 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	1.83 %	5.74 %	-2.04 %
Labor and management wage	$	$ -653	$1,038	$-2,325
Size of farm - acres	A	217.6 A	220.2 A	210.0 A
Percent of land area tillable	%	83.1 %	86.1 %	85.7 %
Acres in Corn	A	65.5 A	74.4 A	56.0 A
Oats	A	30.1 A	35.4 A	24.0 A
Wheat	A	7.8 A	3.0 A	8.0 A
Crop yields - Corn	bu.	30.2 bu.	33.6 bu.	27.2 bu.
Oats	bu.	23.1 bu.	25.4 bu.	17.9 bu.
Wheat	bu.	11.4 bu.	15.0 bu.	7.7 bu.
Percent in high profit crops*		43.8 %	42.6 %	41.2 %
Returns per $100 invested in all productive livestock	$	$ 123.00	$ 150.00	$ 112.00
For $100 in Cattle	$	$ 81.00	$ 88.00	$ 56.00
Hogs	$	$ 134.00	$ 191.00	$ 154.00
Poultry	$	$ 173.00	$ 183.00	$ 172.00
Investment per acre in productive livestock	$	$ 13.30	$ 14.85	$ 14.93
Receipts per acre from productive livestock	$	$ 16.30	$ 19.37	$ 16.72
Man labor cost per acre	$	$ 5.73	$ 5.54	$ 6.08
Crop acres per man	A	84.2 A	103.2 A	76.8 A
Crop acres per horse (with tractor)	A	23.3 A	21.5 A	20.9 A
(without tractor)	A	17.9 A	17.0 A	23.5 A
Expense per $100 gross income	$	$ 78.00	$ 49.00	$ 124.00
Machinery cost per acre	$	$ 2.21	$ 2.08	$ 2.83
Building and fencing cost per acre	$	$ .98	$ .77	$ 1.35
Gross receipts per acre	$	$ 16.55	$ 22.39	$ 16.84
Total expenses per acre	$	$ 12.97	$ 11.07	$ 20.95
Net receipts per acre	$	$ 3.58	$ 11.32	$ -4.11
Farms with tractor		71 %	60 %	80 %
Value of land per acre	$	$ 143	$ 144	$ 140
Total investment per acre	$	$ 195	$ 197	$ 201

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

Hancock County - 1927

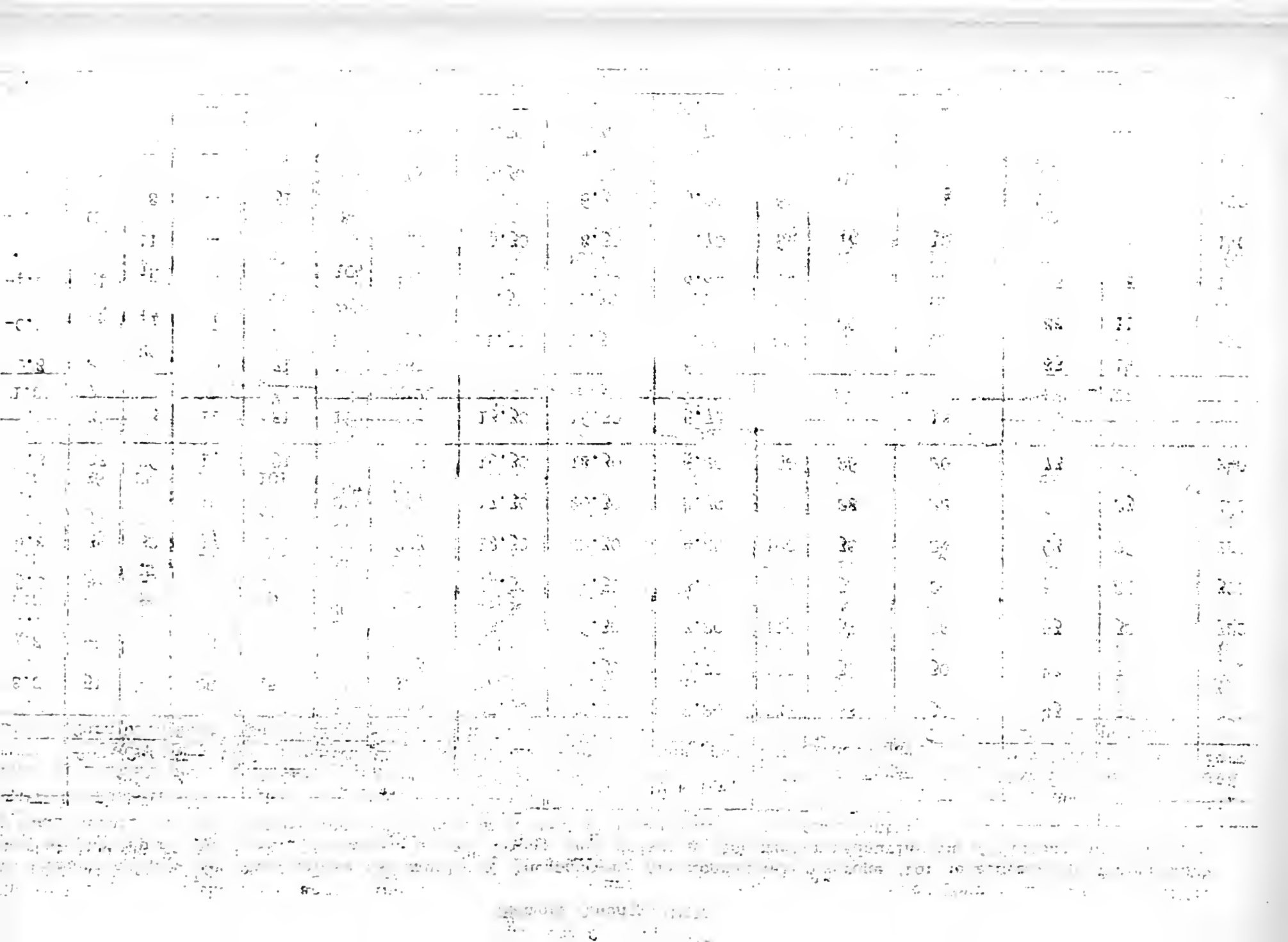
		Your farm	Average of 31 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$	$ 42 540	$ 43 457	$ 42 283
2	Land		31 138	31 756	29 406
3	Farm improvements		4 351	4 080	5 249
4	Machinery and equipment		1 535	1 670	1 593
5	Feed and supplies		1 947	1 932	2 130
6	Livestock		3 579	4 019	3 905
7	Horses		581	636	578
8	Cattle		1 147	1 804	781
9	Hogs		1 560	1 338	2 065
10	Sheep		130	99	297
11	Poultry		157	142	175
12	Bees		4	--	9
13	Receipts-Net Increases-Total		3 602	4 930	3 536
14	Feed and grain		--	563	--
15	Miscellaneous		44	45	25
16	Livestock - Total		3 558	4 322	3 511
17	Horses		12	56	--
18	Cattle		750	1 189	340
19	Hogs		2 176	2 338	2 542
20	Sheep		72	87	126
21	Poultry		111	111	100
22	Egg sales		166	151	191
23	Dairy sales		269	390	204
24	Bees		2	--	8
25	Expenses-Net Decreases-Total		1 981	1 574	3 627
26	Farm improvements		214	169	283
27	Livestock		--	--	8
28	Horses		--	--	8
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry		--	--	--
33	Machinery and equipment		481	458	595
34	Feed and supplies		267	--	1 536
35	Livestock expense other than feed		59	80	64
36	Crop expense		217	193	273
37	Labor hired		406	358	505
38	Taxes, insurance, etc.		313	292	334
39	Miscellaneous		24	24	29
40	Receipts less Expenses		1 621	3 356	- 91
41	Operator's and unpaid family labor		841	863	772
42	Net income from investment		780	2 493	-863

Find Your Farm Leaks

Hancock County, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per A. in L.S.	Receipts per A. from L.S.	Man lab. cost per A.	Crop acres per			Expense per $100 income	Gross receipts per A.	Size of Farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Horse				
											Tractor	No Tractor			
8.8	51	44	25	151	304	313	27.30	30.30	2.20	135	38	32	43	38	360
7.8	48	41	23	141	284	293	25.30	28.30	2.70	125	36	30	48	35	340
6.8	45	38	21	131	264	273	23.30	26.30	3.20	115	34	28	53	32	320
5.8	42	35	19	121	244	253	21.30	24.30	3.70	105	32	26	58	29	300
4.8	39	32	17	111	224	233	19.30	22.30	4.20	100	30	24	63	26	280
3.8	36	29	15	101	204	213	17.30	20.30	4.70	95	28	22	68	23	260
2.8	33	26	13	91	184	193	15.30	18.30	5.20	90	26	20	73	20	240
1.8	30	23	11	81	164	173	13.30	16.30	5.70	85	24	18	78	17	220
0.8	27	20	9	71	144	153	11.30	14.30	6.20	80	22	16	83	14	200
-0.2	24	17	7	61	124	133	9.30	12.30	6.70	75	20	14	88	11	180
-1.2	21	14	5	51	104	113	7.30	10.30	8.20	70	18	12	93	8	160
-2.2	18	11	--	41	84	93	5.30	8.30	8.70	65	16	10	98	5	140
-3.2	15	8	--	31	64	73	3.30	6.30	9.20	60	14	8	103	2	120
-4.2	12	--	--	21	44	53	1.30	4.30	9.70	55	12	6	108	--	100
-5.2	9	--	--	11	24	33	--	2.30	10.20	50	10	4	113	--	80



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

ADAMS, SCHUYLER, BROWN AND PIKE COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-seven Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

April, 1928

M 72

ANNUAL FARM BUSINESS REPORT

Adams, Schuyler, Brown and Pike Counties, Illinois 1927

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

The 37 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $388 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. The average investment was $161 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $958 each to pay for his own labor, management and risk. This is called the LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1,720 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about $2,678 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 37 farmers EARNED 1.9 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 5.7 percent and the least successful third lacked 2.7 percent of having any return on their investments. The average investment on the 37 farms was $33,988 which amounts to $161 an acre. The higher profit third had an average investment of $166 and the lower profit third $140 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $113 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

Comparing the high and low earnings groups it is clear that difference in size of farm was not an important factor since there is only about 10 acres difference in average size between them. The more profitable farms did have a higher percentage of tillable land which gave them about 30 acres a farm more

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*S. F. Russell, L. E. McKinzie, W. P. Miller and F. N. Barrett, farm advisers in Adams, Schuyler, Brown and Pike counties respectively, cooperated in supervising and collecting the records used in this report.

land that could be used for crops. They had an average of 13 acres more corn, 12 acres more oats and 6 acres more wheat than the least profitable farms.

A greater advantage to the more profitable farms was in their higher yields. They produced about 12 bushels more corn, 6 bushels more oats and 2 bushels more wheat an acre than the least profitable farms. Since it ordinarily costs very little more to produce an acre of high yielding crop than an acre of low yielding crop any advantage in yield usually has a direct effect in increasing profits.

Another large advantage of the more profitable farms was in handling their livestock more efficiently. In the case of cattle, hogs and poultry the more successful farm operators secured a larger return per $100 of investment than the less successful operators. On all classes of livestock taken together they received $186 for each $100 of investment while the less successful operators received a corresponding income of only $109. With a smaller livestock investment per acre the more successful operators took in $7.12 more livestock income per acre. They did this with much less purchased feed too, since they sold more crops than they bought while the less successful operators bought about $1,000 a farm more crops than they sold. The buyer of feed is at a disadvantage as compared with the man who raises his feed especially on years when shipped in feed establishes the market. The shipped in feed must sell at a price to cover freight and dealers' profits. The producer of his own feed need not consider these items. For 1927 the corn market in western Illinois was in many cases established by the cost of corn shipped in from Kansas and Nebraska.

As is usually the case in studies of this kind, the one-third of the farms making the best profits gained more in having a larger gross income an acre than by having less expense an acre. In this case the high profit group had a gross income of $20.96 and a total expense of $11.52 an acre. The less successful group had a gross income of $11.34 and a total expense of $10.13 an acre. The larger operating expense is mostly due to purchases of feed. This purchased feed should have increased their gross income more than it did.

We may sum up this discussion by saying that the low profit farms suffered chiefly from low yields and low efficiency with livestock. The underlying causes of these conditions cannot be brought out by a strictly financial record. It is probable that one factor in greater livestock efficiency on the more successful farms is indicated in their having larger sales of dairy products.

There was not much difference between the high and low profit groups in operating costs except in the case of larger feed expense on farms of the latter group. In fact, the more profitable farms had a higher cost for labor. This labor evidently paid its way, however, in larger crop yields and in better results with livestock.

This report does not cover exactly the same territory as was covered by the corresponding report last year. It covers the same counties except that Adams County is included and Morgan County taken out of the area. It is interesting to observe, however, that for this section of the state the average rate earned in 1926 was 3.4 percent while for 1927 it was only 1.9 percent. The earnings for both years were lower than for either 1924 or 1925. Low yields of the grain crops in 1927 seems to be the chief cause of the further slump in earnings last year. This area produces large numbers of hogs and the slump in

hog prices was a further cause of reduced incomes. Improved prices for beef cattle seem to have had little effect in increasing the average cattle income. Higher prices for corn and oats brought no advantage to the average farm in this area where the feed grains are more often shipped in than shipped out.

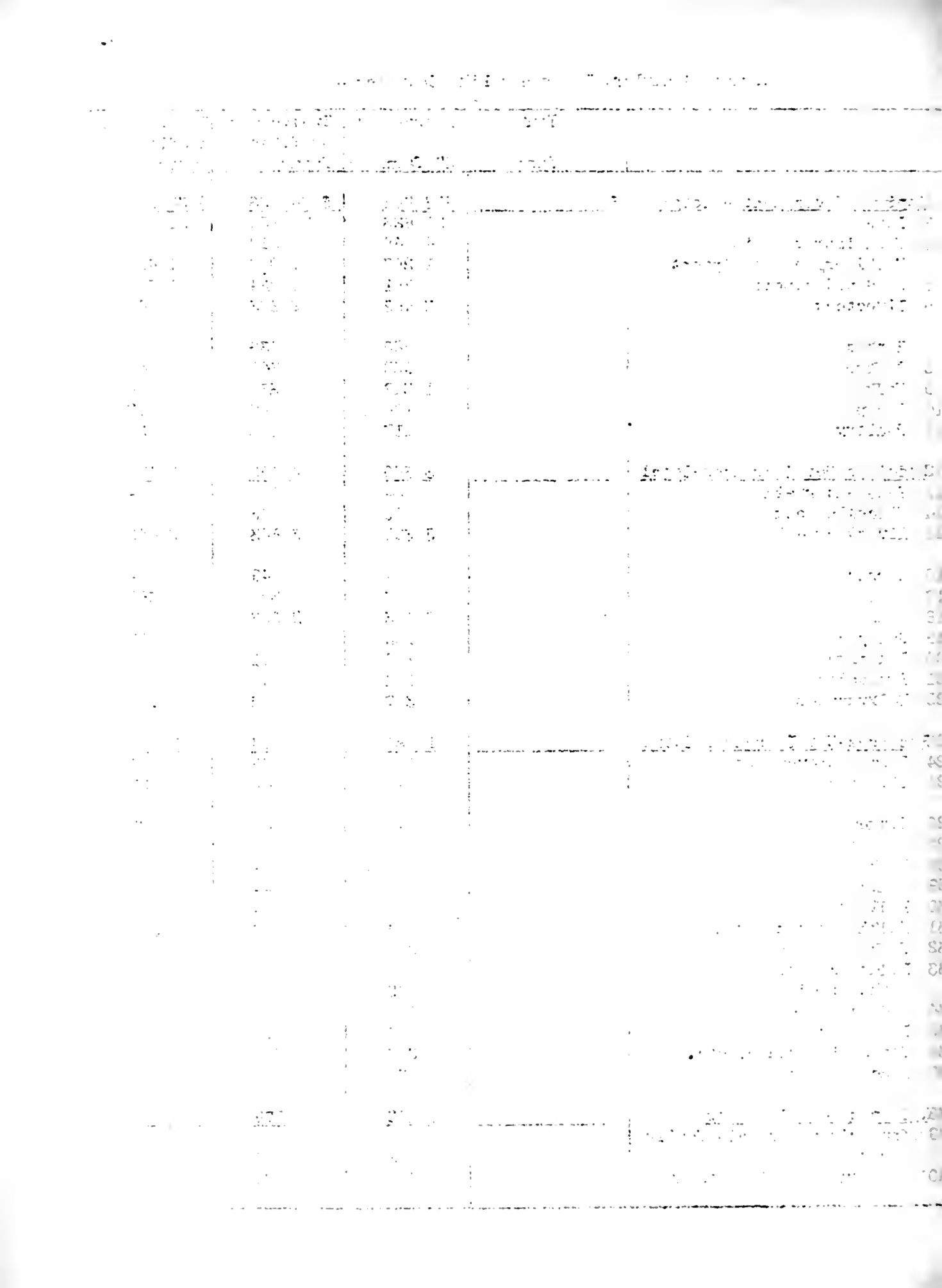
Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm as well as on farms of the group making the best profits and the group making the least profits.

Adams, Schuyler, Brown and Pike Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 37 farms	Twelve most profitable farms	Twelve least profitable farms
Rate earned	%	1.88%	5.68%	- 2.69%
Labor and management wage	$	$ -388	$ 958	$ -1,720
Size of farm - acres	A	211.7 A	209.5 A	220.3 A
Percent of land area tillable	%	76.3 %	88.3 %	60.4 %
Acres in Corn	A	50.5 A	58.6 A	45.4 A
Oats	A	22.3 A	29.0 A	16.5 A
Wheat	A	13.5 A	14.6 A	7.9 A
Crop yields - Corn	bu.	34.5 bu.	39.1 bu.	27.4 bu.
Oats	bu.	17.1 bu.	19.1 bu.	13.2 bu.
Wheat	bu.	11.3 bu.	11.2 bu.	9.0 bu.
Returns per $100 invested in all productive livestock	$	$ 138	$ 186	$ 109
For $100 in Cattle	$	$ 85	$ 140	$ 50
Hogs	$	$ 187	$ 211	$ 169
Poultry	$	$ 169	$ 187	$ 146
Investment per acre in productive livestock	$	$ 11.39	$ 9.80	$ 10.17
Receipts per acre from productive livestock	$	$ 15.69	$ 18.21	$ 11.09
Man labor cost per acre	$	$ 5.99	$ 6.28	$ 5.41
Crop acres per man	A	69.3 A	74.0 A	62.9 A
Crop acres per horse (with tractor)	A	23.1 A	24.5 A	23.5 A
(without tractor)	A	18.9 A	19.0 A	14.7 A
Expense per $100 gross income	$	$ 81.00	$ 55.00	$ 133.00
Machinery cost per acre	$	$ 1.77	$ 1.88	$ 1.70
Building and fencing cost per acre	$	$ .75	$ .80	$ .82
Gross receipts per acre	$	$ 15.90	$ 20.96	$ 11.34
Total expenses per acre	$	$ 12.88	$ 11.52	$ 15.13
Net receipts per acre	$	$ 3.02	$ 9.44	$ - 3.79
Farms with tractor		54.0 %	33.0 %	75.0 %
Value of land per acre	$	$ 113	$ 119	$ 96
Total investment per acre	$	$ 161	$ 166	$ 140

Adams, Schuyler, Brown and Pike Counties - 1927

		Your farm	Average of 37 farms	Twelve most profitable farms	Twelve least profitable farms
1	Capital Investment - Total	$	$33 988	$ 34 833	$ 30 924
2	Land		23 823	24 858	21 061
3	Farm improvements		4 048	4 218	4 030
4	Machinery and equipment		1 247	1 050	1 491
5	Feed and supplies		1 881	1 834	1 701
6	Livestock		2 989	2 873	2 641
7	Horses		525	638	399
8	Cattle		952	740	949
9	Hogs		1 219	1 330	1 056
10	Sheep		176	60	112
11	Poultry		117	105	125
12	Receipts-Net Increases-Total		3 366	4 392	2 499
13	Feed and grain		--	486	--
14	Miscellaneous		45	43	56
15	Livestock - Total		3 321	3 863	2 443
16	Horses		--	49	--
17	Cattle		547	358	386
18	Hogs		2 113	2 653	1 681
19	Sheep		135	62	72
20	Poultry		106	111	99
21	Egg sales		103	98	98
22	Dairy sales		317	532	107
23	Expenses-Net Decreases-Total		1 824	1 514	2 501
24	Farm improvements		159	168	181
25	Livestock		--	--	22
26	Horses		--	--	22
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		374	395	374
32	Feed and supplies		394	--	1 039
33	Livestock expense other than feed		62	57	47
34	Crop expense		157	160	188
35	Labor hired		366	416	359
36	Taxes, insurance, etc.		287	294	263
37	Miscellaneous		25	24	28
38	Receipts less Expenses		1 542	2 878	- 2
39	Operator's and unpaid family labor		903	899	832
40	Net income from investment		639	1 979	- 834



Find Your Farm Leaks

Adams, Schuyler, Brown, and Pike Counties, 1927

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 section of the state.

Rate	Bushels per acre of			Returns per $100 invested in			Invest. per A.	Receipts per acre	Man labor cost per	Crop acres per			Expense per $100	Gross receipts	Size of
											Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry	in L.S.	from L.S.	acre	Man	Tractor	No tractor	income	per acre	farm
8.9	62	31	25	155	327	309	25.40	29.70	2.50	105	37	33	46	37	350
7.9	58	29	23	145	307	289	23.40	27.70	3.00	100	35	31	51	34	330
6.9	54	27	21	135	287	269	21.40	25.70	3.50	95	33	29	56	31	310
5.9	50	25	19	125	267	249	19.40	23.70	4.00	90	31	27	61	28	290
4.9	46	23	17	115	247	229	17.40	21.70	4.50	85	29	25	66	25	270
3.9	42	21	15	105	227	209	15.40	19.70	5.00	80	27	23	71	22	250
2.9	38	19	13	95	207	189	13.40	17.70	5.50	75	25	21	76	19	230
1.9	34	17	11	85	187	169	11.40	15.70	6.00	70	23	19	81	16	210
0.9	30	15	9	75	167	149	9.40	13.70	6.50	65	21	17	86	13	190
-0.1	26	13	7	65	147	129	7.40	11.70	7.00	60	19	15	91	10	170
-1.1	22	11	5	55	127	109	5.40	9.70	7.50	55	17	13	96	7	150
-2.1	18	9	-	45	107	89	3.40	7.70	8.00	50	15	11	101	4	130
-3.1	14	7	-	35	87	69	1.40	5.70	8.50	45	13	9	106	-	110
-4.1	10	-	-	25	67	49	--	3.70	9.00	40	11	7	111	-	90
-5.1	--	-	-	15	47	29	--	1.70	9.50	35	9	5	116	-	70

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Department of Farm Organization and Management

and

MASON, PEORIA, AND CASS COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-four Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 94

ANNUAL FARM BUSINESS REPORT

Mason, Peoria and Cass Counties, Illinois 1927

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

The 34 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $52 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. Tho average investment was $180 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $1277 each to pay for his own labor, management, and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1071 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of $2348 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 34 farmers EARNED 3.1 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 6.5 percent and the least successful third nine-tenths of one percent. The average investment on the 34 farms was $41,098, which amounts to $180 an acre. The higher profit third had an average investment of $161 and the lower profit third $157 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $133 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in average size between farms of the high and low profit groups. In this case, however, the 11 most profitable farms averaged 33 acres larger and they had a higher percentage of tillable land which gave them 56 acres per farm more tillable land than the 11 least profitable farms. This larger size helped give a larger volume of business and it gave the more successful operators an opportunity to use their labor,

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* T. R. Isaacs, Wilfred Shaw, and G. H. Husted, farm advisers in Mason, Peoria and Cass Counties respectively, cooperated in supervising and collecting the records used in this report.

power and equipment more efficiently. The more profitable farms had 20 acres per farm more corn, 30 acres more wheat and 13 acres more sweet clover. Although larger they had an average of 5 acres less oats than the less profitable farms.

Investigations of costs and incomes per acre for the different crops have shown that for ordinary Illinois conditions the margin of profit is wider for corn, wheat, alfalfa and sweet clover pasture than for other common crops. It is significant that the 11 most profitable farms had 74 percent of their tillable land in these crops as compared with 56 percent for the 11 least profitable farms.

One of the chief advantages of the more successful farm operators was in their higher crop yields. They produced 10 bushels more corn, 9 bushels more oats, and 7 bushels more wheat per acre than the less successful operators. As it usually costs little more to produce an acre of high yielding crop than an acre of low yielding crop, this was a big help toward higher net earnings. Figured on their entire acreage the 11 most profitable farms produced 2,015 more bushels of corn, oats and wheat than the 11 least profitable farms.

Another great advantage of the more successful operators was in their greater efficiency in livestock management. They had practically the same investment per acre in livestock but they secured $4.73 more livestock income per acre than the less successful operators. Expressed in another way, the 11 most profitable farms produced a livestock income of $143 for each $100 of livestock investment as compared with a livestock income of $96 for each $100 of livestock investment on the 11 least profitable farms. The records show that the larger livestock incomes on the more profitable farms were due to larger increases from hogs and cattle. There was little difference between the high and low income groups in the amount of dairy sales per farm.

On the expense side of the business the more successful operators show lower costs per acre for labor and power. There was little difference between the two groups in equipment and improvement costs per acre.

This discussion may be summed up by stating that the more profitable farms were successful because of larger gross incomes with no larger costs per acre. The high and low income groups had practically the same operating costs per acre, but the 11 most profitable farms had an average gross income of $22.02 an acre compared with less than half of this amount or $10.17 an acre for the 11 least profitable farms. The results were a net income of $10.53 an acre and a net loss of $1.40 an acre respectively. The larger gross incomes were derived from crops, hogs and cattle.

The volume of business as indicated by the gross income per farm was too low on the less profitable farms. Their average gross income was only $1,944 per farm. All farm operators with a gross income of less than $3,000 should carefully consider the possibilities of increasing it. Some of the cooperators in the farm account project have increased their volume of business by one or more of the following methods: (1) by increasing the acreage of the more intensive crops, such as corn, alfalfa, and sweet clover pasture; (2) by increasing the size of the dairy or poultry enterprises; (3) by adopting fruit and truck crops; (4) by farming more acres. The best method for the individual farm will depend upon the labor supply, soil conditions, available markets and available capital.

A report covering most of these same farms was published for 1926. Some additional records from Cass County were included in this report, and allowance

must be made for this shift in territory. With this allowance some interesting comparisons can be made as to relative income and investment figures for the last two years as given in the following table. It is evident that farm earnings in this territory were slightly lower for 1927. The average income per acre was about the same but operating costs averaged somewhat higher for 1927.

Comparative Earnings on Some Farms in Mason, Peoria, and Cass Counties

Items	1926[1]	1927
Number of farms included	26	34
Average size of farm in acres	198	229
Average rate earned	3.6%	3.1%
Average value of land per acre	$ 133	$ 133
Average investment per acre	181	180
Investment in livestock per farm	2,146	2,986
Investment in cattle per farm	865	1,246
Investment in hogs per farm	506	859
Investment in poultry per farm	113	144
Gross income per acre	17.60	17.99
Operating cost per acre	11.08	12.35
Crop income less feed purchases per farm	1,527	1,012
Miscellaneous income per farm	106	99
Livestock income per farm	1,849	3,005
Gross income per farm	3,482	4,116
Cattle income per farm	242	807
Dairy sales per farm	373	672
Hog income per farm	1,029	1,271
Poultry income per farm	201	234

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.

[1]Records from Mason, Peoria and Tazewell Counties for 1926.

Mason, Peoria and Cass Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 34 farms	Eleven most profitable farms	Eleven least profitable farms
Rate earned	%	3.13 %	6.54 %	.90 %
Labor and management wage	$	$ -52	$1,277	$-1,071
Size of farm - acres	A	228.8 A	224.7 A	191.2 A
Percent of land area tillable	%	81.4 %	86.2 %	71.6 %
Acres in Corn	A	66.2 A	68.3 A	47.9 A
Oats	A	25.2 A	19.1 A	24.0 A
Wheat	A	45.8 A	54.2 A	23.9 A
Crop yields - Corn	bu.	39.2 bu.	39.8 bu.	29.7 bu.
Oats	bu.	22.2 bu.	24.8 bu.	15.4 bu.
Wheat	bu.	12.4 bu.	14.8 bu.	7.8 bu.
Percent in high profit crops*		68.1 %	74.5 %	56.4 %
Returns per $100 invested in all productive livestock	$	$ 129	$ 143	$ 96
For $100 in Cattle	$	$ 110	$ 134	$ 86
Hogs	$	$ 155	$ 157	$ 116
Poultry	$	$ 159	$ 125	$ 134
Investment per acre in productive livestock	$	$ 10.19	$ 9.38	$ 9.02
Receipts per acre from productive livestock	$	$ 13.13	$ 13.41	$ 8.68
Man labor cost per acre	$	$ 6.05	$ 5.67	$ 6.21
Crop acres per man	A	96.4 A	103.7 A	91.8 A
Crop acres per horse (with tractor)	A	26.8 A	30.0 A	22.1 A
(without tractor)	A	24.3 A	26.3 A	23.1 A
Expense per $100 gross income	$	$ 69	$ 52	$ 114
Machinery cost per acre	$	$ 1.87	$ 1.92	$ 1.56
Building and fencing cost per acre	$	$ 1.01	$ .97	$ .84
Gross receipts per acre	$	$ 17.99	$ 22.02	$ 10.17
Total expenses per acre	$	$ 12.35	$ 11.49	$ 11.57
Net receipts per acre	$	$ 5.64	$ 10.53	$ -1.40
Farms with tractor		55.9 %	36.4 %	45.5 %
Value of land per acre	$	$ 133	$ 117	$ 115
Total investment per acre	$	$ 180	$ 161	$ 157

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

Mason, Peoria and Cass Counties - 1927

		Your farm	Average of 34 farms	Eleven most profitable farms	Eleven least profitable farms
1	Capital Investment - Total	$	$ 41 098	$ 36 197	$ 30 003
2	Land		30 511	26 264	21 952
3	Farm improvements		3 488	3 109	3 031
4	Machinery and equipment		1 653	1 448	1 258
5	Feed and supplies		2 460	2 389	1 479
6	Livestock		2 986	2 987	2 283
7	Horses		714	648	536
8	Cattle		1 246	1 198	1 106
9	Hogs		859	994	442
10	Sheep		22	6	63
11	Poultry		144	141	136
12	Bees		1	--	--
13	Receipts-Net Increases-Total		4 116	4 949	1 944
14	Feed and grain		1 012	1 790	252
15	Miscellaneous		99	146	33
16	Livestock - Total		3 005	3 013	1 659
17	Horses		--	--	--
18	Cattle		807	703	238
19	Hogs		1 271	1 396	434
20	Sheep		18	5	51
21	Poultry		99	88	86
22	Egg sales		135	92	100
23	Dairy sales		672	729	743
24	Bees		3	--	7
25	Expenses-Net Decreases-Total		1 931	1 688	1 395
26	Farm improvements		230	219	160
27	Livestock		55	42	45
28	Horses		55	42	45
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry		--	--	--
33	Machinery and equipment		427	431	298
34	Feed and supplies		--	--	--
35	Livestock expense other than feed		55	55	37
36	Crop expense		235	202	139
37	Labor hired		489	379	370
38	Taxes, insurance, etc.		401	323	303
39	Miscellaneous		26	25	30
40	Dairy expense		13	12	13
41	Receipts less Expenses		2 185	3 261	549
42	Operator's and unpaid family labor		895	895	818
43	Net income from investment		1 290	2 366	- 269

Find Your Farm Leaks

Mason, Peoria and Cass Counties, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Horse				
											Tractor	No tractor			
10.1	60	43	26	180	295	299	24.19	27.13	2.50	131	41	38	35	39	370
9.1	57	40	24	170	275	279	22.19	25.13	3.00	126	39	36	40	36	350
8.1	54	37	22	160	255	259	20.19	23.13	3.50	121	37	34	45	33	330
7.1	51	34	20	150	235	239	18.19	21.13	4.00	116	35	32	50	30	310
6.1	48	31	18	140	215	219	16.19	19.13	4.50	111	33	30	55	27	290
5.1	45	28	16	130	195	199	14.19	17.13	5.00	106	31	28	60	24	270
4.1	42	25	14	120	175	179	12.19	15.13	5.50	101	29	26	65	21	250
3.1	39	22	12	110	155	159	10.19	13.13	6.00	96	27	24	70	18	230
2.1	36	19	10	100	135	139	8.19	11.13	6.50	91	25	22	75	15	210
1.1	33	16	8	90	115	119	6.19	9.13	7.00	86	23	20	80	12	190
0.1	30	13	6	80	95	99	4.19	7.13	7.50	81	21	18	85	9	170
-0.9	27	10	4	70	75	79	2.19	5.13	8.00	76	19	16	90	6	150
-1.9	24	7	-	60	55	59	----	3.13	8.50	71	17	14	95	3	130
-2.9	21	-	-	50	35	39	----	----	9.00	66	15	12	100	-	110
-3.9	18	-	-	40	15	19	----	----	9.50	61	13	10	105	-	90

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

WOODFORD COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Fifty-four Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 89

ANNUAL FARM BUSINESS REPORT

Woodford County, Illinois, 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 54 farmers in Woodford County who kept financial records in the Illinois Farm Account Project for 1927 had an average of $17 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $235 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,088, while the one-third who were least successful lacked an average of $1,166 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2,254 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 54 farmers EARNED 3.5 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 5.9 percent and the least successful third 1.3 percent. The average investment on the 54 farms was $47,267, which amounts to $235 an acre. The higher profit third had an average investment of $230 and the lower profit third $234 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $189 an acre on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in average size of farm between the high and low profit groups. In this case the farms of the low profit group averaged about 31 acres larger. Of this extra acreage only 18 acres was tillable land and about half of the 18 acres was in oats. Five additional acres was in bluegrass. This indicates that the extra acres on the less profitable farms went chiefly to increase their acreage of low income crops.

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

Investigations of costs and incomes per acre for different crops have shown that under ordinary Illinois conditions the margin of profit is wider for corn, wheat, alfalfa and sweet clover pasture than for other common crops. It is important that the 18 most profitable farms had 57 percent of their tillable land in these crops as compared with 50 percent on the 18 least profitable farms.

One of the chief advantages of the more profitable farms was in their higher crop yields. They produced an average of about 5 bushels more corn and 7 bushels more oats per acre than the less profitable farms. The acreage of wheat was too small to have much effect on profits. It usually costs but little more to produce an acre of high yielding than an acre of low yielding crop. Any increase in yield, therefore, has a direct effect in reducing the cost per bushel and increasing the profit on the crop.

Another important advantage of the more successful operators was due to their greater efficiency in livestock management. They had only $1.61 more livestock investment per acre, but they secured $3.57 more livestock income per acre than did the less successful farmers. This difference is not so great as is usually found between the farms of the two groups, but it contributed its part to the improvement in earnings. That feeding was more efficient on the more profitable farms is indicated by the fact that on these farms as much or more livestock was fed, the acreage in crops was smaller, and yet these farms had an average of nearly $1,200 more income from crops than the less profitable farms. Only a part of this larger crop income was due to larger crop yields.

On the expense side of the business the more profitable farms had no advantage. In fact, they show slightly larger total operating costs per acre than on the less profitable farms. The more successful farmers farmed less crop acres per man and had a somewhat larger labor cost per acre. They had slightly lower costs for equipment and improvements, however. The extra labor cost was justified by the larger crop yields and greater income from livestock.

We may sum up this discussion by stating that the 18 most profitable farms were successful because of larger gross incomes per acre with practically no larger operating costs per acre. The larger gross incomes were due to better yields, a larger proportion of high profit crops, more efficient feeding and to larger incomes from dairy products, poultry products and cattle. They had smaller average incomes from hogs, but they also had smaller investments in hogs than the 18 less profitable farms. The more profitable farms had an average net income per acre of $13.50 compared with a corresponding net income on the less profitable farms of $3.01. Interest is not deducted, but these figures represent the amounts that may be applied as interest on the investment.

The comparative income and investment figures for Woodford County for the last five years are given in the following table. With the fortunate exception of 1924 it is surprising that the average rate of earnings has remained so near the same level. There is a striking uniformity also in the gross income and total expense per acre. The generally unsatisfactory conditions for the business of farming are reflected in this table, especially when we realize that repeated investigations have shown that the farms in the accounting project average about 2 percent higher rates on the investment than the rank and file of all farmers.

Comparative Earnings on Woodford County Farms

ITEM	1923	1924	1925	1926	1927
Number of farms included	95	101	44*	55	54
Average size of farms in acres	204	208	190	191	200
Average rate earned	3.1%	7.2%	3.3%	2.9%	3.5%
Average value of land per acre	$ 215	$ 223	$ 211	$ 200	$ 189
Average investment per acre	271	281	266	250	235
Investment in livestock per farm	2,863	2,655	2,223	2,234	2,468
Investment in cattle per farm	858	910	740	730	741
Investment in hogs per farm	848	697	530	639	899
Investment in poultry per farm	148	141	123	147	147
Gross income per acre	21.48	32.58	22.06	19.96	20.13
Operating cost per acre	12.94	12.21	13.16	12.59	11.81
Crop income less feed purchases per farm	2,372	4,399	1,996	1,440	1,715
Miscellaneous income per farm	79	80	48	34	29
Livestock income per farm	1,902	2,300	2,148	2,340	2,298
Gross income per farm	4,353	6,779	4,192	3,814	4,042
Cattle income per farm	491	404	287	283	456
Dairy sales per farm	196	258	293	343	392
Hog income per farm	948	1,328	1,271	1,434	1,171
Poultry income per farm	224	233	254	249	252

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

*Beginning in 1925 a new accounting project was organized in which 62 Woodford County farms were included, thus reducing the number in this project.

Woodford County - 1927

Factors helping to analyze the farm business	Your farm	Average of 54 farms	Eighteen most profitable farms	Eighteen least profitable farms
Rate earned	%	3.53 %	5.88 %	1.28 %
Labor and management wage	$	$ 17	$1,088	$-1,166
Size of farm - acres	A	200.8 A	185.27 A	216.94 A
Percent of land area tillable	%	85 %	83 %	79.2 %
Acres in Corn	A	73.1 A	75.0 A	75.3 A
Oats	A	47.7 A	45.1 A	53.8 A
Wheat	A	6.3 A	5.8 A	8.6 A
Crop yields - Corn	bu.	40.74 bu.	42.0 bu.	37.02 bu.
Oats	bu.	33.43 bu.	36.08 bu.	29.26 bu.
Wheat	bu.	18.58 bu.	18.80 bu.	18.02 bu.
Percent in high profit crops*		50.91 %	56.75 %	49.57 %
Returns per $100 invested in all productive livestock	$	$126	$ 138	$ 121
For $100 in Cattle	$	$102	$ 107	$ 94
Hogs	$	$149	$ 168	$ 143
Poultry	$	$170	$ 201	$ 140
Investment per acre in productive livestock	$	$ 9.07	$ 9.83	$ 8.22
Receipts per acre from productive livestock	$	$ 11.44	$ 13.54	$ 9.97
Man labor cost per acre	$	$ 6.72	$ 6.93	$ 5.67
Crop acres per man	A	92.0 A	85.0 A	102.9 A
Crop acres per horse (with tractor)	A	25.4 A	25.0 A	26.4 A
(without tractor)	A	21.3 A	18.4 A	22.5 A
Expense per $100 gross income	$	$ 59	$ 47	$ 80
Machinery cost per acre	$	$ 1.59	$ 1.40	$ 1.73
Building and fencing cost per acre	$	$ .73	$ .67	$ .84
Gross receipts per acre	$	$ 20.13	$ 25.67	$ 14.72
Total expenses per acre	$	$ 11.81	$ 12.17	$ 11.71
Net receipts per acre	$	$ 8.32	$ 13.50	$ 3.01
Farms with tractor		63 %	72 %	67 %
Value of land per acre	$	$189	$ 182	$ 189
Total investment per acre	$	$235	$ 230	$ 234

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

Woodford County - 1927

		Your farm	Average of 54 farms	Eighteen most profitable farms	Eighteen least profitable farms
1	Capital Investment - Total	$	$ 47 267	$ 42 559	$ 50 830
2	Land		37 861	33 641	41 018
3	Farm improvements		3 311	2 877	3 657
4	Machinery and equipment		1 316	1 334	1 429
5	Feed and supplies		2 311	2 258	2 389
6	Livestock		2 468	2 449	2 337
7	Horses		628	645	578
8	Cattle		741	841	558
9	Hogs		899	750	1 014
10	Sheep		51	47	33
11	Poultry		147	166	154
12	Bees		2	-	-
13	Receipts-Net Increases-Total		4 042	4 755	3 194
14	Feed and grain		1 715	2 187	1 002
15	Miscellaneous		29	27	28
16	Livestock - Total		2 298	2 541	2 164
17	Horses		--	32	--
18	Cattle		456	533	451
19	Hogs		1 171	1 176	1 264
20	Sheep		27	27	10
21	Poultry		110	148	92
22	Egg sales		142	189	123
23	Dairy sales		392	436	224
24	Expenses-Net Decreases-Total		1 438	1 297	1 641
25	Farm improvements		147	125	182
26	Livestock		--	--	43
27	Horses		--	--	43
28	Cattle		--	--	--
29	Hogs		--	--	--
30	Sheep		--	--	--
31	Poultry		--	--	--
32	Machinery and equipment		320	259	375
33	Feed and supplies		--	--	--
34	Livestock expense other than feed		34	33	29
35	Crop expense		191	171	209
36	Labor hired		315	327	329
37	Taxes, insurance, etc.		407	358	451
38	Miscellaneous		24	24	23
39	Receipts less Expenses		2 604	3 458	1 553
40	Operator's and unpaid family labor		934	957	900
41	Net income from investment		1 670	2 501	653

Find Your Farm Leaks

Woodford County, 1927

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	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
										Man	Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry					Tractor	No tractor			
10.5	61	54	32	172	289	310	16	25.50	3.25	127	39	35	25	41	340
9.5	58	51	30	162	269	290	15	23.50	3.75	122	37	33	30	38	320
8.5	55	48	28	152	249	270	14	21.50	4.25	117	35	31	35	35	300
7.5	52	45	26	142	229	250	13	19.50	4.75	112	33	29	40	32	280
6.5	49	42	24	132	209	230	12	17.50	5.25	107	31	27	45	29	260
5.5	46	39	22	122	189	210	11	15.50	5.75	102	29	25	50	26	240
4.5	43	36	20	112	169	190	10	13.50	6.25	97	27	23	55	23	220
3.5	40	33	18	102	149	170	9	11.50	6.75	92	25	21	60	20	200
2.5	37	30	16	92	129	150	8	9.50	7.25	87	23	19	65	17	180
1.5	34	27	14	82	109	130	7	7.50	7.75	82	21	17	70	14	160
0.5	31	24	12	72	89	110	6	5.50	8.25	77	19	15	75	11	140
-0.5	28	21	10	62	69	90	5	3.50	8.75	72	17	13	80	8	120
-1.5	25	18	8	52	49	70	4	1.50	9.25	67	15	11	85	5	100
-2.5	22	15	6	42	29	50	3	----	9.75	62	13	9	90	2	80
-3.5	19	12	4	32	9	30	2	----	10.25	57	11	7	95	-	60

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

THIRD ANNUAL REPORT

of the

FARM BUREAU-FARM MANAGEMENT SERVICE

for the year

1927

This report prepared for the farm operated by

_____

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

Urbana, Illinois
April, 1923

THIRD ANNUAL REPORT

For the Cooperators in the Farm Bureau-Farm Management Service For the Year 1927

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

An average of 3.7 percent on the entire farm investment, after deducting all expenses and $720 allowance for the value of the operator's labor, was made by the 200 farmers who are cooperators in the Farm Bureau-Farm Management Service and whose records were used in preparing this report. The average investment in land, buildings, livestock, and other equipment was $253.81 per acre with land valued at $192.84. Expressing the earnings in another way, these men after paying all expenses of operating their farms and allowing 5 percent interest charge on the investment lacked $46 per farm of getting any return for their own labor.

In addition to the above earnings each family secured produce from the farm which, based on records kept on 188 farms, amounted to $439.15 at farm prices. The investment in the farm residence and the expenses for repairs and upkeep on it were not included in these accounts. Therefore the use of the residence is not considered an income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A survey study of all farms in one township in McLean County in 1925 in about the center of the four counties included in this project, and similar studies of farm incomes made in Bond County in 1926 and in Henry County in 1927 indicate that the farms on which the records were kept in this project earned about 2 percent higher rate on the investment than the average of all farms in the same part of the state.

Differences in Earnings Between Farms

There are wide variations in the earnings on the most successful and the least successful farms. The 40 most profitable of the 200 farms made 5 percent interest on the investment and had $1,643 to pay the operator for his own labor and management, while the 40 least profitable farms lacked $1,352 of making 5 percent on the investment and left nothing to the operator for his own labor and management.

This amounts to a total difference of $2,995 in the return for the labor and management of the operators between the high and low groups of farms. This may be expressed in another way by saying, after all expenses were paid and the operator allowed $720 for his own labor, the most profitable group made 6.58 percent on the investment, while the least profitable group made only .9 percent on the money invested.

What Accounted for the Difference in Farm Earnings

The one-fifth most profitable farms (40 farms) had an income of $28.73 an acre, while the one-fifth least profitable farms had an income of only $17.06 per acre (see Table 2). The total expenses per acre on the two groups of farms were $12.42 and $14.77 per acre respectively. In other words, the most profitable group of farms with $2.35 less expense per acre received $11.67 larger returns per acre. The same table shows that the least profitable farms were somewhat smaller in size on the average and that they had a little larger investment per acre.

Location of Differences in Incomes between the More Profitable and the Less Profitable Farms

Most of the difference of approximately $3,000 in the average net earnings for each of the 40 most profitable and the 40 least profitable farms is accounted for in Chart 1.

