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

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

√ 1. **Jo Daviess, Stephenson and Carroll Counties**

⌄ 2. **DuPage, Kane, Lake and Will Counties**

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

4. **Henry County**

⌄ 5. **Stark and Peoria Counties**


N O T I C E


AT LEAST ONE OF THE EDGES OF THIS

MAGAZINE HAS BEEN LEFT UNTRIMMED,

BECAUSE OF AN EXTREMELY NARROW
                                         'd Counties
MARGIN.

HERTZBERG-NEW METHOD, INC.
                                         :e Counties

⌄ 14. **McDonough County**

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

⌄ 16. **Ford County**

17. **Champaign County**

'18. **Coles County**

'19. **Douglas, Shelby, Christian, Moultrie Counties**

20. **Jersey, Greene and Morgan Counties**

21. **Montgomery, Macoupin, Bond and Madison Counties**

22. **Cumberland, Clark and Crawford Counties**

## STATEMENT CONCERNED ENCLOSED DATA

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

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

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

H. C. M. Case.

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

JO DAVIESS, STEPHENSON AND CARROLL COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty-four Farms

for

1925

Urbana, Illinois

April 14, 1926

ANNUAL FARM BUSINESS REPORT

JO DAVIESS, STEPHENSON AND CARROLL COUNTIES, ILLINOIS - 1925

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

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

Expressed in another way these forty-four farmers earned 7.45% on their investments after allowing $600 to pay for their own labor. On the same basis the most successful third earned 11.42% and the least successful third 3.15%. The average investment on the forty-four farms was $32,027, which amounts to $170 an acre. Both the higher and lower profit groups had an average investment of $163 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

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

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

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

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

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

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

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

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

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

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm, as well as on the farms of the group making the best profits and the group making the least profits.
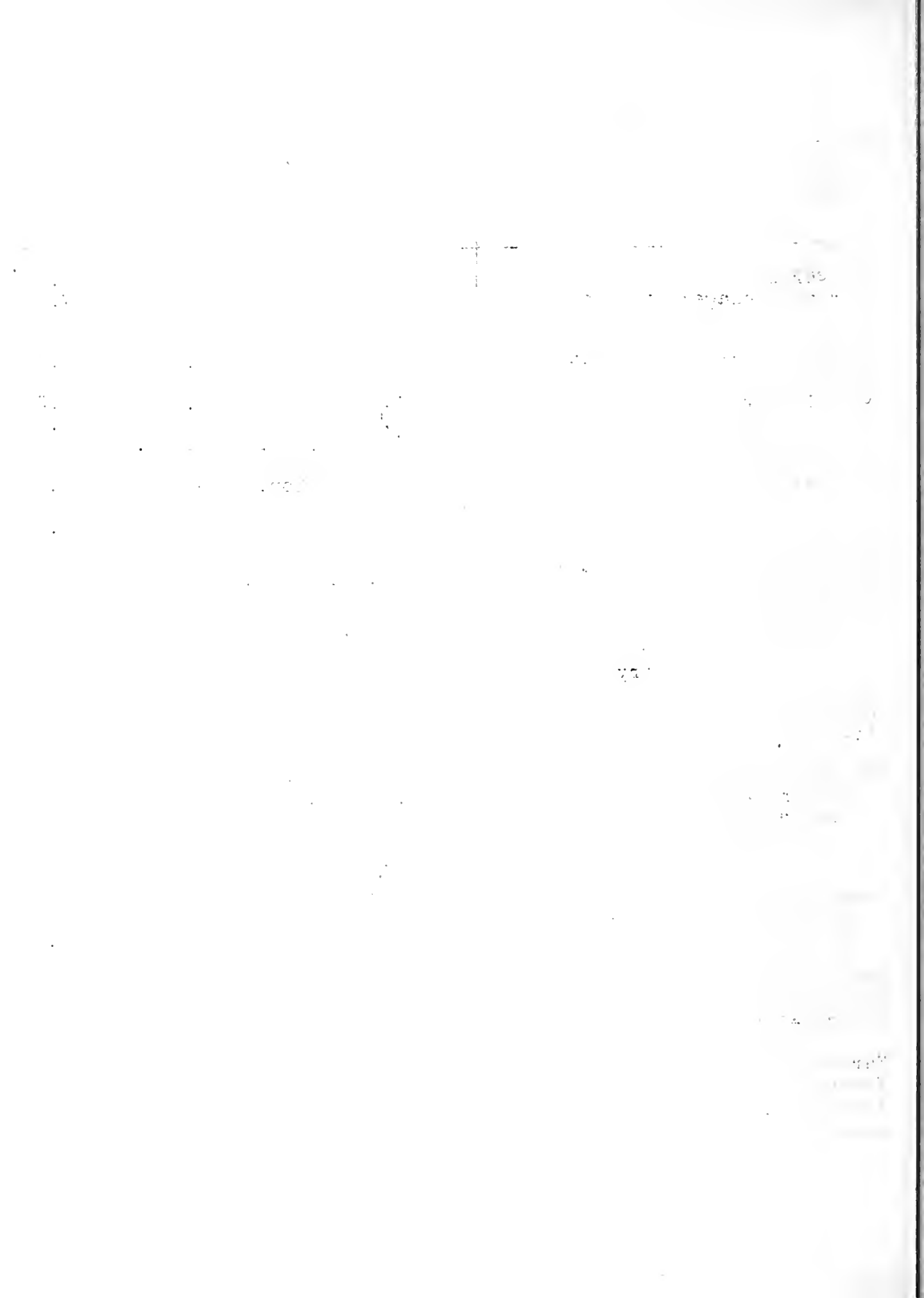
Jo Daviess, Stephenson, Carroll Counties - 1925

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