Chart 1. Location of Differences in Incomes between the 40 Most Profitable and the 40 Least Profitable Farms. 1927 data.

Factors considered	The lengths of the shaded bars are in proportion to the amounts of the differences	Average difference in incomes
Crop yields	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	735
Kind of crops	XXXXXXXXX	146
Amount of livestock	XXXX	57
Efficiency of livestock	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	625
Efficiency of man labor	XXXXXXXXXXXXX	215
Efficiency of power and mach'y	XXXXXXXXXXXXXXXXX	269
Other expenses	XXXXXX	93

Crop Yields - The yields per acre on the most profitable farms were: corn 45.1 bushels, oats 35.0 bushels, wheat 18.1 bushels and hay 1.8 tons. On the least profitable group the yields were: corn 36.9 bushels, oats 30.8 bushels, wheat 15.8 bushels and hay 1.4 tons. These differences of 8.2 bushels of corn, 4.2 bushels of oats, 2.3 bushels of wheat and .4 tons of hay were applied to the average acreages of those crops on the two groups of farms. With corn valued at 65 cents per bushel, oats at 45 cents, wheat at $1.25 and hay at $15.00 per ton and proportional values to the small amounts of land in other crops, the total difference in value of crops on the average farm in each of the two groups of farms amounts to $735. (See Chart 1)

Kinds of Crops Grown - The more profitable farms had a larger proportion of land in the more profitable crops of corn, wheat, alfalfa, sweet clover and canning crops but a smaller acreage of oats, bluegrass and timothy than were grown on the less profitable farms. This difference accounts for about $146. (See Chart 1).

Amount of Livestock - The more profitable farms fed $1,796.75 worth of feed valued at farm prices while $1,644.74 worth of feed was fed on the less profitable farms. As an average of the two groups, for each $100 worth of feed fed there were livestock returns of $137.28; that is, the product from $100 worth of feed fed on the farm was worth $37.28 more than the farm price of the feed. This difference applied to the additional $152.01 worth of feed used on the more profitable farms accounts for about $57 of the total difference between the two groups.

Efficiency of Livestock - The 40 more profitable farms realized $155.44 from each $100 worth of feed fed to productive livestock while the 40 less

profitable farms received only $119.12 or a difference of $36.32 for each $100 worth of feed used. The average amount of feed used on the two groups of farms was valued at $1,720.74 at farm prices. The larger returns for each $100 of this feed used on the more profitable farms accounts for about $625 of the difference in average farm income between the two groups of farms. This does not include the cost of keeping horses on the two groups of farms. This greater income to the more profitable farms for each $100 worth of feed used was apparent in case of each class of livestock. For beef cattle, the difference was $52.41, mixed beef and dairy herds $28.71, dairy herds $53.08, hogs $23.07, sheep $131.04, and poultry $61.26.

Less than one-half of the grain produced on these farms was fed, the rest being sold as grain. In areas where all the grain is fed on the farms, this matter of livestock efficiency becomes relatively more important.

Efficiency of Man Labor - The total labor cost, including the operator's and family labor at hired man rates, was $6.27 per acre on the 40 more profitable farms and $7.26 on the less profitable ones. This difference of 99 cents per acre applied to the average size of farms in the two groups amounts to $215. This is more significant when one realizes that the returns were nearly twice as high on the more profitable farms.

Power and Machinery Costs - The total cost per acre of horse and tractor power and machinery on the most profitable farms amounted to only $3.87 per acre compared with a cost of $5.11 per acre on the least profitable farms. This difference in cost of power and machinery of $1.24 per acre would amount to a difference of $269 less cost per farm in favor of the most profitable farms.

Other Expenses - Expenses other than labor, power and machinery amounted to $4.44 and $4.87 per acre on the respective groups of farms. This difference of 43 cents per acre accounted for $93 in the differences in net incomes of the two groups of farms.

In noting the differences in earnings between these two groups of farms it should be recognized that the operators of many of the more profitable farms have spent from five years to a generation in improving the soil, selecting good seed, establishing a good cropping system, developing efficient herds of livestock and in equipping their farms for economical operation in accordance with a carefully worked out plan. Even tho it may require some time to bring a farm from a low profit to a high profit farm, the difference in earnings justifies the effort in developing a well balanced farm.

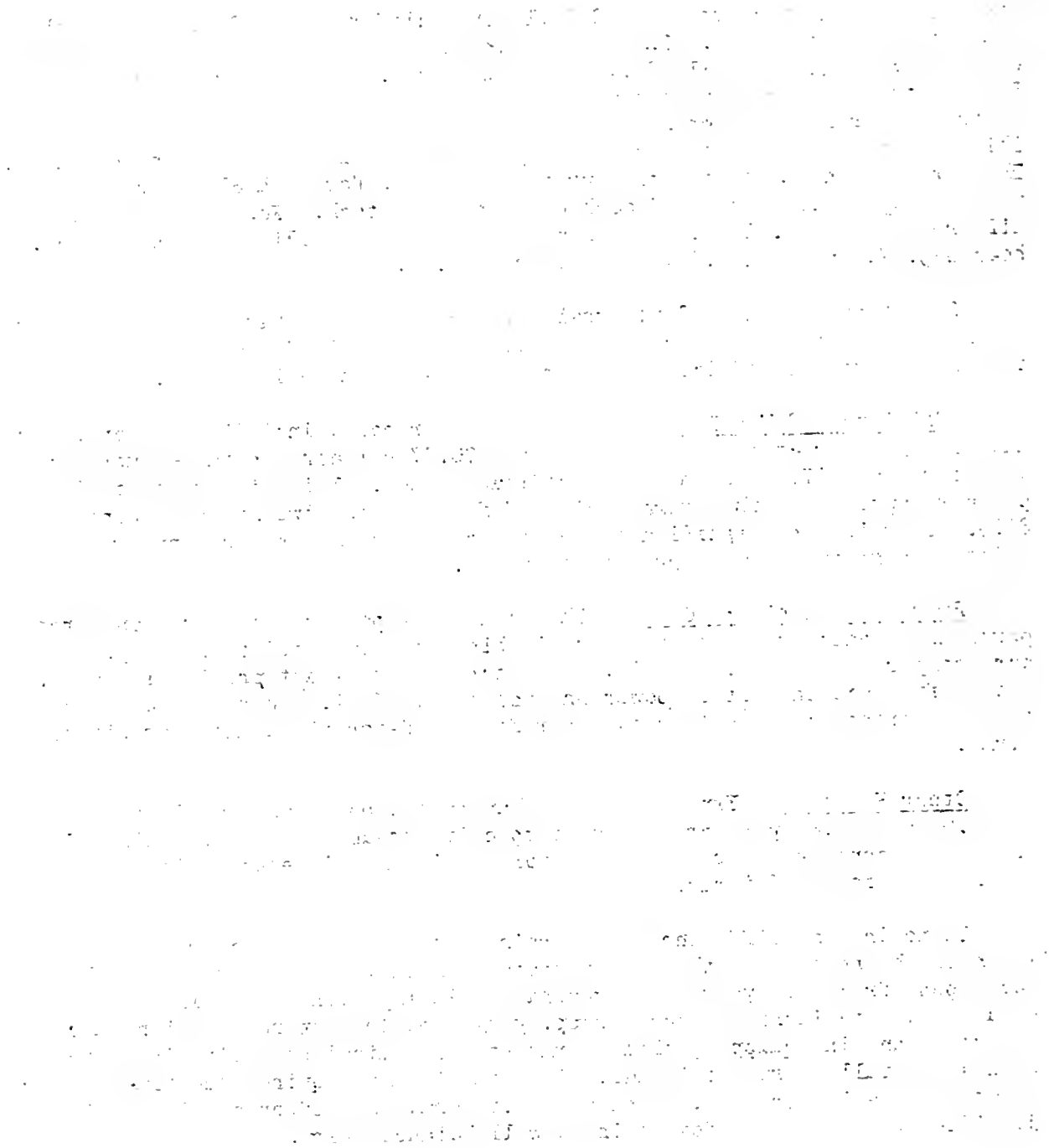


Table 1. SUMMARY OF THE YEAR'S FARM BUSINESS

Your summary as shown on pages 34 and 35 of your book compared with 200 farms, the forty most profitable and the forty least profitable farms.

	Items	Your farm	Average of 200 farms	40 most profitable farms	40 least profitable farms
1	Capital Investments - Total	$_____	$58,756	$58,469	$50,534
2	Land		44,641	45,695	37,627
3	Farm improvements		5,541	4,777	4,900
4	Machinery and equipment		1,939	1,799	1,941
5	Feed, grain and supplies		3,457	3,515	2,960
6	Livestock - Total		3,178	2,683	3,106
7	Horses		765	687	671
8	Cattle		1,058	808	1,141
9	Hogs		989	916	883
10	Sheep		176	87	157
11	Poultry		172	179	174
12	Bees		18	6	80
13	Receipts - Net Increases-Total	$_____	$ 5,274	$ 6,780	$ 3,382
14	Farm improvements		---	---	---
15	Feed, grain and supplies		2,683	4,007	1,354
16	Labor off the farm		67	128	32
17	Miscellaneous		8	14	7
18	Livestock - Total		2,516	2,631	1,989
19	Horses		5	25	---
20	Cattle		562	490	572
21	Hogs		1,247	1,342	868
22	Sheep		67	52	42
23	Poultry		110	152	115
24	Egg sales		140	149	111
25	Dairy sales		380	419	260
26	Bees		5	2	21
27	Expenses - Net Decreases-Total	$_____	$ 2,136	$ 2,006	$ 1,918
28	Farm improvements		256	221	244
29	Machinery and equipment		469	404	511
30	Feed, grain and supplies		---	---	---
31	Miscellaneous livestock expense		49	47	40
32	Miscellaneous crop expense		255	252	228
33	Hired labor		573	554	429
34	Taxes, insurance, etc.		483	477	410
35	Miscellaneous expenses		46	51	44
36	Horses - decreases		--	--	12
37	Miscellaneous livestock decreases		--	--	--
38	Receipts less expenses	$_____	$ 3,138	$ 4,774	$ 1,464
39	Operator's and family labor		951	925	1,009
40	Net income from investment	_____	2,187	3,849	455

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

Item	Your farm	Average of 200 farms	40 most profitable farms	40 least profitable farms
Rate earned on investment	%	3.72%	6.58%	0.90%
Labor and management wage	$	$ - 46.	$1,643.	$-1,352.
Gross receipts per acre		22.78	28.73	17.06
Total expense per acre		13.33	12.42	14.77
Net receipts per acre		9.45	16.31	2.29
Size of farm		231.5	236.0	198.2
Total investments per acre	$	$ 253.81	$ 247.75	$ 254.96
Land		192.84	193.63	189.85
Farm improvements		23.94	20.24	24.72
Machinery and equipment		8.38	7.62	9.79
Feed, grain and supplies		14.93	14.89	14.93
Horses		3.30	2.91	3.39
Productive livestock		10.42	8.46	12.28
Corn - Bushels per acre		42.0	45.1	36.9
Oats - Bushels per acre		34.5	35.0	30.8
Wheat - Bushels per acre		16.8	18.1	15.8
Hay - Tons per acre		1.7	1.8	1.4
Percent of farm tillable		90.2	92.2	88.3
Percent of tillable land in				
Higher profit crops		59.9	62.9	56.0
Corn		44.6	46.9	41.6
Wheat		7.1	9.8	4.6
Alfalfa		2.3	1.9	2.5
Sweet clover		5.2	3.7	6.5
Canning crops		.7	.6	.8
Medium profit crops		13.2	12.6	11.7
Clover		3.5	3.4	1.6
Clover and timothy mixed		2.6	2.0	2.7
Barley, soybeans, etc.		7.1	7.2	7.4
Low profit crops		26.9	24.5	32.3
Oats		21.5	19.5	26.1
Timothy		1.7	1.9	1.9
Bluegrass		3.7	3.1	4.3
All legumes		15.9	13.2	15.2
All grain and hay crops		88.1	91.2	86.2

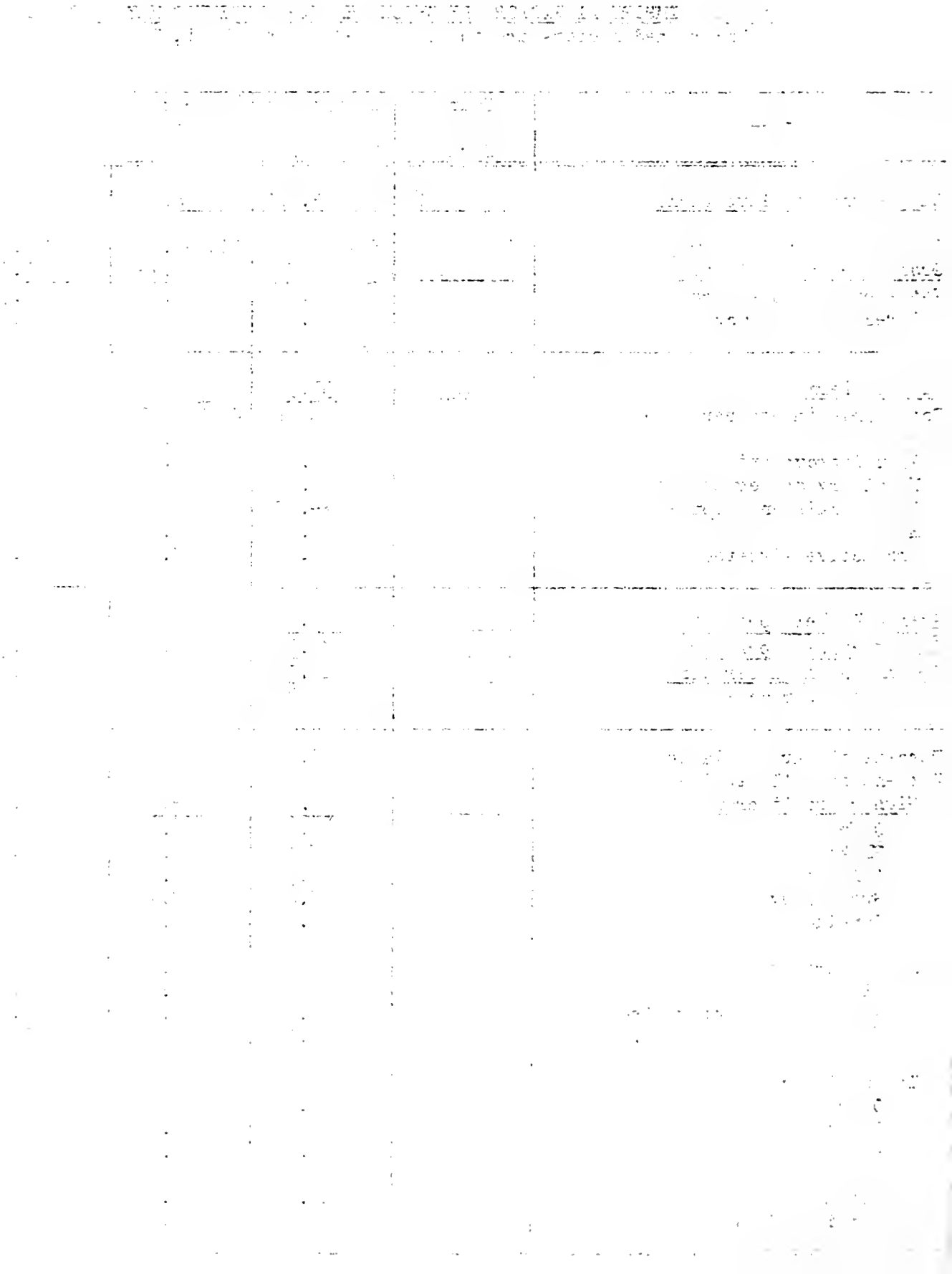


Table 2 - (Continued)

Item	Your farm	Average of 200 farms	40 most profitable farms	40 least profitable farms
Productive livestock				
Investment per acre	$_____	$ 10.28	$ 8.82	$ 11.91
Returns per acre		10.85	11.04	10.04
Value of feed fed to all productive livestock		2,061.88	1,796.75	1,644.74
Returns per $100 feed fed to				
All productive livestock		134.57	155.44	119.12
Beef cattle	_____	122.11	146.03	93.67
Mixed cattle	_____	141.17	158.56	129.85
Dairy cattle	_____	148.73	178.53	125.45
Hogs	_____	119.78	130.44	107.37
Sheep	_____	102.56	186.65	55.61
Poultry		236.13	289.72	228.46
Pounds of pork produced		17,132.	16,897.	12,982.
Feed cost per 100 pounds of pork	$	$ 6.61	$ 6.37	$ 7.11
Returns per 100 pounds of pork		7.92	8.31	7.63
Pounds of pork per acre		74.0	71.6	65.5
Returns per $100 invested in poultry	$_____	$ 195.12	$ 222.25	$ 177.29
Average number of hens kept		109.5	110.8	102.0
Number of eggs per hen		93.8	95.9	89.6
Labor and power				
Percent of farms with tractors		74.0	67.5	77.5
Percent of farms with trucks		30.0	22.5	42.5
Percent with tractors and trucks		26.0	20.0	37.5
Percent without tractors or trucks		22.0	30.0	17.5
Crop acres per man		93.5	100.6	82.3
Crop acres per horse		25.1	27.8	21.2
Hired and home labor per acre of farm	$_____	$ 6.58	$ 6.27	$ 7.26
Labor efficiency index		104.0	107.3	97.7
Horse feed and depreciation per acre of farm	$	$ 2.35	$ 2.16	$ 2.53
Machinery cost per acre of farm		2.03	1.71	2.58
Horse and machinery cost per acre		4.38	3.87	5.11
Power and machy efficiency index		105.3	117.1	93.3
Expenses per $100 gross income	$_____	$ 58.53	$ 43.23	$ 86.55
Expenses per acre of whole farm		13.33	12.42	14.77
Farm improvements		1.11	.93	1.23
Horses		--	--	.06
Machinery and equipment		2.02	1.71	2.58
Feed, grain and supplies		--	--	--
Miscellaneous livestock expense		.21	.20	.20
Miscellaneous crop expense		1.10	1.07	1.15
Hired and home labor		6.58	6.27	7.26
Taxes, insurance, etc.		2.11	2.02	2.07
Miscellaneous		.20	.22	.22
Family living furnished by 181 farms				
Farm produce used in home	$	$ 439.15	$ 423.86	$ 440.57
House rent (10 percent of value)		472.83	477.04	412.30
Total living furnished by farm		911.98	900.90	852.87
Size of family		4.9	5.2	4.8

Table 3 - FIND YOUR FARM LEAKS

The numbers above the double line across the middle of the page are the averages for the 200 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			Per-cent land in high prof-it crops	Livestock returns per $100 feed				In-vest-ment in L.S. per acre	Size of farm	Percent efficiency		Ex-pense per $100 gross in-come	Gross income per acre
	Corn	Oats	Wheat		Cat-tle	Hogs	Sheep	(1) Hens			Man lab-or	Horse and ma-chin-ery		
11.7	82	74	49	100		200	262	355	26	552	184	185	19	47
10.7	77	69	45	95		190	242	335	24	512	174	175	24	44
9.7	72	64	41	90		180	222	315	22	472	164	165	29	41
8.7	67	59	37	85		170	202	295	20	432	154	155	34	38
7.7	62	54	33	80		160	182	275	18	392	144	145	39	35
6.7	57	49	29	75		150	162	255	16	352	134	135	44	32
5.7	52	44	25	70		140	142	235	14	312	124	125	49	29
4.7	47	39	21	65		130	122	215	12	272	114	115	54	26
3.7	42	34	17	60		120	102	195	10	232	104	105	59	23
2.7	37	29	13	55		110	82	175	8	192	94	95	64	20
1.7	32	24	9	50		100	62	155	6	152	84	85	69	17
.7	27	19	5	45		90	42	135	4	112	74	75	74	14
-.3	22	14	1	40		80	22	115	2	72	64	65	79	11
-1.3	17	9	-	35		70	2	95	0	32	54	55	84	8
-2.3	12	4	--	30		60	-18	75	-	-	44	45	89	5

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

Profitable Farming Requires Balanced Farming

Weaknesses in some parts of the farm business often offset the advantages gained at other points. Records from hundreds of farms kept during the past twelve years together with other studies show that among the factors which affect farm earnings each of the following has its place:

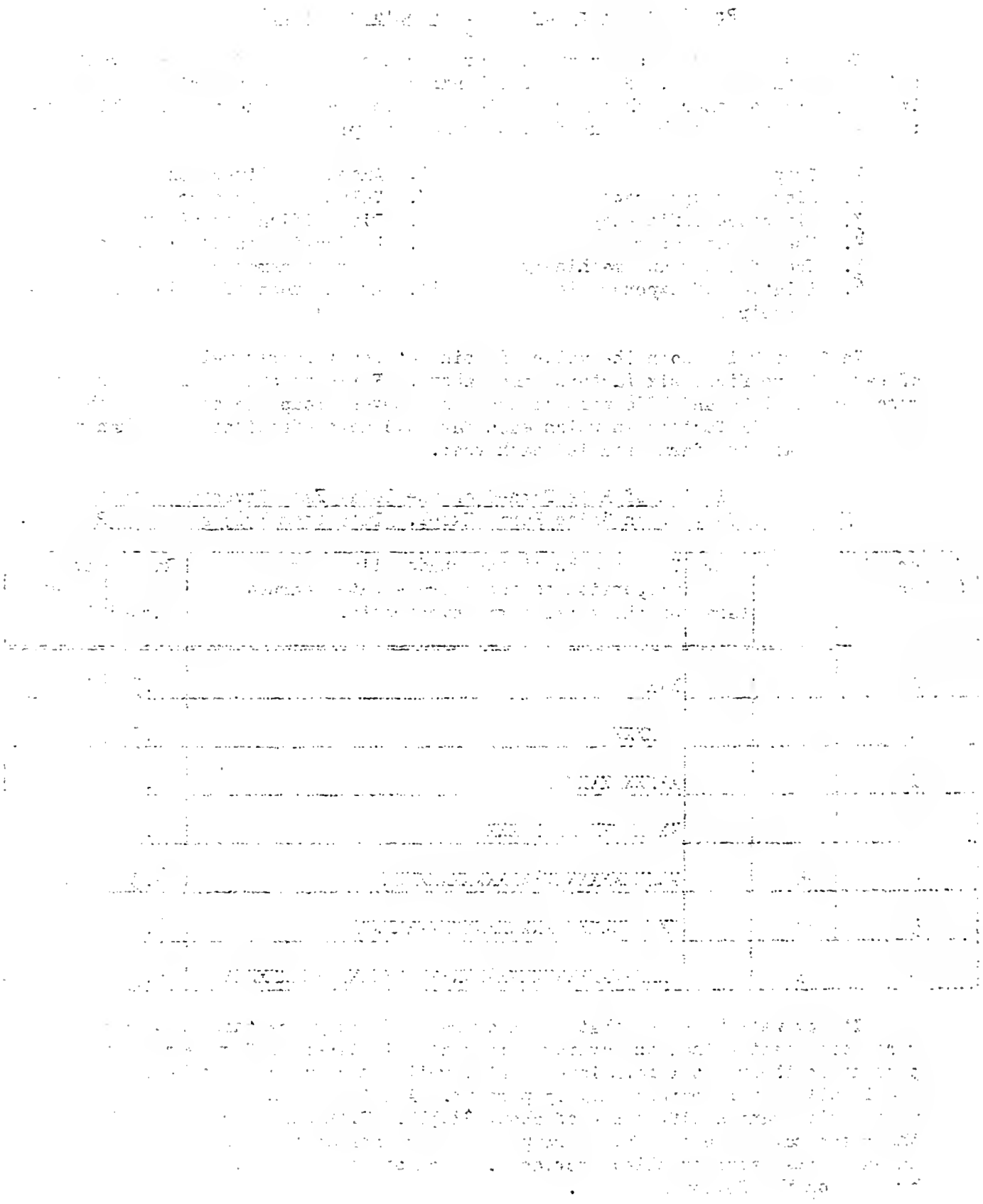
1. Crop yields
2. Kind of crops grown
3. Livestock efficiency
4. Use of man labor
5. Use of power and machinery
6. Relation of expenses to receipts
7. Amount of livestock
8. Volume of business
9. Diversification of crops
10. Production in accord with market demands
11. Arrangement of fields and farmstead

In Chart 2 is shown the value of doing at least fairly well along the line of each of the first six factors named above. Farms on which complete records were kept in 1925 and 1926 were divided into seven groups according to the number of those six factors in which each farm did more efficient work than the average of all the farms studied each year.

Chart 2 - Relation of Rate Earned on the Total Farm Investment to the Number of Factors in Which Farms Excel. Data from 1925 and 1926 Records.

Number of factors in which farms excel	Number of farms	Your farm	The lengths of the shaded lines are in proportion to the average rates earned on the total farm investments.	Rate earned	Average net income
0	4		XXX	.5	$ 298
1	25		XXXXXX	1.0	596
2	42		XXXXXXXXXXX	1.9	1,133
3	52		XXXXXXXXXXXXXXX	2.8	1,670
4	45		XXXXXXXXXXXXXXXXXXXXXXXX	4.3	2,565
5	27		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.8	2,863
6	8		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	6.5	3,877

It may well be noted that as an average of two years those few farms which were doing better than the average along all six lines of farm work earned 6.5 percent on their total farm investments, while those which were below the average in all factors earned only .5 percent. Applied to the average farm investment, this meant a difference of about $3,500. With considerable regularity, the rates earned on the seven groups of farms increased as the number of factors in which the farms excelled increased. Each of the above factors is discussed briefly on the following pages.



Crop Yields

Good crop yields are, as a general rule, essential for good net farm incomes. Chart 3 shows the relation found in 1925 and 1926 between the yields of corn on the farms of the cooperators and the rates earned on the total farm investments. It should be understood that not all of the indicated increase of net income on the farms having higher yields of corn is due to the increased corn yield. The tendency is for the same farms which have good corn yields to have good yields of other crops, larger proportions of tillable land in the higher profit crops, and to have higher returns for feed fed to livestock.

Chart 3 - Rate Earned as Related to the Yield of Corn

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

Yield of corn	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned on the total farm investments	Rate earned	Average net incomes
28-47 41.8 av.	40		XXXXXXXXXXXXXXXXXX	1.8	$1,074
47-51 49.1 av.	40		XXXXXXXXXXXXXXXXXXXXXXXX	2.4	1,432
51-56 53.4 av.	40		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.3	1,968
56-61 58.2 av.	40		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.5	2,088
61-79 65.9 av.	40		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.3	2,565

It may well be noted that for the years 1925 and 1926 an increase of ten bushels per acre of corn was accompanied by an increase of about one percent in the rate earned on the investment. On the average farm this meant that with each ten bushels increase in yield of corn there was about $600 increase in the total net return for the farm.

What Cooperators Do to Secure Good Crop Yields

1. Use varieties and strains of corn, wheat, oats, etc., which long-time investigations of the experiment stations have proved to be high-yielding and adapted to the conditions.
2. Make germination tests of representative samples of all seeds.
3. Test for disease at least enough seed corn to plant a small field on which no corn had been grown for two or more years from which to select the next year's seed. Treat seed oats and wheat for smut each year.

Any tenant or landowner in difficult financial condition can do the above things almost as easily as the most prosperous landowner.

4. Use a cropping system which provides that each field is left in some deep-rooted legume at least once in four or five years.
5. Use a definite plan for the efficient use of all available manure.
6. Use limestone and rock phosphate on soil types where investigations show that they can be used profitably.

Value of Growing Profitable Kinds of Crops

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

Chart 4 shows the relation of the rates earned on these farms and the percent of tillable land in the combined acreage of the higher profit crops of corn, wheat, alfalfa, sweet clover and canning crops of sweet corn, peas, and pumpkin. The selection of corn and wheat as the higher profit grain crops, of alfalfa as the higher profit hay crop, and of sweet clover as the higher profit pasture crop for tillable land was based on long-time investigations of the Departments of Farm Organization and Management and Animal Husbandry of the University of Illinois.

Chart 4 - Rate Earned as Related to the Percent of Land in the Higher Profit Crops

It should be understood that part of the increased net income was due to better crop yields, better handled livestock, etc., on the same farms. Data show averages of 1925 and 1926 records.

Percent land in higher profit crops	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned on the total farm investments	Rate earned	Average net income
29-51 44.8 av.	40		XXXXXXXXXXXXXXXXXXXXXXXXXX	2.4	$1,431
51-57 54.1 av.	40		XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	2.7	1,610
57-61 59.1 av.	40		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	2.8	1,670
61-68 64.9 av.	40		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.4	2,028
68-93 75.6 av.	40		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.0	2,386

It will be noted in Table 2 that 46.9 percent of the tillable land on the 40 most profitable farms was in corn. It is doubtful if it is ever wise to have more than fifty percent of the tillable land in corn or any other one crop, because of the uneven distribution of labor, difficulty of maintaining soil fertility, difficulty of controlling weeds and insects and the risk of storms or other uncontrollable conditions which may seriously injure one crop but do little damage to others.

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

Value of Growing Profitable Kind of Crops

It often happens that a farm which is very [illegible] on account of [illegible] with livestock is found to be particularly unprofitable [illegible] large part of the fertility land is used in growing crops which is not given a [illegible] returns for the land, labor, power, and machinery as do a few crops which [illegible] be grown.

Chart [illegible] shows the relation [illegible] the crops [illegible] and [illegible] percent of fertility land in the northern [illegible] of the Mississippi [illegible] of corn, wheat, alfalfa, and [illegible] as pasture. The [illegible] of corn was [illegible] of fertility as the [illegible] profit [illegible] [illegible] profit for [illegible] [illegible] the [illegible] performance of farm [illegible] of the high [illegible] of fifteen.

Chart [illegible] - [illegible]

[illegible]

[illegible] understood that [illegible] [illegible] [illegible]

Relation of Amount and Efficiency of Livestock to Farm Incomes

Efficient care and feeding of livestock is essential for the best net farm incomes. Those farms having a small amount of livestock well handled had larger net incomes than farms having large amounts of livestock poorly handled. With the favorable prices of livestock in relation to prices of grain during 1925 and 1926 the farms which fed most of their grain to well handled livestock had net incomes about $2,000 higher than farms having small amounts of livestock poorly handled.

Chart 5 - Relation of the Rate Earned and the Amount and Efficiency of Livestock

It should be understood that the rates earned were affected also by the crop yields, percent of land in higher profit crops, etc.,- averages of 1925 and 1926 data.

Returns for $100 feed	Number of farms[1]	Your farm	The lengths of the shaded bars are in proportion to the rates earned by the different groups of farms	Rate earned	Average net income
Less than $6.25 invested in productive livestock per acre - $4.26 average					
$ 78-145	20		XXXXXXXXXXXXXX	1.6	$ 954
$148-194	20		XXXXXXXXXXXXXXXXXX	2.2	1,312
$197-341	20		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.1	1,849
From $6.49 to $11.67 invested in productive livestock per acre - $8.89 average					
$ 74-151	20		XXXXXXXXXXXXXXX	1.8	1,074
$153-176	20		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.6	2,147
$176-252	20		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.7	2,207
More than $11.72 invested in productive livestock per acre - $18.46 average					
$ 78-141	20		XXXXXXXXXXXXXXX	1.9	1,133
$143-167	20		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.5	2,684
$171-230	20		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	5.0	2,982

[1]There were 20 farms in each group in 1925 and 19 farms in each group in 1926.

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

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

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

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

While the efficient use of man labor and of horse power and machinery are important as they affect the net farm incomes, no divisions of the farms into groups according to such efficiencies have yet been made. In Table 2, page 4, it is shown that with nearly double the gross income per acre the 40 most profitable farms had nearly one dollar per acre less labor cost and $1.24 per acre lower horse power and machinery costs than were found on the 40 least profitable farms. This statement appears more significant since these records show that the actual value of man labor and the cost of horse and tractor power and machinery amounted to almost $11.00 an acre on the average farm, while the income amounted to only $22.78 an acre.

What Cooperators Do to Make Good Use of Man Labor

1. Adopt cropping systems which will tend to make use of labor evenly throughout the year.

2. Grow and feed such livestock as will make use of available labor throughout the year and especially to provide productive winter work.

3. Fit the cropping system to the available labor supply. For illustration, farmers having boys in High School and College coming home for summer vacations may safely increase the alfalfa and wheat acreage above what could ordinarily be grown.

4. Plan ahead so as to have odd jobs and other work out of the way when the rush seasons for field work come.

5. Arrange the size, shape and location of fields so as to save time in taking livestock to pasture and in doing the field work.

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

1. Keep machinery under cover and protected from poultry and other livestock.

2. Clean, repair, paint and oil machinery and harness regularly. On many of the more profitable farms this work is done in the winter with farm labor.

3. Study the use and care of expensive and more complicated machines such as tractors, trucks, threshing machines, corn huskers, combines, etc. On many farms the saving of labor by the use of labor saving machinery is overbalanced by the heavy depreciation and repair bills.

4. Keep only as many workable horses as are needed under ordinary conditions.

5. Feed horses according to the work done.

Thrift - The Keeping of Expenses Low in Proportion to Receipts

Some farms which produced good crop yields had a large proportion of the land in higher profit crops and made a good return for the feed fed to livestock, and had low net incomes because the expenses were high in proportion to the income.

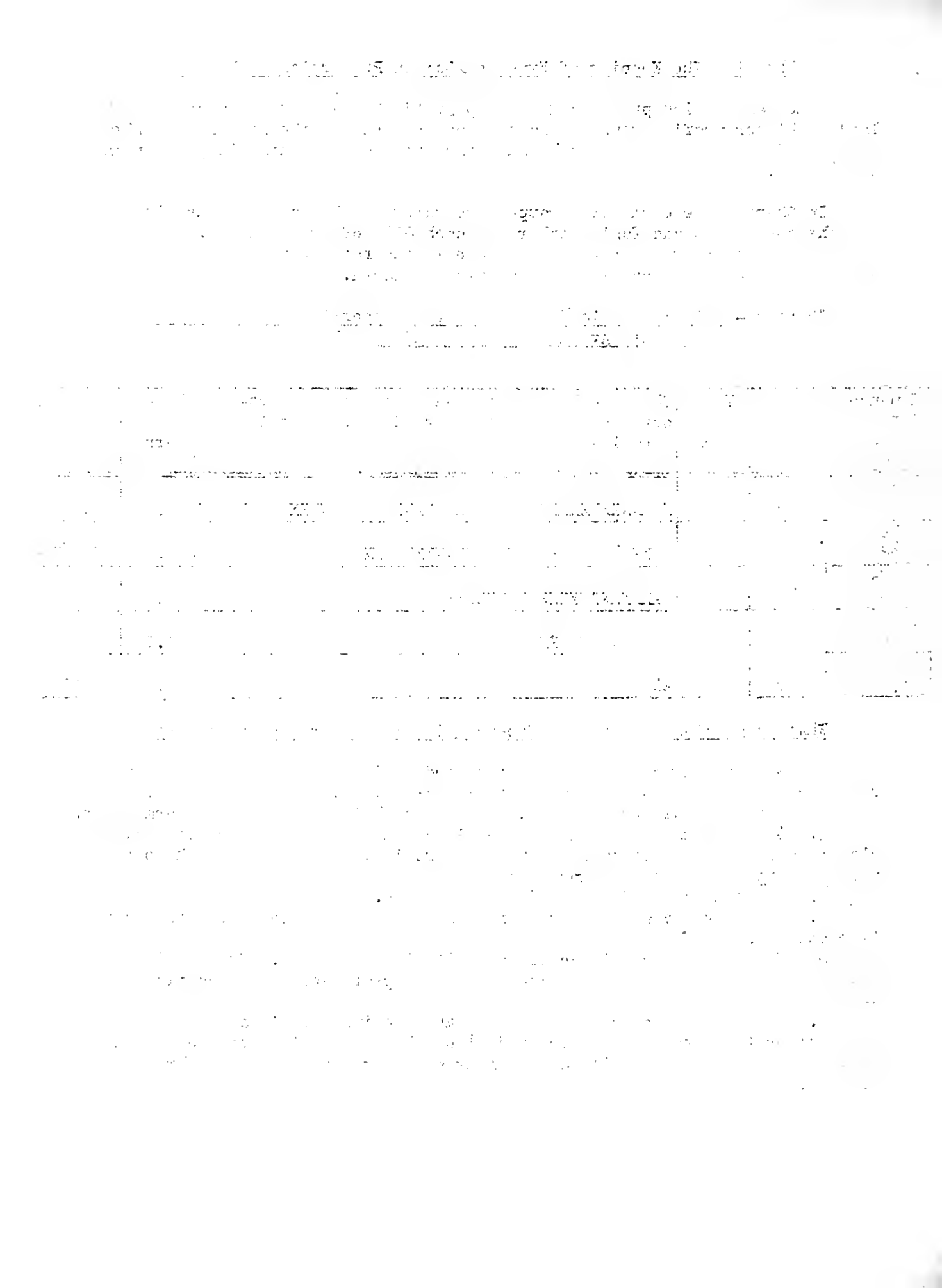
In Chart 6 the farms are grouped according to the total expense including the operator's and family labor for each $100 of gross income. As was to be expected, there was a regular decrease in the rate earned on the investment as the expenses in proportion to receipts increased.

Chart 6 - Rate Earned in Relation to the Proportion of Expenses to Receipts Averages of 1925 and 1926 Data

Expense for $100 gross income	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned in the total farm investment.	Rate earned	Net farm income
$ 35-52	40		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	6.2	$3,698
$ 52-62	40		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.3	2,565
$ 62-70	40		XXXXXXXXXXXXXXXXXXXXXX	3.0	1,789
$ 70-84	40		XXXXXXXXXXXXX	1.7	1,014
$ 84-174	40		XX	.3	179

What Cooperators Do to Keep Expenses Low in Proportion to Receipts

1. Select and prepare most of the seed used, buying a little improved seed occasionally as more valuable strains are discovered or developed.
2. Repair machinery, harness, fences, and buildings with the farm labor.
3. Grow enough crops high in protein and minerals, such as alfalfa, sweet clover, and soybeans, to balance the grain ration, saving much of the purchase price of expensive protein supplements.
4. Use home-grown feeds as far as possible.
5. Plan work so as to make as few trips to town as possible, thus saving time and gas.
6. Feed work horses in accordance with the work done. On some farms much feed goes to idle horses which could more profitably go to cattle or hogs or be sold.
7. Purchase inexpensive but serviceable equipment. As an illustration many cooperators are building individual hog houses costing about $10 each which are as useful and will last as long as other houses costing three times as much.



ORGANIZATION AND PURPOSE OF THE FARM BUREAU-FARM MANAGEMENT SERVICE

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

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

About sixty farm bureau members in each of the four counties agreed to cooperate in the project for the three years of 1925, 1926 and 1927. The total average cost is about thirty dollars per farm per year. About 40 percent of the expense is borne by the University of Illinois. This leaves a cost per farm of about seventeen dollars per year. The fee per farm varies from ten to twenty dollars per year, depending on the size of the farm. In two of the counties the farm bureaus pay a portion of each fee, while in two counties the cooperators pay the entire fee of ten to twenty dollars.

The entire time of M. L. Mosher, one of the authors of this report, is given to the project. Each cooperator is being visited on his farm at least three times during each year. The work is under the direction of H. C. M. Case, in charge of the Department of Farm Organization and Management acting in cooperation with an advisory committee consisting of one representative of each farm bureau. This committee consists of G. F. Bennett, Livingston County, Chairman, E. D. Lawrence, McLean County, W. C. Somer, Tazewell County, and J. Frank Felter, Woodford County, who is secretary-treasurer. This committee is responsible to the cooperating farm bureau for the custody and expenditure of the funds raised by the collection of the cooperators' fees. Each Farm Bureau collects the fees from its cooperating members and pays them over to the committee.

The organization of the project was made possible by the hearty support and assistance of the four Farm Advisers and their assistants. The Farm Advisers who were in charge of their counties when the work was organized are 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.

Most of the cooperators are continuing the work during 1928. A complete analysis of the past three years' records will be made and returned to the cooperators in the fall. Plans are now under way for reorganizing the project during the fall of 1928 for another period of years.

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

SUMMARY REPORT

of the

FARM BUREAU-FARM MANAGEMENT SERVICE

for the years

1925 - 1926 - 1927

This report prepared for the farm operated by

_____

The significant thing in this report is that it contains the average annual results of 175 farms for a period of three years. On an average these farms earned about $1200 more annually than the average of all farms in the area as a result of definite efforts many of the men had put forth for 10 years to a generation in developing well balanced farms.

Urbana, Illinois
September, 1928

SUMMARY REPORT

For the Cooperators in the
Farm Bureau-Farm Management Service
For the three year period of 1925, 1926 and 1927

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

The improved farm land of East Central Illinois, the heart of the corn-belt, has had a productive value of approximately twenty dollars per acre including improvements on the land under conditions existing during the three years of 1925, 1926 and 1927. Since the buildings and fences on the average farm are invoiced at approximately forty-five dollars per acre of the entire farm, this means that farming has not been bringing a fair return on the value of the improvements alone. This same improved land had a productive value of about a hundred twenty-five to one hundred fifty dollars per acre before the world war.

This is a definite fact learned by the 206 cooperators who completed the three year Farm Bureau-Farm Management Service project. This was shown when their farm records were compared with the earnings on all farms in a township within these counties.

A second important fact shown from their three year records is that even under such conditions, a few individual farmers scattered here and there over the four counties of Livingston, McLean, Tazewell and Woodford, in which these cooperators are located, did operate their farms so as to have incomes which would be considered fair under normal conditions. However, men of similar ability in the industrial or professional world would have been rewarded by handsome incomes for their labor and management.

Those men who have been fairly successful are good farmers. They have spent from ten years to a generation in improving the soil, selecting good seed, establishing a good cropping system, developing efficient herds of live-stock, and in equipping their farms for economical operation in accordance with carefully thought out plans. This is not a thing that can be accomplished quickly. Even though it may require time to bring a farm from a low profit to a high profit farm, the difference in earnings on farms in the same community having similar natural advantages justifies the effort in developing a well-balanced farm.

Average Farm Earnings

An average of 3.3 percent on the entire farm investment, after deducting all expenses and $720 allowance for the value of the operator's labor, was made by the 175 farmers who are cooperators in the Farm Bureau-Farm Management Service and whose records were used in preparing this report. The average investment in land, buildings, livestock, and other equipment was $259.99 per acre with land valued at $195.12. Expressing the earnings in another way, these men after paying all expenses of operating their farms and allowing 5 percent interest charge on the investment lacked $296.39 per farm per year of getting any return for their own labor.

In addition to the above earnings each family secured produce from the farm which, based on records kept on the farms, amounted to $437.73 at farm prices. The investment in the farm residence and the expenses for repairs and upkeep on it were not included in these accounts. Therefore the use of the residence is not considered an income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A survey study of all farms in one township in McLean County in 1925 in about the center of the four counties included in this project, and similar studies of farm incomes made in Bond County in 1926 and in Henry County in 1927 indicate that the farms on which the records were kept in this project earned about 2 percent higher rate on the investment than the average of all farms in the same part of the state. It is on these records, that the opening statements of this report are based.

Differences in Earnings Between Farms

There are wide variations in the earnings on the most successful and the least successful farms. The 35 most profitable of the 175 farms made 5 percent interest on the investment and had an average of $1,268.39 per year to pay each operator for his own labor and management, while the 35 least profitable farms lacked $1,531.11 per year of making 5 percent on the investment and left nothing to the operator for his own labor and management.

This amounts to a total difference of $2,799.50 per farm per year in the return for the labor and management of the operators between the high and low groups of farms. This may be expressed in another way by saying, after all expenses were paid and the operator allowed $720 for his own labor, the most profitable group made 5.83 percent on the investment, while the least profitable group made only .93 percent on the money invested.

The one-fifth most profitable farms (35 farms) had an income of $28.75 an acre, while the one-fifth least profitable farms had an income of only $16.98 per acre (see Table 2). The total expenses per acre on the two groups of farms were $13.65 and $14.60 per acre respectively. In other words, the most profitable group of farms with $0.95 less expense per acre received $11.77 larger returns per acre. The same table shows that the least profitable farms were somewhat smaller in size on the average and that they had a little smaller investment per acre.

Two Opportunities for Increasing Farm Incomes

Farm earnings may be increased through "What the farmer can do for himself" and "What farmers can do in cooperation." While this report deals with the former, the latter means of helping farmers is important. It is concerned with such matters as the adjustment of tariffs, transportation rates and taxes and the handling of seasonal surpluses of agricultural products. These and similar problems require the organized effort of farmers if they are to present their case effectively before legislative and governmental boards and commissions and in conferences with other groups.

Regarding what the farmer can do for himself, that is concerned with the efficiency with which he operates his own farm business. The wide differences in earnings on farms included in this study operated under similar conditions of soil, climate and markets, show that the individuals have a large opportunity of improving their incomes. This can be accomplished through adopting

plans for the organization and operation of their farms which have proved most profitable. In fact the earnings on most farms can be increased more through increased efficiency in operation than through any rational adjustments of tariff, freight rates or taxes or improved handling of seasonal surpluses.

Greater farm efficiency, however, means higher yields of crops and higher returns from livestock for the feed fed, which tends to add to the surplus of agricultural products which may exist from time to time. If farmers in general adopted the most efficient practices it would tend to depress prices through some increased production. Our surplus agricultural production of recent years was a hold over from the quickened production during the world war. At present available data indicate that farm production is not keeping pace with the growth in population. As this situation continues for a time it will help raise farm prices to a better level for the welfare of the nation.

Increased efficiency on the best corn belt land is justified as a safe means of increasing the farm income as it is the most effective way of reducing the costs of production. Likewise it will be an effective way of discouraging further expansion of farming to cheap marginal land which should be held out of agricultural production under present conditions.

A careful study of his report by each cooperator will, it is believed, enable him to know rather definitely where he can most readily increase the efficiency of his farm business and how other farmers have more successfully conducted that part of the farm work.

Location of Differences in Incomes Between the More Profitable and the Less Profitable Farms

Most of the difference of approximately $3,000 in the average net earnings for each of the 35 most profitable and the 35 least profitable farms is accounted for in Chart 1.

Chart 1. Location of Differences in Incomes Between the 35 Most Profitable and the 35 Least Profitable Farms. Three-year data

Factors considered	The lengths of the shaded bars are in proportion to the amounts of the differences	Average difference in incomes
Crop yields	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	831
Amount of livestock	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	657
Efficiency of livestock	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	557
Kind of crops	XXXXXXXXXXXXXXXXX	304
Price of grain	XXXXXXXXXXXXXXX	280
Cost of power and machinery	XXXXXXXXXXXX	216
Cost of man labor	XXX	49
Other expenses	XX	28

29 22

Depth of water	
Area covered	
Crop yield	
Amount of irrigation	
Efficiency of irrigation	
Kind of crop	
Price of crop	
Cost of power	
Cost of water	
Other expenses	

Crop Yields - The yields per acre on the most profitable farms were: corn 53.9 bushels, oats 41.4 bushels and wheat 23.0 bushels. On the least profitable group the yields were: corn 45.2 bushels, oats 35.6 bushels and wheat 18.5 bushels. These differences of 8.7 bushels of corn, 5.8 bushels of oats, 4.5 bushels of wheat were applied to the average acreages of those crops on the 175 farms. With corn valued at the average three years' sale price of 76 cents per bushel, oats at 40 cents and wheat at $1.32, the total difference in value of the three crops on the average farm amounts to $831. (See Chart 1)

Amount of Livestock - The more profitable farms fed $13.27 worth of feed per acre, valued at farm prices, while $7.77 worth of feed per acre was fed on the less profitable farms. As an average of the two groups, for each $100 worth of feed fed there were livestock returns of $151.41; that is, the product from $100 worth of feed fed on the farm was worth $51.41 more than the farm price of the feed. This difference applied to the additional $5.50 worth of feed per acre used on the more profitable farms accounts for about $657.00 of the total difference between the two groups.

Efficiency of Livestock - The 35 more profitable farms realized $163.44 from each $100 worth of feed fed to productive livestock while the 40 less profitable farms received only $135.34 or a difference of $28.10 for each $100 worth of feed used. The average amount of feed used on all farms was valued at $1982.90 at farm prices. The larger returns for each $100 of this feed used on the more profitable farms accounts for $557.19 of the difference in average farm income between the two groups of farms. This does not include the cost of keeping horses on the two groups of farms. This greater income to the more profitable farms for each $100 worth of feed used was apparent in case of each class of livestock. For beef cattle, the difference was $31.89, mixed beef and dairy herds $16.40, dairy herds $60.24, hogs $15.03, sheep $58.42, and poultry $65.22.

About one-half of the grain produced on these farms was fed, the rest being sold as grain. In areas where all the grain is fed on the farms, this matter of livestock efficiency becomes relatively more important.

Kinds of Crops Grown - The more profitable farms had a larger proportion of land in the more profitable crops of corn, wheat, alfalfa, sweet clover and canning crops but a smaller acreage of oats, bluegrass and timothy than were grown on less profitable farms. The differences in the relative proportions of corn, wheat and oats accounts for about $304. (See Chart 1).

Price of Grain - Such records were kept as enabled each cooperator to know the average price received during the three year period for his corn, oats, wheat and hogs. These four products made up approximately seventy per-cent of all sales. The prices received on the thirty-five most profitable farms were corn, 80.9 cents; oats, 40.3 cents; wheat, $1.34, and hogs, $11.14. In the least profitable group the prices were: corn, 72.7 cents; oats, 38.4 cents; wheat $1.24, and hogs $11.02. The average amounts of each product sold were: corn, 2607 bushels; oats, 1198 bushels; wheat, 247 bushels; and hogs, 15,910 pounds. The total difference in incomes due to the difference of 12.1 cents per 100 pounds in the price of hogs amounted to only $19.25. This difference appears as a part of the difference of $557.19 in livestock efficiency. The differences of 8.2 cents per bushel of corn, 1.9 cents per bushel of oats, and 9.9 cents per bushel of wheat account for the $280.23 of the difference in earnings between the two groups of farms.

Power and Machinery Costs - The total cost per acre of horse and tractor power and machinery on the most profitable farms amounted to only $4.25 per acre compared with a cost of $5.18 per acre on the least profitable farms. This difference in cost of power and machinery of 93 cents per acre would amount to a difference of $216.07 less cost per farm in favor of the most profitable farms.

Efficiency of Man Labor - The total labor cost, including the operator's and family labor at hired man rates, was $6.76 per acre on the 35 more profitable farms and $6.97 on the less profitable ones. This difference of 21 cents per acre applied to the average size of all farms amounts to only $48.79. This small difference is more significant when one realizes that the returns were nearly twice as high on the more profitable farms.

Other Expenses - Expenses other than labor, power and machinery amounted to $4.84 and $4.96 per acre on the respective groups of farms. This difference of 12 cents per acre accounted for only $27.88 in the differences in net incomes of the two groups of farms.

Power and Machinery Costs - The total cost per acre of horse and tractor power and machinery on the most nearly large farms amounts to only $4.25 per acre compared with a cost of $5.16 per acre on the least profitable farms. This difference in cost of power and machinery of 17.66 per cent per acre amounts to a difference of $216.07 less cost per farm in favor of the more profitable farms.

Efficiency of Man Labor - The total labor cost including the operator and family labor at hired man rates was 6.76 per acre on the 75 most profitable farms and 30.37 on the less profitable ones. This difference of 21 per acre applied to the average size of all farms amounts to $41.43. This small difference is more than one reason for the relatively more nearly twice as high on the more profitable farms.

Other Expenses - Expenses other than labor, power, machinery amounted to $4.85 and $2.72 per acre on the most profitable farms. This is 42 cents of 12 cents per acre for the latter in the difference in the two groups of the two groups of 70 ...

Table 1. SUMMARY OF THE THREE YEARS' FARM BUSINESS

The summary as shown on pages 34 and 35 of the farm account book compared with 175 farms, the 35 most profitable and the 35 least profitable farms.

	Items	Your farm	Average of 175 farms	35 most profitable farms	35 least profitable farms
1	Capital Investments - Total	$_____	$60,404.96	$63,693.09	$54,916.03
2	Land		45,334.26	48,340.97	40,877.57
3	Farm improvements		5,671.25	5,262.39	5,530.11
4	Machinery and equipment		1,903.33	1,825.26	1,912.06
5	Feed, grain and supplies		4,213.89	4,687.89	3,716.20
6	Livestock - Total		3,282.23	3,576.58	2,880.09
7	Horses		842.89	802.52	766.15
8	Cattle		1,141.09	1,001.00	924.76
9	Hogs		953.18	1,477.32	799.82
10	Sheep		170.83	151.58	228.68
11	Poultry		159.00	143.73	144.28
12	Bees		15.10	.43	16.40
13	Dogs		.14	----	----
14	Receipts - Net Increases-Total	$_____	$ 5,193.87	$ 7,077.20	$ 3,636.92
15	Farm improvements		---	---	---
16	Feed, grain and supplies		2,211.37	2,553.64	1,444.25
17	Labor off the farm		64.46	90.34	43.06
18	Miscellaneous		14.47	11.16	13.20
19	Livestock - Total		2,903.57	4,422.06	2,136.41
20	Horses		---	---	---
21	Cattle		559.83	654.09	444.79
22	Hogs		1,654.43	3,008.91	1,176.08
23	Sheep		70.81	73.73	76.84
24	Poultry		123.09	141.74	105.98
25	Egg sales		142.46	145.88	120.68
26	Dairy sales		347.22	397.45	208.10
27	Bees		5.50	.26	3.94
28	Dogs		.23	---	---
29	Expenses-Net Decreases-Total	$_____	$ 2,235.53	$ 2,488.53	$ 2,147.22
30	Farm improvements		257.37	245.29	268.05
31	Machinery and equipment		492.58	503.18	546.40
32	Feed, grain and supplies		---	---	---
33	Miscellaneous livestock expense		51.93	67.31	43.03
34	Miscellaneous crop expense		254.76	301.50	232.99
35	Hired labor		618.17	790.54	514.93
36	Taxes, insurance, etc.		506.01	526.40	468.92
37	Miscellaneous expenses		49.81	52.59	48.37
38	Horses - decreases		4.90	1.72	24.55
39	Miscellaneous livestock decreases		---	---	---
40	Receipts less expenses	$_____	$ 2,958.34	$ 4,588.67	$ 1,489.70
41	Operator's and family labor		942.68	872.01	979.58
42	Net income from investment	$_____	$ 2,015.66	$ 3,716.66	$ 510.12

Table 2 - IMPORTANT FACTORS BY WHICH THE FARM BUSINESS MAY BE STUDIED
Underlined factors are the ones used on the chart, Page 9

Item	Your farm	Average of 175 farms	35 most profitable farms	35 least profitable farms
Rate earned on investment	%	3.34%	5.83%	0.93%
Labor and management wage	$	$-296.39	$1,268.39	$-1,531.11
Gross receipts per acre		22.36	28.75	16.98
Total expense per acre		13.68	13.65	14.60
Net receipts per acre		8.68	15.10	2.38
Size of farm		232.3	246.2	214.2
Total investments per acre	$	$ 259.99	$ 258.75	$ 256.33
Land		195.12	196.38	190.80
Farm improvements		24.41	21.38	25.81
Machinery and equipment		8.19	7.42	8.92
Feed, grain and supplies		18.14	19.04	17.35
Horses		3.63	3.26	3.58
Productive livestock		10.50	11.27	9.87
Corn - Bushels per acre		49.7	53.9	45.2
Oats - Bushels per acre		37.4	41.4	35.6
Wheat - Bushels per acre		19.7	23.0	18.5
Crop Index		100.0	110.0	92.7
Percent of farm tillable		91.3	91.8	91.4
Percent of tillable land in H. profit plus one-half M.profit		64.3	67.9	60.2
Higher profit crops		59.9	63.0	57.4
Corn		45.0	45.9	43.6
Wheat		6.2	9.4	4.3
Alfalfa		2.4	2.1	2.7
Sweet clover		5.2	4.9	6.1
Canning and truck crops		1.1	.7	.7
Medium profit crops		8.7	9.8	5.7
Clover		3.0	2.4	2.7
Clover and timothy mixed		2.7	2.8	.9
Barley		1.1	2.2	.9
Soybeans		1.2	1.6	.7
Miscellaneous		.7	.8	.5
Low profit crops		31.4	27.2	36.9
Oats		25.3	22.4	27.5
Timothy		1.9	1.7	2.8
Bluegrass		4.2	3.1	6.6
All legumes		14.8	14.0	13.3
All grain and hay crops		88.0	89.9	85.1

Table 2 - (Continued)

Item	Your farm	Average of 175 farms	35 most profitable farms	35 least profitable farms
Productive livestock				
Average investment per acre	$	$ 9.90	$ 12.75	$ 8.94
Total returns per acre		15.68	21.69	10.51
Feed used per acre		9.04	13.27	7.77
Feed to all productive livestock	$	$1,982.90	$2,951.85	$1,716.96
Beef cattle		1,459.39	1,233.76	1,267.36
Mixed cattle		827.03	804.22	686.34
Dairy cattle		576.53	546.84	497.86
Hogs		1,173.08	1,852.79	1,124.59
Sheep		311.97	326.31	410.70
Poultry		157.20	161.82	154.55
Returns per $100 feed fed to all productive livestock	$	$ 151.41	$ 163.44	$ 135.34
Beef cattle		99.02	114.57	82.68
Mixed cattle		117.78	155.38	119.58
Dairy cattle		145.55	175.30	115.06
Hogs		168.20	167.73	152.70
Sheep		95.33	126.87	67.45
Poultry		269.61	303.64	238.42
Returns per $100 invested in all productive livestock	$	$ 132.65	$ 166.33	$ 116.69
Beef cattle		83.94	115.86	73.38
Mixed cattle		88.98	103.92	95.69
Dairy cattle		121.78	148.72	96.74
Hogs		181.49	205.38	161.75
Sheep		41.35	43.39	32.67
Poultry		212.61	242.14	214.75
Pounds of pork produced - total		16,861	28,721	12,552
Pounds of pork produced per acre		73.1	116.7	59.4
Feed cost per 100 pounds of pork	$	$ 6.53	$ 6.49	$ 6.82
Returns per 100 pounds of pork	$	$ 10.66	$ 10.88	$ 10.42
Average number of hens kept		117.7	133.3	135.0
Number of eggs per hen		84.9	94.6	81.5
Amount and price of products sold				
Bushels of corn		2,607	2,598	2,231
Bushels of oats		1,198	1,289	1,103
Bushels of wheat		247	419	156
Pounds of pork		15,910	27,955	11,821
Average price received for corn	$	$ .76	$ .81	$ .73
Average price received for oats		.40	.40	.38
Average price received for wheat		1.32	1.34	1.24
Average price received for hogs		11.05	11.15	11.02
Percent of average price received for all		100.0	102.8	97.2

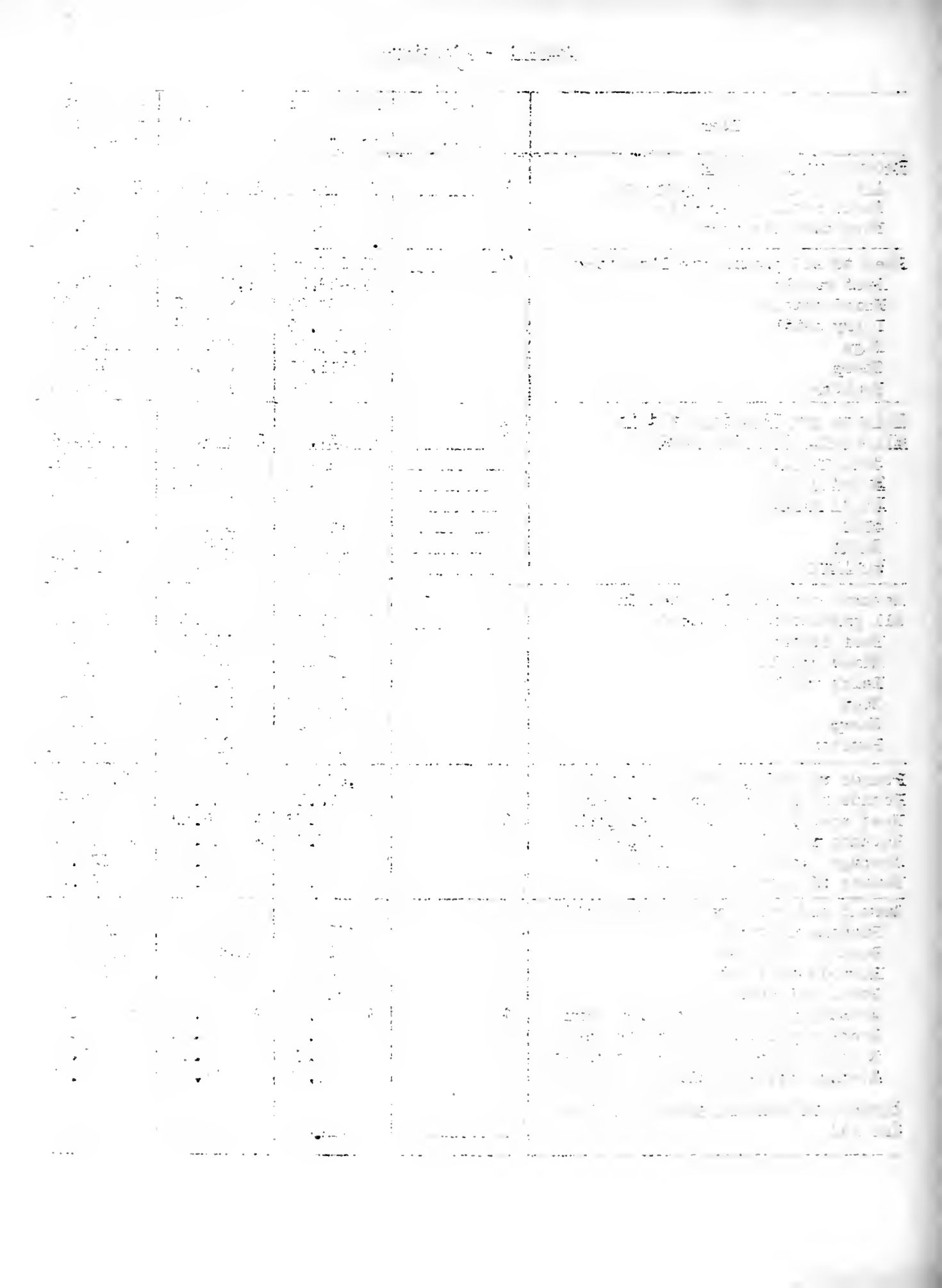


Table 2 - (Concluded)

Item	Your farm	Average of 175 farms	35 most profitable farms	35 least profitable farms
Labor, Power and Machinery Studies				
Percent of farm years with tractors		70.7	82.9	65.7
Percent of farm years with trucks		17.3	17.1	22.9
Percent of years with tractors and trucks		15.0	17.1	15.2
Percent of years without tractors or trucks		26.3	17.1	24.8
Average acres in crops		126.8	203.2	166.6
Average number of men		2.01	2.10	1.92
Crop acres per man		92.8	96.9	86.9
Labor cost per acre of crop	$	$ 8.36	$ 8.18	$ 8.97
Percent of average crop acres worked with given labor cost	_____	100.0	112.5	89.2
Average number of workable horses		7.62	7.31	7.23
Crop acres per horse		24.6	27.8	23.1
Value of feed fed to horses	$	$566.46	$554.00	$533.94
Feed cost per workable horse		74.29	75.77	73.87
Horse feed and depreciation per crop acre		3.06	2.74	3.35
Machinery cost per crop acre		2.59	2.45	3.30
Horse and mach'y cost per crop acre		5.65	5.19	6.65
Percent of average crop acres worked with given horse and machinery cost	_____	100.0	117.7	83.0
Expense per $100 gross income	$_____	$ 62.04	$ 48.99	$ 86.49
Expenses per acre of farm		13.68	13.65	14.60
Farm improvements		1.11	1.00	1.25
Horses		.02	.01	.11
Machinery and equipment		2.12	2.04	2.55
Feed, grain and supplies		----	----	----
Miscellaneous livestock expense		.22	.27	.20
Miscellaneous crop expense		1.10	1.23	1.09
Hired and home labor		6.72	6.75	6.98
Taxes, insurance, etc.		2.18	2.14	2.19
Miscellaneous		.21	.21	.23
Family living furnished by farm				
Farm produce used in home	$	$437.73	$402.11	$459.45
House rent (10% of value)		483.86	460.38	459.46
Total living furnished by farm		921.59	862.49	918.91
Number in family		4.80	4.70	4.78

Table 3.-Find Your Farm Leaks

The number in each column above the double line across the middle of the page is the average for the 175 farms for the factor named at the top of that column. The number in each column above the upper single line is the average for the one-fifth of the farms which are best in that factor. 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.

Rate on capital	1 Bushels per acre			% of ave. y'ld of all crops	2 % land in high profit crops	3 Livestock return per $100 feed					Feed used per acre	Size of farm	4 % crop acres for average	5	6 Price received for products				% ave. price all products	7 Expense per $100 gross income	Gross income per acre
	Corn	Oats	Wheat			Cattle	Hogs	Sh'p	Hens[1]	All L.S.			labor cost	power and mach'y cost	Corn	Oats	Wh't	Hogs			
8.9	59.5	46.5	27.4	149	92		177	171	283	256	30	554	128	142	.90	.47	1.39	11.26	107	27	37
8.1	58.1	45.2	26.3	142	88		175	160	273	241	27	508	124	136	.88	.46	1.38	11.23	106	32	35
7.3	56.7	43.9	25.2	135	84		173	149	263	226	24	462	120	130	.86	.45	1.37	11.20	105	37	33
6.5	55.3	42.6	24.1	128	80		171	138	253	211	21	416	116	124	.84	.44	1.36	11.17	104	42	31
5.7	53.9	41.3	23.0	121	76		169	127	243	196	18	370	112	118	.82	.43	1.35	11.14	103	47	29
4.9	52.5	40.0	21.9	114	72		167	116	233	181	15	324	108	112	.80	.42	1.34	11.11	102	52	27
4.1	51.1	38.7	20.8	107	68		165	105	223	166	12	278	104	106	.78	.41	1.33	11.08	101	57	25
3.3	49.7	37.4	19.7	100	64		163	94	213	151	9	232	100	100	.76	.40	1.32	11.05	100	62	23
2.5	48.3	36.1	18.6	93	60		161	83	203	136	6	186	96	94	.74	.39	1.31	11.02	99	67	21
1.7	46.9	34.8	17.5	86	56		159	72	193	121	3	140	92	88	.72	.38	1.30	10.99	98	72	19
.9	45.5	33.5	16.4	79	52		157	61	183	106	0	94	88	82	.70	.37	1.29	10.96	97	77	17
.1	44.1	32.2	15.3	72	48		155	50	173	91	-	48	84	76	.68	.36	1.28	10.93	96	82	15
-.7	42.7	30.9	14.2	65	44		153	39	163	76	-	2	80	70	.66	.35	1.27	10.90	95	87	13

[1]Returns per $100 average investment used for poultry.

Table 3.—Cities and towns: Number and percentage of persons 14 years old and over who were employed, by sex, color, and age, for cities and towns of 10,000 inhabitants or more, 1940

[Persons employed include those with a job but not at work during the week preceding the census because of temporary illness, vacation, or industrial dispute. Persons seeking work include those who had a job before the week preceding the census. Persons not reporting whether employed or seeking work are distributed in proportion to the number reporting]

City	Total																							
	Total																							
	Total																							
	Total																							

Profitable Farming Requires Balanced Farming

Weaknesses in some parts of the farm business often offset the advantages gained at other points. Records from hundreds of farms kept during the past twelve years together with other studies show that among the factors which affect farm earnings each of the following has its place:

1. Crop yields
2. Kind of crops grown
3. Livestock efficiency
4. Use of man labor
5. Use of power and machinery
6. Relation of expenses to receipts
7. Production in accord with market demands as shown by prices
8. Amount of livestock
9. Volume of business
10. Diversification of crops
11. Arrangement of fields and farmstead

In Chart 2 is shown the value of doing at least fairly well along the line of each of the first seven factors named above. The 175 farms were divided into eight groups according to the number of those seven factors in which each farm did more efficient work than the average of all the farms studied.

Chart 2 - Relation of Rate Earned on the Total Farm Investment to the Number of Factors in Which Farms Excel. Average of Three Years' Records.

Number of factors in which farms excel	Number of farms	Your farm	The lengths of the shaded lines are in proportion to the average rates earned on the total farm investments.	Rate earned	Average net income
7	6		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	6.7	$4,020
6	9		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.8	2,880
5	43		XXXXXXXXXXXXXXXXXXXXXXXXXX	4.6	2,760
4	33		XXXXXXXXXXXXXXXXXXXX	3.3	1,980
3	28		XXXXXXXXXXXXXXXXX	3.0	1,800
2	26		XXXXXXXXXXXXX	2.2	1,320
1	16		XXXXXXXXX	1.6	960
0	4		XXXXXXXXX	1.6	960

It may well be noted that as an average of three years those few farms which were doing better than the average along all seven lines of farm work earned 6.7 percent on their total farm investments, while those which were below the average in all factors earned only 1.6 percent. Applied to the average farm investment, this meant a difference of about $3,060. With considerable regularity, the rates earned on the eight groups of farms decreased as the number of factors in which the farms excelled decreased. Each of the above factors is discussed briefly on the following pages.

Number of factors in which farms excel	Farms	
7	1	
6	2	
5	4	
4	13	
3	28	
2	36	
1	16	
0	1	

CROP YIELDS

Good crop yields are, as a general rule, essential for good net farm incomes. Chart 3 shows the relation found between the yields of corn, oats, wheat and barley on the farms of the cooperators and the rates earned on the total farm investments. It should be understood that not all of the indicated increase of net income on the farms having higher yields of grain is due to such increased yield. The tendency is for the same farms which have good grain yields to have good yields of hay and pasture crops, larger proportions of tillable land in the higher profit crops, and to have higher returns for feed fed to livestock.

Chart 3 - Rate Earned as Related to the Yield of Grain

The rates earned on the different groups of farms were affected more or less by other factors such as percent of land in higher profit crops and efficiency in feeding livestock. Yields of corn, oats, wheat and barley were considered in making this analysis.

Percent of average yield	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned on the total farm investments	Rate earned	Average net incomes
113.9-139.3 121.3 av.	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.5	$2,700
104.4-113.9 109.1 av.	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.8	2,280
96.6-104.3 100.5 av.	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	2.9	1,740
87.6-96.3 92.6 av.	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	2.9	1,740
67.8-87.6 80.8 av.	35		XXXXXXXXXXXXXXXXXXXXXXXX	2.5	1,500

It may well be noted that for the years 1925, 1926 and 1927 an increase of ten bushels per acre of corn was accompanied by an increase of about one percent in the rate earned on the investment. On the average farm this meant that with each ten bushels increase in yield of corn there was about $600 increase in the total net return for the farm.

What Cooperators Do To Secure Good Crop Yields

1. Use varieties and strains of corn, wheat, oats, etc., which long-time investigations of the experiment stations have proved to be high-yielding and adapted to the conditions.
2. Make germination tests of representative samples of all seeds.
3. Test for disease at least enough seed corn to plant a small field on which no corn had been grown for two or more years from which to select the next year's seed. Treat seed oats and wheat for smut each year.

Any tenant or landowner in difficult financial condition can do the above things almost as easily as the most prosperous landowner.

4. Use a cropping system which provides that each field is left in some deep-rooted legume at least once in four or five years.
5. Use a definite plan for the efficient use of all available manure.
6. Use limestone and rock phosphate on soil types where investigations show that they can be used profitably.

Value of Different Soil Treatments

Records were kept of the yields of crops on each field. The previous soil treatment of each field over ten acres in size was recorded each of the three years. In analyzing the data the only fields used were those on the common prairie soil classified as Brown Silt Loam and Black Clay Loam. Fields seriously damaged by insects or storms were not used. In Table 4 manure means that fields so treated had been covered with more or less manure during the four preceding years. It is estimated that, as an average, about five to six tons of manure was applied. Clover means that such fields had been left down in a good or poor stand of red, alsike, mammoth, or sweet clover or alfalfa during one or more of the preceding four years. Phosphate means that at some time the entire field had been covered with more or less raw rock phosphate. The amounts varied from one thousand to four thousand pounds per acre with an average of about fifteen to eighteen hundred pounds. Much of the phosphate had been applied in 1912 to 1916 and some only the previous year. No other forms of phosphate than the raw rock were used on the cooperating farms. It is not right to use such comparisons for limestone as are reported for phosphate, clover and manure. If this were done, comparisons would be made of yields on fields naturally rich in limestone where none had been applied but where clovers grow readily, with less fertile fields where limestone had been used. To a less extent than with limestone, this same difficulty applies to this analysis of the value of phosphate, clover and manure. However, any inaccuracies due to this situation do not exaggerate the value of each soil treatment but show it less than it really is.

Table 4 - Value of Different Soil Treatments

Averages of three years of 1925, 1926 and 1927

Soil Treatment	Your farm	CORN			OATS			WHEAT		
		ave. no. of fields per year	ave. acres per year	ave. bu. per acre	ave. no. of fields per year	ave. acres per year	ave. bu. per acre	ave. no. of fields per year	ave. acres per year	ave. bu. per acre
None		79	2421	43.0	78	2191	33.0	27	478	17.2
Manure only		34	812	46.8	28	637	37.1	6	132	19.4
Clover only		50	1275	49.7	24	590	34.2	7	170	18.3
Manure and clover		59	1363	53.6	21	442	43.1	7	122	24.5
Manure and phosphate		7	166	50.7	6	132	43.1	2	29	22.0
Clover and phosphate		25	589	55.4	9	197	45.1	2	38	27.4
Manure, clover and phosphate		25	550	59.1	11	284	50.6	3	62	30.0

These results show that when manure as used in the four counties was applied once in five years it added about 3.8 bushels of corn, 6.2 bushels of oats and 3.7 bushels of wheat per acre. Clover left down one or more in each five years, added about 5.7 bushels of corn, 4.2 bushels of oats and 4.7 bushels of wheat per acre. Phosphate, used as indicated in this section, added about 5.0 bushels of corn, 7.8 bushels of oats and 5.4 bushels of wheat per acre. Considerable of the increase for clover could logically be credited to limestone because without the use of limestone, the successful growing of clover would not have been possible. These results certainly justify soil improvement programs even at considerable expense for limestone clover seed and rock phos-

Value of High Yielding Varieties of Grain

Co-operators will remember that each year a record was made of the kind of seed used on each field of corn, oats and wheat. In summarizing the data regarding crop yields the only fields used were those on prairie land, (brown silt and black clay loam), of ten acres or larger size and undamaged by serious insect or storm injuries. In most, if not all, cases the same varieties and soil treatments which proved best on prairie land, also proved best on other types of soil. In analyzing the data regarding yields of different varieties, strains and types of grain, the fields were divided into three groups according to the soil treatments which the fields had had.

Fields recorded as having had good soil treatments were those which had had phosphate applied at some time and had been covered with more or less manure or had been left in some deep rooted legume during the previous four years, also fields which had been left in some legume and also had been covered with manure but had had little or no phosphate applied were classed as having had good soil treatment.

Fields recorded as having fair soil treatments were those which had had clover or manure or phosphate, but none in combination with the others.

Fields recorded as having little or no soil treatments were those which had had little or no clover manure or phosphate either by itself or in combination with other treatments.

Table 5.-Yields of Different Varieties and Strains of Corn
Averages for three years of 1925, 1926 and 1927

Strain or type	Your farm	Good soil treatment			Fair soil treatment			Little or no soil treatment			All soil treatments		
		Ave. no. of fields	Ave. acres per year	Ave. bu. per acre	Ave. no. of fields	Ave. acres per year	Ave. bu. per acre	Ave. no. of fields	Ave. acres per year	Ave. bu. per acre	Ave. no. of fields	Ave. acres per year	Ave. bu. per acre
Krug		68	1760	58.5	67	1764	53.4	40	1059	47.1	176	4582	54.0
All others		122	2947	53.4	196	5661	49.6	128	3864	43.6	446	12472	48.6
All utility		121	3009	57.2	148	4077	52.1	85	2303	45.9	354	9389	52.3
All old type		33	790	50.8	56	1559	48.1	46	1482	43.2	135	3830	46.7
Mixed		36	909	51.1	60	1789	48.4	38	1138	43.2	133	3836	47.5
All varieties		190	4708	55.1	264	7425	50.3	169	4923	44.4	622	17055	49.9

Table 6.-Yields of Different Varieties of Oats
Averages for three years of 1925, 1926 and 1927

Strain or type	Your farm	Good soil treatment			Fair soil treatment			Little or no soil treatment			All soil treatments		
		Ave. no. of fields	Ave. acres per year	Ave. bu. per acre	Ave. no. of fields	Ave. acres per year	Ave. bu. per acre	Ave. no. of fields	Ave. acres per year	Ave. bu. per acre	Ave. no. of fields	Ave. acres per year	Ave. bu. per acre
Iowar		20	510	49.1	40	1001	41.6	45	1178	37.7	105	2689	41.2
Iowa 103		19	424	46.0	25	638	38.6	22	607	37.7	66	1669	40.5
Great American		6	177	40.4	7	197	35.9	5	92	35.4	18	466	37.3
Big 4		4	103	48.9	14	350	37.3	15	444	32.7	33	897	36.1
Silvermine		8	196	40.2	14	379	33.7	16	452	29.2	38	1027	33.0
All early(1)		43	1006	47.3	72	1798	40.1	75	2042	37.3	190	4846	40.6
All late		27	684	41.2	63	1650	35.9	62	1738	31.2	152	4072	34.3
Mixed		1	14	40.1	2	49	36.8	3	192	29.8	6	255	32.7
All varieties		71	1704	44.1	137	3497	38.0	140	3972	34.5	347	9173	37.8

(1) Iowar is classed as an early oat. It is about five days later than Iowa 103 and five days earlier than Silvermine.

Table 7.-Yields of Different Varieties of Wheat
Averages for three years of 1925, 1926 and 1927

Strain or type	Your farm	Good soil treatment			Fair soil treatment			Little or no soil treatment			All soil treatments		
		Ave. no. of fields	Ave. acres per year	Ave. bu. per acre	Ave. no. of fields	Ave. acres per year	Ave. bu. per acre	Ave. no. of fields	Ave. acres per year	Ave. bu. per acre	Ave. no. of fields	Ave. acres per year	Ave. bu. per acre
Turkey Red		12	253	25.9	24	634	20.8	23	613	17.8	59	1500	20.4
Other types		4	73	18.6	5	106	19.3	5	102	15.5	14	280	17.3
Mixed		-	-	-	2	34	20.1	1	16	22.6	3	51	22.2
All varieties		16	326	23.4	31	774	20.3	29	731	17.6	76	1831	19.8

Money Value of the Use of High-Yielding Varieties

The farms which used Krug corn produced 5.4 bushels per acre or a total of 516 bushels more corn per farm per year than the average of all other farms. At the average sale price of 76 cents per bushel this increase was worth $392.16. Those farms which used Iowar oats produced 4.8 bushels more per acre or a total of 251 bushels more than those using other varieties. At the average price of 40 cents per bushel this meant an increase of $100.40. Turkey Red types of wheat outyielded all other types by 3 bushels. Those farms using the Turkey Red wheats produced an average of 39.6 bushels worth $52.27 more than those farms using other varieties.

Considering all crops, some cooperators have the opportunity of increasing their incomes by more than $500 per year merely by changing varieties of seed.

Table 5.--Yields of Different Varieties of Oats
Averages for three years of 1928, 1929, and 1930

Variety or type	Yield per acre	Good soil: Average number of days to ripen	Good soil: Average height	Good soil: Average number of bushels per acre	Fair soil: Average number of days to ripen	Fair soil: Average height	Fair soil: Average number of bushels per acre	Little or no moisture: Average number of days to ripen	Little or no moisture: Average height	Little or no moisture: Average number of bushels per acre
Kherson	90	810	19.1	40	104.1	41.8	45	112.2	37.5	7.05
Kanota 105	19	454	11.3	70	102	28.4	110	109	23.7	22
Victory	6	1.01	10.4	7	107	12.4	4	110	6.4	1.4
Kherson 4	4	108	10.9	24	100	12.4	4	104	8	2.8
Silvermine	8	105	11.1	14	079	10.2	4	104	8	2.8
Red Early(1)	42	1003	11.4	72	1.82	10.1	4	(Dam	7.3	1.6
Red Late	27	884	11.4	52	1.43	10.2	4	104	10.2	2.2
Mixed	1	14	10.1	2	00	7.6	3	102	7.8	1.8
All varieties	71	1.01	11.1	1.7	1.10	10.0	1.0	10.1	7.5	1.7

(1) Lower is classed as an early oat. It is several five days earlier than Silvermine.

Table 6.--Yields of Different Varieties of Wheat
Average for three years of 1928, 1929, and 1930

Variety or type	Yield per acre	Good soil: Average number of days to ripen	Good soil: Average height	Good soil: Average number of bushels per acre	Fair soil: Average number of days to ripen	Fair soil: Average height	Fair soil: Average number of bushels per acre	Little or no moisture: Average number of days to ripen	Little or no moisture: Average height	Little or no moisture: Average number of bushels per acre
Turkey Red	12	256	10.0	24	102	10.1	4	102	7.4	1.4
Other types	4	72	12.4	12	102	10.2	4	102	7.4	1.4
Mixed	-	-	-	2	94	10.4	4	102	7.4	1.4
All varieties	15	102	12.4	24	94	10.2	4	102	7.4	1.4

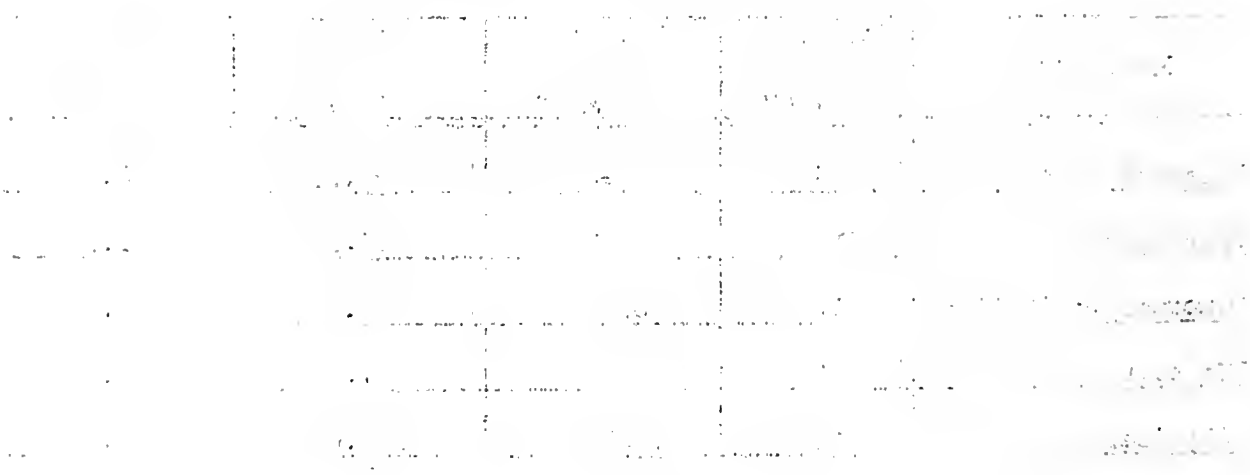
Value of Testing Seed Corn for Disease

The careful testing for disease of each ear of seed corn proved to be a profitable practice. The fields were divided into four groups according to the method of preparing the seed for planting as indicated in the following table. Disease tested seed included the first grade seed as tested in commercial testing laboratories at high schools, by farm bureaus and by individual farmers equipped to do careful work. Ear germination refers to the testing of each ear of seed for germination only. Most such seed was tested in rag dolls, water testers or by other methods where there was not opportunity to make careful selections of diseased ears. General germination refers to seed which was tested in a general way but each ear of which was not tested either for germination or disease.

Table 8.-Value of Testing Seed Corn for Diseases

How Tested	No. of fields per year	No. of acres per year	Percent of land	Average bushels per acre
Disease tested	144	3945	23.1	53.0
Ear germination	165	4172	24.5	51.4
General germination	175	5174	30.3	48.4
No test	48	1270	7.4	46.2
All fields	622	17055	100.0	49.9

It will be noted that as a three year average, nearly one-third of the corn land on these farms was planted with seed which had had only a general test. Such fields yielded 4.6 bushels per acre less than those planted with carefully disease tested seed and 3.0 bushels less than that ear tested for germination only. Even when tested in commercial laboratories, one bushel per acre increase will more than pay for the cost of testing. These records indicate that many cooperators have the opportunity to increase their annual net incomes by two hundred or more dollars merely by testing their seed corn for disease.



Value of Growing Profitable Kinds of Crops

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

Chart 4 shows the relation of the rates earned on these farms and the percent of tillable land in the combined acreage of the higher profit crops of corn, wheat, alfalfa, sweet clover and canning crops of sweet corn, peas, and pumpkin. The selection of corn and wheat as the higher profit grain crops, of alfalfa as the higher profit hay crop, and of sweet clover as the higher profit pasture crop for tillable land was based on long-time investigations of the Departments of Farm Organization and Management and Animal Husbandry of the University of Illinois.

Chart 4 - Rate Earned as Related to the Percent of Land in the Higher Profit Crops

It should be understood that part of the increased net income was due to better crop yields, better handled livestock, etc., on the same farms. Data show averages of 1925, 1926 and 1927 records.

Percent land in higher profit crops	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned on the total farm investments	Rate earned	Average net income
76.7 ave. 71.3-85.5	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.2	$2,520
68.8 ave. 66.5-70.8	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.8	2,280
65.0 ave. 63.5-66.5	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.2	1,920
60.9 ave. 57.8-63.0	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.2	1,920
53.3 ave. 37.5-57.7	35		XXXXXXXXXXXXXXXXXXXXXXXX	2.4	1,440

It will be noted in Table 2 that 45.9 percent of the tillable land on the 35 most profitable farms was in corn. It is doubtful if it is ever wise to have more than fifty percent of the tillable land in corn or any other one crop, because of the uneven distribution of labor, difficulty of maintaining soil fertility, difficulty of controlling weeds and insects and the risk of storms or other uncontrollable conditions which may seriously injure one crop but do little damage to others.

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

Relation of Amount and Efficiency of Livestock to Farm Incomes

Efficient care and feeding of livestock is essential for the best net farm incomes. Those farms having a small amount of livestock well handled had larger net incomes than farms having large amounts of livestock poorly handled. With the favorable prices of livestock in relation to prices of grain during 1925, 1926 and 1927 the farms which fed most of their grain to well handled livestock had net incomes nearly $2,000 higher than farms having small amounts of livestock poorly handled.

Chart 5 - Relation of the Rate Earned and the Amount and Efficiency of Livestock

It should be understood that the rates earned were affected also by the crop yields, percent of land in higher profit crops, etc.,- averages of 1925, 1926 and 1927 data.

Returns for $100 feed	No. of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned by the different groups of farms	Rate earned	Average net income
Most Livestock - $16.61 of feed per acre					
$162 149.03-187.64	16		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	5.6	$3,360
$143 137.40-148.97	16		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.0	2,400
$125 90.91-135.92	16		XXXXXXXXXXXXXXXXXXX	2.5	1,500
Medium Livestock - $8.59 of feed per acre					
$183 168.21-206.01	16		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.3	2,580
$158 148.37-166.85	16		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.5	2,100
$127 88.81-148.34	16		XXXXXXXXXXXXXXXX	2.2	1,320
Least Livestock - $4.66 of feed per acre					
$190 178.91-211.77	16		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.7	2,220
$157 149.70-168.56	16		XXXXXXXXXXXXXXXXXXXXXXXX	3.2	1,920
$133 75.11-148.35	16		XXXXXXXXXXXXXXXXXX	2.5	1,500

Those farms in the first three groups which fed an average of $16.61 worth of feed per acre fed a large portion of their crops while those in the last three groups which fed an average of only $4.66 worth of feed per acre sold most of their grain.

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

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

Efficiency in the Use of Man Labor

On several farms, high labor costs was one of the most important factors responsible for low net farm incomes. Usually efficient use of farm power including both horses and mechanical power goes with efficient use of man labor. Hence a part of the difference in net farm incomes between the farms making the best use and the poorest use of man labor may be attributed to the good use of power and equipment. These items are of such importance that careful attention needs to be given to them in the operation of the farm.

Chart 6 - Efficiency in the Use of Man Labor

Percent of average crop acres for average cost	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned on the total farm investment.	Rate earned	Net farm income
130.8 118.9-169.4	31		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.3	$2580
110.2 105.4-118.6	31		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.3	1980
100.7 98.2-105.2	32		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.3	1980
94.7 88.1-97.8	31		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.1	1860
79.9 49.5-87.3	31		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	2.8	1680

What Cooperators Do to Make Good Use of Man Labor

1. Adopt cropping systems which will tend to make use of labor evenly throughout the year.

2. Grow and feed such livestock as will make use of available labor throughout the year and especially to provide productive winter work.

3. Fit the cropping system to the available labor supply. For illustration, farmers having boys in High School and College coming home for summer vacations may safely increase the alfalfa and wheat acreage above what could ordinarily be grown.

4. Plan ahead so as to have odd jobs and other work out of the way when the rush seasons for field work come.

5. Arrange the size, shape and location of fields so as to save time in taking livestock to pasture and in doing the field work.

Efficiency in the Use of Horse Power and Machinery

The cost of horse and mechanical power and machinery is frequently misjudged. Farms are frequently found where these costs are the most important single items in keeping down the farm earnings. The cost of mechanical equipment is not fully realized until it must be replaced, while the cost of horse power may seem small, because the feed horses eat is raised on the farm and its value is seldom determined or appreciated.

Chart 7.-Power and Machinery Cost as Related to Earnings on Total Farm

Percent of average crop acres for average cost	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned in the total farm investment.	Rate earned	Net farm income
139.5 124.5-226.8	30		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	4.1	$2,460
117.7 107.3-123.9	29		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.5	2,100
102.5 95.1-107.0	30		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.4	2,040
93.8 82.8-95.1	29		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.5	2,100
71.1 42.5-82.4	30		XXXXXXXXXXXXXXXXXXXXXXXXX	2.2	1,320

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

1. Keep machinery under cover and protected from poultry and other livestock.

2. Secure equipment that will most economically meet the power and machinery needs.

3. Clean, repair, paint and oil machinery and harness regularly. On many of the more profitable farms this work is done in the winter with farm labor.

4. Study the use and care of expensive and more complicated machines such as tractors, trucks, threshing machines, corn huskers, combines, etc. On many farms the saving of labor by the use of labor saving machinery is overbalanced by the heavy depreciation and repair bills.

5. Keep only as many workable horses as are needed under ordinary conditions.

6. Feed horses according to the work done.

Influence of Prices on Farm Earnings

The differences in the prices farmers receive for their products in the same community and in the same years accounts for some difference in farm earnings. Many people, however, are inclined to attribute too much importance to this factor in explaining the differences in the farm earnings.

Chart 7 shows the relation between the prices received for corn, oats, wheat and hogs and the rates earned on the total farm investments. Not all of the increased net income on the farms receiving the better prices can be attributed to the higher price received for these products. The higher prices received were due in part to the better grade of products sold. And, as in the case of corn, the corn that comes from good land and yields best usually grades best and sells a little higher on the market. Hence yield and other factors are in part responsible for the differences in farm earnings shown in the following chart.

Chart 7.- Rate Earned as Related to the Prices Received for Farm Products

Percent of average price	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned on the total investments	Rate earned	Net farm income
108.4 105.1-118.5	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.9	$2340
102.9 100.8-105.1	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.7	2220
99.2 97.9-100.7	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.6	2160
96.5 94.7-97.8	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.0	1800
90.7 85.1-94.6	35		XXXXXXXXXXXXXXXXXXXXXXXX	2.4	1440

The years 1926 and 1927 were both years when the quality of crops was damaged by weather conditions. In 1926 the wet weather seriously damaged small grain and delayed corn husking which resulted in damaged corn especially where it was down. In 1927 the early frost was the cause of much low-grade corn. It is probable that during this period the fluctuation in farm prices and damages from climatic conditions were greater than normal, and that the price received for products sold had fully as much influence on earnings relative to other factors as is likely to be true over a period of years.

What Some Cooperators Do to Secure Better Prices

1. Use varieties of crops that mature in good season, that is, small grain that resists hot weather or matures before hot weather, or corn that matures before frost.
2. Provide a fertile soil that produces a good quality of grain.
3. Plant crops at the right time.
4. Keep crops free from disease as a means of improving quality.
5. Protect crops from damage after harvesting, especially corn which is frequently cribbed in poor condition and in poorly ventilated cribs.
6. Finish hogs and other livestock at the time good prices are to be expected.

Thrift - The Keeping of Expenses Low in Proportion to Receipts

Some farms which produced good crop yields had a large proportion of the land in higher profit crops and made a good return for the feed fed to livestock, and had low net incomes because the expenses were high in proportion to the income.

In Chart 9 the farms are grouped according to the total expense including the operator's and family labor for each $100 of gross income. As was to be expected, there was a regular decrease in the rate earned on the investment as the expenses in proportion to receipts increased.

Chart 9 - Rate Earned in Relation to the Proportion of Expenses to Receipts Averages of 1925, 1926 and 1927 Data

Expense for $100 gross income	Number of farms	Your farm	The lengths of the shaded bars are in proportion to the rates earned in the total farm investment.	Rate earned	Net farm income
$48.05 $39.59-54.23	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	5.7	$3,420
$57.30 $54.26-59.68	35		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3.8	2,280
$61.36 $59.70-63.68	35		XXXXXXXXXXXXXXXXXXXXXXXXX	3.3	1,980
$68.21 $63.72-75.35	35		XXXXXXXXXXXXXXXXXXXX	2.6	1,560
$86.16 $76.32-113.32	35		XXXXXXXX	1.0	600

What Cooperators Do to Keep Expenses Low in Proportion to Receipts

1. Select and prepare most of the seed used, buying a little improved seed occasionally as more valuable strains are discovered or developed.
2. Repair machinery, harness, fences, and buildings with the farm labor.
3. Grow enough crops high in protein and minerals, such as alfalfa, sweet clover, and soybeans, to balance the grain ration, saving much of the purchase price of expensive protein supplements.
4. Use home-grown feeds as far as possible.
5. Plan work so as to make as few trips to town as possible, thus saving time and gas.
6. Feed work horses in accordance with the work done. On some farms much feed goes to idle horses which could more profitably go to cattle or hogs or be sold.
7. Purchase inexpensive but serviceable equipment. As an illustration many cooperators are building individual hog houses costing about $10 each which are as useful and will last as long as other houses costing three times as much.

ORGANIZATION AND PURPOSE OF THE FARM BUREAU-FARM MANAGEMENT SERVICE

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

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

About sixty farm bureau members in each of the four counties agreed to cooperate in the project for the three years of 1925, 1926 and 1927. The total average cost is about thirty dollars per farm per year. About 40 percent of the expense is borne by the University of Illinois. This leaves a cost per farm of about seventeen dollars per year. The fee per farm varies from ten to twenty dollars per year, depending on the size of the farm. In two of the counties the farm bureaus pay a portion of each fee, while in two counties the cooperators pay the entire fee of ten to twenty dollars.

The entire time of M. L. Mosher, one of the authors of this report, is given to the project. Each cooperator is being visited on his farm at least three times during each year. The work is under the direction of H. C. M. Case, in charge of the Department of Farm Organization and Management acting in cooperation with an advisory committee consisting of one representative of each farm bureau. This committee consists of G. F. Bennett, Livingston County, Chairman, E. D. Lawrence, McLean County, W. C. Somer, Tazewell County, and J. Frank Felter, Woodford County, who is secretary-treasurer. This committee is responsible to the cooperating farm bureau for the custody and expenditure of the funds raised by the collection of the cooperators' fees. Each Farm Bureau collects the fees from its cooperating members and pays them over to the committee.

The organization of the project was made possible by the hearty support and assistance of the four Farm Advisers and their assistants. The Farm Advisers who were in charge of their counties when the work was organized are 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.

Most of the cooperators are continuing the work during 1928. Plans are now under way for reorganizing the project during the fall of 1928 for another period of years.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and the

Farm Bureaus of

Livingston, McLean, Tazewell, and Woodford Counties

Cooperating

SUPPLEMENTAL SUMMARY REPORT

of the
FARM BUREAU-FARM MANAGEMENT SERVICE

For the years 1925, 1926, and 1927, for

FARMS OPERATED BY TENANTS

This report should be studied only in connection with the Summary Report of the Farm Bureau-Farm Management Service of the same date.

Urbana, Illinois

September 1928

SUPPLEMENTAL SUMMARY REPORT

Of Farms Operated by Tenants Who Have Cooperated in the
Farm Bureau-Farm Management Service
For the three-year period of 1925, 1926, and 1927

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

This supplemental report has been prepared for the benefit of the tenant cooperators who have shown in their records the division of receipts and expenses between the tenant and the landlord.

Differences in Tenants' Incomes

It will be noted (see Table 2) that, as an average, the ten most successful of the fifty tenants whose records were used in this report received a labor and management wage of $2,140 per farm per year for the three-year period. The ten least profitable tenant farms returned the operators an average of only $129 per farm per year for labor and management. The tenant's labor and management wage is what there is left after deducting from his total receipts all cash operating expenses, depreciation on his equipment, an allowance for family labor other than the operator's, and five percent interest on his investment in equipment, livestock and grain on hand at the beginning of the year.

It will be seen that one-fifth of the tenants made their business pay them a labor and management wage of about $2,000 per farm per year more than was received by another one-fifth of them.

There was a difference in the landlord's net income of 59 percent on the landlord's investment, in favor of the farms operated by the more successful tenants. This difference in rate applied to the average landlord's investment would amount to about $280.

Location of Differences in Tenants' Incomes

A careful comparison of the data shown in Table 2 of this report with that in Table 2 of the complete report, to which this is a supplement, will show that, in general, the same statements which were made as regards the location of differences in the earnings of the whole farm business apply to the differences in the tenant's share of the income.

The difference in crop yields was less important in making the differences in tenant incomes than when the total farm income was studied. On the other hand, more of the difference in income was due to the differences in the amounts of livestock on the more profitable and the less profitable tenant farms.

These data indicate very clearly the value of a profitable cropping system, and the value of livestock on the tenant farm.

Table 1.-SUMMARY OF THE THREE-YEARS' FARM BUSINESS

Items	Average of 50 tenant farms			Average of 10 tenant farms with highest operator's labor and management wage			Average of 10 tenant farms with lowest operator's labor and management wage		
	Whole farm business	Tenant's share	Landlord's share	Whole farm business	Tenant's share	Landlord's share	Whole farm business	Tenant's share	Landlord's share
Capital - Total	$54,109	$6,676	$47,433	$63,642	$7,577	$56,065	$50,806	$6,332	$44,474
Land	41,026	-	41,026	48,313	-	48,313	38,759	-	38,759
Farm improvements	4,884	193	4,691	5,450	47	5,403	4,402	123	4,279
Machinery and equipment	1,649	1,648	1	2,040	2,040	-	1,544	1,544	-
Feed, grain, supplies	3,868	2,323	1,545	4,661	2,584	2,077	3,933	2,497	1,436
Livestock - Total	2,682	2,512	170	3,178	2,906	272	2,168	2,168	-
Horses	734	726	8	622	622	-	778	778	-
Cattle	827	776	51	855	803	52	710	710	-
Hogs	865	758	107	1,369	1,169	200	526	526	-
Sheep	111	107	4	159	139	20	52	52	-
Poultry	143	143	-	173	173	-	102	102	-
Bees	2	2	-	-	-	-	-	-	-
Dogs	-	-	-	-	-	-	-	-	-
Receipts - Total	$ 4,798	$3,311	$1,912	$6,912	$5,042	$2,448	$3,463	$2,257	$1,658
Farm improvements	-	1	-	-	3	-	-	-	-
Feed, grain, supplies	1,931	723	1,347	1,868	606	1,503	1,679	473	1,354
Labor off the farm	45	45	-	78	78	-	25	25	-
Miscellaneous	14	14	-	15	15	-	12	12	-
Cash rent	-	-	285	-	-	334	-	-	304
Livestock - Total	2,808	2,528	280	4,951	4,340	611	1,747	1,747	-
Horses	16	16	-	13	13	-	26	26	-
Cattle	356	311	45	498	428	70	341	341	-
Hogs	1,760	1,547	213	3,373	2,878	495	1,029	1,029	-
Sheep	50	47	3	65	49	16	25	25	-
Poultry	115	115	-	147	147	-	68	68	-
Egg sales	143	143	-	230	230	-	77	77	-
Dairy sales	367	348	19	625	595	30	181	181	-
Bees	-	-	-	-	-	-	-	-	-
Dogs	1	1	-	-	-	-	-	-	-

Table 1.-SUMMARY OF THE THREE-YEARS' FARM BUSINESS (Continued)

Items	Average of 50 tenant farms			Average of 10 tenant farms with highest operator's labor and management wage			Average of 10 tenant farms with lowest operator's labor and management wage		
	Whole farm business	Tenant's share	Landlord's share	Whole farm business	Tenant's share	Landlord's share	Whole farm business	Tenant's share	Landlord's share
Expenses - Total	$2,081	$1,837	$ 669	$2,655	$2,443	$ 790	$1,890	$1,739	$ 603
Farm improvements	235	21	215	254	11	246	247	21	226
Machinery and equipment	445	445	-	501	501	-	432	432	-
Feed, grain, supplies	47	179	7	236	441	36	-	148	-
Misc. livestock expense	55	50	5	80	67	13	40	40	-
Misc. crop expense	242	196	46	256	201	55	219	192	27
Hired labor	534	528	6	768	748	20	483	483	-
Tax, insurance, etc.	442	53	389	467	48	419	402	52	350
Misc. expenses	43	42	1	49	48	1	39	39	-
Horses - decreases	36	36	-	39	39	-	28	28	-
Misc.livestock decreases	2	2	-	5	5	-	-	-	-
Cash rent	-	285	-	-	334	-	-	304	-
Receipts less expenses	$2,717	$1,474	$1,243	$4,256	$2,599	$1,658	$1,573	$ 518	$1,055
Op's and family labor	799	799	-	800	800	-	771	771	-
Net income from investment	1,918	675	1,243	3,456	1,799	1,658	802	-253	1,055

Table 2.-IMPORTANT FACTORS WHICH SHOW DIFFERENCES IN ORGANIZATION AND EFFICIENCY ON THE MORE SUCCESSFUL, AS COMPARED WITH THE LESS SUCCESSFUL TENANT FARMS

Item	Average of 50 tenant farms	Average of 10 tenant farms with highest operator's labor and management wage	Average of 10 tenant farms with lowest operator's labor and management wage
Rate earned on investment			
Total farm	3.54%	5.43%	1.58%
Tenant's share	10.11%	23.74%	-3.99%
Landlord's share	2.62%	2.96%	2.37%
Operator's labor and management wage	$1,054.	$2,140.	$ 129.
Size of farm	211.3	244.7	210.0
Total investments per acre	$ 256.08	$ 260.06	$ 241.89
Land	194.17	197.42	184.54
Improvements	23.11	22.27	20.96
Horses and machinery	11.27	10.88	11.05
Productive livestock	9.22	10.44	6.62
Feed, grain and supplies	18.31	19.05	18.72
Percent of farm tillable	91.5%	89.2%	88.0%
Percent tillable land in			
High profit crops	60.1%	63.0%	60.1%
Medium profit crops	9.0%	11.5%	6.2%
Low profit crops	30.9%	25.5%	33.7%
Corn	45.2%	46.5%	45.9%
Oats	24.6%	19.6%	29.6%
Winter wheat	7.0%	9.7%	5.7%
All grain and hay crops	88.4%	91.1%	90.4%
All legumes	14.7%	12.7%	11.9%
Yield of corn	48.6	50.4	43.4
Yield of oats	36.2	38.7	33.3
Yield of wheat	18.5	19.5	18.9
Feed used per acre	$ 9.28	$ 13.11	$ 7.03
Returns per $100 feed	155.70	163.70	137.26
Percent of average prices received	100.2%	102.4%	98.7%
Labor cost per acre	$ 6.31	$ 6.41	$ 5.97
Horse and machinery cost per acre	4.53	4.32	4.49
Percent of average crop acres worked with			
Average labor cost	107.7%	116.6%	107.9%
Average power and machinery cost	103.8%	114.8%	98.6%

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Department of Farm Organization and Management

and

MACON, McLEAN, LOGAN AND DeWITT COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-one Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

April, 1928

M 76

ANNUAL FARM BUSINESS REPORT

Macon, McLean, Logan and DeWitt Counties, Illinois 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 31 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $665 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. The average investment was $239 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $867 each to pay for his own labor, management and risk. This is called the LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $2,405 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $3,272 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 31 farmers EARNED 2.8 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 5.3 percent and the least successful third earned one-fourth of one percent. The average investment on the 31 farms was $61,861 which amounts to $239 an acre. The higher profit third had an average investment of $238 and the lower profit third $228 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $189 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 a farm at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The group of least profitable farms averaged 35 more acres than the most profitable farms, but most of this extra acreage was nontillable pasture. There was only 13 acres difference in the amount of tillable land per farm between the two groups. Size of farm evidently had little influence on relative earnings between them. The less profitable farms averaged 11 more acres of corn, 27 more

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*E. H. Walworth, H. Fahrnkopf, J. H. Checkley and O. M. Allyn, farm advisers in Macon, McLean, Logan and DeWitt counties respectively, cooperated in supervising and collecting the records used in this report.

acres of oats and 8 less acres of wheat than their more successful neighbors. Studies of costs and incomes per acre for the different crops have shown that under ordinary conditions the margin of profit is larger for corn, wheat, alfalfa and sweet clover pasture than for other crops commonly grown in Illinois. Oats, timothy and bluegrass on tillable land are classed as low profit crops. It is interesting to note that the more profitable farms included in this report had a higher percentage of their land in the more profitable crops.

One of the biggest advantages which the 10 most profitable farms had was in their higher crop yields. They produced 19 bushels more corn, 9 bushels more oats and 2 bushels more wheat per acre than the least profitable farms. Since it usually costs but little more to produce an acre of high yielding crop than an acre of low yielding crop this was a very great advantage to the more profitable farms.

Another great advantage in favor of the 10 most profitable farms was in their greater efficiency with livestock. They produced a livestock income of $133 for each $100 of livestock investment as compared with a corresponding income of only $84 on the 10 least profitable farms. This advantage in efficiency is found to apply to all of the productive livestock enterprises, including cattle, hogs and poultry. With only about $320 a farm more investment in livestock the more profitable farms realized a net increase from livestock larger by $2,129 a farm than was realized on the less profitable farms.

Not only did the most successful farm operators realize larger gross incomes, but their operating expenses were somewhat less than on the least profitable farms. They had a slightly lower man labor cost per acre in spite of the fact that they had a higher percentage of their land in crops, and they worked 27 more crop acres per man than did the operators of the least profitable farms. On the tractor farms the more successful operators only worked 3 more crop acres per horse, but on the non-tractor farms they worked 10 more crop acres per horse than their less successful neighbors. Man labor and power are the largest items of operating cost on most farms. That the more successful operators kept their expenses well in line with their incomes is indicated by the fact that their expenses only required $46.75 out of every $100 income, while on the less successful farms $95.28 out of each $100 income was required for expenses.

We may sum up this discussion by pointing out that the more profitable farms gained their greatest advantage in larger gross incomes. The larger gross incomes were due to larger crop yields and greater efficiency with all kinds of livestock. The resulting gross income per acre amounted to $23.76 as compared with $12.70 an acre for the least profitable farms. To add to this advantage the more successful operators had about one dollar an acre less operating expense. The advantage is clearly brought out by the fact that the 10 most profitable farms had a net income per acre of $12.65, while the 10 least profitable farms had a net income of only 60 cents per acre.

Although there was a slight shift in the area included, it is interesting to compare income and investment figures for the area covered by this report for the years 1926 and 1927. The shift in area covered apparently made an increase in the average size of farm, but in general the figures are comparable. The average rate earned on the investment was somewhat less for 1927. Hog incomes were decreased and cattle incomes increased reflecting the change in price level for hogs and cattle. Average crop yields per acre for 1927 were lower by 10

bushels of corn, 15 bushels of oats and 13 bushels of wheat than in 1926. Prices were higher for corn and oats, however, and average net increases from crops remained about the same for the two years.

Comparative Earnings for the Macon, McLean, Logan and DeWitt County District, 1926 and 1927

Item	1926[1]	1927
Number of farms included	28	31
Average size of farm, acres	227	259
Average rate earned on the investment	3.3%	2.8%
Average value of land per acre	$190	$189
Average investment per acre	244	239
Investment in livestock per farm	2885	3133
Investment in cattle per farm	1012	1310
Investment in hogs per farm	885	879
Investment in poultry per farm	154	151
Gross income per acre	20.95	18.90
Operating cost per acre	12.97	12.23
Crop increase less feed purchases per farm	2074	2014
Miscellaneous income per farm	61	55
Livestock income per farm	2617	2832
Gross income per farm	4752	4901
Cattle income per farm	666	1133
Dairy sales per farm	262	433
Hog income per farm	1384	1018
Poultry income per farm	266	234

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.

[1]Records for Macon, Logan and Piatt Counties were included for 1926.

Macon, McLean, Logan and DeWitt Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 31 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	2.79 %	5.31 %	.26 %
Labor and management wage	$	$-665	$867	$-2405
Size of farm - acres	A	259.35 A	254 A	289 A
Percent of land area tillable	%	91.4 %	94.6 %	87.6 %
Acres in Corn	A	98.22 A	94 A	105 A
Oats	A	49.4 A	39 A	66 A
Wheat	A	21.2 A	29 A	21 A
Crop yields - Corn	bu.	39.6 bu.	49.8 bu.	30.8 bu.
Oats	bu.	24.0 bu.	29.8 bu.	20.4 bu.
Wheat	bu.	14.4 bu.	14.7 bu.	12.9 bu.
Percent in high profit crops*		55	57	53
Returns per $100 invested in all productive livestock	$	$ 112	$133	$ 84
For $100 in Cattle	$	$ 108	$134	$ 95
Hogs	$	$ 117	$124	$ 84
Poultry	$	$ 161	$193	$ 116
Investment per acre in productive livestock	$	$ 9.77	$ 10.79	$ 6.33
Receipts per acre from productive livestock	$	$ 10.92	$ 14.40	$ 5.29
Man labor cost per acre	$	$ 5.97	$ 5.37	$ 5.65
Crop acres per man	A	99.8 A	123.3 A	96.4 A
Crop acres per horse (with tractor)	A	30.45 A	35.43 A	32.51 A
(without tractor)	A	21.3 A	27.01 A	16.67 A
Expense per $100 gross income	$	$ 64.72	$ 46.75	$ 95.28
Machinery cost per acre	$	$ 2.01	$ 1.54	$ 2.06
Building and fencing cost per acre	$	$ .80	$ .81	$ .37
Gross receipts per acre	$	$ 18.90	$ 23.76	$ 12.70
Total expenses per acre	$	$ 12.23	$ 11.11	$ 12.10
Net receipts per acre	$	$ 6.67	$ 12.65	$ .60
Farms with tractor		68 %	60 %	60 %
Value of land per acre	$	$ 189	$193	$ 187
Total investment per acre	$	$ 239	$238	$ 228

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

Macon, McLean, Logan and DeWitt Counties - 1927

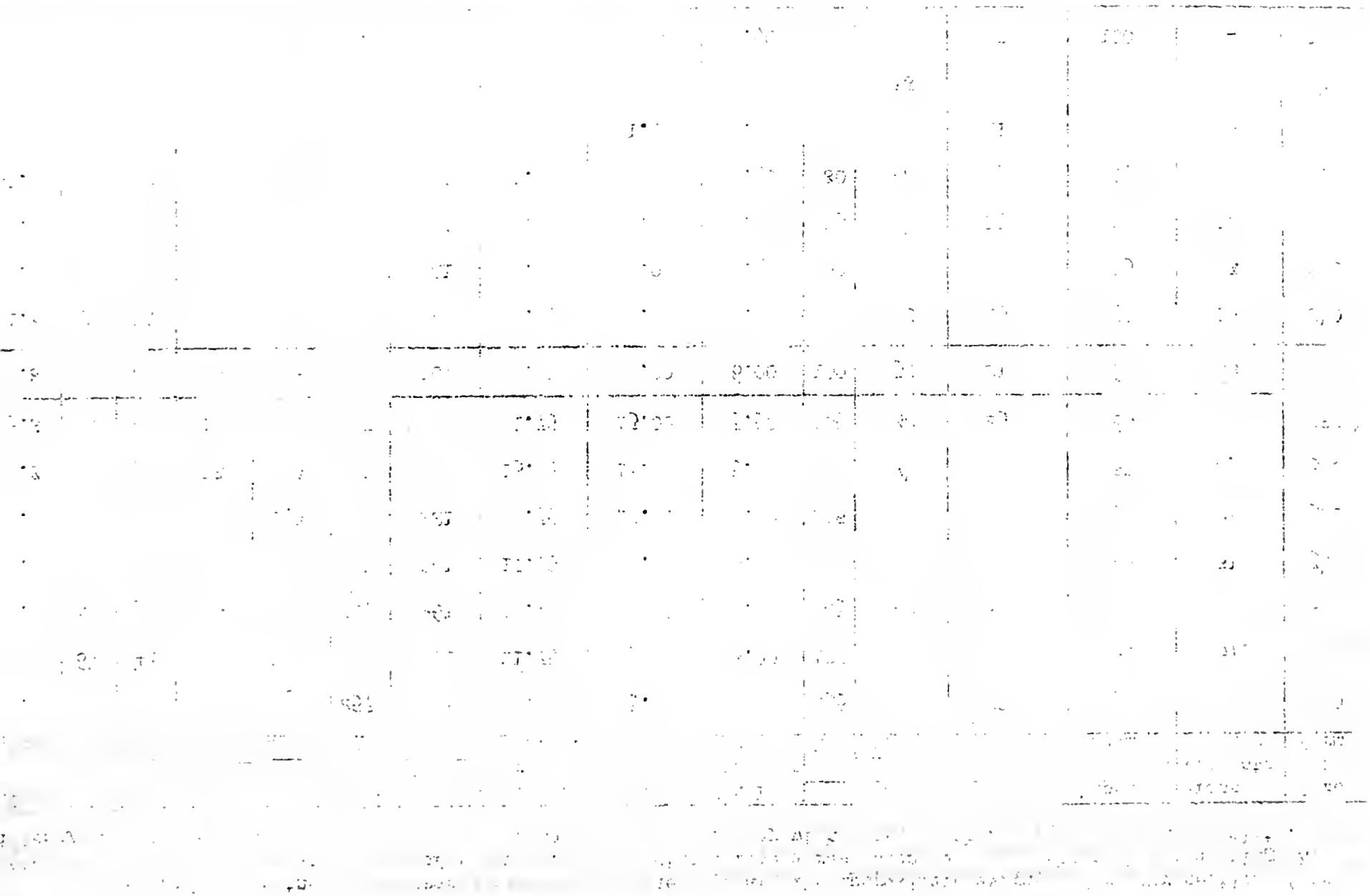
		Your farm	Average of 31 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$_____	$ 61 861	$ 60 503	$ 65 954
2	Land		49 119	48 985	53 900
3	Farm improvements		4 838	4 321	4 755
4	Machinery and equipment		1 686	1 361	1 804
5	Feed and supplies		3 085	2 849	2 827
6	Livestock		3 133	2 987	2 668
7	Horses		724	677	753
8	Cattle		1 310	1 108	708
9	Hogs		879	1 008	869
10	Sheep		69	19	166
11	Poultry		151	175	172
12	Receipts-Net Increases-Total	_____	4 901	6 036	3 669
13	Feed and grain		2 014	2 360	2 056
14	Miscellaneous		55	18	84
15	Livestock - Total		2 832	3 658	1 529
16	Horses		--	--	--
17	Cattle		1 133	1 596	280
18	Hogs		1 018	1 402	693
19	Sheep		14	14	10
20	Poultry		110	191	45
21	Egg sales		124	150	138
22	Dairy sales		433	305	363
23	Expenses-Net Decreases-Total	_____	2 144	1 966	2 335
24	Farm improvements		207	207	251
25	Livestock		16	29	28
26	Horses		16	29	28
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		522	391	595
32	Feed and supplies		--	--	--
33	Livestock expense other than feed		53	63	43
34	Crop expense		246	254	266
35	Labor hired		521	508	473
36	Taxes, insurance, etc.		544	473	642
37	Miscellaneous		35	41	37
38	Receipts less Expenses	_____	2 757	4 070	1 334
39	Operator's and unpaid family labor		1 028	856	1 161
40	Net income from investment		1 729	3 214	173

Find Your Farm Leaks

Macon, McLean, Logan and DeWitt Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per Horse			Expense per $100 income	Gross receipts per acre	Size of farm
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Tractor	No tractor			
9.8	68	44	28	178	257	301	23.75	25.00	2.50	135	44	35	30	40	400
8.8	64	42	26	168	237	281	21.75	23.00	3.00	130	42	33	35	37	380
7.8	60	39	24	158	217	261	19.75	21.00	3.50	125	40	31	40	34	360
6.8	56	36	22	148	197	241	17.75	19.00	4.00	120	38	29	45	31	340
5.8	52	33	20	138	177	221	15.75	17.00	4.50	115	36	27	50	28	320
4.8	48	30	18	128	157	201	13.75	15.00	5.00	110	34	25	55	25	300
3.8	44	27	16	118	137	181	11.75	13.00	5.50	105	32	23	60	22	280
2.8	40	24	14	108	117	161	9.75	11.00	6.00	100	30	21	65	19	260
1.8	36	21	12	98	97	141	7.75	9.00	6.50	95	28	19	70	16	240
0.8	32	18	10	88	77	121	5.75	7.00	7.00	90	26	17	75	13	220
-0.2	28	15	8	78	57	101	3.75	5.00	7.50	85	24	15	80	10	200
-1.2	24	12	6	68	37	81	1.75	3.00	8.00	80	22	13	85	7	180
-2.2	20	9	-	58	17	61	--	1.00	8.50	75	20	11	90	4	160
-3.2	16	-	-	48	--	41	--	--	9.00	70	18	9	95	-	140
-4.2	12	-	-	38	--	21	--	--	9.50	65	16	7	100	-	120



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

FORD AND IROQUOIS COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-eight Farms

for

1927

The farm account
is a guide to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M99

ANNUAL FARM BUSINESS REPORT

Ford and Iroquois Counties, Illinois 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 28 farmers in Ford and Iroquois Counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $218 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $244 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,531, while the one-third who were least successful lacked an average of $976 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2,507 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 28 farmers EARNED 4.1 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 6.3 percent and the least successful third 1.4 percent. The average investment on the 28 farms was $56,920 which amounts to $244 an acre. The higher profit third had an average investment of $242 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. The land alone was valued at $195 an acre on the average farm.

In addition to the above earnings each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The ten most profitable farms averaged 58 acres larger than the ten least profitable farms. Size of farm probably was not one of the most important factors responsible for the difference in earnings. Larger size, however, does give an opportunity for more efficient use of labor, equipment and improvements under good management. In this case the ten most profitable farms had lower costs for all of these items. Of the 58 extra acres on the more

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

profitable farms 27 acres were in corn and 23 acres in oats leaving 8 acres in other crops and pasture.

Larger yields of corn gave the more profitable farms an important advantage over the less profitable farms. There was little difference in yield of wheat between the two groups, and the lower income group had slightly better average yields of oats. Corn is the chief cash crop in this section and the more profitable farms produced 1836 more bushels of corn per farm than the less profitable farms.

More efficient management of the livestock enterprises was another important advantage on the more profitable farms. This accounts for about $1000 a farm of the larger gross incomes on the more profitable farms. In proportion to their investments they show larger incomes from both the hog and poultry enterprises. This is not a heavy livestock producing section. The average livestock investment per acre is only about one-third as large as on farms of the northern part of the state and one-half as large as on farms of Western Illinois. For 1927, however, livestock contributed about one-third of the income on the average farm covered by this report. Any advantage in the selection, care and selling of this livestock has an important effect in increased profits. More efficient feeding of livestock by the more successful farmers is indicated by the fact that they had a larger investment in livestock per acre and still had over twice as much income from crops as did the less successful farmers. Efficiency in management of the livestock enterprises is more important than the kind of livestock enterprises selected. Dairying is usually one of the best livestock enterprises. In this case, however, there were four farms included with dairy sales of $900 or more per farm. Two of these were in the third with the best net earnings, one was in the middle group and one in the group with the lowest net earnings.

On the expense side of the business as has been noted previously the more profitable farms had lower costs per acre for labor, equipment, and improvements. Labor and equipment are two of the largest items of operating cost on most farms. It is important, therefore, to keep them as low as is consistent with good crop yields and efficient management of livestock.

This discussion may be summed up by noting that the more profitable farms were successful chiefly because of higher gross incomes per acre but partly also because of lower operating costs. The larger gross incomes were due to better yields of corn and better results with livestock. Lower expense per acre was due chiefly to more efficient use of labor and equipment.

Some interesting comparisons of earnings on the accounting project farms can be made from the following tables. The farms included for 1926 and 1927 were mostly the same identical ones. It is evident that average earnings were about the same for the two years on these farms. The season of 1924 was much the best since 1919 on farms of this section. Fair yields of the grain crops in this area with a severe shortage in world supplies accounted for the better prices of 1924.

Comparative Earnings on Farms in Ford and Iroquois County District, 1923 to 1927

Item	1924(1)	1925(2)	1926(3)	1927(3)
Number of farm records	52	31	31	28
Average size of farm, acres	223	251	231	233
Average rate earned	7.4%	2.5%	3.9%	4.1%
Average value of land per acre	$ 198	$ 200	$ 199	$ 195
Average investment per acre	242	253	245	244
Investment in livestock per farm	2,210	2,461	2,181	2,549
Investment in cattle per farm	675	734	778	767
Investment in hogs per farm	548	581	484	730
Investment in poultry per farm	151	165	184	182
Gross income per acre	29.44	17.45	20.96	21.83
Operating costs per acre	11.43	11.12	11.39	11.72
Crop income less feed purchases per farm	4,620	2,293	2,819	2,945
Miscellaneous income per farm	83	66	73	47
Livestock income per farm	1,873	2,032	1,953	2,104
Gross income per farm	6,576	4,391	4,845	5,096
Cattle income per farm	358	327	228	421
Dairy sales per farm	268	327	391	460
Hog income per farm	886	1,003	966	855
Poultry income per farm	233	302	330	307

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

(1) Reports include records from Champaign and Ford Counties and from the eastern half of McLean County.
(2) All records from Ford County for 1925.
(3) Includes records from Ford and Iroquois Counties.

Comparative Earnings on Farms in Ford and [illegible] Counties, 1944 to 1947

Item	[illegible](1)	1944(2)	[illegible]	[illegible](3)
Number of farms reported	39	37	[illegible]	[illegible]
Average size of farm, acres	[illegible]	162	[illegible]	[illegible]
Average rate earned	[illegible]	[illegible]	[illegible]	[illegible]
Average value of farm per acre	[illegible]	$ 206	[illegible]	[illegible]
Average investment per farm	[illegible]	33[illegible]	[illegible]	[illegible]
Investment in livestock per farm	$ 3,210	$[illegible]	[illegible]	$ 3,[illegible]
Investment in cattle per farm	[illegible]	1[illegible]	[illegible]	[illegible]
Investment in hogs per farm	545	[illegible]	[illegible]	[illegible]
Investment in poultry per farm	[illegible]	[illegible]	[illegible]	[illegible]
Gross income per acre	[illegible]	[illegible]	[illegible]	[illegible]
Operating costs per acre	[illegible]	[illegible]	[illegible]	[illegible]
Crop income less feed purchases per farm	$ 4,[illegible]	$ [illegible]	$ 5,[illegible]	$ 3,[illegible]
Miscellaneous income per farm	8[illegible]	[illegible]	[illegible]	[illegible]
Livestock income per farm	$ 3,[illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Gross income per farm	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Cattle income per farm	[illegible]	[illegible]	[illegible]	[illegible]
Dairy sales per farm	[illegible]	[illegible]	[illegible]	[illegible]
Hog income per farm	586	$ [illegible]	[illegible]	[illegible]
Poultry income per farm	[illegible]	[illegible]	[illegible]	[illegible]

Some points of strength and some of weakness can be found by comparing the factors on the average farm as well as the high and low profit groups.

(1) Reports include records from Champaign in Ford County and Iroquois County.
(2) All records from Ford County for 1944.
(3) Includes records from Ford and Iroquois Counties.

Ford and Iroquois Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of twenty-eight farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	4.14 %	6.32 %	1.43 %
Labor and management wage	$	$218	$1531	$-976
Size of farm - acres	A	233.4 A	253.1 A	195.3 A
Percent of land area tillable	%	92.9 %	96.3 %	91.6 %
Acres in Corn	A	88.3 A	98.7 A	71.2 A
Oats	A	60.9 A	77.4 A	54.2 A
Wheat	A	15.1 A	8.1 A	9.2 A
Crop yields - Corn	bu.	39.2 bu.	42.7 bu.	33.4 bu.
Oats	bu.	27.6 bu.	22.4 bu.	28.4 bu.
Wheat	bu.	18.2 bu.	17.0 bu.	16.9 bu.
Returns per $100 invested in all productive livestock	$	$117	$ 126	$ 108
For $100 in Cattle	$	$101	$ 97	$ 102
Hogs	$	$135	$ 184	$ 117
Poultry	$	$167	$ 189	$ 109
Investment per acre in productive livestock	$	$ 7.63	$ 6.91	$ 5.94
Receipts per acre from productive livestock	$	$ 8.95	$ 8.72	$ 6.40
Man labor cost per acre	$	$ 5.69	$ 5.32	$ 6.02
Crop acres per man	A	102.4 A	111.3 A	99.2 A
Crop acres per horse (with tractor)	A	27.9 A	33.5 A	26.2 A
(without tractor)	A	22.3 A	25.9 A	-- A
Expense per $100 gross income	$	$ 54	$ 42	$ 78
Machinery cost per acre	$	$ 1.65	$ 1.66	$ 1.95
Building and fencing cost per acre	$	$ .96	$ .88	$ 1.11
Gross receipts per acre	$	$ 21.83	$ 26.57	$ 16.19
Total expenses per acre	$	$ 11.72	$ 11.24	$ 12.69
Net receipts per acre	$	$ 10.11	$ 15.33	$ 3.50
Farms with tractor		71.4 %	60.0 %	90.0 %
Value of land per acre	$	$195	$ 198	$ 190
Total investment per acre	$	$244	$ 242	$ 244

Ford and Iroquois Counties - 1927

		Your farm	Average of twenty-eight farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$_____	$56,920	$61,368	$47,607
2	Land		45,482	50,237	37,064
3	Farm improvements		4,241	3,795	4,267
4	Machinery and equipment		1,512	1,303	1,702
5	Feed and supplies		3,136	3,509	2,761
6	Livestock		2,549	2,524	1,813
7	Horses		762	745	649
8	Cattle		767	996	513
9	Hogs		730	499	479
10	Sheep		92	41	10
11	Poultry		182	198	162
12	Bees		16	45	--
13	Receipts-Net Increases-Total	_____	5,096	6,724	3,163
14	Feed and grain		2,945	4,364	1,905
15	Miscellaneous		47	99	9
16	Livestock - Total		2,104	2,261	1,249
17	Horses		15	55	--
18	Cattle		421	508	223
19	Hogs		855	796	478
20	Sheep		41	26	1
21	Poultry		135	149	74
22	Egg sales		172	245	91
23	Dairy sales		460	468	382
24	Bees		5	14	--
25	Expenses-Net Decreases-Total	_____	1,796	1,807	1,683
26	Farm improvements		224	224	217
27	Livestock		--	--	17
28	Horses		--	--	17
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry		--	--	--
33	Machinery and equipment		385	420	380
34	Feed and supplies				
35	Livestock expense other than feed		62	63	42
36	Crop expense		243	271	194
37	Labor hired		387	309	379
38	Taxes, insurance, etc.		461	487	416
39	Miscellaneous		34	33	38
40	Receipts less Expenses	_____	3,300	4,917	1,480
41	Operator's and unpaid family labor		941	1,037	796
42	Net income from investment		2,359	3,880	684

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Find Your Farm Leaks

Ford and Iroquois Counties, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per A. in L.S.	Receipts per A. from L.S.	Man.lab. cost per A.	Crop acres per			Expense per $100 income	Gross receipts per A.	Size of Farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Horse				
											Tractor	No tractor			
11.1	60	49	32	171	275	307	14.63	15.95	2.20	140	42	36	20	43	375
10.1	57	46	30	161	255	287	13.63	14.95	2.70	135	40	34	25	40	355
9.1	54	43	28	151	235	267	12.63	13.95	3.20	130	38	32	30	37	335
8.1	51	40	26	141	215	247	11.63	12.95	3.70	125	36	30	35	34	315
7.1	48	37	24	131	195	227	10.63	11.95	4.20	120	34	28	40	31	295
6.1	45	34	22	121	175	207	9.63	10.95	4.70	115	32	26	45	28	275
5.1	42	31	20	111	155	187	8.63	9.95	5.20	105	30	24	50	25	255
4.1	39	28	18	101	135	167	7.63	8.95	5.70	100	28	22	55	22	235
3.1	36	25	16	91	115	147	6.63	7.95	6.20	95	26	20	60	19	215
2.1	33	22	14	81	95	127	5.63	6.95	6.70	90	24	18	65	16	195
1.1	30	19	12	71	75	107	4.63	5.95	7.20	85	22	16	70	13	175
-0.9	27	16	10	61	55	87	3.63	4.95	7.70	80	20	14	75	10	155
-1.9	24	13	8	51	35	67	2.63	3.95	8.20	75	18	12	80	7	135
-2.9	21	10	6	41	15	47	1.63	2.95	8.70	70	16	10	85	4	115
-3.9	18	7	4	31	--	27	--	1.95	9.20	65	14	8	90	--	95

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UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

CHAMPAIGN COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1927

The farm account
is a guide to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

April, 1928

M 71

ANNUAL FARM BUSINESS REPORT

Champaign County, Illinois, 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 30 farmers in Champaign County who kept financial records in the Illinois Farm Account Project for 1927 had an average of $304 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $255 an acre. This is called their LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1339, while the one-third who were least successful lacked an average of $758 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about $2097 in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 30 farmers EARNED 4.4 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 6.1 percent and the least successful third 2.3 percent. The average investment on the 30 farms was $58,313, which amounts to $255 an acre. The higher profit third had an average investment of $251 and the lower profit third $250 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $208 an acre on the average farm

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $413 at farm prices on a group of 200 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The group of more profitable farms averaged 34 acres larger than the less profitable farms although it is doubtful whether this had any important influence on their relative net earnings. There was only two dollars an acre difference between them in the average price of land and one dollar an acre in the average investment. The big difference was in their gross incomes. With about the same operating expense per acre the more profitable farms had

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

an average gross income per acre of $27.11 while the low profit farms had a corresponding gross income of only $17.63. The net income per acre was nearly three times as large on the high profit third as on the low profit third of these farms.

It is important to determine the causes of the higher gross incomes on the more profitable farms. One important cause was the higher yield of crops on these farms. The more profitable farms averaged about 7 bushels more corn and 4 bushels more oats to the acre than the low profit farms. The yield of wheat was about the same. The kinds of crops grown was another factor. The more profitable farms grew more acres of wheat and less acres of oats. Since wheat is usually the more profitable crop of the two this was a help toward higher earnings.

Another important cause of larger incomes for the more successful farmers was greater efficiency with livestock. With a smaller investment in livestock per acre they secured a larger livestock income per acre. Expressed in another way they received $145 income for each $100 invested in productive livestock while their less successful neighbors only received $86 for each $100 of livestock investment. The more successful operators were consistent in showing a greater efficiency with hogs, cattle and poultry.

Considering the whole farm the operators of the most profitable third of these farms had an average gross income of $6724 compared with $3773 for the least profitable third. This larger gross income was secured with only $241 more total expense. In other words, the more successful farm operators had slightly higher costs but each unit of cost was made to return a good income through efficient management.

The high and low profit groups had practically the same relative costs for man labor, horse power, equipment and improvements.

It is interesting to note the relative income and investment figures on Champaign County farms for the last four years. These are shown in the following table. The year 1924 was much the best year for earnings with no important indication of improvement during the last three years. When we consider that the accounting farms are a select group and in other areas have been found to earn about 2 percent more on their investments than the average of the rank and file of all farms it is clear that the last three years have brought distress on most farms. The investment figures do not indicate any important shifts in the average size of the various farm enterprizes except that there does appear to have been a tendency to increase the amount of dairy sales per farm. It is significant that the average operating cost per acre has remained practically the same throughout the four years, but that the average gross income per acre has varied from $20.67 to $29.44. The net income has commonly varied up and down with the gross income.

Comparative Earnings on Champaign County Farms

	1924*	1925	1926	1927
Number of farm records	52	30	30	30
Average size of farm in acres	223	214	225	229
Average rate earned	7.4%	3.5%	4.1%	4.37
Average value of land per acre	$ 198	$ 201	$ 203	$ 208
Average investment per acre	242	251	246	255
Investment in livestock per farm	2,210	1,654	1,949	2,243
Investment in cattle per farm	675	572	656	653
Investment in hogs per farm	548	256	318	352
Investment in poultry per farm	151	148	203	161
Gross income per acre	29.44	20.67	22.50	23.05
Operating cost per acre	11.43	11.82	12.42	11.92
Grain income less feed purchases per farm	4,620	2,841	3,379	3,651
Miscellaneous income per farm	83	115	74	48
Livestock income per farm	1,873	1,482	1,609	1,580
Gross income per farm	6,576	4,438	5,062	5,279
Cattle income per farm	358	182	196	257
Dairy income per farm	268	371	317	442
Hog income per farm	886	609	724	513
Poultry income per farm	233	287	356	318

*Records for Champaign and Ford Counties and the eastern part of McLean County were included for 1924.

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

Champaign County - 1927

Factors helping to analyze the farm business	Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
Rate earned	%	4.37%	6.08%	2.26%
Labor and management wage	$	$304	$1339	$-758
Size of farm - acres	A	229 A	248 A	214 A
Percent of land area tillable	%	96%	96%	95.3%
Acres in Corn	A	91 A	95 A	84 A
Oats	A	37 A	29 A	46 A
Wheat	A	26 A	33 A	16 A
Crop yields - Corn	bu.	43.04 bu.	48.1 bu.	41.3 bu.
Cats	bu.	28.37 bu.	32.3 bu.	28.3 bu.
Wheat	bu.	20.67 bu.	19.7 bu.	19.6 bu.
Returns per $100 invested in all productive livestock	$	$112	$145	$ 86
For $100 in Cattle	$	$102	$108	$ 89
Hogs	$	$147	$155	$141
Poultry	$	$187	$247	$147
Investment per acre in productive livestock	$	$ 6.18	$ 4.36	$ 7.08
Receipts per acre from productive livestock	$	$ 6.90	$ 6.30	$ 6.12
Man labor cost per acre	$	$ 5.57	$ 5.42	$ 5.45
Crop acres per man	A	108.3 A	111.3 A	104.8 A
Crop acres per horse (with tractor)	A	27.3 A	26.4 A	26.9 A
(without tractor)	A	17.0 A	17.5 A	17.4 A
Expense per $100 gross income	$	$ 52	$ 44	$ 68
Machinery cost per acre	$	$ 1.97	$ 2.12	$ 2.00
Building and fencing cost per acre	$	$ .76	$ .71	$ .78
Gross receipts per acre	$	$ 23.05	$ 27.11	$ 17.63
Total expenses per acre	$	$ 11.92	$ 11.83	$ 11.98
Net receipts per acre	$	$ 11.13	$ 15.28	$ 5.65
Farms with tractor		70%	80%	90%
Value of land per acre	$	$208	$206	$204
Total investment per acre	$	$255	$251	$250

Champaign County - 1927

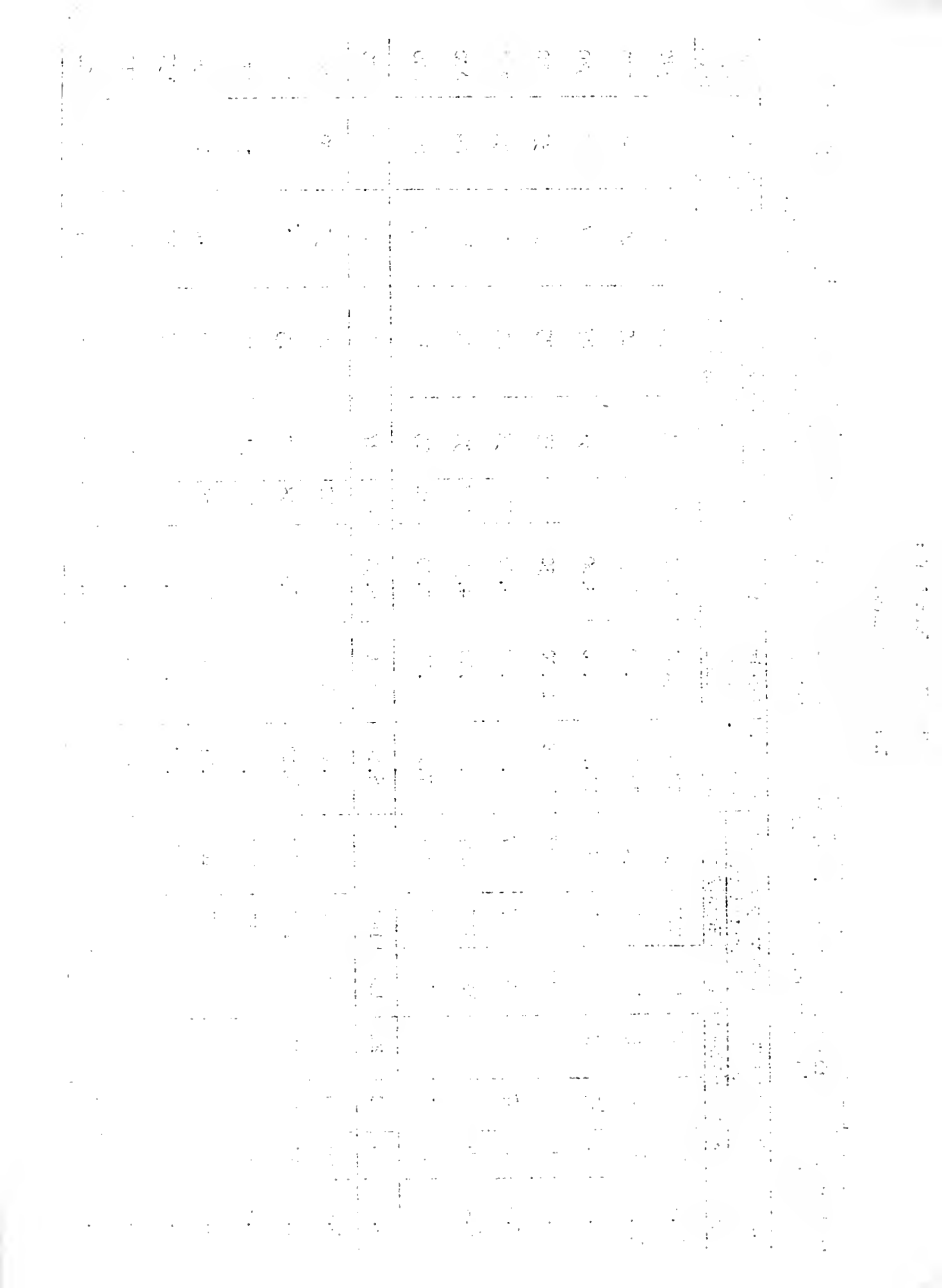
		Your farm	Average of 30 farms	10 most profitable farms	10 least profitable farms
1	Capital Investment - Total	$_____	$58 313	$62 316	$53 511
2	Land		47 726	51 070	43 612
3	Farm improvements		3 388	3 761	2 998
4	Machinery and equipment		1 638	1 807	1 648
5	Feed and supplies		3 318	3 852	3 002
6	Livestock		2 243	1 826	2 251
7	Horses		779	797	672
8	Cattle		653	581	563
9	Hogs		352	243	330
10	Sheep		298	10	541
11	Poultry		161	195	145
12	Receipts-Net Increases-Total	_____	5 279	6 724	3 773
13	Feed and grain		3 651	5 120	2 382
14	Miscellaneous		48	41	73
15	Livestock - Total		1 580	1 563	1 318
16	Horses		--	--	8
17	Cattle		257	224	261
18	Hogs		513	394	502
19	Sheep		50	10	77
20	Poultry		154	216	156
21	Egg sales		164	283	79
22	Dairy sales		442	436	235
23	Expenses-Net Decreases-Total	_____	1 798	1 927	1 686
24	Farm improvements		174	176	166
25	Livestock		3	6	--
26	Horses		3	6	--
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		452	525	427
32	Feed and supplies		--	--	--
33	Livestock expense other than feed		52	47	45
34	Crop expense		217	292	169
35	Labor hired		343	337	289
36	Taxes, insurance, etc.		530	523	562
37	Miscellaneous		27	21	28
38	Receipts less Expenses	_____	3 481	4 797	2 087
39	Operator's and unpaid family labor		932	1 006	877
40	Net income from investment		2 549	3 791	1 210

Find Your Farm Leaks

Champaign County, 1927

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	Bushels per acre of			Returns per $100 invested in			Invest.	Receipts	Man la-	Crop acres per			Expense	Gross	Size
							per A.	per acre	bor cost		Horse		per $100	receipts	of
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry	in L. S.	from L.S.	per acre	Man	Tractor	No tractor	income	per acre	farm
11.4	64	49	35	172	287	327	13.18	13.90	2.00	178	41	31	17	44	370
10.4	61	46	33	162	267	307	12.18	12.90	2.50	168	39	29	22	41	350
9.4	58	43	31	152	247	287	11.18	11.90	3.00	158	37	27	27	38	330
8.4	55	40	29	142	227	267	10.18	10.90	3.50	148	35	25	32	35	310
7.4	52	37	27	132	207	247	9.18	9.90	4.00	138	33	23	37	32	290
6.4	49	34	25	122	187	227	8.18	8.90	4.50	128	31	21	42	29	270
5.4	46	31	23	112	167	207	7.18	7.90	5.00	118	29	19	47	26	250
4.4	43	28	21	102	147	187	6.18	6.90	5.50	108	27	17	52	23	230
3.4	40	25	19	92	127	167	5.18	5.90	6.00	98	25	15	57	20	210
2.4	37	22	17	82	107	147	4.18	4.90	6.50	88	23	13	62	17	190
1.4	34	19	15	72	87	127	3.18	3.90	7.00	78	21	11	67	14	170
0.4	31	16	13	62	67	107	2.18	2.90	7.50	68	19	9	72	11	150
-0.6	28	13	11	52	47	87	1.18	1.90	8.00	58	17	7	77	8	130
-1.6	25	10	9	42	27	67	--	--	8.50	48	15	5	82	5	110
-2.6	22	7	7	32	--	47	--	--	9.00	38	13	-	87	-	90



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Department of Farm Organization and Management

and

DOUGLAS, COLES, VERMILION, AND CLARK COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty Farms

for

1927

The farm account
is a guide to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 82

ANNUAL FARM BUSINESS REPORT

Douglas, Coles, Vermilion and Clark Counties, Illinois, 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 40 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $82 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. The average investment was $200 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $1,300 each to pay for his own labor, management and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1,191 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their labor and management. There was, therefore, an average difference of about $2,491 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 40 farmers EARNED 3.3 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 6.7 percent and the least successful third earned two tenths of one percent. The average investment on the 40 farms was $43,634 which amounts to $200 an acre. The higher profit third had an average investment of $205 and the lower profit third $199 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $154 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The farms of the high and low profit groups averaged within 4½ acres of the same size. Size of farm was therefore not a cause of their difference in earnings. It is interesting to note that the farm which ranked first in rate earned on the investment contained only 55 acres while the one which stood third contained 200 acres. The farm which ranked first was not so small in volume of business done, however. It produced a gross income of over $3,500.

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*F. W. Garrett, Melvin Thomas, Otis Kercher and R. E. Apple, farm advisers in Douglas, Coles, Vermilion and Clark Counties respectively, cooperated in supervising and collecting the records used in this report.

Volume of business can be increased either by farming more acres or by adopting more intensive enterprises and thus securing a larger income per acre. Those farms having a gross income of less than $3,000 should strongly consider the possibility of increasing it. Some of the cooperators in the farm accounting project have increased their volume of business by one or more of the following methods: (1) by increasing the size of the dairy or poultry enterprises, (2) by increasing the acreage of the more intensive crops such as alfalfa, corn and sweet clover pasture, (3) by adopting fruit or truck crops, or (4) by farming more acres. The best method for the individual farm operator will depend upon the labor supply, the soil conditions, the available market, and the available capital. The ability of the operator to handle particular enterprises should be considered, but it is essential that the operator be able to handle such a combination of enterprises as will constitute well balanced business. As far as acreage is concerned the high and low profit groups in this report not only averaged about the same size, but they also had about the same acreage of corn, oats and wheat.

The two greatest advantages of the more profitable farms were in producing larger crop yields and in producing livestock products more efficiently.

The 13 most profitable farms produced an average of about 17 bushels more corn, 5 bushels more oats and 5 bushels more wheat per acre than the 13 least profitable farms. Since it usually costs little more to produce an acre of high yielding than an acre of low yielding crop these larger yields had a big influence in increasing net earnings. If the difference in yields of corn, oats and wheat be figured for the acreage of each it is found that there was an average difference per farm between the two groups of nearly 1,200 bushels of grain.

The greater efficiency in livestock management on the most profitable farms is shown by the fact that although they had only about one dollar more livestock investment per acre they produced over 6 dollars per acre more livestock income. Expressed in another way they produced a livestock income of $150 for each $100 of livestock investment as compared with a corresponding income of $102 on the least profitable farms. More efficient feeding on the more profitable farms is indicated by the fact that although they had only about 1,200 bushels more grain per farm they fed more livestock and still had an income from crops about $1,400 a farm larger than on the least profitable farms.

On the expense side of the business there was not a great deal of difference between the two groups. The more successful farm operators had about a dollar an acre more labor cost which was more than justified in larger crop yields and more livestock income than was secured by the less successful operators.

We may sum up this discussion by noting that the most successful farmers were successful because they had much larger gross incomes with very little larger costs. Expressed on an acre basis, the more profitable farms had over twice as much income per acre with only 45 cents per acre more expense. The result was a net income of $13.79 per acre on the more profitable farms and 38 cents an acre on the less profitable farms. The larger gross incomes were due chiefly to larger crop yields and to larger incomes from cattle and dairy products.

Although there has been some shifting in territory included it is interesting to compare incomes and investments for the different years as given in the following table. Most of the records for each year have been from Coles and

Douglas Counties. A number of the same identical farms have been included throughout the period. It is evident that for 1927 average net earnings were smaller than for any other year in the last four.

The higher net earnings for 1924 were due chiefly to good prices for the grain crops and to the fact that this area had fairly good yields when the world crops of corn and wheat were short. The reduced earnings for 1927 were due chiefly to lower crop yields and lower prices for hogs.

Comparative Earnings on Douglas, Coles, Vermilion and Clark County Farms

Item	1924[1]	1925[2]	1926[3]	1927[4]
Number of farms included	32	30	39	40
Average size of farm in acres	200	184	196	218
Average rate earned	8.2%	4.2%	4.2%	3.3%
Average value of land per acre	$ 164	$ 185	$ 176	$ 154
Average investment per acre	202	243	224	200
Investment in livestock per farm	1,909	2,384	2,013	2,399
Investment in cattle per farm	696	920	785	738
Investment in hogs per farm	408	784	585	892
Investment in poultry per farm	105	144	127	139
Gross income per acre	27.64	22.03	21.92	18.61
Operating cost per acre	11.06	11.98	12.42	11.91
Crop income less feed purchases per farm	3,503	974	1,970	1,402
Miscellaneous income per farm	66	67	52	47
Livestock income per farm	1,959	3,023	2,287	2,605
Cattle income per farm	292	546	368	610
Dairy income per farm	338	416	237	310
Hog income per farm	1,122	1,769	1,414	1,402
Poultry income per farm	172	271	220	207
Gross income per farm	5,528	4,064	4,309	4,054

Some points of strength and some of weakness in your own business may be found by comparing the factors from your own record in the following tables with the same factors on the average farm and with those farms of the more profitable and less profitable groups.

[1]Records from Coles, Douglas, Moultrie and Clark counties included.
[2]Only Coles County records included.
[3]Records from Coles and Douglas counties included.
[4]Records from Douglas, Coles, Vermilion and Clark counties included.

Douglas, Coles, Vermilion, and Clark Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 40 farms	Thirteen most profitable farms	Thirteen least profitable farms
Rate earned	%	3.34 %	6.71 %	.19%
Labor and management wage	$	$- 82	$1,300	$-1,191
Size of farm - acres	A	217.8 A	195.7 A	191.2 A
Percent of land area tillable	%	87.9 %	84.7 %	90.8 %
Acres in Corn	A	69.6 A	63.9 A	68.4 A
Oats	A	31.4 A	28.8 A	29.8 A
Wheat	A	29.1 A	23.0 A	23.9 A
Crop yields - Corn	bu.	40.3 bu.	49.1 bu.	32.3 bu.
Oats	bu.	27.0 bu.	27.3 bu.	21.9 bu.
Wheat	bu.	18.7 bu.	21.1 bu.	15.5 bu.
Returns per $100 invested in all productive livestock	$	$ 130	$ 150	$ 102
For $100 in Cattle	$	$ 107	$ 130	$ 81
Hogs	$	$ 162	$ 186	$ 117
Poultry	$	$ 151	$ 180	$ 144
Investment per acre in productive livestock	$	$ 9.22	$ 10.78	$ 9.65
Receipts per acre from productive livestock	$	$ 11.95	$ 16.21	$ 9.85
Man labor cost per acre	$	$ 5.78	$ 6.81	$ 5.71
Crop acres per man	A	91.4 A	79.0 A	94.6 A
Crop acres per horse (with tractor)	A	25.0 A	26.2 A	25.1 A
(without tractor)	A	24.4 A	20.0 A	16.4 A
Expense per $100 gross income	$	$ 64	$ 49	$ 97
Machinery cost per acre	$	$ 1.66	$ 1.94	$ 1.85
Building and fencing cost per acre	$	$ .94	$ .94	$ 1.11
Gross receipts per acre	$	$ 18.61	$ 26.92	$ 13.06
Total expenses per acre	$	$ 11.91	$ 13.13	$ 12.68
Net receipts per acre	$	$ 6.70	$ 13.79	$ .38
Farms with tractor		67.5 %	69.2 %	69.2 %
Value of land per acre	$	$ 154	$ 152	$ 154
Total investment per acre	$	$ 200	$ 205	$ 199

Douglas, Coles, Vermilion, and Clark Counties - 1927

		Your farm	Average of 40 farms	Thirteen most profitable farms	Thirteen least profitable farms
1	Capital Investment - Total	$	$ 43 634	$ 40 209	$ 38 039
2	Land		33 518	29 838	29 408
3	Farm improvements		4 081	4 092	3 125
4	Machinery and equipment		1 292	1 407	1 099
5	Feed and supplies		2 344	2 526	1 940
6	Livestock		2 399	2 346	2 467
7	Horses		562	439	662
8	Cattle		738	1 092	439
9	Hogs		892	651	1 204
10	Sheep		62	30	18
11	Poultry		139	132	144
12	Bees		6	2	--
13	Receipts-Net Increases-Total		4 054	5 268	2 497
14	Feed and grain		1 402	1 984	587
15	Miscellaneous		47	86	26
16	Livestock - Total		2 605	3 198	1 884
17	Horses		--	25	--
18	Cattle		610	1 162	225
19	Hogs		1 402	1 293	1 237
20	Sheep		70	23	15
21	Poultry		94	126	72
22	Egg sales		113	109	126
23	Dairy sales		310	455	206
24	Bees		6	5	3
25	Expenses-Net Decreases-Total		1 835	1 818	1 701
26	Farm improvements		204	184	212
27	Livestock		8	--	34
28	Horses		8	--	34
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry		--	--	--
33	Machinery and equipment		361	380	353
34	Feed and supplies		--	--	--
35	Livestock expense other than feed		59	54	72
36	Crop expense		230	229	233
37	Labor hired		500	581	369
38	Taxes, insurance, etc.		453	370	409
39	Miscellaneous		20	20	19
40	Receipts less Expenses		2 219	3 450	796
41	Operator's and unpaid family labor		760	751	723
42	Net income from investment		1 459	2 699	73

Douglas, Coles, Vermilion, and Clark Counties, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per A. in L.S.	Receipts per A. from L.S.	Man lab. cost per A.	Crop acres per			Expense per $100 income	Gross receipts per A.	Size of Farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Horse				
											Tractor	No Tractor			
10.3	68	48	33	177	302	291	23.22	26.00	2.25	125	39	38	29	40	360
9.3	64	45	31	167	282	271	21.22	24.00	2.75	120	37	36	34	37	340
8.3	60	42	29	157	262	251	19.22	22.00	3.25	115	35	34	39	34	320
7.3	56	39	27	147	242	231	17.22	20.00	3.75	110	33	32	44	31	300
6.3	52	36	25	137	222	211	15.22	18.00	4.25	105	31	30	49	28	280
5.3	48	33	23	127	202	191	13.22	16.00	4.75	100	29	28	54	25	260
4.3	44	30	21	117	182	171	11.22	14.00	5.25	95	27	26	59	22	240
3.3	40	27	19	107	162	151	9.22	12.00	5.75	90	25	24	64	19	220
2.3	36	24	17	97	142	131	7.22	10.00	6.25	85	23	22	69	16	200
1.3	32	21	15	87	122	111	5.22	8.00	6.75	80	21	20	74	13	180
0.3	28	18	13	77	102	91	3.22	6.00	7.25	75	19	18	79	10	160
-0.7	24	15	11	67	82	71	1.22	4.00	7.75	70	17	16	84	7	140
-1.7	20	12	9	57	62	51	--	2.00	8.25	65	15	14	89	4	120
-2.7	16	9	7	47	42	31	--	--	8.75	60	13	12	94	--	100
-3.7	12	6	--	37	22	11	--	--	9.25	55	11	10	99	--	80

Douglas, Cerro Gordo, and Clark Counties, 1951

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

SANGAMON COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty--six Farms

for

1927

The farm account
is a guide to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 100

ANNUAL FARM BUSINESS REPORT

Sangamon County, Illinois 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 26 farmers in Sangamon County who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $515 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management, and risk. The average investment was $219 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $398 each to pay for his own labor, management, and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1288 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of about $1686 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 26 farmers EARNED 2.8 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 4.5 percent and the least successful third two-tenths of one percent. The average investment on the 26 farms was $55,975 which amounts to $219 an acre. The higher profit third had an average investment of $222 and the lower profit third $215 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $175 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in average size of farm between the high and low income groups. In this case, however, the 9 most profitable farms averaged 125 acres more land per farm than the 9 least profitable farms. This large difference was caused mostly by two farms which contained more than 500 acres and were included among the more profitable farms. A larger number of farms should be included in these averages to avoid having unusual farms disturb the averages so much. It is hoped that more records may

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* Edwin Bay, farm adviser in Sangamon County, cooperated in supervising and collecting the records used in this report.

be available from Sangamon County in the future. In this case it is doubtful whether difference in size of farm had a large effect on relative earnings of the two groups. Larger size, however, does give an opportunity to secure more efficient use of labor, equipment and improvements under good management.

One of the chief advantages of the more profitable farms was in their larger crop yields. It is frequently assumed that crop yields are larger on the smaller farms, but in this instance the more profitable farms produced 11 bushels more corn, 5 bushels more oats and 1 bushel more wheat per acre than the less profitable farms. It usually costs little more to produce an acre of high yielding crop than an acre of low yielding crop. Any advantage in yield, therefore, has a direct effect in lower costs per bushel and more profit in the business.

Another advantage of the more successful farm operators was in more efficient livestock management. In proportion to their investment they secured larger returns from cattle, hogs, and dairy products than the less successful operators. The investment in livestock was almost twice as great on the more profitable farms, although it was only a little larger per acre due to the smaller size of the less profitable farms. Among the 9 most profitable farms were three that might be classed as dairy farms. This increased the average amount of dairy sales for this group. The group also had larger incomes from cattle and hogs. With their larger size and better yields these farms fed a larger amount of livestock and still had over two thousand collars in crop income while the low profit group averaged only a little over $500 in crop income.

On the expense side of the business the more profitable farms show lower costs per acre for labor and equipment. It is significant that these farms show larger investments in livestock per acre and larger numbers of dairy cows and still have two dollars an acre lower labor costs than the less profitable farms. This indicates much better efficiency in case of labor by the more successful operators. As labor is the largest item of operating cost on most farms this is important.

This discussion may be summed up by stating that the more profitable farms were more successful both because of larger gross incomes per acre and lower operating costs per acre. They produced a gross income of $21.30 an acre at a total operating expense of $11.20 an acre. The corresponding income and expense figures on the less profitable farms were $14.82 and $14.36 respectively. The results were a net income of $10.10 an acre on the more successful and 46 cents on the less successful farms. There were a number of farms in the low income group that did too small a volume of business. This is proved by the fact that the average gross income for the entire group was only $2,892. For farms averaging 195 acres of nearly all tillable land this is very low. Bad weather and poor crop yields undoubtedly were factors, but it will pay any farm operator who has less than $3,000 gross income to consider ways of increasing the volume of business. Some of the cooperators in the farm account project have used one or more of the following methods for this purpose: (1) Increase the size of the dairy or poultry enterprises; (2) Increase the acreage of more intensive crops, such as alfalfa, corn and sweet clover pasture; (3) Grow some fruit or truck crops; (4) Increase the number of acres farmed. The best plan for the individual farm will depend upon the labor supply, soil conditions, available markets and available capital.

This is the first year for which a farm business report on Sangamon County farms has been published. Judging by reports on similar areas it is evident that average farm incomes were a little lower for 1927 than for other years since 1923.

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.

Sangamon County - 1927

Factors helping to analyze the farm business	Your farm	Average of twenty-six farms	Nine most profitable farms	Nine least profitable farms
Rate earned	%	2.81 %	4.54 %	.21%
Labor and management wage	$	$-515	$398	$-1288
Size of farm - acres	A	255.6 A	320.3 A	195.2 A
Percent of land area tillable	%	92.9 %	94.2 %	94.3 %
Acres in Corn	A	83.0 A	110.2 A	67.2 A
Oats	A	29.5 A	37.4 A	20.5 A
Wheat	A	42.6 A	46.5 A	29.8 A
Crop yields - Corn	bu.	40.6 bu.	44.6 bu.	33.7 bu.
Oats	bu.	23.0 bu.	25.0 bu.	20.2 bu.
Wheat	bu.	15.7 bu.	16.0 bu.	15.3 bu.
Returns per $100 invested in all productive livestock	$	$ 137	$136	$ 126
For $100 in Cattle	$	$ 106	$107	$ 88
Hogs	$	$ 167	$166	$ 157
Poultry	$	$ 180	$156	$ 160
Investment per acre in productive livestock	$	$ 9.42	$ 10.34	$ 9.51
Receipts per acre from productive livestock	$	$ 12.87	$ 14.11	$ 12
Man labor cost per acre	$	$ 6.14	$ 5.63	$ 7.65
Crop acres per man	A	93.6 A	103.4 A	80.4 A
Crop acres per horse (with tractor)	A	27.1 A	30.5 A	23.1 A
(without tractor)	A	18.3 A	13.4 A	20.7 A
Expense per $100 gross income	$	$ 66	$ 53	$ 97
Machinery cost per acre	$	$ 1.70	$ 1.51	$ 2.07
Building and fencing cost per acre	$	$ .81	$ .78	$ .76
Gross receipts per acre	$	$ 18.27	$ 21.30	$ 14.82
Total expenses per acre	$	$ 12.12	$ 11.20	$ 14.36
Net receipts per acre	$	$ 6.15	$ 10.10	$ .46
Farms with tractor		65.4 %	77.8 %	66.7 %
Value of land per acre	$	$ 175	$178	$ 171
Total investment per acre	$	$ 219	$222	$ 215

Sangamon County - 1927

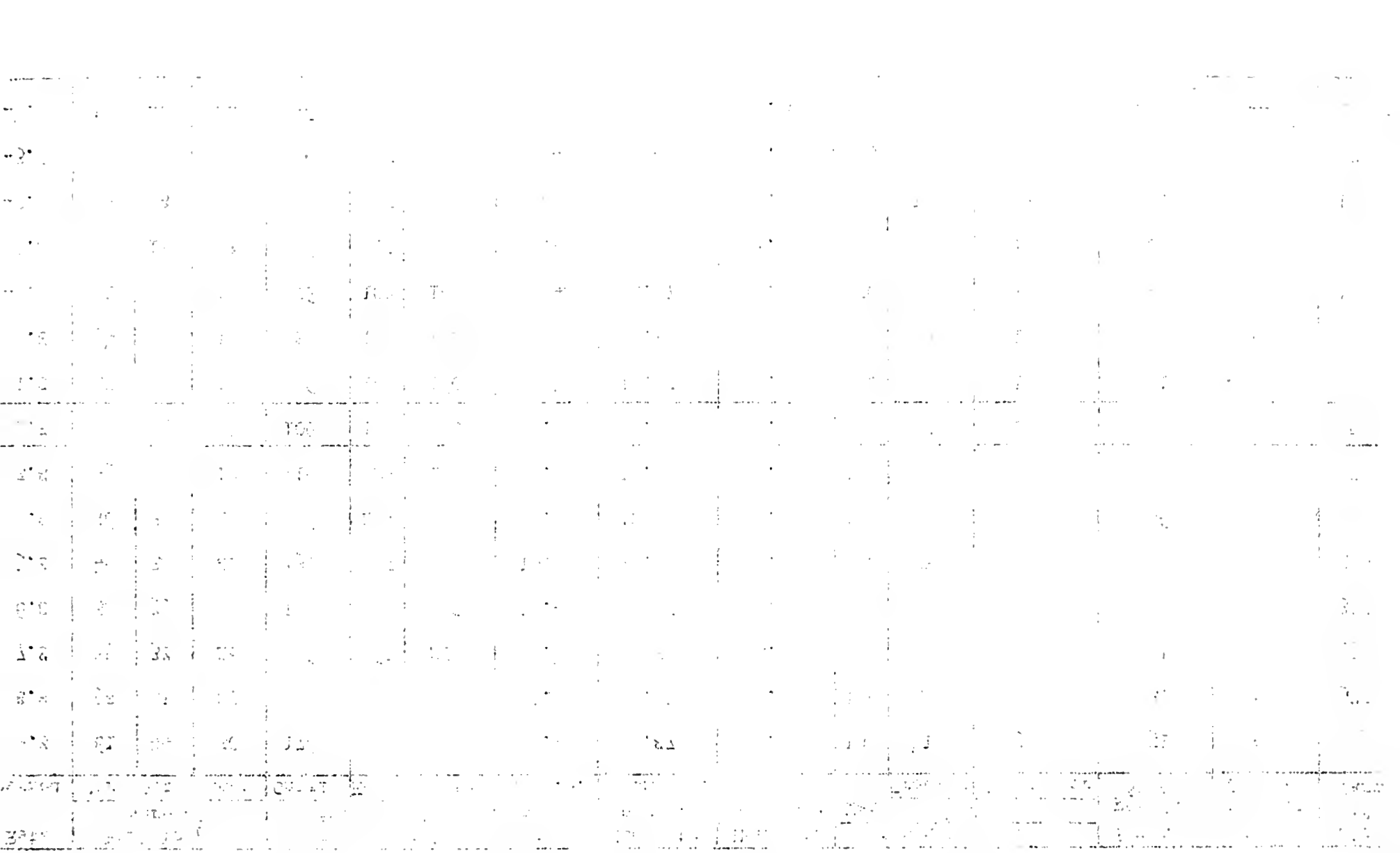
		Your farm	Average of twenty-six farms	Nine most profitable farms	Nine least profitable farms
1	Capital Investment - Total	$_____	$55,975	$71,137	$41,933
2	Land		44,620	56,922	33,367
3	Farm improvements		4,529	5,797	2,840
4	Machinery and equipment		1,562	1,735	1,541
5	Feed and supplies		2,174	2,634	1,981
6	Livestock		3,090	4,049	2,204
7	Horses		783	836	558
8	Cattle		1,002	1,564	340
9	Hogs		1,069	1,424	972
10	Sheep		114	80	227
11	Poultry		122	145	107
12	Receipts-Net Increases-Total	_____	4,670	6,823	2,892
13	Feed and grain		1,284	2,212	518
14	Miscellaneous		96	91	32
15	Livestock - Total		3,290	4,520	2,342
16	Horses		--	--	--
17	Cattle		754	1,026	383
18	Hogs		1,859	2,552	1,522
19	Sheep		73	86	102
20	Poultry		94	80	117
21	Egg sales		128	141	70
22	Dairy sales		382	635	148
23	Expenses-Net Decreases-Total	_____	2,203	2,691	1,834
24	Farm improvements		207	249	149
25	Livestock		13	4	54
26	Horses		13	4	54
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		435	485	405
32	Feed and supplies		--	--	--
33	Livestock expense other than feed		91	127	72
34	Crop expense		231	251	201
35	Labor hired		676	905	525
36	Taxes, insurance, etc.		518	631	394
37	Miscellaneous		32	39	34
38	Receipts less Expenses	_____	2,467	4,132	1,058
39	Operator's and unpaid family labor		894	897	969
40	Net income from investment		1,573	3,235	89

Find Your Farm Leaks

Sangamon County - 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per A. in L.S.	Receipts per A. from L.S.	Man lab. cost per A.	Crop acres per			Expense per $100 income	Gross receipts per A.	Size of farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Horse				
											Tractor	No tractor			
9.8	61	44	30	176	307	320	23.42	26.87	2.50	130	41	32	31	39	395
8.8	58	41	28	166	287	300	21.42	24.87	3.00	125	39	30	36	36	375
7.8	55	38	26	156	267	280	19.42	22.87	3.50	120	37	28	41	33	355
6.8	52	35	24	146	247	260	17.42	20.87	4.00	115	35	26	46	30	335
5.8	49	32	22	136	227	240	15.42	18.87	4.50	110	33	24	51	27	315
4.8	46	29	20	126	207	220	13.42	16.87	5.00	105	31	22	56	24	295
3.8	43	26	18	116	187	200	11.42	14.87	5.50	100	29	20	61	21	275
2.8	40	23	16	106	167	180	9.42	12.87	6.00	95	27	18	66	18	255
1.8	37	20	14	96	147	160	7.42	10.87	6.50	90	25	16	71	15	235
0.8	34	17	12	86	127	140	5.42	8.87	7.00	85	23	14	76	12	215
-0.2	31	14	10	76	107	120	3.42	6.87	7.50	80	21	12	81	9	195
-1.2	28	11	8	66	87	100	1.42	4.87	8.00	75	19	10	86	6	175
-2.2	25	8	6	56	67	80	--	2.87	8.50	70	17	8	91	3	155
-3.2	22	5	4	46	47	60	--	--	9.00	65	15	6	96	--	135
-4.2	19	--	--	36	27	40	--	--	9.50	60	13	4	101	--	115



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

SCOTT AND MORGAN COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-nine Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 83

ANNUAL FARM BUSINESS REPORT

Scott and Morgan Counties, Illinois, 1927

Prepared by R. R. Hudelson, Peter Nelson and H. C. M. Case*

The 39 farmers in Scott and Morgan Counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $31 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $187 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,076, while the one-third who were least successful lacked an average of $874 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $1,950 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 39 farmers EARNED 3.6 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 5.8 percent and the least successful third lacked three tenths of one percent of having any return on their investments. The average investment on the 39 farms was $42,190, which amounts to $187 an acre. The higher profit third had an average investment of $192 and the lower profit third $180 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $145 on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

As a rule in reports of this type we do not find much difference in average size of farms between the high and low profit groups. In this case, however, the average of 155 acres for the low profit group indicates that they were at a disadvantage. The 13 most profitable farms averaged 283 acres in size. Another indication of too small size in the farms of the low income group is in their gross income per farm. The average gross income for these 13 farms was only $2,278 which does not leave a satisfactory net income even if expenses are kept

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*Alfred Tate and F. A. Fisher, farm advisers in Scott and Morgan Counties respectively, cooperated in supervising and collecting the records used in this report.

at the lowest possible point. Farm operators with a gross income of less than $3,000 a year should give careful attention to possibilities for increasing the size of business. Some cooperators in the farm accounting project have increased their gross incomes by one or more of the following methods: (1) by increasing the size of the dairy or poultry enterprises, (2) by increasing the acreage of the more intensive crops such as alfalfa, corn and sweet clover pasture, (3) by adopting fruit or truck crops, (4) by farming more acres. The best method for the individual farmer will depend upon the labor supply, the soil conditions, the available markets and the available capital. The ability of the individual operator to handle a given enterprise must also be considered, but it is essential to success that the individual have or acquire the ability to handle such a combination of enterprises as will constitute a well balanced farm business with sufficient income to make it profitable.

It is generally believed that small farms will average larger crop yields than large farms, other things being equal. In this case, however, the 13 most profitable farms, although much larger, had slightly better yields than the 13 least profitable farms. The difference was not so great as is usually found between the high and low thirds in studies of this kind. Any advantage in yield has a direct influence on profits since it usually costs little more to produce an acre of high yielding crop than an acre of low yielding crop.

The more successful farmers had a big advantage in having a larger acreage and better yields of crops which furnished their feed and gave them a surplus for crop income amounting to $2,764 per farm. The less successful farmers bought more feed than they sold crops and hence had no crop income. The more profitable farms produced 3,098 bushels more corn, oats and wheat per farm than was produced on the 13 least profitable farms.

One of the chief advantages of the more successful operators was in their greater efficiency in livestock management. They had less livestock per acre, but more livestock per farm, their farms being larger. They secured a livestock income of $194 for each $100 of livestock investment as compared with a corresponding income of $127 for the less successful operators. The total livestock income per farm was $1,412 larger on the more profitable farms than on those which were less profitable.

On the expense side of the business the more successful operators had an advantage of $3.46 an acre. About two-fifths of this was in lower labor costs. The larger farms have a distinct advantage in the efficiency with which labor, power and equipment can be used. These are the largest items of operating cost on most farms.

We may sum up this discussion by noting that the 13 most profitable farms were successful because of larger gross incomes and less expense per acre. They produced a gross income $8.30 an acre larger with a total expense $3.46 an acre smaller than the 13 least profitable farms. The larger gross incomes were due to larger acreage and slightly better yields of crops together with more efficient management of the livestock enterprises especially in the case of hogs and cattle.

It is interesting to compare earnings and investments for 1926 and 1927 as shown in the following table. Only accounts from Scott County were included for 1926. About two-thirds of the records were from Scott County for 1927 also. It seems evident that earnings were slightly better in this area for 1927 than for 1926, although 1927 cannot be considered as a prosperous year.

Comparative Earnings on Scott and Morgan County Farms

Item	1926[1]	1927
Number of farms included	27	39
Average size of farm in acres	210	225
Average rate earned	2.8%	3.6%
Average value of land per acre	$ 118	$ 145
Average investment per acre	163	187
Investment in livestock per farm	2,133	2,142
Investment in cattle per farm	584	464
Investment in hogs per farm	754	955
Investment in poultry per farm	146	140
Gross income per acre	16.43	18.28
Operating cost per acre	11.99	11.61
Grain income less feed purchases per farm	622	1,443
Miscellaneous income per farm	41	33
Livestock income per farm	2,785	2,649
Gross income per farm	3,448	4,125
Cattle income per farm	449	436
Dairy sales per farm	109	216
Hog income per farm	1,901	1,735
Poultry income per farm	284	223

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.

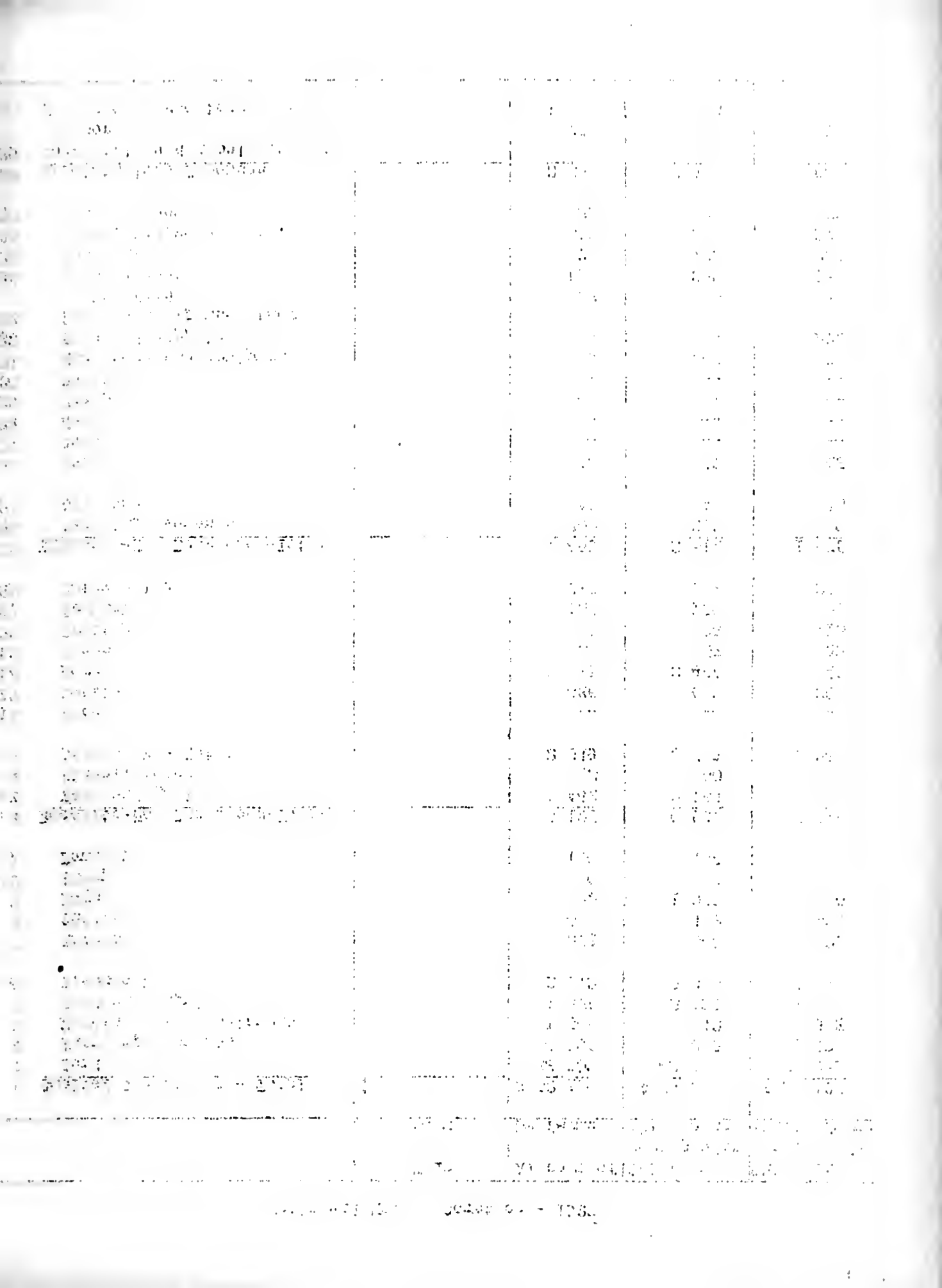
[1]Records from Scott County only included for 1926.

Scott and Morgan Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 39 farms	Thirteen most profitable farms	Thirteen least profitable farms
Rate earned	%	3.57 %	5.84 %	-.31 %
Labor and management wage	$	$ 31	$1,076	$-874
Size of farm - acres	A	225.6 A	283.6 A	155.8 A
Percent of land area tillable	%	85.8 %	94.0 %	77.3 %
Acres in Corn	A	73.3 A	96.9 A	43.8 A
Oats	A	17.3 A	22.0 A	13.0 A
Wheat	A	45.8 A	58.0 A	30.9 A
Crop yields - Corn	bu.	38.6 bu.	42.7 bu.	42.0 bu.
Oats	bu.	24.1 bu.	26.3 bu.	19.1 bu.
Wheat	bu.	14.5 bu.	15.6 bu.	14.1 bu.
Returns per $100 invested in all productive livestock	$	$ 147	$ 194	$ 127
For $100 in Cattle	$	$ 99	$ 141	$ 95
Hogs	$	$ 183	$ 247	$ 141
Poultry	$	$ 156	$ 146	$ 164
Investment per acre in productive livestock	$	$ 8.01	$ 6.67	$ 11.46
Receipts per acre from productive livestock	$	$ 11.74	$ 12.95	$ 14.54
Man labor cost per acre	$	$ 5.93	$ 5.42	$ 6.90
Crop acres per man	A	88.2 A	106.6 A	65.6 A
Crop acres per horse (with tractor)	A	26.6 A	28.2 A	24.0 A
(without tractor)	A	18.1 A	21.9 A	13.5 A
Expense per $100 gross income	$	$ 63	$ 51	$ 104
Machinery cost per acre	$	$ 1.63	$ 1.97	$ 1.78
Building and fencing cost per acre	$	$ .89	$ .98	$ 1.15
Gross receipts per acre	$	$ 18.28	$ 22.92	$ 14.62
Total expenses per acre	$	$ 11.61	$ 11.73	$ 15.19
Net receipts per acre	$	$ 6.67	$ 11.19	$ -.57
Farms with tractor		72 %	85 %	54 %
Value of land per acre	$	$ 145	$ 151	$ 129
Total investment per acre	$	$ 187	$ 192	$ 180

Scott and Morgan Counties - 1927

		Your farm	Average of 39 farms	Thirteen most profitable farms	Thirteen least profitable farms
1	Capital Investment - Total	$	$ 42 190	$ 54 375	$ 28 125
2	Land		32 709	42 758	20 059
3	Farm improvements		4 096	5 252	3 471
4	Machinery and equipment		1 365	1 742	953
5	Feed and supplies		1 878	2 320	1 468
6	Livestock		2 142	2 303	2 174
7	Horses		523	582	429
8	Cattle		464	442	470
9	Hogs		955	1 047	1 056
10	Sheep		60	86	68
11	Poultry		140	146	151
12	Receipts-Net Increases-Total		4 125	6 501	2 278
13	Feed and grain		1 443	2 764	--
14	Miscellaneous		33	60	13
15	Livestock - Total		2 649	3 677	2 265
16	Horses		--	--	--
17	Cattle		436	682	308
18	Hogs		1 735	2 468	1 447
19	Sheep		39	57	39
20	Poultry		87	78	115
21	Egg sales		136	150	151
22	Dairy sales		216	242	205
23	Expenses-Net Decreases-Total		1 859	2 514	1 675
24	Farm improvements		200	277	180
25	Livestock		45	47	43
26	Horses		45	47	43
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		369	560	278
32	Feed and supplies		--	--	275
33	Livestock expense other than feed		52	55	59
34	Crop expense		194	257	150
35	Labor hired		579	725	384
36	Taxes, insurance, etc.		391	559	274
37	Miscellaneous		29	34	32
38	Receipts less Expenses		2 266	3 987	603
39	Operator's and unpaid family labor		760	814	691
40	Net income from investment		1 506	3 173	- 88



Find Your Farm Leaks

Scott and Morgan Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
											Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Tractor	No tractor			
10.6	60	45	29	169	323	296	22.00	25.75	2.40	123	40	32	28	39	365
9.6	57	42	27	159	303	276	20.00	23.75	2.90	118	38	30	33	36	345
8.6	54	39	25	149	283	256	18.00	21.75	3.40	113	36	28	38	33	325
7.6	51	36	23	139	263	236	16.00	19.75	3.90	108	34	26	43	30	305
6.6	48	33	21	129	243	216	14.00	17.75	4.40	103	32	24	48	27	285
5.6	45	30	19	119	223	196	12.00	15.75	4.90	98	30	22	53	24	265
4.6	42	27	17	109	203	176	10.00	13.75	5.40	93	28	20	58	21	245
3.6	39	24	15	99	183	156	8.00	11.75	5.90	88	26	18	63	18	225
2.6	36	21	13	89	163	136	6.00	9.75	6.40	83	24	16	68	15	205
1.6	33	18	11	79	143	116	4.00	7.75	6.90	78	22	14	73	12	185
0.6	30	15	9	69	123	96	2.00	5.75	7.40	73	20	12	78	9	165
-0.4	27	12	7	59	103	76	----	3.75	7.90	68	18	10	83	6	145
-1.4	24	9	5	49	83	56	----	1.75	8.40	63	16	8	88	3	125
-2.4	21	6	-	39	63	36	----	----	8.90	58	14	6	93	-	105
-3.4	18	-	-	29	43	16	----	----	9.40	53	12	4	98	-	85

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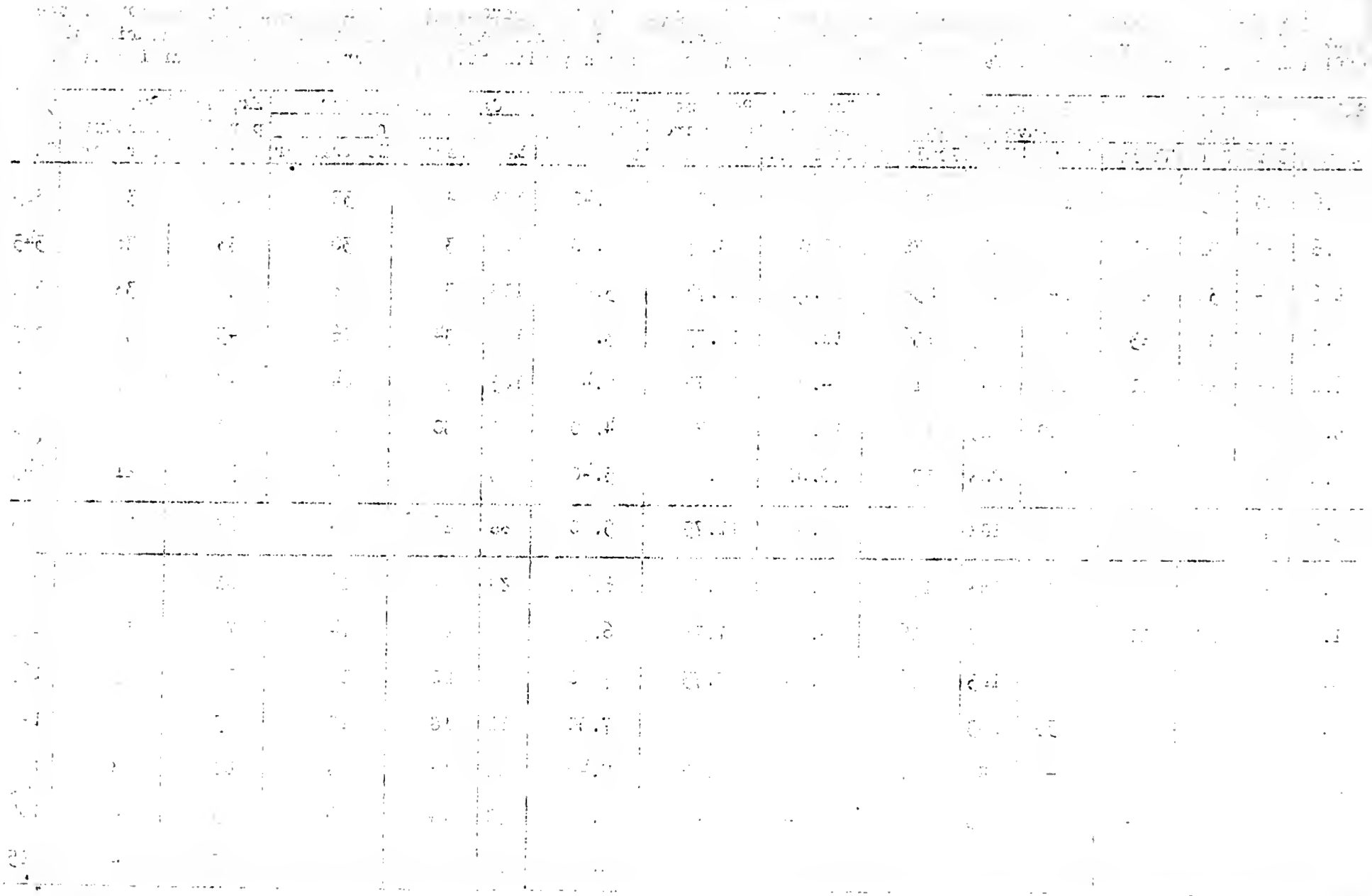

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

GREENE AND JERSEY COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-eight Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

April, 1928

M 75

ANNUAL FARM BUSINESS REPORT

Greene and Jersey Counties, Illinois, 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 28 farmers in Greene and Jersey counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $176 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $153 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,488, while the one-third who were least successful lacked an average of $975 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of about $2,463 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 28 farmers EARNED 3.9 PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 8.5 percent and the least successful third seven tenths of one percent. The average investment on the 28 farms was $32,984, which amounts to $153 an acre. The higher profit third had an average investment of $146 and the lower profit third $148 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $106 an acre on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

Farms of the group making the least profits averaged about 53 acres larger than the more profitable farms, but this larger acreage was all in non-tillable land. The two groups averaged within 2 acres of the same amount of tillable land. The less profitable farms averaged about 18 acres more corn and about the same acreage of oats and wheat as the more profitable farms. Size of farm evidently was not an important factor in relative earnings between the two groups.

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*R. J. Laible and F. H. Shuman, farm advisers in Greene and Jersey counties respectively, cooperated in supervising and collecting the records used in this report.

Crop yields usually constitute one of the chief factors of difference between the profitable and unprofitable farms. There was not the usual difference in yields between the high and low profit groups covered by this report, however. The more profitable farms did produce about 5 bushels more corn and one bushel more wheat per acre than less profitable farms. There were so few acres of oats per farm that the yield of oats was of little importance. The more profitable farms realized $1,005 income from crops per farm compared with $429 of crop income for the farms with the least profits. This indicates more efficient feeding by the more successful farm operators since both groups had the same investment per acre in livestock and close to the same yields of crops.

Although both groups had the same livestock investment per acre the more successful operators secured $20.34 income per acre from livestock as compared with $11.38 for the less successful farmers. This greater efficiency in livestock management was the largest single advantage which the successful farms had over the unsuccessful ones. Simple financial records do not show all the causes for this higher livestock efficiency, but they do show that it applied especially to cattle and to a less extent to hogs. One advantage of the more profitable farms is seen in the fact that they produced an average of $847 in dairy sales per farm against $176 on the low profit farms. Somewhat larger incomes were produced also from poultry products and cattle. There was little difference between the two groups in income from hogs. The sheep enterprise is too small on these farms to have much influence on earnings.

On the expense side of the business there were no large differences between the averages for the high and low profit groups. The less profitable farms had somewhat higher expenses for labor, equipment and improvements when the whole farm is considered, but when these expenses are figured on an acre basis the more profitable farms show a larger labor cost per acre. Evidently their use of more labor was justified in a larger income from crops and livestock. It is often stated that during this period of depression it is best to reduce expenses for labor, equipment, improvements, etc., but these accounts indicate that this is not true if the process is carried to the point of greatly reducing crop yields and livestock efficiency. It is more important to so manage each unit of cost that it will bring in its share of income.

To sum up this discussion it is clear that the more profitable farms were benefited more by larger gross incomes than by smaller expenses and that the chief cause of their larger gross incomes was a greater efficiency in livestock management. At least one element in the greater livestock efficiency was in the production and sale of larger quantities of dairy products. The more profitable farms had slightly larger operating costs per acre, but they had nearly twice as much gross income per acre.

If we allow for some shifting in the territory included, some interesting comparisons of earnings and investments on farms in the Greene and Jersey County district can be made from the following tables covering the last four years. For the average farm covered by these records 1927 was the least favorable year of the four for farm earnings. The records indicate the lowest crop yields since 1924 and hog prices were also lower than in 1925 and 1926. Cattle prices were better for 1927, but hogs constitute a larger enterprise than cattle on the average farm in Greene and Jersey counties as well as on most Illinois farms. Judging from the income and investment figures there appears to be some tendency to increase the size of the poultry enterprise on these farms.

Comparative Earnings on Farms in Jersey, Greene and Adjoining Counties

Item	1924(1)	1925(2)	1926(3)	1927(3)
Number of farms included	41	40	31	28
Average size of farms in acres	174	185	207	215
Average rate earned on investment	4.6%	7.1%	6.0%	3.9%
Average value of land per acre	$ 104	$ 115	$ 111	$ 106
Average investment per acre	146	159	161	153
Investment in livestock per farm	2,037	2,142	3,281	2,819
Investment in cattle per farm	993	819	1,478	1,292
Investment in hogs per farm	410	618	981	756
Investment in poultry per farm	130	114	130	166
Gross income per acre	18.61	23.35	22.38	18.95
Operating cost per acre	11.87	12.08	12.63	13.00
Crop increase less feed purchases per farm	783	1,087	351	554
Miscellaneous income per farm	151	117	63	92
Livestock income per farm	2,311	3,128	4,218	3,428
Gross income per farm	3,245	4,332	4,632	4,074
Cattle income per farm	232	415	987	951
Dairy products income per farm	802	559	600	629
Hog income per farm	913	1,845	2,271	1,456
Poultry income per farm	274	234	306	326

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

(1) Records from Macoupin, Jersey and Greene counties included for 1924.
(2) Records from Jersey, Greene and Morgan counties included for 1925.
(3) Records from Jersey and Greene counties included for 1926 and 1927.

Green and Jersey Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 28 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.87 %	8.54 %	.67 %
Labor and management wage	$	$176	$1,488	$-975
Size of farm - acres	A	215 A	171 A	224 A
Percent of land area tillable	%	78.3 %	90.5 %	68.5 %
Acres in Corn	A	63 A	50 A	68 A
Oats	A	12 A	7 A	9 A
Wheat	A	31 A	35 A	31 A
Crop yields - Corn	bu.	38.44 bu.	42.8 bu.	37.8 bu.
Oats	bu.	10.09 bu.	14.2 bu.	20.0 bu.
Wheat	bu.	12.22 bu.	12.5 bu.	11.2 bu.
Returns per $100 invested in all productive livestock	$	$140	$ 209	$ 117
For $100 in Cattle	$	$112	$ 201	$ 73
Hogs	$	$189	$ 237	$ 192
Poultry	$	$201	$ 205	$ 236
Investment per acre in productive livestock	$	$ 11.38	$ 9.72	$ 9.70
Receipts per acre from productive livestock	$	$ 15.94	$ 20.34	$ 11.38
Man labor cost per acre	$	$ 6.63	$ 7.91	$ 6.10
Crop acres per man	A	70.4 A	70.6 A	65.2 A
Crop acres per horse (with tractor)	A	24.3 A	23.2 A	26.9 A
(without tractor)	A	17.3 A	18.3 A	15.4 A
Expense per $100 gross income	$	$ 69	$ 53	$ 93
Machinery cost per acre	$	$ 1.99	$ 1.87	$ 1.85
Building and fencing cost per acre	$	$ 1.21	$ 1.08	$ 1.33
Gross receipts per acre	$	$ 18.95	$ 26.88	$ 13.61
Total expenses per acre	$	$ 13.00	$ 14.37	$ 12.60
Net receipts per acre	$	$ 5.95	$ 12.51	$ 1.01
Farms with tractor		50 %	40 %	50 %
Value of land per acre	$	$106	$ 99	$ 105
Total investment per acre	$	$153	$ 146	$ 148

Greene and Jersey Counties - 1927

		Your farm	Average of 28 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$_____	$ 32 984	$ 25 035	$ 33 125
2	Land		22 792	16 898	23 436
3	Farm improvements		3 779	2 906	3 707
4	Machinery and equipment		1 467	1 296	1 546
5	Feed and supplies		2 127	1 981	1 920
6	Livestock		2 819	1 954	2 516
7	Horses		504	454	505
8	Cattle		1 292	740	970
9	Hogs		756	509	752
10	Sheep		101	52	192
11	Poultry		166	199	97
12	Receipts-Net Increases-Total	_____	4 074	4 597	3 048
13	Feed and grain		554	1 005	429
14	Miscellaneous		92	114	71
15	Livestock - Total		3 428	3 478	2 548
16	Horses		--	--	--
17	Cattle		951	833	700
18	Hogs		1 456	1 350	1 333
19	Sheep		66	41	107
20	Poultry		161	222	105
21	Egg sales		165	185	127
22	Dairy sales		629	847	176
23	Expenses-Net Decreases-Total	_____	2 022	1 565	2 217
24	Farm improvements		261	185	298
25	Livestock		31	34	35
26	Horses		31	34	35
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		428	319	414
32	Feed and supplies		--	--	--
33	Livestock expense other than feed		58	62	47
34	Crop expense		207	167	224
35	Labor hired		651	460	761
36	Taxes, insurance, etc.		357	310	411
37	Miscellaneous		29	28	27
38	Receipts less Expenses	_____	2 052	3 032	831
39	Operator's and unpaid family labor		774	892	606
40	Net income from investment		1 278	2 140	225

1	Capital investment					
2	Land					
3	Farm improvements					
4	Machinery and equipment					
5	Feed and supplies					
6	Livestock					
7	Horses					
8	Cattle					
9	Hogs					
10	Sheep					
11	Poultry					
12	Receipts-Net Proceeds					
13	Feed and grain					
14	Miscellaneous					
15	Livestock - Net					
16	Horses					
17	Cattle					
18	Hogs					
19	Sheep					
20	Poultry					
21	Egg sales					
22	Dairy sales					
23	Expenses-Not Processed					
24	Farm improvements					
25	Livestock					
26	Horses					
27	Cattle					
28	Hogs					
29	Sheep					
30	Poultry					
31	Machin. and equip.					
32	Feed and supplies					
33	Livestock expense					
	Dairy feed					
34	Chop and mix					
35	Labor hired					
36	Taxes, insurance, etc.					
37	Miscellaneous					
38	Production Item Records					
39	Operator and family					
	Labor					
40	Net income from investment					

Find Your Farm Leaks

Green and Jersey Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per Horse			Expense per $100 income	Gross receipts per acre	Size of farm
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Tractor	No tractor			
10.9	59	31	26	182	329	341	25.40	30.00	3.10	105	38	31	35	40	355
9.9	56	28	24	172	309	321	23.40	28.00	3.60	100	36	29	40	37	335
8.9	53	25	22	162	289	301	21.40	26.00	4.10	95	34	27	45	34	315
7.9	50	22	20	152	269	281	19.40	24.00	4.60	90	32	25	50	31	295
6.9	47	19	18	142	249	261	17.40	22.00	5.10	85	30	23	55	28	275
5.9	44	16	16	132	229	241	15.40	20.00	5.60	80	28	21	60	25	255
4.9	41	13	14	122	209	221	13.40	18.00	6.10	75	26	19	65	22	235
3.9	38	10	12	112	189	201	11.40	16.00	6.60	70	24	17	70	19	215
2.9	35	7	10	102	169	181	9.40	14.00	7.10	65	22	15	75	16	195
1.9	32	4	8	92	149	161	7.40	12.00	7.60	60	20	13	80	13	175
0.9	29	-	6	82	129	141	5.40	10.00	8.10	55	18	11	85	10	155
-0.1	26	-	4	72	109	121	3.40	8.00	8.60	50	16	9	90	7	135
-1.1	23	-	-	62	89	101	1.40	6.00	9.10	45	14	7	95	4	115
-2.1	20	-	-	52	69	81	--	4.00	9.60	40	12	5	100	-	95
-3.1	17	-	-	42	49	61	--	2.00	10.10	35	10	3	105	-	75

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

MACOUPIN, MONTGOMERY, CHRISTIAN AND SHELBY COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

May, 1928

M 95

ANNUAL FARM BUSINESS REPORT

Macoupin, Montgomery, Christian and Shelby Counties, Illinois, 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 20 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $832 of having enough income to pay operating expenses and 5 percent on their investment, allowing nothing for their labor, management and risk. The average investment was $164 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $425 each to pay for his own labor, management and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1,914 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was, therefore, an average difference of $2,339 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 20 farmers EARNED SEVEN TENTHS OF ONE PERCENT ON THEIR INVESTMENTS after allowing $720 each to pay for his own labor. On the same basis the most successful third earned 4.3 percent and the least successful third lacked 1.6 percent of having any return on their investments. The average investment on the 20 farms was $34,658 which amounts to $164 an acre. The higher profit third had an average investment of $152 and the lower profit third $175 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $114 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore, the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in this county. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The figures used thruout this report must be accepted with reservations. There are too few farm accounts kept in these counties to give reliable information. Because of the small number of records per county too large an area had to be included. The farms therefore are not enough alike in soil and weather

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*E. W. Rusk, A. E. Snyder, C. E. Hay and C. J. Robinson, farm advisers in Macoupin, Montgomery, Christian and Shelby counties respectively, cooperated in supervising and collecting the records used in this report.

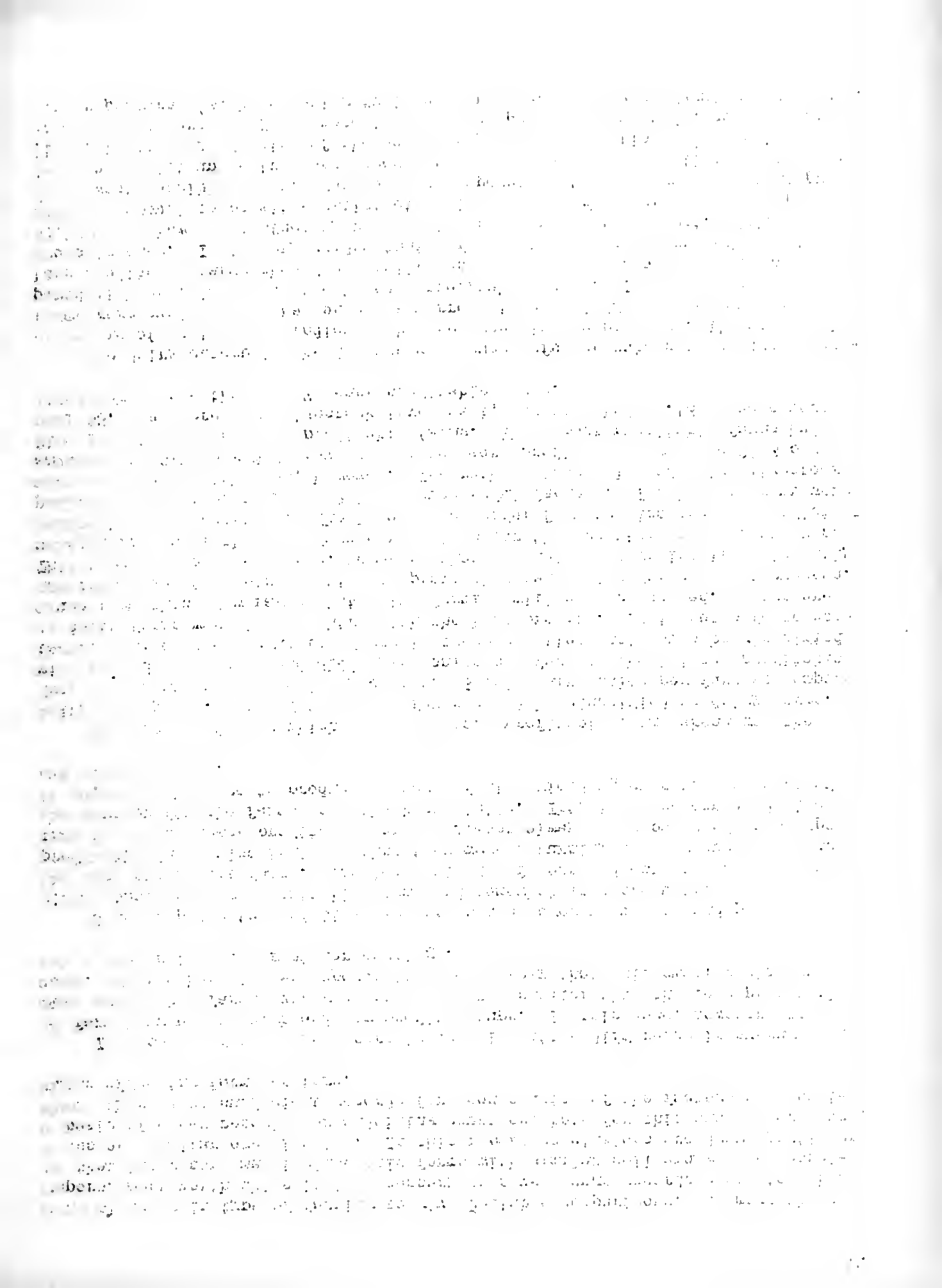
conditions or in type of farming to give reliable comparisons. To make these reports most worth while it is necessary to have enough records close together so that the report may include only farms with similar soil and weather conditions and similar organization. In this report conclusions are drawn partly on a basis of other reports for adjoining counties, both for this and former years, where there were sufficient records for good studies of the factors and conditions affecting farm earnings.

In reports of this type there is usually little difference in average size of farm between the high and low profit groups. In this case, however, the more profitable farms averaged about 35 acres smaller than the less profitable ones. From other similar reports it seems likely that this smaller size was not a factor in causing higher earnings.

A lower percentage of tillable land and a lower value of land per acre indicate that the more profitable farms had somewhat less productive land than the less profitable farms. The lower yields of corn and oats on the seven most profitable farms also indicate that they were naturally less productive farms than the seven least profitable farms. Almost always in reports of this type the more profitable farms have the best yields. This is to be expected since it costs little more to produce an acre of high yielding crop than an acre of low yielding crop.

The one big factor which set the 7 most profitable farms ahead was the dairy enterprise. Six of the seven farms could be classified as dairy farms. They had an average of 16 dairy cows and $1,880 dairy sales per farm as compared with only 3 dairy cows and $142 dairy sales per farm on the 7 least profitable farms. All of the accounting farms in these counties that could be classified as dairy farms were in the third with the best profits. It is not safe to conclude from these few farms that dairy farming will always succeed. There are numerous cases in other counties to prove that many dairy farms do not succeed. This report is good evidence, however, that the dairy enterprise if efficiently managed is one of the best farm enterprises for that section of the state represented by these counties. The 7 most successful farmers also had more efficient poultry enterprises than the 7 least successful farmers. The latter group were more successful with hogs, however. The returns from all productive livestock amounted to $129 per $100 invested on the more profitable farms and $113 per $100 invested on the less profitable farms. The 7 most profitable farms had only $3.56 an acre more livestock investment, but they had $6.13 an acre more livestock income than the 7 least profitable farms.

The dairy enterprise helped the more successful operators to secure a larger volume of business as indicated by the gross income per farm. Although their farms were smaller they had an average gross income of $3,517 per farm as compared with only $2,506 on the 7 least profitable farms. The operators of the less profitable farms should carefully consider some means of building up larger gross incomes. It is very seldom that a farm with a gross income of less than $3,000 can show a satisfactory rate of interest on the investment. This is too small an amount to permit a satisfactory income even when expenses are kept at the lowest possible point. Some of the cooperators in the farm accounting project have built up their gross incomes by one or more of the following methods: (1) by increasing the size of the dairy or poultry enterprises, (2) by increasing the acreage of the more intensive crops such as alfalfa, corn and sweet clover pasture, (3) by adopting fruit and truck crops, (4) by farming more acres.



The best method for the individual farmer will depend upon the labor supply, soil conditions, the available markets and the available capital.

On the expense side of the business the more profitable farms had slightly larger labor costs per acre, evidently due to their dairying and to smaller farms. The extra labor was more than justified by the larger incomes. The 7 least profitable farms, although favored by larger size of farm and less livestock, had higher costs per acre for equipment and improvements. Considering their type of farming and their volume of income these farms have too much expense for equipment. The equipment costs per acre run considerably larger than commonly found on farms where the type of farming is similar. Their feed costs were relatively high also.

The 7 most profitable farms had less acres of crop land and slightly lower yields and still they fed more livestock and had a crop income of $253 per farm above feed costs. The 7 least profitable farms bought more feed than they sold crops.

This discussion can be summed up by stating that the more successful operators were successful both because of larger gross incomes and lower expenses. They had an average gross income per acre of $18.86 with an operating expense of $12.28 per acre. This compares with an income of $11.34 and an expense of $14.21 per acre on the less profitable farms. The results were a net income of $6.58 and a net loss of $2.87 an acre respectively for the two groups of farms. The larger gross incomes of the more profitable farms were due chiefly to dairy sales. The lower expenses were due chiefly to more efficient use of equipment and feed.

The records from these four counties were not included in the same report for previous years, and no detailed comparison of farm earnings can be made. This report, however, does show smaller returns for 1927 than for any year since enough records were available to give any measure of farm conditions in these counties. Very few records were secured from this section previous to 1924. Comparing 1927 with 1926 lower crop yields and lower incomes from hogs appear to be the chief causes of lower earnings.

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.

Macoupin, Montgomery, Christian and Shelby Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 20 farms	Seven most profitable farms	Seven least profitable farms
Rate earned	%	.75 %	4.32 %	-1.65 %
Labor and management wage	$	$-832	$425	$-1,914
Size of farm - acres	A	210.8 A	186.5 A	221.0 A
Percent of land area tillable	%	82.4 %	76.1 %	83.0 %
Acres in Corn	A	51.2 A	42.4 A	60.3 A
Oats	A	20.4 A	12.6 A	21.1 A
Wheat	A	16.2 A	10.0 A	12.7 A
Crop yields - Corn	bu.	27.5 bu.	26.3 bu.	30.5 bu.
Oats	bu.	9.4 bu.	12.1 bu.	13.2 bu.
Wheat	bu.	15.2 bu.	17.1 bu.	15.9 bu.
Returns per $100 invested in all productive livestock	$	$ 117	$129	$ 113
For $100 in Cattle	$	$ 100	$119	$ 76
Hogs	$	$ 173	$160	$ 197
Poultry	$	$ 159	$174	$ 116
Investment per acre in productive livestock	$	$ 11.10	$ 13.49	$ 9.93
Receipts per acre from productive livestock	$	$ 13.01	$ 17.36	$ 11.23
Man labor cost per acre	$	$ 5.99	$ 6.72	$ 6.06
Crop acres per man	A	70.1 A	57.6 A	67.2 A
Crop acres per horse (with tractor)	A	26.4 A	28.4 A	24.0 A
(without tractor)	A	13.5 A	14.1 A	10.9 A
Expense per $100 gross income	$	$ 91	$ 65	$ 125
Machinery cost per acre	$	$ 2.52	$ 2.11	$ 3.32
Building and fencing cost per acre	$	$ 1.24	$ .75	$ 1.62
Gross receipts per acre	$	$ 13.82	$ 18.86	$ 11.34
Total expenses per acre	$	$ 12.59	$ 12.28	$ 14.21
Net receipts per acre	$	$ 1.23	$ 6.58	$ - 2.87
Farms with tractor		66.5 %	42.8 %	85.7 %
Value of land per acre	$	$ 114	$ 95	$ 126
Total investment per acre	$	$ 164	$152	$ 175

Macoupin, Montgomery, Christian and Shelby Counties - 1927

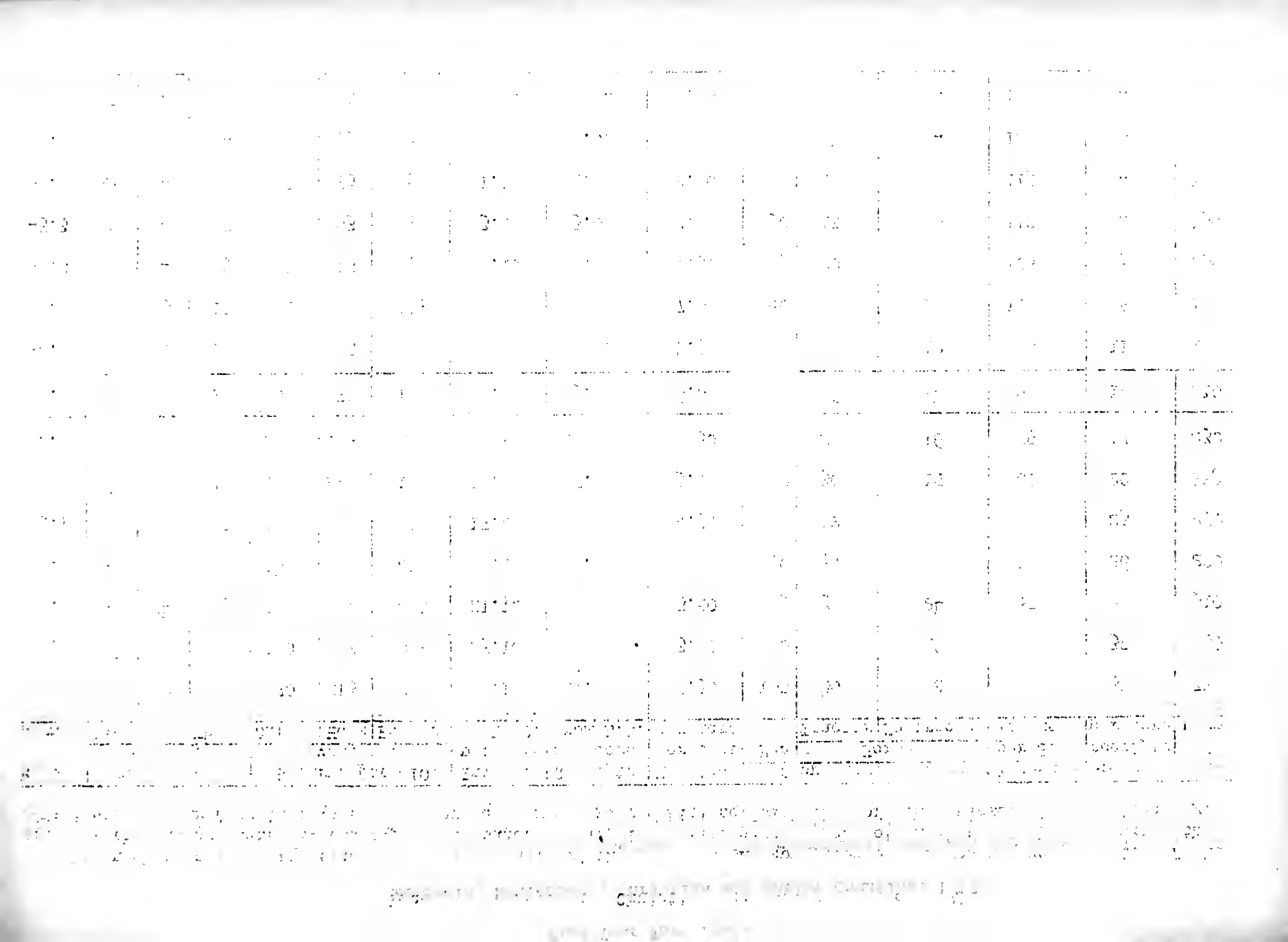
		Your farm	Average of 20 farms	Seven most profitable farms	Seven least profitable farms
1	Capital Investment - Total	$	$ 34 658	$ 28 398	$ 38 597
2	Land		24 096	17 813	27 814
3	Farm improvements		4 903	5 040	4 801
4	Machinery and equipment		1 628	1 481	1 627
5	Feed and supplies		1 414	1 227	1 825
6	Livestock		2 617	2 837	2 530
7	Horses		504	433	533
8	Cattle		1 250	1 873	1 125
9	Hogs		481	367	556
10	Sheep		207	29	153
11	Poultry		172	135	156
12	Bees		3	--	7
13	Receipts-Net Increases-Total		2 914	3 517	2 506
14	Feed and grain		147	253	--
15	Miscellaneous		25	25	24
16	Livestock - Total		2 742	3 239	2 482
17	Horses		--	1	--
18	Cattle		637	499	809
19	Hogs		876	596	1 225
20	Sheep		157	30	130
21	Poultry		112	117	69
22	Egg sales		153	116	102
23	Dairy sales		806	1 880	142
24	Bees		1	--	5
25	Expenses-Net Decreases-Total		1 770	1 500	2 193
26	Farm improvements		261	140	359
27	Livestock		9	--	52
28	Horses		9	--	52
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry		--	--	--
33	Machinery and equipment		532	393	734
34	Feed and supplies		--	--	32
35	Livestock expense other than feed		52	29	55
36	Crop expense		197	164	182
37	Labor hired		377	464	392
38	Taxes, insurance, etc.		311	269	364
39	Miscellaneous		31	41	23
40	Receipts less Expenses		1 144	2 017	313
41	Operator's and unpaid family labor		885	790	948
42	Net income from investment		259	1 227	- 635

Find Your Farm Leaks

Macoupin, Montgomery, Christian and Shelby Counties, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
										Man	Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry					Tractor	No tractor			
7.7	49	30	29	170	313	299	25.10	27.00	2.50	105	40	28	55	35	350
6.7	46	27	27	160	293	279	23.10	25.00	3.00	100	38	26	60	32	330
5.7	43	24	25	150	273	259	21.10	23.00	3.50	95	36	24	65	29	310
4.7	40	21	23	140	253	239	19.10	21.00	4.00	90	34	22	70	26	290
3.7	37	18	21	130	233	219	17.10	19.00	4.50	85	32	20	75	23	270
2.7	34	15	19	120	213	199	15.10	17.00	5.00	80	30	18	80	20	250
1.7	31	12	17	110	193	179	13.10	15.00	5.50	75	28	16	85	17	230
0.7	28	9	15	100	173	159	11.10	13.00	6.00	70	26	14	90	14	210
-0.3	25	6	13	90	153	139	9.10	11.00	6.50	65	24	12	95	11	190
-1.3	22	3	11	80	133	119	7.10	9.00	7.00	60	22	10	100	8	170
-2.3	19	-	9	70	113	99	5.10	7.00	7.50	55	20	8	105	5	150
-3.3	16	-	7	60	93	79	3.10	5.00	8.00	50	18	6	110	2	130
-4.3	13	-	5	50	73	59	1.10	3.00	8.50	45	16	4	115	-	110
-5.3	10	-	-	40	53	39	----	1.00	9.00	40	14	-	120	-	90
-6.3	7	-	-	30	33	19	----	----	9.50	35	12	-	125	-	70



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COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

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MADISON AND BOND COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-seven Farms

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The farm account is a guide
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if its facts are studied and used.

Urbana, Illinois

May, 1928

M 77

ANNUAL FARM BUSINESS REPORT

Madison and Bond Counties, Illinois 1927

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

The 27 farmers in Madison and Bond Counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $497 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $107 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1392, while the one-third who were least successful lacked an average of $338 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $1730 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 27 farmers EARNED 4.4 PERCENT ON THEIR INVESTMENTS after allowing $600 each to pay for his own labor. On the same basis the most successful third earned 9.5 percent and the least successful third lacked 1.2 percent of having any return on the investment. The average investment on the 27 farms was $17,189, which amounts to $107 an acre. The higher profit third had an average investment of $117 and the lower profit third $81 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $66 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The 10 most profitable farms averaged 34 acres smaller than the 10 least profitable farms, but they had a higher percentage of tillable land. There was only 3 acres per farm difference between the two groups in the amount of tillable land. The more profitable farms had 11 acres more corn and 2 acres more wheat, but they had 10 acres less oats than the less profit-

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

able farms. Size of farm was evidently not an important factor in relative earnings between the two groups.

Investigations of cost and income per acre for different crops have shown that under ordinary Illinois conditions corn, wheat, alfalfa and sweet clover show larger margins of profit than other common crops. It is significant that the 10 most profitable farms had 57 percent of their tillable land in these crops as compared with 38 percent on the 10 least profitable farms. Most of this difference was due to a larger acreage of alfalfa and sweet clover on the more profitable farms.

One of the chief advantages of the most profitable over the least profitable farms was in their higher yields of corn and wheat. The more profitable farms averaged 14 bushels more corn and $5\frac{1}{2}$ bushels more wheat than the less profitable farms. The yield situation on oats was reversed but oats is a minor crop in this section of the state and the acreage is small. It costs but little more to grow an acre of high yielding than an acre of low yielding crop. The higher yields on the more successful farms are evidently due in part to the larger acreage of alfalfa and sweet clover on these farms.

The greatest advantage of the 10 most profitable over the 10 least profitable farms was in their greater efficiency in livestock management. The farms covered by this report derived 81 percent of their income from livestock and livestock products, hence anyadvantage in livestock efficiency has a big effect on profits. The more profitable farms had one and a half times as much investment in livestock per acre as did the less profitable farms. The greater efficiency with livestock on the more profitable farms is shown in the fact that the operators of these farms secured a livestock income of $184 for each $100 of livestock investment as compared with a corresponding income of $135 on farms of the least successful operators. The records show that this advantage applied to the cattle, hog and poultry enterprises. The advantage was greatest with hogs. Stated in another way, the most profitable farms produced over twice as much livestock income per acre, although they had only about a half more livestock investment per acre.

The more successful farm operators had somewhat larger operating costs per acre than the less successful ones. There was little difference when the whole farm is considered, but the more profitable farms had less acres over which to spread the costs. On the acre basis the more successful operators had about one dollar more labor cost and about fifty cents larger equipment costs. Total operating costs per acre averaged about two dollars higher on the more profitable farms. They more than made this up in gross income, however. They had an average gross income per acre of $23.01 compared with only $9.06 on the farms of the less profitable group. As a result the 10 most profitable farms had an average net income per acre of $11.04 while the 10 least profitable farms had a net loss of 99 cents per acre.

To sum up this discussion it may be stated that the most profitable farms were more successful because of larger gross incomes rather than lower expenses. The larger gross incomes were a result of greater efficiency in livestock management and better crop yields. They derived the larger incomes from larger net increases in hogs, crops and dairy products. These larger incomes were secured with very little more expense.

The annual farm business reports covering Madison and Bond Counties for 1925 and 1926 included records from Macoupin and Montgomery Counties. The size of the average farm was considerably reduced by excluding all but Madison and Bond County records for 1927. It is believed that the smaller number of counties included makes the data fit the average Madison and Bond County farm better. Because of the change in area covered we can not safely compare earnings for the three years, but it seems evident that the average rate earned on the investment for 1927 was higher than for 1926 and lower than for 1925. Crop yields with the exception of hay crops were slightly lower for 1927 than 1926, but the average receipts per acre from livestock were higher and feed expenses were lower, owing to the greater abundance of hay. The year 1925 was a year of comparatively good crop yields.

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.

Madison and Bond Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 27 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	4.39 %	9.47 %	- 1.22 %
Labor and management wage	$	$497	$1392	$-338
Size of farm - acres	A	160.6 A	152.0 A	186.0 A
Percent of land area tillable	%	81.2 %	88.2 %	73.6 %
Acres in Corn	A	29.0 A	38.0 A	27.0 A
Oats	A	12.7 A	10.0 A	20.0 A
Wheat	A	25.1 A	22.0 A	20.0 A
Crop yields - Corn	bu.	31.2 bu.	36.7 bu.	22.3 bu.
Oats	bu.	11.8 bu.	9.2 bu.	12.7 bu.
Wheat	bu.	14.1 bu.	16.4 bu.	10.9 bu.
Percent in high profit crops*		53.2 %	57.0 %	38.1 %
Returns per $100 invested in all productive livestock	$	$160	$ 184	$ 135
For $100 in Cattle	$	$144	$ 142	$ 133
Hogs	$	$208	$ 259	$ 146
Poultry	$	$164	$ 172	$ 155
Investment per acre in productive livestock	$	$ 8.30	$ 10.57	$ 6.40
Receipts per acre from productive livestock	$	$ 13.30	$ 19.40	$ 8.62
Man labor cost per acre	$	$ 6.54	$ 6.61	$ 5.66
Crop acres per man	A	67.9 A	69.6 A	67.3 A
Crop acres per horse (with tractor)	A	24.6 A	32.3 A	18.5 A
(without tractor)	A	20.0 A	20.2 A	20.5 A
Expense per $100 gross income	$	$ 71	$ 52	$ 111
Machinery cost per acre	$	$ 1.54	$ 1.87	$ 1.33
Building and fencing cost per acre	$	$ .94	$ .93	$ .75
Gross receipts per acre	$	$ 16.24	$ 23.01	$ 9.06
Total expenses per acre	$	$ 11.53	$ 11.97	$ 10.05
Net receipts per acre	$	$ 4.71	$ 11.04	$ -.99
Farms with tractor		33.3 %	40.0 %	20.0 %
Value of land per acre	$	$ 66	$ 72	$ 49
Total investment per acre	$	$107	$ 117	$ 81

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

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Madison and Bond Counties - 1927

		Your farm	Average of 27 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$_____	$17,189	$17,715	$15,077
2	Land		10,599	10,957	9,151
3	Farm improvements		2,621	2,675	2,497
4	Machinery and equipment		1,056	932	785
5	Feed and supplies		1,286	1,331	1,151
6	Livestock		1,627	1,820	1,493
7	Horses		311	197	342
8	Cattle		683	744	607
9	Hogs		394	616	265
10	Sheep		51	60	74
11	Poultry		188	203	205
12	Receipts-Net Increases-Total	_____	2,608	3,498	1,685
13	Feed and grain		338	469	--
14	Miscellaneous		135	80	76
15	Livestock - Total		2,135	2,949	1,609
16	Horses		--	--	5
17	Cattle		292	257	303
18	Hogs		734	1,470	312
19	Sheep		48	62	59
20	Poultry		92	121	54
21	Egg sales		204	217	239
22	Dairy sales		765	822	637
23	Expenses-Net Decreases-Total	_____	991	1,039	889
24	Farm improvements		151	141	139
25	Livestock		4	19	--
26	Horses		4	19	--
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		247	284	247
32	Feed and supplies		--	--	32
33	Livestock expense other than feed		31	38	24
34	Crop expense		170	147	183
35	Labor hired		191	224	73
36	Taxes, insurance, etc.		174	162	166
37	Miscellaneous		23	24	25
38	Receipts less Expenses	_____	1,617	2,459	796
39	Operator's and unpaid family labor		860	781	980
40	Net income from investment		757	1,678	-184

Find Your Farm Leaks

Madison and Bond Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per A. in L.S.	Receipts per A. from L.S.	Man lab. cost per A.	Crop acres per Man	Crop acres per Horse		Expense per $100 income	Gross receipts per A.	Size of farm
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry					Tractor	No tractor			
11.4	52	26	28	214	348	304	22.30	27.30	3.00	103	39	34	36	30	300
10.4	49	24	26	204	328	284	20.30	25.30	3.50	98	37	32	41	28	280
9.4	46	22	24	194	308	264	18.30	23.30	4.00	93	35	30	46	26	260
8.4	43	20	22	184	288	244	16.30	21.30	4.50	88	33	28	51	24	240
7.4	40	18	20	174	268	224	14.30	19.30	5.00	83	31	26	56	22	220
6.4	37	16	18	164	248	204	12.30	17.30	5.50	78	29	24	61	20	200
5.4	34	14	16	154	228	184	10.30	15.30	6.00	73	27	22	66	18	180
4.4	31	12	14	144	208	164	8.30	13.30	6.50	68	25	20	71	16	160
3.4	28	10	12	134	188	144	6.30	11.30	7.00	63	23	18	76	14	140
2.4	25	8	10	124	168	124	4.30	9.30	7.50	58	21	16	81	12	120
1.4	22	6	8	114	148	104	2.30	7.30	8.00	53	19	14	86	10	100
0.4	19	--	6	104	128	84	--	5.30	8.50	48	17	12	91	8	80
-0.6	16	--	4	94	108	64	--	3.30	9.00	43	15	10	96	6	60
-1.6	13	--	--	84	88	44	--	1.30	9.50	38	13	8	101	4	40
-2.6	10	--	--	74	68	24	--	--	10.00	33	11	6	106	2	20

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

CLINTON COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-five Farms

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1927

The farm account is a guide
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Urbana, Illinois

April 1928

M 74

ANNUAL FARM BUSINESS REPORT

CLINTON COUNTY, ILLINOIS 1927

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

The 35 farmers in Clinton County who kept financial records in the Illinois Farm Account Project for 1927 had an average of $480 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $112 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1096, while the one-third who were least successful lacked an average of $205 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $1301 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 35 farmers EARNED 4.4 PERCENT ON THEIR INVESTMENTS after allowing $600 each to pay for his own labor. On the same basis the most successful third earned 8 percent and the least successful third six tenths of one percent. The average investment on the 35 farms was $17,195, which amounts to $112 an acre. The higher profit third had an average investment of $104 and the lower profit third $114 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $69 an acre on the average farm.

In addition to the above earnings, each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in Clinton County. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

There was only 6.5 acres difference in average size of farm between the 12 most profitable and the 12 least profitable farms. They also had practically the same percentage of tillable land. Difference in size, therefore, had little influence on their relative earnings. The more profitable farms had on the average only about 3 acres more corn, 3 acres more oats and 9 acres more wheat per farm.

Seasonal conditions were decidedly not favorable for large crop yields in Clinton County for 1927. Even on the most profitable farms crop yields were

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*W. A. Cope, farm adviser in Clinton County, cooperated in supervising and collecting the records used in this report.

low although they averaged 8 bushels more corn and about a half bushel more wheat per acre than the less profitable farms. The best of practices were handicapped by heavy winter killing of wheat and a cold wet spring which was unfavorable for corn. On the average the more successful operators sold more crops than they bought to the amount of $522 per farm, while the less successful operators bought more feed than they sold crops to the amount of $229 per farm. Apparently the larger amount of crop sales on the more profitable farms was due chiefly to more efficient feeding since their yields were not enough higher to account for the difference and they had about the same amount of livestock to feed.

The livestock enterprises were handled more efficiently by the more successful farm operators. This is indicated by the fact that although they had about the same investment per acre in livestock their livestock income was $2.40 an acre higher than on the less profitable farms. This is true in spite of the fact that the more successful operators bought less feed. They secured an average of $342 more income from dairy products and $455 more income from poultry products but their average hog income was $432 per farm less than on the less profitable farms.

The more profitable farms with their larger incomes from both crops and livestock had only 30 cents an acre more labor expense. Both family labor and hired labor are included in this figure. They had less expense per acre for equipment and for improvements than the less profitable farms.

The larger net incomes on the 12 most profitable farms were due both to higher gross incomes and to lower expense. The larger gross incomes were due to larger sales of crops, chiefly wheat, and to larger sales of both poultry and dairy products. This was partly offset by larger incomes from hogs on the less profitable farms. The lower expenses on the more profitable farms were due to lower costs for feed, equipment and improvements.

In general, it is evident that the greater success of the more successful operators was not due to any one big difference but to the fact that they held down expense all along the line and secured a little more income from all important sources except in the case of the hog enterprise.

This is the sixth consecutive year that an "Annual Farm Business Report" has been issued for Clinton County. The number of records completed for 1927 was lower than for the preceding three years owing to a different method of handling the project. Previous to 1927 the farm adviser followed the practice of visiting each cooperator to complete and check in his book. The books were then closed and the summaries taken off in the farm bureau office. This method requires more of the farm adviser's time than was thought justified and for 1927 it was decided to follow the method long used in other counties of asking the cooperators to complete their books and bring them to some designated meeting point where they were checked in for closing by a representative of the University and the farm adviser. The books were then closed and analyzed by the department of farm management of the University. This plan has proved practical in other counties over a period of twelve years and involves less trouble and expense to the farm bureau.

The following table shows an interesting comparison for the last five years of the variation in earnings and investments on the average account keeping farm in Clinton County. The average rate earned for 1927 was almost exactly an average for the last five years in spite of unusually low yields of the small grain crops. One factor in favor of 1927 was the greater abundance and lower cost of hay. Clinton County farmers feed a large quantity of hay to their dairy cattle. As compared with most other sections of the state farm earnings on Clinton County farms for which we have accounts have remained fairly stable thru the past five years. The dairy and poultry enterprises are comparatively important on farms of this section and both lend stability to the farm income. The average poultry income for 1927 was somewhat reduced because of lower prices for poultry products.

COMPARATIVE EARNINGS ON CLINTON COUNTY FARMS

Item	1923	1924	1925	1926	1927
Number of farm records	21	58	60	56	35
Average size of farm, acres	163	164	165	172	153
Average rate earned	4.5%	4.7%	5.9%	3.5%	4.4%
Average value of land per acre	$ 98	$ 64	$ 64	$ 66	$ 69
Average investment per acre	124	105	105	108	112
Investment in livestock per farm	1727	1655	1703	1884	1755
Investment in cattle per farm	866	816	865	941	826
Investment in hogs per farm	129	120	134	188	190
Investment in poultry per farm	255	260	264	279	281
Gross income per acre	17.80	15.87	18.19	15.28	16.80
Operating cost per acre	12.14	10.91	11.94	11.51	11.90
Net increase from feed and grain per farm	769	589	657	000	97
Miscellaneous income per farm	143	114	126	139	107
Livestock income per farm	1953	1901	2222	2494	2370
Gross income per farm	2867	2604	3005	2633	2574
Cattle income per farm	150	169	224	246	384
Dairy sales per farm	1163	1044	1099	1245	1172
Hog income per farm	146	159	255	358	286
Poultry income per farm	510	520	630	629	514

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 - 1927

Factors helping to analyze the farm business	Your farm	Average of 35 farms	Twelve most profitable farms	Twelve least profitable farms
Rate earned	%	4.37 %	7.97 %	.59 %
Labor and management wage	$	$480	$1,096	$ -205
Size of farm - acres	A	153.2 A	160.33 A	153.83 A
Percent of land area tillable	%	86.3 %	83 %	84 %
Acres in Corn	A	29.6 A	31.99 A	28.58 A
Oats	A	15.6 A	17.22 A	14.58 A
Wheat	A	43.1 A	45.47 A	36.67 A
Crop yields - Corn	bu.	25.2 bu.	30.02 bu.	21.90 bu.
Oats	bu.	10.0 bu.	8.16 bu.	12.26 bu.
Wheat	bu.	13.6 bu.	14.18 bu.	13.75 bu.
Percent in high profit crops*		61.0 %	62.5 %	59.2 %
Returns per $100 invested in all productive livestock	$	$169	$ 190	$ 161
For $100 in Cattle	$	$172	$ 193	$ 158
Hogs	$	$147	$ 112	$ 182
Poultry	$	$185	$ 230	$ 139
Investment per acre in productive livestock	$	$ 9.13	$ 8.47	$ 8.54
Receipts per acre from productive livestock	$	$ 15.47	$ 16.13	$ 13.73
Man labor cost per acre	$	$ 7.09	$ 7.15	$ 6.86
Crop acres per man	A	58.0 A	56.6 A	58.6 A
Crop acres per horse (with tractor)	A	22.1 A	20.8 A	21.8 A
(without tractor)	A	19.6 A	31.0 A	17.8 A
Expense per $100 gross income	$	$ 71	$ 59	$ 95
Machinery cost per acre	$	$ 1.56	$ 1.37	$ 1.89
Building and fencing cost per acre	$	$ .92	$ .80	$ 1.25
Gross receipts per acre	$	$ 16.80	$ 20.13	$ 14.39
Total expenses per acre	$	$ 11.90	$ 11.83	$ 13.72
Net receipts per acre	$	$ 4.90	$ 8.30	$ .67
Farms with tractor		23 %	17 %	23 %
Value of land per acre	$	$ 69	$ 66	$ 68
Total investment per acre	$	$112	$ 104	$ 114

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

Clinton County - 1927

		Your farm	Average of 35 farms	Twelve most profitable farms	Twelve least profitable farms
1	Capital Investment - Total	$	$ 17 195	$ 16 693	$ 17 471
2	Land		10 614	10 568	10 390
3	Farm improvements		2 342	1 980	2 680
4	Machinery and equipment		1 142	1 050	1 324
5	Feed and supplies		1 342	1 386	1 357
6	Livestock		1 755	1 709	1 720
7	Horses		436	414	474
8	Cattle		826	830	771
9	Hogs		190	115	281
10	Sheep		22	41	--
11	Poultry		281	309	194
12	Receipts-Net Increases-Total		2 574	3 228	2 213
13	Feed and grain		97	522	--
14	Miscellaneous		107	106	101
15	Livestock - Total		2 370	2 600	2 112
16	Horses		--	14	--
17	Cattle		384	399	316
18	Hogs		286	123	555
19	Sheep		14	26	--
20	Poultry		140	174	106
21	Egg sales		374	562	175
22	Dairy sales		1 172	1 302	960
23	Expenses-Net Decreases-Total		858	887	1 142
24	Farm improvements		141	128	193
25	Livestock		3	--	19
26	Horses		3	--	19
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		239	219	290
32	Feed and supplies		--	--	229
33	Livestock expense other than feed		22	32	19
34	Crop expense		172	185	158
35	Labor hired		121	136	87
36	Taxes, insurance, etc.		138	167	122
37	Miscellaneous		22	20	25
38	Receipts less Expenses		1 716	2 341	1 071
39	Operator's and unpaid family labor		965	1 010	968
40	Net income from investment		751	1 331	103

Find Your Farm Leaks

Clinton County, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per Horse			Expense per $100 income	Gross receipts per acre	Size of farm
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Tractor	No Tractor			
11.4	46	31	28	242	217	325	23	29.50	3.50	93	36	34	35	38	290
10.4	43	28	26	232	207	305	21	27.50	4.00	88	34	32	40	35	270
9.4	40	25	24	222	197	285	19	25.50	4.50	83	32	30	45	32	250
8.4	37	22	22	212	187	265	17	23.50	5.00	78	30	28	50	29	230
7.4	34	19	20	202	177	245	15	21.50	5.50	73	28	26	55	26	210
6.4	31	16	18	192	167	225	13	19.50	6.00	68	26	24	60	23	190
5.4	28	13	16	182	157	205	11	17.50	6.50	63	24	22	65	20	170
4.4	25	10	14	172	147	185	9	15.50	7.00	58	22	20	70	17	150
3.4	22	7	12	162	137	165	7	13.50	7.50	53	20	18	75	14	130
2.4	19	4	10	152	127	145	5	11.50	8.00	48	18	16	80	11	110
1.4	16	-	8	142	117	125	3	9.50	8.50	43	16	14	85	8	90
0.4	13	-	6	132	107	105	-	7.50	9.00	38	14	12	90	5	70
-0.6	10	-	4	122	97	85	-	5.50	9.50	33	12	10	95	-	50
-1.6	--	-	-	112	87	65	-	3.50	10.00	28	10	8	100	-	30
-2.6	--	-	-	102	77	45	-	1.50	10.50	23	8	6	105	-	--

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UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

RANDOLPH, ST. CLAIR AND MONROE COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-six Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

April, 1928

M 73

ANNUAL FARM BUSINESS REPORT

Randolph, St. Clair and Monroe Counties, Illinois 1927

Prepared by R. R. Hudelson, F. L. Underwood, H. C. M. Case*

The 36 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $383 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $114 an acre. This is called their LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1,233, while the one-third who were least successful lacked an average of $338 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor, management and risk. There was an average difference of about $1,571 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 36 farmers EARNED 4 PERCENT ON THEIR INVESTMENTS after allowing $600 each to pay for his own labor. On the same basis the most successful third earned 8 percent and the least successful third lacked seven tenths of one percent of receiving any return on their farm investment. The average investment on the 36 farms was $19,526, which amounts to $114 an acre. The higher profit third had an average investment of $131 and the lower profit third $90 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $72 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

The farms of the more profitable group averaged 162 acres as compared with 185 acres for the least profitable farms. The more profitable farms had a higher percentage of tillable land, however. The two groups averaged within 5 acres of the same amount of tillable land. Difference in size of farm cannot be considered as an important reason for the difference in earnings. Neither was there much difference in the average acreage devoted to corn, oats and wheat. Farms of the more successful group had more acres of corn and less acres of oats and wheat.

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*E. C. Secor, B. W. Tillman and C. A. Hughes, farm advisers in Randolph, St. Clair and Monroe Counties respectively, cooperated in supervising and collecting the records used in this report.

The greatest advantages of the more profitable over the less profitable farms appear to be in larger crop yields and larger sales of dairy products.

The more successful operators produced an average of 23 bushels more corn, 3 bushels more oats and 7 bushels more wheat to the acre than their less successful neighbors. It ordinarily costs very little more to produce an acre of high yielding crop than an acre of low yielding crop. This advantage in yield was enough to make the difference between success and failure. It resulted in nearly twice as much crop for about the same amount of cost.

Another advantage in crop production which favored the more profitable farms is seen in the fact that they had a higher percentage of their crop land in those crops which usually have the largest margin of profit. Cost of production studies have shown that corn, wheat, alfalfa and sweet clover are among the most profitable of our common crops. The more profitable farms had 66.2 percent of their land in these crops compared with 59.6 percent on the less profitable farms.

The more successful farms had an average investment in livestock amounting to $8.33 an acre, while the less successful ones had a corresponding investment of only $4.65 an acre. This larger investment was chiefly in dairy cattle and hogs. Greater efficiency is shown on the more profitable farms in both the dairy and hog enterprises by their larger returns per $100 invested and by the larger average incomes from dairy products and hogs. The dairy sales amounted to an average of $917 a farm for the more profitable farms as compared with $384 on the less profitable farms. The total net increase from livestock was about 80 percent larger on the more profitable farms. Besides feeding this livestock they also produced more than four times as much income from crops. This was a result of larger yields and probably of more efficient feeding.

The costs for labor, equipment and improvements were slightly larger on the more profitable farms. These expenses were justified, however, in larger crop yields and greater incomes from livestock.

The comparative figures for gross income and total expense per acre show that the more profitable farms had higher expenses but their gross incomes were much higher than on the less profitable farms. This resulted in an average net income of $10.44 an acre on the twelve most profitable farms, but a net loss of 58 cents an acre on the twelve least profitable farms. It is frequently stated that the only way to get along during the present agricultural depression or "hard times" period is to cut down on expenses for labor, equipment, improvements, etc., but if these expenses are cut to the point of greatly reducing crop yields and livestock efficiency loss rather than gain will result. At least that is indicated in these and many other farm accounts. Judging from the records of successful farmers it is more important to manage so that each unit of cost will bring in its corresponding share of income than to attempt to stop all operating expense. This does not argue against thrift. The farm business in particular cannot stand heavy drains of expense. As the business man says, its turnover is too slow. In other words, a high percentage of the capital in the farm business is tied up for long periods of time.

To sum up this discussion, the most successful one-third of the farm operators whose accounts are included in this report succeeded chiefly because of larger crop yields and larger income from dairy sales. On the average they had somewhat larger amounts of expense for labor, equipment and improvements, but their larger gross incomes more than justified this extra cost.

Randolph, St. Clair and Monroe Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 36 farms	Twelve most profitable farms	Twelve least profitable farms
Rate earned	%	3.97%	7.99%	- .65%
Labor and management wage	$	$ 383	$ 1,233	$ - 338
Size of farm - acres	A	171.6 A	161.9 A	184.7 A
Percent of land area tillable	%	82 %	85.4 %	77.2 %
Acres in Corn	A	27.0 A	33.3 A	20.0 A
Oats	A	13.0 A	10.8 A	17.9 A
Wheat	A	45.1 A	39.7 A	49.7 A
Crop yields - Corn	bu.	36.5bu.	43.6bu.	20.6bu.
Oats	bu.	12.3bu.	13.9bu.	11.1bu.
Wheat	bu.	10.5bu.	14.2bu.	7.2bu.
Percent in high profit crops*		64.2	66.2	59.6
Returns per $100 invested in all productive livestock	$	$ 142	$ 154	$ 129
For $100 in Cattle	$	$ 142	$ 162	$ 122
Hogs	$	$ 147	$ 149	$ 123
Poultry	$	$ 156	$ 168	$ 171
Investment per acre in productive livestock	$	$ 7.30	$ 8.33	$ 4.65
Receipts per acre from productive livestock	$	$ 10.40	$ 12.87	$ 5.08
Man labor cost per acre	$	$ 6.21	$ 6.74	$ 5.35
Crop acres per man	A	62.2 A	58.0 A	67.0 A
Crop acres per horse (with tractor)	A	24.1 A	22.6 A	27.3 A
(without tractor)	A	19.5 A	16.6 A	19.3 A
Expense per $100 gross income	$	$ 71	$ 54	$ 107
Machinery cost per acre	$	$ 1.70	$ 1.38	$ 1.05
Building and fencing cost per acre	$	$ .83	$ .86	$ .62
Gross receipts per acre	$	$ 15.68	$ 22.64	$ 8.28
Total expenses per acre	$	$ 11.15	$ 12.20	$ 8.86
Net receipts per acre	$	$ 4.53	$ 10.44	$ - .58
Farms with tractor		50. %	67 %	50 %
Value of land per acre	$	$ 72	$ 84	$ 58
Total investment per acre	$	$ 114	$ 131	$ 90

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

If allowance be made for the fact that there has been some shifting about in the territory covered some interesting comparisons in farm earnings for the last four years can be made from the following table. The fact that records from St. Clair County for 1927 were included increased the average amounts of income and investment in the dairy enterprise. It seems safe to conclude that the average rate earned in this area for 1927 was the lowest in the last four years.

Comparative Earnings on Farms in the Randolph and Monroe County District

Item	1924[1]	1925[1]	1926[2]	1927[3]
Number of farms	23	30	33	36
Average size of farms, acres	175	173	188	172
Average rate earned	5.0%	6.6%	6.0%	4.0%
Average value of land per acre	$ 62	$ 54	$ 54	$ 72
Average investment per acre	93	86	83	114
Investment in livestock per farm	1063	1230	1278	1734
Investment in cattle per farm	384	394	425	712
Investment in hogs per farm	132	196	163	295
Investment in poultry per farm	144	148	194	167
Gross income per acre	15.11	15.45	13.88	15.68
Operating cost per acre	10.50	9.72	8.92	11.15
Net increase from crops per farm	1501	1354	1107	816
Miscellaneous income per farm	131	116	93	88
Livestock income per farm	1012	1196	1414	1787
Gross income per farm	2644	2666	2614	2691
Cattle income per farm	106	144	177	271
Dairy sales per farm	343	367	440	806
Hog income per farm	262	311	273	400
Poultry income per farm	299	338	475	258

[1] Records from Monroe and Randolph Counties only.

[2] A few records from Marion and Washington Counties included with those from Monroe and Randolph Counties.

[3] Records from Randolph, St. Clair and Monroe Counties.

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.

Randolph, St. Clair and Monroe Counties - 1927

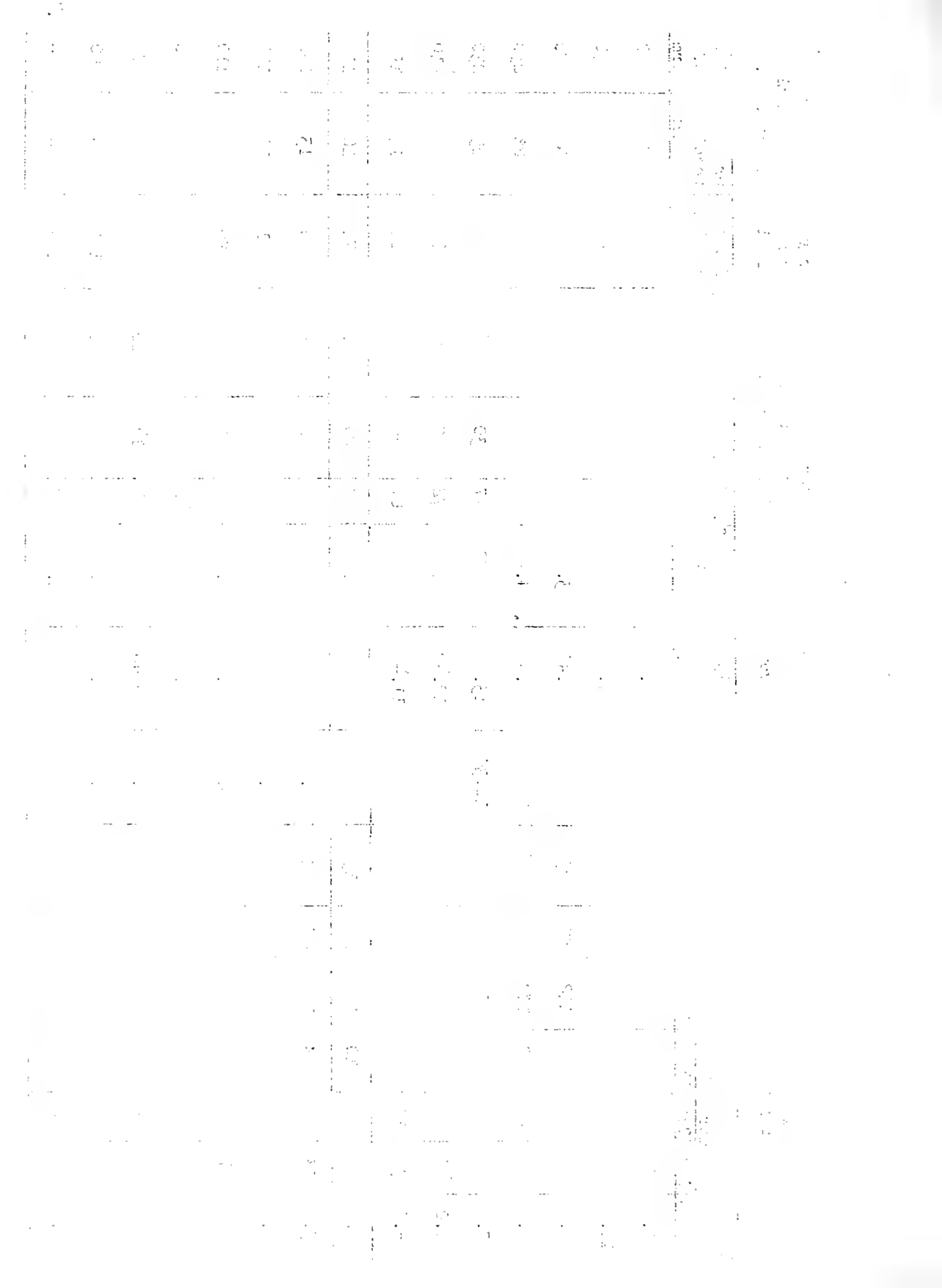
		Your farm	Average of 36 farms	Twelve most profitable farms	Twelve least profitable farms
1	Capital Investment - Total	$	$ 19 526	$ 21 147	$ 16 587
2	Land		12 392	13 640	10 669
3	Farm improvements		2 575	2 690	2 156
4	Machinery and equipment		1 154	1 262	879
5	Feed and supplies		1 671	1 790	1 515
6	Livestock		1 734	1 765	1 368
7	Horses		489	351	566
8	Cattle		712	702	473
9	Hogs		295	424	121
10	Sheep		71	141	50
11	Poultry		167	147	158
12	Receipts-Net Increases-Total		2 691	3 666	1 529
13	Feed and grain		816	1 421	304
14	Miscellaneous		88	162	50
15	Livestock - Total		1 787	2 083	1 175
16	Horses		3	--	71
17	Cattle		271	303	242
18	Hogs		400	535	163
19	Sheep		49	64	41
20	Poultry		102	115	104
21	Egg sales		156	149	170
22	Dairy sales		806	917	334
23	Expenses-Net Decreases-Total		1 069	1 181	685
24	Farm improvements		142	139	115
25	Livestock		--	33	--
26	Horses		--	33	--
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		291	305	194
32	Feed and supplies		--	--	--
33	Livestock expense other than feed		32	26	7
34	Crop expense		140	135	116
35	Labor hired		221	297	36
36	Taxes, insurance, etc.		225	228	201
37	Miscellaneous		18	18	16
38	Receipts less Expenses		1 622	2 485	844
39	Operator's and unpaid family labor		845	795	952
40	Net income from investment		777	1 690	- 108

Find Your Farm Leaks

Randolph, St. Clair and Monroe Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
											Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Tractor	No tractor			
11.0	57	33	24	212	287	296	14.30	17.40	2.70	97	38	34	36	37	310
10.0	54	30	22	202	267	276	13.30	16.40	3.20	92	36	32	41	34	290
9.0	51	27	20	192	247	256	12.30	15.40	3.70	87	34	30	46	31	270
8.0	48	24	18	182	227	236	11.30	14.40	4.20	82	32	28	51	28	250
7.0	45	21	16	172	207	216	10.30	13.40	4.70	77	30	26	56	25	230
6.0	42	18	14	162	187	196	9.30	12.40	5.20	72	28	24	61	22	210
5.0	39	15	12	152	167	176	8.30	11.40	5.70	67	26	22	66	19	190
4.0	36	12	10	142	147	156	7.30	10.40	6.20	62	24	20	71	16	170
3.0	33	9	8	132	127	136	6.30	9.40	6.70	57	22	18	76	13	150
2.0	30	6	6	122	107	116	5.30	8.40	7.20	52	20	16	81	10	130
1.0	27	-	4	112	87	96	4.30	7.40	7.70	47	18	14	86	7	110
0.0	24	-	-	102	67	76	3.30	6.40	8.20	42	16	12	91	4	90
-1.0	21	-	-	92	47	56	2.30	5.40	8.70	37	14	10	96	-	70
-2.0	18	-	-	82	27	36	1.30	4.40	9.20	32	12	8	101	-	50
-3.0	15	-	-	72	-	26	--	3.40	9.70	27	10	6	106	-	-



UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

WASHINGTON, JEFFERSON AND MARION COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-nine Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

April, 1928

M78

ANNUAL FARM BUSINESS REPORT

Washington, Jefferson and Marion Counties, Illinois 1927

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

The 29 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $403 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $79 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1130, while the one-third who were lease successful lacked an average of $216 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $1346 a farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 29 farmers EARNED 3.9 PERCENT ON THEIR INVESTMENTS after allowing $600 each to pay for his own labor. On the same basis the most successful third earned 7.6 percent and the least successful lacked 1.1 percent of having any earnings on their investments. The average investment on the 29 farms was $15,617, which amounts to $79 an acre. The higher profit third had an average investment of $79 and the lower profit third $81 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $51 an acre on the average farm.

In addition to the above earnings each family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In most reports of this type there is little difference in average size of farm between high and low profit groups. In this part of Illinois, however, the average size of farm is small and the larger farms should have some advantage. Of the farms covered by this report the more profitable ones averaged almost a hundred acres larger and they had a little higher percentage of

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* G. E. Smith, L. R. Caldwell and F. J. Blackburn, farm advisers in Washington, Jefferson and Marion counties respectively, cooperated in supervising and collecting the records used in this report.

tillable land. A study of the individual records shows that more than half of this extra acreage was in red top which was not an especially profitable crop in 1927. The remainder of the extra acreage was distributed among several crops including soybeans, cowpeas, sweet clover, red clover and corn. It seems probable that the extra size of the more profitable farms was not an important cause of their higher earnings.

Higher crop yields usually constitute one of the chief advantages of the profitable farms over the unprofitable ones. In this case the more profitable farms produced an average of 9 bushels more corn, 6 bushels more oats and 5 bushels more wheat to the acre than the less profitable farms. Since it usually costs but little more to produce an acre of high yielding crop than an acre of low yielding crop this advantage in yields is important. It is one of the causes of the $1117 larger net increase from crops on the more profitable farms as compared with the less profitable farms.

So far as the amount of returns per $100 invested in productive livestock is concerned the more successful farm operators do not show a higher efficiency with livestock than the less successful operators. They did, however, have considerably more gross income from each kind of livestock. This gave them a larger volume of business and tended to widen the margin of profit between costs and incomes since their operating costs did not show as large an increase as did their gross incomes. Farms of the section covered by this report as a rule have relatively small investments in livestock as compared with most sections of the state.

The more successful farmers had lower costs per acre for labor and equipment, and they used their available horse power more efficiently than the less successful farmers. The larger size of their farms was a help in this direction. The larger acreage of red top on the more profitable farms also helped to reduce labor, power and equipment costs since red top requires little of these items of cost. It is usually a low income crop also and hence does not as a rule add greatly to the profits in the farm business.

This discussion may be summed up by stating that the more profitable farms were more successful because they produced larger gross incomes at less cost. The margin of profit was thus increased in both directions. The more profitable farms had an average gross income per acre of $13.32 and an expense per acre of $7.26. The corresponding gross income on the less profitable farms was $8.46 and the expense was $9.34 an acre. The result was a net income of $6.06 an acre for the more successful operators and a net loss of 88 cents an acre for the less successful operators. Both groups averaged about the same investment per acre.

The larger gross incomes on the more profitable farms were due both to larger crop incomes and larger incomes from livestock. Larger crop yields and a larger volume of business were important factors. The gross income per farm for the least profitable farms was only $1302. It is doubtful whether a satisfactory net income can be maintained without increasing this volume of business to at least $3000 gross income per farm. Some ways in which our accounting cooperators have increased their volume of business are as follows: (1) by

adopting more intensive crops, such as alfalfa, corn and sweet clover pasture, (2) by increasing the size of the dairy or poultry enterprises, (3) by use of fruit or truck crops, (4) by farming more acres. The best plan for the individual farmer will depend upon the labor supply, the soil conditions, the available market, and the amount of capital to be had. The ability of the individual farmer to handle a given enterprise must also be considered, but it is essential to success that the farm operator have or acquire the ability to handle such a combination of enterprises as will constitute a well balanced farm business.

No previous report has been issued covering exactly the same area as included in this one, but the accounts from Washington and Marion Counties for 1926 were included with those from Randolph and Monroe Counties. Since the accounts from Randolph, Monroe, and St. Clair Counties for 1927 averaged about the same rate of earnings as indicated for Washington, Jefferson and Marion Counties, it appears that similar farm conditions prevailed. Thruout this area earnings were lower for 1927 than for the preceding year. Apparently the chief cause of reduced earnings was lower crop yields. Much winter killing of wheat and reduced corn and oat yields due to a cold wet spring may be mentioned as the chief seasonal obstacles. The hay crop was better for 1927 however.

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

Washington, Jefferson and Marion Counties - 1927

Factors helping to analyze the farm business	Your farm	Average of 29 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	3.95 %	7.65 %	-1.10 %
Labor and management wage	$	$403	$1,130	$-216
Size of farm - acres	A	196.6 A	252.3 A	154.0 A
Percent of land area tillable	%	83.7 %	85.9 %	76.0 %
Acres in Corn	A	20.3 A	24.3 A	13.2 A
Oats	A	11.0 A	11.0 A	14.8 A
Wheat	A	37.5 A	39.7 A	43.5 A
Crop yields - Corn	bu.	22.8 bu.	26.8 bu.	17.6 bu.
Oats	bu.	10.4 bu.	14.0 bu.	7.7 bu.
Wheat	bu.	11.3 bu.	13.9 bu.	9.0 bu.
Returns per $100 invested in all productive livestock	$	$145	$ 143	$ 152
For $100 in Cattle	$	$135	$ 142	$ 148
Hogs	$	$147	$ 139	$ 119
Poultry	$	$201	$ 219	$ 185
Investment per acre in productive livestock	$	$ 5.02	$ 5.29	$ 4.36
Receipts per acre from productive livestock	$	$ 7.22	$ 7.58	$ 6.64
Man labor cost per acre	$	$ 4.38	$ 3.77	$ 5.42
Crop acres per man	A	84.3 A	99.1 A	68.5 A
Crop acres per horse (with tractor)	A	34.0 A	38.1 A	34.9 A
(without tractor)	A	22.0 A	22.8 A	18.8 A
Expense per $100 gross income	$	$ 72	$ 54	$ 110
Machinery cost per acre	$	$ 1.18	$ 1.09	$ 1.48
Building and fencing cost per acre	$	$ .58	$ .57	$ .49
Gross receipts per acre	$	$ 11.20	$ 13.32	$ 8.46
Total expenses per acre	$	$ 8.07	$ 7.26	$ 9.34
Net receipts per acre	$	$ 3.13	$ 6.06	$ -.88
Farms with tractor		36 %	50 %	50 %
Value of land per acre	$	$ 51	$ 52	$ 53
Total investment per acre	$	$ 79	$ 79	$ 81

Washington, Jefferson, and Marion Counties - 1927

		Your farm	Average of twenty-nine farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$_____	$15,617	$19,992	$12,405
2	Land		10,036	13,069	8,122
3	Farm improvements		2,129	2,895	1,564
4	Machinery and equipment		995	1,156	898
5	Feed and supplies		1,127	1,223	834
6	Livestock		1,330	1,649	987
7	Horses		361	357	315
8	Cattle		521	710	339
9	Hogs		144	156	90
10	Sheep		93	210	14
11	Poultry		202	216	215
12	Bees		9	--	14
13	Receipts-Net Increases-Total	_____	2,203	3,361	1,302
14	Feed and grain		726	1,347	230
15	Miscellaneous		44	55	49
16	Livestock - Total		1,433	1,959	1,023
17	Horses		13	46	--
18	Cattle		255	424	117
19	Hogs		224	241	117
20	Sheep		73	161	20
21	Poultry		118	167	83
22	Egg sales		294	313	300
23	Dairy sales		449	607	379
24	Bees		7	--	7
25	Expenses-Net Decreases-Total	_____	815	992	678
26	Farm improvements		118	143	75
27	Livestock		--	--	18
28	Horses		--	--	18
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry		--	--	--
33	Machinery and equipment		231	276	228
34	Feed and supplies		--	--	--
35	Livestock expense other than feed		13	12	18
36	Crop expense		201	244	143
37	Labor hired		90	113	74
38	Taxes, insurance, etc.		144	189	103
39	Miscellaneous		18	15	19
40	Receipts less Expenses	_____	1,388	2,369	624
41	Operator's and unpaid family labor		772	839	760
42	Net income from investment		616	1,530	-136

Operating			
Land			
Farm			
Machinery			
Feed and			
Livestock			
Horses			
Cattle			
Hog			
Sheep			
Poultry			
Bees			
Receipts			
Feed and			
Material			
Livestock			
Horses			
Cattle			
Hogs			
Sheep			
Poultry			
Bee produc			
Dairy prod			
Grain			
Expenses			
Fuel,			
Electric			
Horse			
Cattle			
Hog			
Sheep			
Poultry			
Machinery			
Farm			
Livestock			
Crop			
Labor			
Taxes			
Miscellaneous			
Depreciation			
Other			
Net			

Find Your Farm Leaks

Washington, Jefferson, and Marion Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per A. in L.S.	Receipts per A. from L.S.	Man lab. cost per A.	Crop acres per			Expense per $100 income	Gross receipts per A.	Size of farm
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Horse				
											Tractor	No tractor			
10.9	51	38	25	205	287	341	12.00	14.22	.90	120	48	36	37	32	337
9.9	47	34	23	195	267	321	11.00	13.22	1.40	115	46	34	42	29	317
8.9	43	30	21	185	247	301	10.00	12.22	1.90	110	44	32	47	26	297
7.9	39	26	19	175	227	281	9.00	11.22	2.40	105	42	30	52	23	277
6.9	35	22	17	165	207	261	8.00	10.22	2.90	100	40	28	57	20	257
5.9	31	18	15	155	187	241	7.00	9.22	3.40	95	38	26	62	17	237
4.9	27	14	13	145	167	221	6.00	8.22	3.90	90	36	24	67	14	217
3.9	23	10	11	135	147	201	5.00	7.22	4.40	85	34	22	72	11	197
2.9	19	6	9	125	127	181	4.00	6.22	4.90	80	32	20	77	8	177
1.9	15	--	7	115	107	161	3.00	5.22	5.40	75	30	18	82	5	157
0.9	11	--	5	105	87	141	2.00	4.22	5.90	70	28	16	87	2	137
-0.1	7	--	--	95	67	121	1.00	3.22	6.40	65	26	14	92	--	117
-1.1	--	--	--	85	47	101	--	2.22	6.90	60	24	12	97	--	97
-2.1	--	--	--	75	27	81	--	1.22	7.40	55	22	10	102	--	77
-3.1	--	--	--	65	--	61	--	--	7.90	50	20	8	107	--	57

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COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

WABASH, EDWARDS, RICHLAND, LAWRENCE AND CRAWFORD COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty-five Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

April, 1928

M79

ANNUAL FARM BUSINESS REPORT

Wabash, Edwards, Richland, Lawrence and Crawford Counties, Illinois 1927

Prepared by R. R. Hudelson, P. Nelson, E. C. M. Case[1]

The 45 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 lacked an average of $110 of having enough income to pay operating expenses and 5 percent on their investments, allowing nothing for their labor, management and risk. The average investment was $119 an acre. The one-third of these farmers who made the best profits had enough income to pay operating expenses and 5 percent on their investments and leave $976 each to pay for his own labor, management and risk. This is called their LABOR AND MANAGEMENT WAGE. The one-third who were least successful lacked an average of $1063 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2039 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 45 farmers EARNED 2.1 PERCENT ON THEIR INVESTMENTS after allowing $600 each to pay for his own labor. On the same basis the most successful third earned 6.7 percent and the least successful third lacked 2.5 percent of having any return on their investments. The average investment on the 45 farms was $22,232, which amounts to $119 an acre. The higher profit third had an average investment of $129 and the lower profit third $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. The land alone was valued at $81 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it are not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

Reports of this type have usually shown but little difference in average size between the farms making the best and those making the least profits. In this case, however, the more profitable farms averaged 35 acres larger. The two groups had about the same percentage of tillable land. It is doubtful whether this difference in size was an important factor in the difference in earnings, but it probably did help the more

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[1]J. R. Spencer, H. N. Myers, W. B. Bunn, H. C. Wheeler and J. Z. Frazier, farm advisers in Wabash, Edwards, Richland, Lawrence and Crawford counties respectively, cooperated in supervising and collecting the records used in this report.

successful operators to some extent in realizing lower labor and power costs per acre. The more profitable farms averaged about 13 acres more corn, 5 acres more oats and 22 acres more wheat.

Investigations of costs and incomes per acre for different crops have shown that for ordinary conditions in Illinois the margin of profit is wider for corn, wheat, alfalfa and sweet clover pasture than for the other commonly grown crops. It is significant that the most profitable farms covered by this report had about 56 percent of their tillable land in these crops as compared with 46 percent on the least profitable farms.

Difference in crop yields is usually one of the largest differences between the profitable and unprofitable farms. In this area for 1927, however, nearly all grain yields were low. Wheat winter killed badly and the cold, wet spring was unfavorable to corn and oats. Hay was better than an average crop. Even under these unfavorable conditions the more successful operators averaged 11 bushels more corn and $2\frac{1}{2}$ bushels more wheat per acre than the less successful operators. Oats is a very minor crop in this section, and the acreage per farm is so low that a slight difference in yield was insignificant. It usually costs but little more to produce an acre of high yielding crop than an acre of low yielding crop; hence any advantage in crop yield has a direct effect on profits.

The largest advantage of the most profitable farms covered by this report was in their greater livestock efficiency. They produced a livestock income of $170 for each $100 of livestock investment, while the least profitable farms produced a corresponding income of only $96. This greater efficiency is found to apply to all classes of productive livestock including cattle, hogs and poultry. The more successful farm operators had about one dollar an acre less investment in livestock, but they secured $5.47 more income per acre from livestock.

On the expense side of the business the more successful operators had lower labor costs per acre and they handled more crop acres per horse indicating a lower power cost per acre. Labor and power are the largest items of operating cost on most farms.

We may sum up this discussion by calling attention to the fact that the most profitable farms were successful because of larger gross incomes and lower expenses per acre. The more profitable farms had average gross incomes of $20.48 and total expenses of $11.88 an acre compared with corresponding incomes of $9.66 and expenses of $12.80 an acre on the less profitable farms. The result was a net income per acre of $8.60 on the profitable farms and a net loss of $3.14 an acre on the unprofitable farms. The larger gross incomes per acre were due chiefly to larger crop yields and more efficient livestock management. The lower operating expenses per acre were due chiefly to more efficient use of labor.

It is significant that the farms in the least profitable group did too small a volume of business. Their average gross income was only $1679 per farm. This is not sufficient to leave a satisfactory net income even if the expenses are kept at the lowest possible point. Some of the cooperators in the farm accounting project have increased their volume of business in one or more of the following ways: (1) by having a larger acreage of the more intensive crops such as alfalfa, corn and sweet clover

pasture, (2) by increasing the size of the dairy or poultry enterprises, (3) by growing truck and fruit crops, (4) by farming more acres. The plan best suited to the individual operator will depend upon the labor supply, soil conditions, available markets and the available capital. The ability of the individual farmer to handle given enterprises must be considered but it is essential to success that the farm operator have or acquire the ability to handle a combination of enterprises which will make up a well balanced farm business.

Although there has been some shifting in territory covered it is of interest to compare earnings and investments for this area as given in the following table for the last five years. Average earnings were lowest for 1927. This was due to reduced gross incomes rather than to increased expenses. The lower gross incomes were due chiefly to lower returns from crops. Lower yields were the chief cause of the reduced crop incomes.

Comparative Earnings on Farms in Wabash, Edwards, Richland, Lawrence and Crawford Counties

Item	1923[1]	1924[2]	1925[3]	1926[2]	1927[4]
Number of farm records	24	41	32	30	45
Average size of farm in acres	163	174	187	172	186
Average rate earned	3.5%	7.2%	6.2%	5.6%	2.1%
Average value of land per acre	$ 103	$ 85	$ 83	$ 90	$ 81
Average investment per acre	139	115	120	128	119
Investment in livestock per farm	1,911	1,534	1,737	1,923	2,007
Investment in cattle per farm	784	626	694	835	905
Investment in hogs per farm	371	293	418	501	517
Investment in poultry per farm	161	144	175	166	162
Gross income per acre	15.40	18.23	17.22	19.75	13.71
Operating cost per acre	10.57	9.89	9.71	12.60	11.20
Grain income less feed purchases per farm	1,122	1,327	516	708	323
Miscellaneous income per farm	120	102	104	167	84
Livestock income per farm	1,268	1,748	2,610	2,525	2,143
Gross income per farm	2,510	3,177	3,230	3,400	2,550
Cattle income per farm	227	206	298	251	542
Dairy products sold per farm	272	476	300	740	354
Hog income per farm	487	742	1,482	1,044	790
Poultry income per farm	282	290	490	460	385

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

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[1]Only records from Wabash County were included for 1923.

[2]Records from Wabash, Edwards, Richland and Lawrence counties included for 1924 and 1926.

[3]Records from Wabash, Edwards and Richland counties included for 1925.

[4]Records from Wabash, Edwards, Richland, Lawrence and Crawford counties included for 1927.

Wabash, Edwards, Richland, Lawrence and Crawford Counties, 1927

Factors helping to analyze the farm business	Your farm	Average of 45 farms	Fifteen most profitable farms	Fifteen least profitable farms
Rate earned	%	2.08 %	6.67 %	-2.54 %
Labor and management wage	$	$-110	$ 976	$-1,063
Size of farm - acres	A	186.3 A	209.1 A	173.8 A
Percent of land area tillable	%	83 %	87.9 %	84.2 %
Acres in Corn	A	36.8 A	46.3 A	33.6 A
Oats	A	7.3 A	11.6 A	6.0 A
Wheat	A	32.0 A	46 A	24.1 A
Crop yields - Corn	bu.	32.40 bu.	37.9 bu.	27.08 bu.
Oats	bu.	9.48 bu.	10.2 bu.	12.9 bu.
Wheat	bu.	14.09 bu.	15.9 bu.	13.3 bu.
Percent in high profit crops*		51.7 %	55.8 %	46.1 %
Returns per $100 invested in all productive livestock	$	$ 131	$ 170	$ 96
For $100 in Cattle	$	$ 96	$ 137	$ 65
Hogs	$	$ 171	$ 180	$ 167
Poultry	$	$ 229	$ 300	$ 154
Investment per acre in productive livestock	$	$ 8.77	$ 8.73	$ 9.82
Receipts per acre from productive livestock	$	$ 11.52	$ 14.85	$ 9.38
Man labor cost per acre	$	$ 5.53	$ 5.32	$ 6.52
Crop acres per man	A	70.2 A	75.5 A	60.7 A
Crop acres per horse (with tractor)	A	28.6 A	31.9 A	27.9 A
(without tractor)	A	20.5 A	23.5 A	21.8 A
Expense per $100 gross income	$	$ 82.00	$ 58.00	$ 132.00
Machinery cost per acre	$	$ 1.63	$ 1.99	$ 1.66
Building and fencing cost per acre	$	$ 1.20	$ 1.27	$ 1.46
Gross receipts per acre	$	$ 13.71	$ 20.48	$ 9.66
Total expenses per acre	$	$ 11.20	$ 11.88	$ 12.80
Net receipts per acre	$	$ 2.49	$ 8.60	$ - 3.14
Farms with tractor		47 %	53 %	47 %
Value of land per acre	$	$ 81	$ 88	$ 83
Total investment per acre	$	$ 119	$ 129	$ 123

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

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Wabash, Edwards, Richland, Lawrence and Crawford Counties, 1927

		Your farm	Average of 45 farms	Fifteen most profitable farms	Fifteen least profitable farms
1	Capital Investment - Total	$	$ 22 232	$ 26 943	$ 21 457
2	Land		15 078	18 492	14 501
3	Farm improvements		2 681	3 065	2 604
4	Machinery and equipment		1 052	1 404	1 000
5	Feed and supplies		1 414	1 746	1 304
6	Livestock		2 007	2 236	2 048
7	Horses		360	439	337
8	Cattle		905	798	1 114
9	Hogs		517	723	443
10	Sheep		62	70	28
11	Poultry		162	206	123
12	Bees		1	--	3
13	Receipts-Net Increases-Total		2 550	4 282	1 679
14	Feed and grain		323	1 047	--
15	Miscellaneous		84	129	48
16	Livestock - Total		2 143	3 106	1 631
17	Horses		--	--	--
18	Cattle		542	687	464
19	Hogs		790	1 174	630
20	Sheep		69	82	36
21	Poultry		111	165	52
22	Egg sales		274	488	140
23	Dairy sales		354	510	300
24	Bees		3	--	9
25	Expenses-Net Decreases-Total		1 295	1 720	1 348
26	Farm improvements		223	266	254
27	Livestock		27	36	26
28	Horses		27	36	26
29	Cattle		--	--	--
30	Hogs		--	--	--
31	Sheep		--	--	--
32	Poultry				
33	Machinery and equipment		303	416	288
34	Feed and supplies		--	--	44
35	Livestock expense other than feed		28	38	25
36	Crop expense		175	256	160
37	Labor hired		236	349	257
38	Taxes, insurance, etc.		276	320	271
39	Miscellaneous		27	39	23
40	Receipts less Expenses		1 255	2 562	331
41	Operator's and unpaid family labor		792	764	876
42	Net income from investment		463	1 798	- 545

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Find Your Farm Leaks

Wabash, Edwards, Richland, Lawrence and Crawford Counties, 1927

The numbers between the lines across the middle of the page are the approximate averages for your section of the state 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			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
											Horse				
earned	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Tractor	No tractor			
9.1	53	31	28	166	310	370	22.75	25.50	2.00	105	42	34	47	35	326
8.1	50	28	26	156	290	350	20.75	23.50	2.50	100	40	32	52	32	306
7.1	47	25	24	146	270	330	18.75	21.50	3.00	95	38	30	57	29	286
6.1	44	22	22	136	250	310	16.75	19.50	3.50	90	36	28	62	26	266
5.1	41	19	20	126	230	290	14.75	17.50	4.00	85	34	26	67	23	246
4.1	38	16	18	116	210	270	12.75	15.50	4.50	80	32	24	72	20	226
3.1	35	13	16	106	190	250	10.75	13.50	5.00	75	30	22	77	17	206
2.1	32	10	14	96	170	230	8.75	11.50	5.50	70	28	20	82	14	186
1.1	29	7	12	86	150	210	6.75	9.50	6.00	65	26	18	87	11	166
0.1	26	4	10	76	130	190	4.75	7.50	6.50	60	24	16	92	8	146
-0.9	23	-	8	66	110	170	2.75	5.50	7.00	55	22	14	97	5	126
-1.9	20	-	6	56	90	150	----	3.50	7.50	50	20	12	102	2	106
-2.9	17	-	4	46	70	130	----	1.50	8.00	45	18	10	107	-	86
-3.9	14	-	-	36	50	110	----	--	8.50	40	16	8	112	-	66
-4.9	11	-	-	26	30	90	----	--	9.00	35	14	6	117	-	46

UNIVERSITY OF ILLINOIS

COLLEGE OF AGRICULTURE

Department of Farm Organization and Management

and

SALINE, GALLATIN, WHITE, WILLIAMSON, PULASKI,
AND JOHNSON COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1927

The farm account is a guide
to more profitable farm management
if its facts are studied and used.

Urbana, Illinois

April, 1928

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ANNUAL FARM BUSINESS REPORT

Saline, Gallatin, White, Williamson, Pulaski,
and Johnson Counties, Illinois 1927

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

The 30 farmers in the above named counties who kept financial records in the Illinois Farm Account Project for 1927 had an average of $439 to pay for their labor, management and risk after paying expenses and allowing 5 percent interest on their average investment of $107 an acre. This is called the LABOR AND MANAGEMENT WAGE. The one-third of these farmers who made the best profits had an average labor and management wage of $1401, while the one-third who were least successful lacked an average of $647 of having enough income to pay expenses and 5 percent on the investment, allowing nothing for their own labor and management. There was an average difference of $2048 per farm in the relative amounts which the high and low thirds received for their time and labor.

Expressed in another way, these 30 farmers EARNED 4.2 PERCENT ON THEIR INVESTMENTS after allowing $600 each to pay for his own labor. On the same basis the most successful third earned 8.9 percent and the least successful third lacked 1.7 percent of having any return on their farm investments. The average investment on the 30 farms was $19,187, which amounts to $107 an acre. The higher profit third had an average investment of $106 and the lower profit third $104 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock and crops as listed in the table on page 4. The land alone was valued at $74 an acre on the average farm.

In addition to the above earnings, each farm family secured certain items of PRODUCE, such as milk, butter, eggs, vegetables, etc., not listed in these accounts. These amounted to $439 at farm prices on a group of 188 Central Illinois farms where this phase of the farm business was given special study. The investment in the farm residence and the expense for upkeep on it were not included in these accounts. Therefore the use of the residence is not considered as income from the farm.

The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of all farms in one township in McLean County in 1925, a similar study of farm incomes in a township in Bond County for 1926, and one in Henry County for 1927 indicate that those farms on which financial records are kept average about 2 percent higher rate on the investment than the average of all farms in the same locality.

In reports of this type there is usually little difference in average size of farm between the high and low profit groups. In this part of the state, however, farms on an average are not large and farms above average size should have some advantage. In this case the more profitable farms averaged nearly 20 acres per farm larger. They also had a higher percentage of tillable land which resulted in their having about 40 acres more tillable

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* J. E. Whitchurch, J. G. McCall, C. W. Simpson, Dee Small, J. H. Hughes and L. S. Foote, farm advisers in Saline, Gallatin, White, Williamson, Pulaski and Johnson counties respectively, cooperated in supervising and collecting the records used in this report.

land per farm than the average of the low profit group. It is doubtful whether the larger size was an important cause of higher earnings, but it evidently did help some in producing a larger volume of business as measured by the amount of gross income. About half of the extra acreage in the more profitable farms was in corn and sweet clover.

As a rule higher crop yields constitute one of the chief advantages of the more profitable over the less profitable farms. It is evident that this held true for corn yields on the farms covered by this report since there was an average difference of almost 14 bushels an acre. For 1927, however, small grain yields were small on practically all southern Illinois farms. The more successful farmers secured only slightly higher yields of oats and wheat than did the less successful ones. The higher yields of corn undoubtedly had considerable influence on the larger crop incomes shown by the more profitable farms. It usually costs little more to produce an acre of high yielding crop than an acre of low yielding crop.

The farms included in this report show an average investment in livestock of only $5.78 an acre which is low compared with most sections of the state. This average was about the same for the high and low profit groups. Even though the amount of livestock was not large, one of the greatest advantages of the more profitable farms was in their greater efficiency in livestock management. Although the two groups had about the same investment per acre in livestock the more successful farm operators secured almost twice as much livestock income per acre. Expressed in another way, the more successful farmers secured a livestock income of $210 for each $100 of livestock investment compared with a corresponding income of only $133 for the less successful ones.

On the expense side of the business there was little difference between the farms of the two groups. They had about the same labor, equipment and improvement costs per acre. The more successful operators did handle more crop acres per horse indicating a somewhat lower cost for power.

We may sum up this discussion by saying that the more profitable farms were successful chiefly because they produced much larger gross incomes from both crops and livestock without any higher expense per acre. The more successful operators had an average gross income per acre of $19.44 compared with a corresponding income of only $8.14 for the less successful ones. Their expense per acre amounted to $9.99 and $9.92 respectively. The result was a net income of $9.45 an acre on the more profitable farms and a net loss of $1.78 an acre on the less profitable ones.

The larger gross incomes on the 10 most profitable farms were evidently due to larger crop yields and to larger returns for a given amount of feed fed to livestock. It is evident that the larger livestock returns were fairly evenly divided between dairy products, poultry products, hogs and cattle.

It is evident that the average farm operator in the low profit group is doing too small a volume of business as measured by the gross income per farm. On the average they secured a gross income of only $1415 per farm which is too little to leave a satisfactory net income even though the expenses be kept at the lowest possible point. Some of the cooperators in the farm accounting project have increased their volume of business in one or more of

the following ways: (1) by increasing the acreage of the more intensive crops such as alfalfa, corn and sweet clover pasture, (2) by increasing the size of the dairy or poultry enterprises, (3) by adopting fruit or truck crops, or (4) by increasing the number of acres farmed. The best method for the individual farmer will depend upon the labor supply, soil conditions, available markets and available capital. The ability of the individual farmer to handle a given enterprise must also be considered, but it is essential to success that the individual have or acquire the ability to handle such a combination of enterprises as will constitute a well balanced farm business.

The following table makes an interesting comparison of farm earnings during the last five years in the territory covered by this report. Allowance must be made for a certain amount of shifting in farms included from year to year. For the last three years, however, at least half of the records have come from the same identical farms. It is evident that the average earnings were lower for 1927 than for any year since 1923. Lower crop yields and lower prices for hogs were evidently the chief causes of reduced net earnings. Average operating costs per acre have changed very little thruout the five year period. Changes in average net earnings have usually corresponded closely to changes in gross incomes.

Comparative Earnings on Accounting Farms
in
Saline, Gallatin, White, Williamson, Pulaski and Johnson Counties

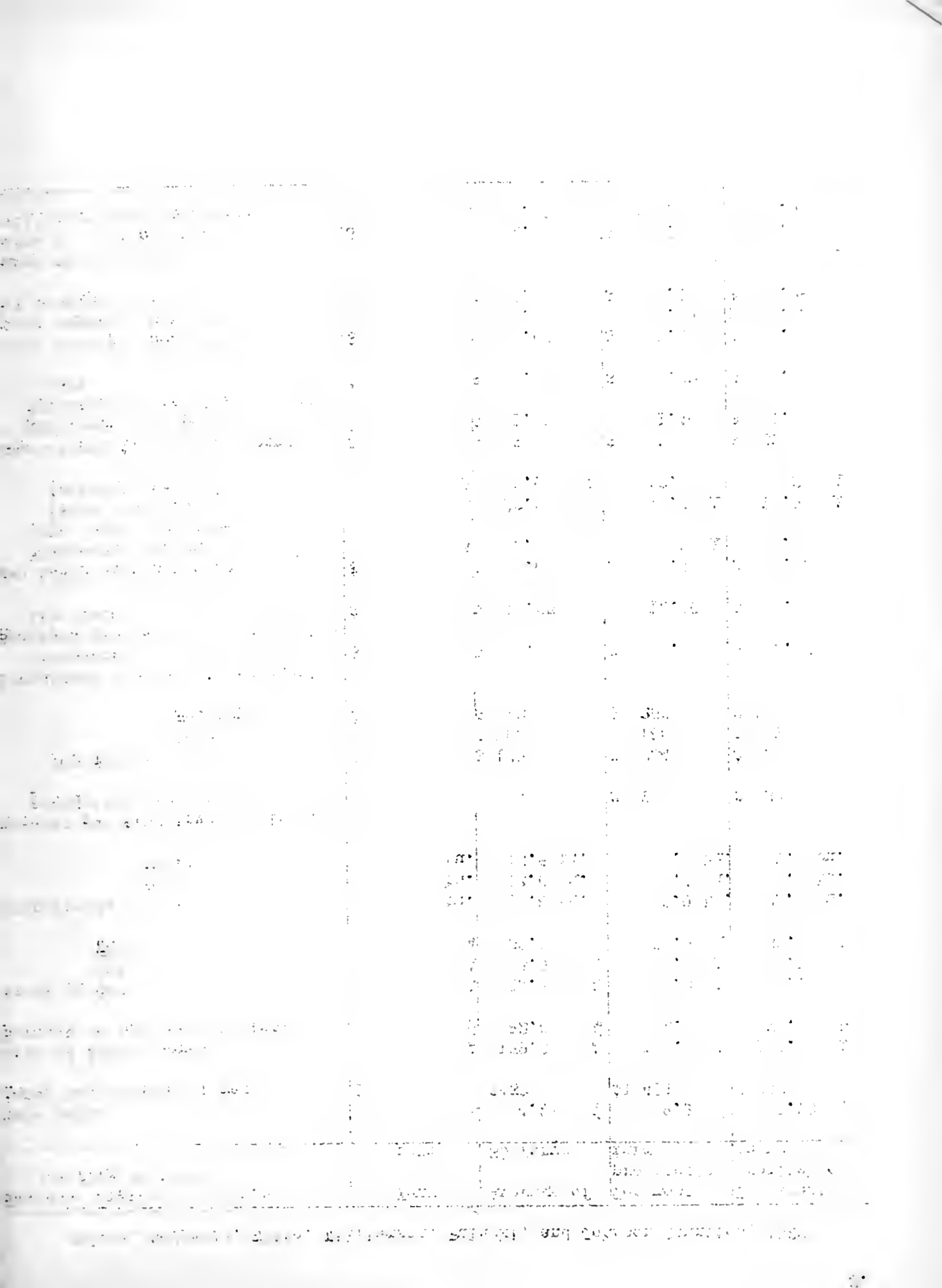
Item	1923[1]	1924[1]	1925	1926	1927
Number of farm records	11	17	30	25	30
Average size of farms in acres	196	177	202	205	180
Average rate earned	1.6%	5.4%	5.7%	6.6%	4.2%
Average value of land per acre	$101	$ 97	$ 80	$ 79	$ 74
Average investment per acre	128	129	115	116	107
Investment in livestock per farm	1,519	1,381	1,578	1,883	1,499
Investment in cattle per farm	296	401	489	505	372
Investment in hogs per farm	334	252	333	551	468
Investment in poultry per farm	212	176	165	168	188
Gross income per acre	10.20	16.41	15.95	17.76	14.60
Operating cost per acre	8.07	9.42	9.39	10.06	10.10
Grain income less feed purchases per farm	916	1,624	998	1,343	516
Miscellaneous income per farm	57	92	106	139	198
Livestock income per farm	1,028	1,188	2,118	2,162	1,909
Gross income per farm	2,001	2,904	3,222	3,644	2,623
Cattle income per farm	78	148	214	227	222
Dairy sales per farm	154	235	394	231	531
Hog income per farm	439	440	1,078	1,215	732
Poultry income per farm	368	343	394	453	402

Some points of strength and some of weakness in your own farm business may be found by comparing the factors from your own account with those for the average farm as well as with the factors for the more profitable farms and the less profitable farms.

[1] Only Gallatin County records were included for 1923, and Saline and Gallatin county records for 1924.

Saline, Gallatin, White, Williamson, Pulaski, and Johnson Counties, 1927

Factors helping to analyze the farm business	Your farm	Average of 30 farms	Ten most profitable farms	Ten least profitable farms
Rate earned	%	4.21 %	8.95 %	-1.70 %
Labor and management wage	$	$439	$1,401	$-647
Size of farm - acres	A	179.6 A	191.9 A	173.8 A
Percent of land area tillable	%	82.6 %	92.0 %	78.6 %
Acres in Corn	A	39.4 A	47.2 A	35.0 A
Oats	A	4.9 A	6.8 A	4.1 A
Wheat	A	30.8 A	28.9 A	33.3 A
Crop yields - Corn	bu.	35.8 bu.	42.9 bu.	29.3 bu.
Oats	bu.	13.6 bu.	18.4 bu.	14.8 bu.
Wheat	bu.	12.6 bu.	13.7 bu.	12.9 bu.
Returns per $100 invested in all productive livestock	$	$ 184	$ 210	$ 133
For $100 in Cattle	$	$ 199	$ 224	$ 155
Hogs	$	$ 165	$ 186	$ 107
Poultry	$	$ 212	$ 256	$ 184
Investment per acre in productive livestock	$	$ 5.78	$ 5.76	$ 5.03
Receipts per acre from productive livestock	$	$ 10.63	$ 12.10	$ 6.67
Man labor cost per acre	$	$ 5.62	$ 5.44	$ 5.25
Crop acres per man	A	65.8 A	69.0 A	67.8 A
Crop acres per horse (with tractor)	A	27.7 A	40.6 A	24.9 A
(without tractor)	A	15.9 A	17.3 A	14.2 A
Expense per $100 gross income	$	$ 69	$ 51	$ 122
Machinery cost per acre	$	$ 1.39	$ 1.40	$ 1.19
Building and fencing cost per acre	$	$ .76	$ .72	$ .93
Gross receipts per acre	$	$ 14.60	$ 19.44	$ 8.14
Total expenses per acre	$	$ 10.10	$ 9.99	$ 9.92
Net receipts per acre	$	$ 4.50	$ 9.45	$ - 1.78
Farms with tractor		50 %	50 %	50 %
Value of land per acre	$	$ 74.00	$ 75.00	$ 72.00
Total investment per acre	$	$ 107.00	$ 106.00	$ 104.00



Saline, Gallatin, White, Williamson, Pulaski and Johnson Counties - 1927

		Your farm	Average of 30 farms	Ten most profitable farms	Ten least profitable farms
1	Capital Investment - Total	$	$ 19 187	$ 20 247	$ 18 157
2	Land		13 301	14 332	12 571
3	Farm improvements		1 960	1 989	2 042
4	Machinery and equipment		944	1 006	833
5	Feed and supplies		1 483	1 508	1 285
6	Livestock		1 499	1 412	1 426
7	Horses		445	296	490
8	Cattle		372	482	249
9	Hogs		468	377	500
10	Sheep		26	56	21
11	Poultry		188	201	166
12	Receipts-Net Increases-Total		2 623	3 730	1 415
13	Feed and grain		516	1 226	135
14	Miscellaneous		198	182	120
15	Livestock - Total		1 909	2 322	1 160
16	Horses		--	--	--
17	Cattle		222	384	87
18	Hogs		732	704	480
19	Sheep		22	45	21
20	Poultry		169	245	131
21	Egg sales		233	282	159
22	Dairy sales		531	662	282
23	Expenses-Net Decreases-Total		967	1 073	939
24	Farm improvements		136	138	161
25	Livestock		12	16	11
26	Horses		12	16	11
27	Cattle		--	--	--
28	Hogs		--	--	--
29	Sheep		--	--	--
30	Poultry		--	--	--
31	Machinery and equipment		249	268	207
32	Feed and supplies		--	--	--
33	Livestock expense other than feed		32	27	42
34	Crop expense		129	167	111
35	Labor hired		162	203	127
36	Taxes, insurance, etc.		232	238	267
37	Miscellaneous		15	16	13
38	Receipts less Expenses		1 656	2 657	476
39	Operator's and unpaid family labor		848	844	785
40	Net income from investment		808	1 813	- 309

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Find Your Farm Leaks

Saline, Gallatin, White, Williamson, Pulaski and Johnson Counties, 1927

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

Rate earned	Bushels per acre of			Returns per $100 invested in			Invest. per acre in L. S.	Receipts per acre from L.S.	Man labor cost per acre	Crop acres per			Expense per $100 income	Gross receipts per acre	Size of farm
											Horse				
	Corn	Oats	Wheat	Cattle	Hogs	Poultry				Man	Tractor	No tractor			
11.2	57	28	27	340	305	352	12.78	24.63	2.10	101	42	30	35	35	320
10.2	54	26	25	320	285	332	11.78	22.63	2.60	96	40	28	40	33	300
9.2	51	24	23	300	265	312	10.78	20.63	3.10	91	38	26	45	30	280
8.2	48	22	21	280	245	292	9.78	18.63	3.60	86	36	24	50	27	260
7.2	45	20	19	260	225	272	8.78	16.63	4.10	81	34	22	55	24	240
6.2	42	18	17	240	205	252	7.78	14.63	4.60	76	32	20	60	21	220
5.2	39	16	15	220	185	232	6.78	12.63	5.10	71	30	18	65	18	200
4.2	36	14	13	200	165	212	5.78	10.63	5.60	66	28	16	70	15	180
3.2	33	12	11	180	145	192	4.78	8.63	6.10	61	26	14	75	12	160
2.2	30	10	9	160	125	172	3.78	6.63	6.60	56	24	12	80	9	140
1.2	27	8	7	140	105	152	2.78	4.63	7.10	51	22	10	85	6	120
0.2	24	6	5	120	85	132	1.78	2.63	7.60	46	20	8	90	3	100
-0.8	21	4	-	100	65	112	--	--	8.10	41	18	6	95	-	80
-1.8	18	-	-	80	45	92	--	--	8.60	36	16	4	100	-	60
-2.8	15	-	-	60	25	72	--	--	9.10	31	14	-	105	-	40

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

SUMMARY

of

ANNUAL FARM BUSINESS REPORTS

on

One Thousand Two Hundred Seventy-one Farms

for

1927

Urbana, Illinois

August 1928

SUMMARY OF ANNUAL FARM BUSINESS REPORTS

on

THIRTY-TWO FARMING AREAS IN ILLINOIS

for 1927

Prepared by H. C. M. Case and R. R. Hudelson

Separate farm business reports for each of the areas shown in the following tables have been prepared and distributed to each of the farm operators whose accounts were included in this summary. In these separate reports the data included herewith were fully discussed with a view to aiding the individual account keeper in using his accounts as a guide to more profitable farm management. That discussion is not 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 reading the following tables it should be kept in mind that these data represent only those farms whose operators are progressive and businesslike enough to keep accounts. For three years in succession a study has been made of the earnings of all farmers in a selected township. These earnings have been compared with those of the account keeping farmers in the same locality. For 1925 the selected township was in McLean County; for 1926 it was in Bond County and for 1927 in Henry County. These studies have all shown that the average rate earned by the rank and file of all farmers in a given area is 1.7 to 2.2 percent or approximately 2 percent below that of the account keeping farmers in the same locality. The reader is cautioned, therefore, against using these figures to represent the average farmer. It is necessary to deduct about 2 percent from the rate earned as given in these tables if it is desired to estimate the rate earned by the average farmer in any area reported. This deduction has been made to secure the data given on page 2.

For the third year in succession Illinois farm earnings were lower in 1927. Since 1924 the average farm income has been less each year as shown by actual farm accounts on more than one thousand farms each year. For 1927 the level of earnings was about the same as during 1922 and 1923.

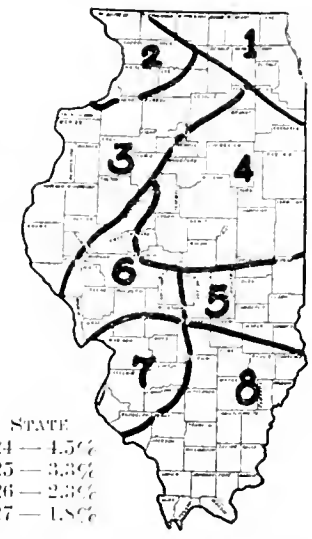
All but three "type of farming" areas of the state show lower average earnings for 1927 than for 1926. The areas showing no reduction were the dairy section near Chicago, the dairy section near St. Louis and the corn and oat selling section of east central Illinois. Prices for dairy products have been fairly stable and where quality was not too low better prices prevailed for corn and oats during 1927. Yields of corn and oats were low, however, due to a cold wet spring which was only partly compensated by a late warm fall. The western and northwestern sections of the state where hog production is the most important farm enterprise suffered a further slump in earnings due in part to the low prices for hogs which prevailed during 1927 and in part to the amount of feed which had to be purchased at higher prices. Lower prices for hogs were an important factor thruout the state. Higher prices for beef cattle did not compensate for lower hog prices because hog production is a much larger enterprise than cattle production on Illinois farms. Low wheat yields caused reduced incomes in the southern third of the state where wheat is the chief grain crop. Considering the state as a whole bad weather combined with low prices for the major products of Illinois farms caused a serious slump in farm earnings.

Area 1. Dairying
1924 — 4.3%
1925 — 2.8%
1926 — 2.9%
1927 — 2.7%

Area 3. Beef and hogs
1924 — 4.3%
1925 — 4.3%
1926 — 2.3%
1927 — 1.5%

Area 5. General farming (corn)
1924 — 6.3%
1925 — 2.3%
1926 — 2.3%
1927 — 1.6%

Area 7. Wheat and dairying
1924 — 3.3%
1925 — 4.3%
1926 — 2.1%
1927 — 2.5%



STATE
1924 — 4.5%
1925 — 3.3%
1926 — 2.3%
1927 — 1.8%

Area 2. Mixed livestock
1924 — 2.3%
1925 — 5.3%
1926 — 3.6%
1927 — 1.6%

Area 4. Grain farming
1924 — 5.5%
1925 — 1.8%
1926 — 1.5%
1927 — 2.0%

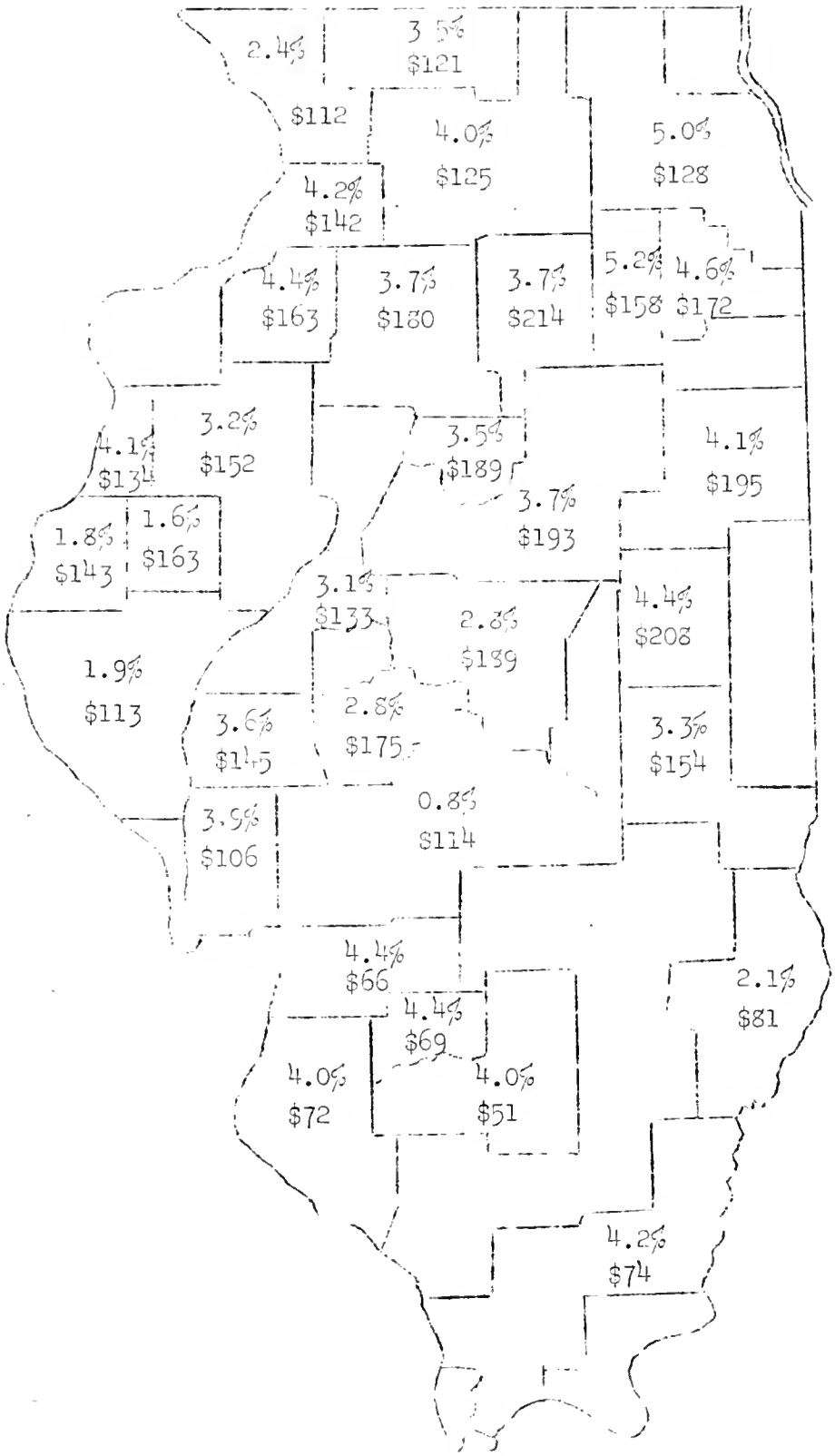
Area 6. General farming (wheat and corn)
1924 — 3.3%
1925 — 4.8%
1926 — 2.5%
1927 — 1.7%

Area 8. Mixed farming
1924 — 4.3%
1925 — 4.3%
1926 — 4.3%
1927 — 1.6%

COMPUTED EARNINGS FOR ALL FARMERS IN ILLINOIS AND BY FARMING-TYPE AREAS

The computations were made on the basis of careful investigations which show that the average rate earned on all farms in a given area is 1.7 to 2 percent less than on those farms enrolled in the farm accounting project.

Rate earned and value of land per acre by areas for which farm business reports were issued for 1927.



Rate earned and value of land per acre on farms keeping accounts for 1927. Figures used are for 25 to 209 farms in each section as outlined. The average of all farms has been found to be about 2 percent less than the average of farms on which accounts are kept.

SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1271 ILLINOIS FARMS
1927

Accounting Factors	DuPage McHenry Cook & Kane Dairy Farms	DeKalb Ogle Boone Lee	Stephenson	Jo Daviess Carroll	Rock Island Mercer Whiteside	Will	Kendall Grundy	LaSalle
Rate earned	5.0%	4.0%	3.5%	2.4%	4.2%	4.6%	5.2%	3.7%
Labor and management wage	$708.	248.	250.	-260.	383.	513.	817.	-72.
Size of farm - acres	154	220	156	206	196	200	221	224
Percent of land tillable	80	84	83	70	83	88	92	93
Acres in corn	39	71	41	43	68	56	86	86
oats	19	30	22	23	21	26	43	46
wheat	6	6	1	1	6	36	12	14
Crop yields - corn, bushels	35	36	35	35	43	27	36	38
oats, bushels	51	30	34	35	38	39	45	44
wheat, bushels	25	21	19	19	14	24	19	22
Returns per $100 invested in all productive livestock	$118.	114.	116.	117.	137.	122.	111.	123.
For $100 in cattle	117.	106.	107.	100.	115.	122.	86.	107.
hogs	103.	132.	138.	150.	159.	114.	139.	150.
poultry	150.	163.	164.	160.	173.	146.	222.	176.
Investment per acre in productive livestock	$ 27.65	19.62	20.23	18.04	19.45	11.90	9.77	10.04
Receipts per acre from productive livestock	32.52	22.38	23.45	21.18	26.63	14.50	10.83	12.35
Man labor cost per acre	10.01	6.71	7.22	6.08	7.61	6.40	6.02	6.28
Crop acres per man	51	77	66	69	67	98	98	93
Crop acres per horse (with tractor)	24	29	24	25	26	33	28	31
(without tractor)	19	20	18	18	18	24	20	21
Expense per $100 gross income	$ 66.	64.	71.	80.	67.	55.	52.	57.
Machinery cost per acre	3.77	2.39	2.47	1.62	2.56	2.62	1.80	2.71
Building and fence cost per acre	1.50	1.54	1.26	1.37	1.32	1.00	1.14	1.40
Gross receipts per acre	32.84	22.71	23.82	21.62	26.80	23.62	23.02	24.09
Total expense per acre	21.56	14.62	16.99	17.40	17.85	13.02	11.85	13.82
Net receipts per acre	11.28	8.09	6.83	4.22	8.95	10.60	11.15	10.27
Percent of farms with tractor	67	63	50	58	48	70	67	73
Value of land per acre	$128.	125.	121.	112.	142.	172.	158.	214.
Total investment per acre	224.	201.	195.	177.	212.	230.	212.	276.

Accounting Factors	DuPage McHenry Cook & Kane Dairy Farms	DeKalb Ogle Boone Lee	Stephen-son	Jo Daviess Carroll	Rock Island Mercer Whiteside	Will	Kendall Grundy	LaSalle
Capital Investment - Total	$34 494	$44 199	$30 340	$36 465	$41 629	$46 087	$46 890	$61 784
Land	19 645	27 458	18 907	22 997	27 920	34 460	34 890	47 858
Farm improvements	6 495	7 772	4 728	5 466	5 279	4 778	4 843	5 898
Machinery and equipment	1 867	1 749	1 550	1 609	1 449	1 790	1 709	2 001
Feed, grain and supplies	1 814	2 317	1 628	1 939	2 435	2 073	2 526	3 219
Livestock - Total	4 673	4 903	3 527	4 454	4 546	2 986	2 922	2 808
Horses	444	549	408	468	581	519	637	616
Cattle	3 691	2 422	1 729	2 392	1 969	1 496	1 035	1 135
Hogs	342	1 540	1 042	1 352	1 778	777	865	699
Sheep (and Bees)	18	224	189	75	64	12	237	230
Poultry	178	168	159	167	154	182	148	128
Receipts - Net Increases - Total	5 057	4 995	3 713	4 457	5 265	4 723	5 080	5 396
Feed and grain	---	---	---	---	---	1 749	2 641	2 578
Miscellaneous	49	72	57	91	34	69	45	44
Livestock - Total	5 008	4 923	3 656	4 366	5 231	2 905	2 394	2 774
Horses	---	---	---	---	---	4	---	8
Cattle	601	1 569	718	1 147	1 374	635	483	486
Hogs	329	1 831	1 295	1 746	2 853	782	1 046	1 073
Sheep (and Bees)	18	166	69	44	59	21	78	159
Poultry	110	99	119	106	135	91	197	94
Egg sales	168	179	167	161	136	158	144	134
Dairy sales	3 782	1 079	1 288	1 162	674	1 214	446	820
Expenses - Net Decreases - Total	2 274	2 272	1 712	2 613	2 490	1 689	1 690	2 140
Farm improvement	231	339	197	283	260	201	253	313
Livestock and dairy expense	123	10	30	21	25	28	11	---
Horses	37	5	20	21	23	---	11	---
Dairy expense	86	5	10	---	2	28	---	---
Machinery and equipment	580	526	385	334	503	525	398	606
Feed, grain and supplies	218	70	449	1 204	474	---	---	---
Livestock expense other than feed	33	86	55	71	114	52	42	79
Crop expense	207	251	144	168	213	156	207	241
Labor hired	496	531	188	279	480	367	402	451
Taxes and insurance	355	432	234	222	391	330	351	418
Miscellaneous	31	27	30	31	30	30	26	32
Receipts less expenses	2 783	2 723	2 001	1 844	2 775	3 034	3 390	3 256
Operator's and unpaid family labor	1 046	944	937	974	1 017	914	929	955
Net income from investment	1 737	1 779	1 064	870	1 758	2 120	2 461	2 301
Number of farms included	60	38	30	33	29	27	24	32

SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1271 ILLINOIS FARMS (Cont'd)
1927

Accounting Factors	Marshall-Putnam Stark Bureau	Henry	Knox Fulton Warren	Henderson	McDonough	Hancock	Adams Schuyler Brown Pike	Mason Peoria Cass
Rate earned	3.7%	4.4%	3.2%	4.1%	1.6%	1.8%	1.9%	3.1%
Labor and management wage	-$21.	409.	-230.	293.	-642.	-653.	-388.	-52.
Size of farm - acres	207	206	246	246	181	218	212	229
Percent of land tillable	89	86	76	82	83	83	76	81
Acres in corn	79	77	80	87	58	66	50	66
oats	33	29	32	25	27	30	22	25
wheat	6	8	15	17	14	8	14	46
Crop yields - corn, bushels	42	43	39	38	37	30	34	39
oats, bushels	42	42	34	33	28	23	17	22
wheat, bushels	19	22	15	19	14	11	11	12
Returns per $100 invested in all productive livestock	$104.	103.	115.	111.	124.	123.	138.	129.
For $100 in cattle	100.	89.	99.	96.	97.	81.	85.	110.
hogs	117.	118.	130.	131.	132.	164.	187.	155.
poultry	130.	169.	166.	144.	186.	173.	169.	159.
Investment per acre in productive livestock	$ 15.96	19.22	13.45	14.36	13.24	13.30	11.39	10.19
Receipts per acre from productive livestock	16.68	19.87	15.51	15.91	16.37	16.30	15.69	13.13
Man labor cost per acre	6.41	7.03	5.98	6.06	7.06	5.73	5.99	6.05
Crop acres per man	89	81	81	88	76	84	69	96
Crop acres per horse (with tractor)	28	27	29	28	27	24	23	27
(without tractor)	18	18	18	20	20	18	19	24
Expense per $100 gross income	$ 59.	58.	65.	61.	80.	78.	81.	69.
Machinery cost per acre	2.12	2.33	2.11	1.64	2.11	2.21	1.77	1.87
Building and fence cost per acre	.97	1.01	1.09	1.00	1.12	.98	.75	1.01
Gross receipts per acre	22.08	23.76	18.71	19.51	17.48	16.55	15.90	17.99
Total expense per acre	13.10	13.69	12.08	11.85	13.91	12.97	12.88	12.35
Net receipts per acre	8.98	10.07	6.63	7.66	3.57	3.58	3.02	5.64
Percent of farms with tractor	67	67	59	73	61	71	54	56
Value of land per acre	$180.	163.	152.	134.	163.	143.	113.	133.
Total investment per acre	244.	231.	208.	137.	220.	195.	161.	180.

SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1271 ILLINOIS FARMS, 1927 (Cont'd)

Accounting Factors	Marshall-Putnam Stark Bureau	Henry	Knox Fulton Warren	Henderson	McDonough	Hancock	Adams Schuyler Brown Pike	Mason Peoria Cass
Capital Investment - Total	$50 336	$47 572	$51 181	$45 938	$39 911	$42 540	$33 988	$41 098
Land	37 290	33 457	37 446	33 003	29 623	31 128	23 823	30 511
Farm improvements	4 567	4 857	5 325	4 533	3 663	4 351	4 048	3 488
Machinery and equipment	1 739	1 873	1 787	1 414	1 339	1 535	1 247	1 653
Feed, grain and supplies	2 626	2 732	2 562	2 497	2 039	1 947	1 881	2 460
Livestock - Total	4 114	4 653	4 061	4 491	3 247	3 579	2 989	2 986
Horses	640	509	687	704	562	581	525	714
Cattle	1 296	2 142	1 398	2 068	939	1 147	952	1 246
Hogs	1 712	1 731	1 689	1 532	1 535	1 560	1 219	859
Sheep (and Bees)	338	107	141	82	31	134	176	23
Poultry	128	164	146	105	180	157	117	144
Receipts - Net Increases - Total	4 563	4 884	4 608	4 790	3 170	3 602	3 366	4 116
Feed and grain	1 071	745	670	822	148	---	---	1 012
Miscellaneous	46	56	68	33	54	44	45	99
Livestock - Total	3 446	4 083	3 870	3 935	2 968	3 558	3 321	3 005
Horses	---	---	49	30	---	12	---	---
Cattle	1 108	1 479	1 032	1 655	468	750	547	807
Hogs	1 826	1 886	2 033	1 828	1 795	2 176	2 113	1 271
Sheep (and Bees)	78	30	92	53	34	74	135	21
Poultry	75	148	117	74	177	111	106	99
Egg sales	92	138	148	81	169	166	103	135
Dairy sales	267	402	399	214	325	269	317	672
Expenses - Net Decreases - Total	1 873	1 891	2 067	2 013	1 551	1 981	1 824	1 931
Farm improvement	200	207	268	247	203	214	159	230
Livestock and dairy expense	9	20	---	---	59	---	---	68
Horses	9	20	---	---	59	---	---	55
Dairy expense	---	---	---	---	---	---	---	13
Machinery and equipment	437	478	519	404	383	481	374	427
Feed, grain and supplies	---	---	---	---	---	267	394	---
Livestock expense other than feed	69	74	75	78	80	59	62	55
Crop expense	195	199	221	219	166	217	157	235
Labor hired	492	522	564	592	308	406	366	489
Taxes and insurance	445	366	392	442	324	313	287	401
Miscellaneous	26	25	28	31	28	24	25	26
Receipts less expenses	2 690	2 993	2 541	2 777	1 619	1 621	1 542	2 185
Operator's and unpaid family labor	833	923	908	895	972	841	903	895
Net income from investment	1 857	2 070	1 633	1 882	647	780	639	1 290
Number of farms included	46	60	34	30	28	31	37	34

SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1271 ILLINOIS FARMS (Cont'd)
1927

Accounting Factors	Woodford	McLean Livingston Woodford Tazewell	Macon McLean Logan DeWitt	Ford Iroquois	Champaign	Coles Douglas Vermilion Clark	Sangamon	Scott Morgan
Rate earned	3.5%	3.7%	2.8%	4.1%	4.4%	3.3%	2.8%	3.6%
Labor and management wage	$ 17.	-46.	-665.	218.	304.	-82.	-515.	31.
Size of farm - acres	201	232	259	233	229	218	256	226
Percent of land tillable	85	90	91	93	96	88	93	86
Acres in corn	73	93	98	88	91	70	83	73
oats	43	44	49	61	37	31	30	17
wheat	6	17	21	15	26	29	43	46
Crop yields - corn, bushels	41	42	40	39	43	40	41	39
oats, bushels	33	35	24	28	28	27	23	24
wheat, bushels	19	17	14	18	21	19	16	14
Returns per $100 invested in all productive livestock	$126.	106.	112.	117.	112.	130.	137.	147.
For $100 in cattle	102.	86.	108.	101.	102.	107.	106.	99.
hogs	149.	133.	117.	135.	147.	162.	167.	183.
poultry	170.	195.	161.	167.	187.	151.	180.	156.
Investment per acre in productive livestock	$ 9.07	10.28	9.77	7.63	6.18	9.22	9.42	8.01
Receipts per acre from productive livestock	11.44	10.85	10.92	8.95	6.90	11.95	12.87	11.74
Man labor cost per acre	6.72	6.58	5.97	5.69	5.57	5.78	6.14	5.93
Crop acres per man	92	94	100	102	108	91	94	88
Crop acres per horse (with tractor)	25	26	30	28	27	25	27	27
(without tractor)	21		21	22	17	24	18	18
Expense per $100 gross income	$ 59.	59.	65.	54.	52.	64.	66.	63.
Machinery cost per acre	1.59	2.02	2.01	1.65	1.97	1.66	1.70	1.63
Building and fence cost per acre	.73	1.11	.80	.96	.76	.94	.81	.89
Gross receipts per acre	20.13	22.78	18.90	21.83	23.05	18.61	18.27	18.28
Total expense per acre	11.81	13.33	12.23	11.72	11.92	11.91	12.12	11.61
Net receipts per acre	8.32	9.45	6.67	10.11	11.13	6.70	6.15	6.67
Percent of farms with tractor	63	74	68	71	70	68	65	72
Value of land per acre	$189.	193.	189.	195.	208.	154.	175.	145.
Total investment per acre	235.	254.	239.	244.	255.	200.	219.	187.

SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1271 ILLINOIS FARMS, 1927 (Cont'd)

Accounting Factors	Woodford	McLean Livingston Woodford Tazewell	Macon McLean Logan DeWitt	Ford Iroquois	Champaign	Coles Douglas Vermilion Clark	Sangamon	Scott Morgan
Capital Investment - Total	$47 267	$58 756	$61 861	$56 920	$58 313	$43 634	$55 975	$42 190
Land	37 861	44 641	49 119	45 482	47 726	33 518	44 620	32 709
Farm improvements	3 311	5 541	4 838	4 241	3 388	4 081	4 529	4 096
Machinery and equipment	1 316	1 939	1 686	1 512	1 638	1 292	1 562	1 365
Feed, grain and supplies	2 311	3 457	3 085	3 136	3 318	2 344	2 174	1 878
Livestock - Total	2 468	3 178	3 133	2 549	2 243	2 399	3 090	2 142
Horses	628	765	724	762	779	562	783	523
Cattle	741	1 058	1 310	767	653	738	1 002	464
Hogs	899	989	879	730	352	892	1 069	955
Sheep (and Bees)	53	194	69	108	298	68	114	60
Poultry	147	172	151	182	161	139	122	140
Receipts - Net Increases - Total	4 042	5 274	4 901	5 096	5 279	4 054	4 670	4 125
Feed and grain	1 715	2 683	2 014	2 945	3 651	1 402	1 284	1 443
Miscellaneous	29	75	55	47	48	47	96	33
Livestock - Total	2 298	2 516	2 832	2 104	1 580	2 605	3 290	2 649
Horses	---	.5	---	15	---	---	---	---
Cattle	456	562	1 133	421	257	610	754	436
Hogs	1 171	1 247	1 018	855	513	1 402	1 859	1 735
Sheep (and Bees)	27	72	14	46	50	76	73	39
Poultry	110	110	110	135	154	94	94	87
Egg sales	142	140	124	172	164	113	128	136
Dairy sales	392	380	433	460	442	310	382	216
Expenses - Net Decreases - Total	1 438	2 136	2 144	1 796	1 798	1 835	2 203	1 859
Farm improvement	147	256	207	224	174	204	207	200
Livestock and dairy expense	---	---	16	---	3	8	13	45
Horses	---	---	16	---	3	8	13	45
Dairy expense	---	---	---	---	---	---	---	---
Machinery and equipment	320	469	522	385	452	361	435	369
Feed, grain and supplies	---	---	---	---	---	---	---	---
Livestock expense other than feed	34	49	53	62	52	59	91	52
Crop expense	191	255	246	243	217	230	231	194
Labor hired	315	573	521	387	343	500	676	579
Taxes and insurance	407	488	544	461	530	453	518	391
Miscellaneous	24	46	35	34	27	20	32	29
Receipts less expenses	2 604	3 138	2 757	3 300	3 481	2 219	2 467	2 266
Operator's and unpaid family labor	934	951	1 028	941	932	760	894	760
Net income from investment	1 670	2 187	1 729	2 359	2 549	1 459	1 573	1 506
Number of farms included	54	200	31	28	30	40	26	39

SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1271 ILLINOIS FARMS (Cont'd)
1927

Accounting Factors	Greene Jersey	Macoupin Montgomery Christian Shelby	Madison Bond	Clinton	Randolph St. Clair Monroe	Washington Marion Jefferson	Wabash Crawford Richland Edwards Lawrence	Saline Gallatin Williamson Pulaski White Johnson
Rate earned	3.9%	.8%	4.4%	4.4%	4.0%	4.0%	2.1%	4.2%
Labor and management wage	$176.	-832.	497.	480.	383.	403.	-110.	439.
Size of farm - acres	215	211	161	153	172	197	186	180
Percent of land tillable	78	82	81	86	82	84	83	83
Acres in corn	63	51	29	30	27	20	37	39
oats	12	20	13	16	13	11	7	5
wheat	31	16	25	43	45	38	32	31
Crop yields - corn, bushels	38	28	31	25	36	23	32	36
oats, bushels	10	9	12	10	12	10	9	14
wheat, bushels	12	15	14	14	10	11	14	13
Returns per $100 invested in all productive livestock	$140.	117.	160.	169.	142.	145.	131.	184.
For $100 in cattle	112.	100.	144.	172.	142.	135.	96.	199.
hogs	189.	173.	208.	147.	147.	147.	171.	165.
poultry	201.	159.	164.	185.	156.	201.	229.	212.
Investment per acre in productive livestock	$ 11.38	11.10	8.30	9.13	7.30	5.02	8.77	5.78
Receipts per acre from productive livestock	15.94	13.01	13.30	15.47	10.40	7.22	11.52	10.63
Man labor cost per acre	6.63	5.99	6.54	7.09	6.21	4.38	5.53	5.62
Crop acres per man	70	70	68	58	62	84	70	66
Crop acres per horse (with tractor)	24	26	25	22	24	34	29	28
(without tractor)	17	14	20	20	20	22	20	16
Expense per $100 gross income	$ 69.	91.	71.	71.	71.	72.	82.	69.
Machinery cost per acre	1.99	2.52	1.54	1.56	1.70	1.18	1.63	1.39
Building and fence cost per acre	1.21	1.24	.94	.92	.83	.58	1.20	.76
Gross receipts per acre	18.95	13.82	16.24	16.80	15.68	11.20	13.71	14.60
Total expense per acre	13.00	12.59	11.53	11.90	11.15	8.07	11.20	10.10
Net receipts per acre	5.95	1.23	4.71	4.90	4.53	3.13	2.49	4.50
Percent of farms with tractor	50	67	33	23	50	36	47	50
Value of land per acre	$106.	114.	66.	69.	72.	51.	81.	74.
Total investment per acre	153.	164.	107.	112.	114.	79.	119.	107.

SUMMARY, BY AREAS, OF BUSINESS RECORDS FROM 1271 ILLINOIS FARMS, 1927 (Cont'd)

Accounting Factors	Greene Jersey	Macoupin Montgomery Christian Shelby	Madison Bond	Clinton	Randolph St. Clair Monroe	Washington Marion Jefferson	Wabash Crawford Richland Lawrence	Saline, Gallatin, Williamson Pulaski, White Johnson
Capital Investment - Total	$32 984	$34 658	$17 189	$17 195	$19 526	$15 617	$22 232	$19 187
Land	22 792	24 096	10 599	10 614	12 392	10 036	15 078	13 301
Farm improvements	3 779	4 903	2 621	2 342	2 575	2 129	2 681	1 960
Machinery and equipment	1 467	1 628	1 056	1 142	1 154	995	1 052	944
Feed, grain and supplies	2 127	1 414	1 286	1 342	1 671	1 127	1 414	1 483
Livestock - Total	2 819	2 617	1 627	1 755	1 734	1 330	2 007	1 499
Horses	504	504	311	436	489	361	360	445
Cattle	1 292	1 250	683	826	712	521	905	372
Hogs	756	481	394	190	295	144	517	468
Sheep (and Bees)	101	210	51	22	71	102	63	26
Poultry	166	172	188	281	167	202	162	188
Receipts - Net Increases - Total	4 074	2 914	2 608	2 574	2 691	2 203	2 550	2 623
Feed and grain	554	147	338	97	816	726	323	516
Miscellaneous	92	25	135	107	88	44	84	198
Livestock - Total	3 428	2 742	2 135	2 370	1 787	1 433	2 143	1 909
Horses	--	--	--	--	3	13	--	--
Cattle	951	637	292	384	271	255	542	222
Hogs	1 456	876	734	286	400	224	790	732
Sheep (and Bees)	66	158	48	14	49	80	72	22
Poultry	161	112	92	140	102	118	111	169
Egg sales	165	153	204	374	156	294	274	233
Dairy sales	629	806	765	1 172	806	449	354	531
Expenses - Net Decreases - Total	2 022	1 770	991	858	1 069	815	1 295	967
Farm improvements	261	261	151	141	142	118	223	136
Livestock and dairy expense	31	9	4	3	--	--	27	12
Horses	31	9	4	3	--	--	27	12
Dairy expense	--	---	--	--	--	--	--	--
Machinery and equipment	428	532	247	239	291	231	303	249
Feed, grain and supplies	--	--	--	--	--	--	--	--
Livestock expense other than feed	58	52	31	22	32	13	28	32
Crop expense	207	197	170	172	140	201	175	129
Labor hired	651	377	191	121	221	90	236	162
Taxes and insurance	357	311	174	138	225	144	276	232
Miscellaneous	29	31	23	22	18	18	27	15
Receipts less expenses	2 052	1 144	1 617	1 716	1 622	1 388	1 255	1 656
Operator's and unpaid family labor	774	885	860	965	845	772	792	848
Net income from investment	1 278	259	757	751	777	616	463	308
Number of farms included	28	20	27	35	36	29	45	30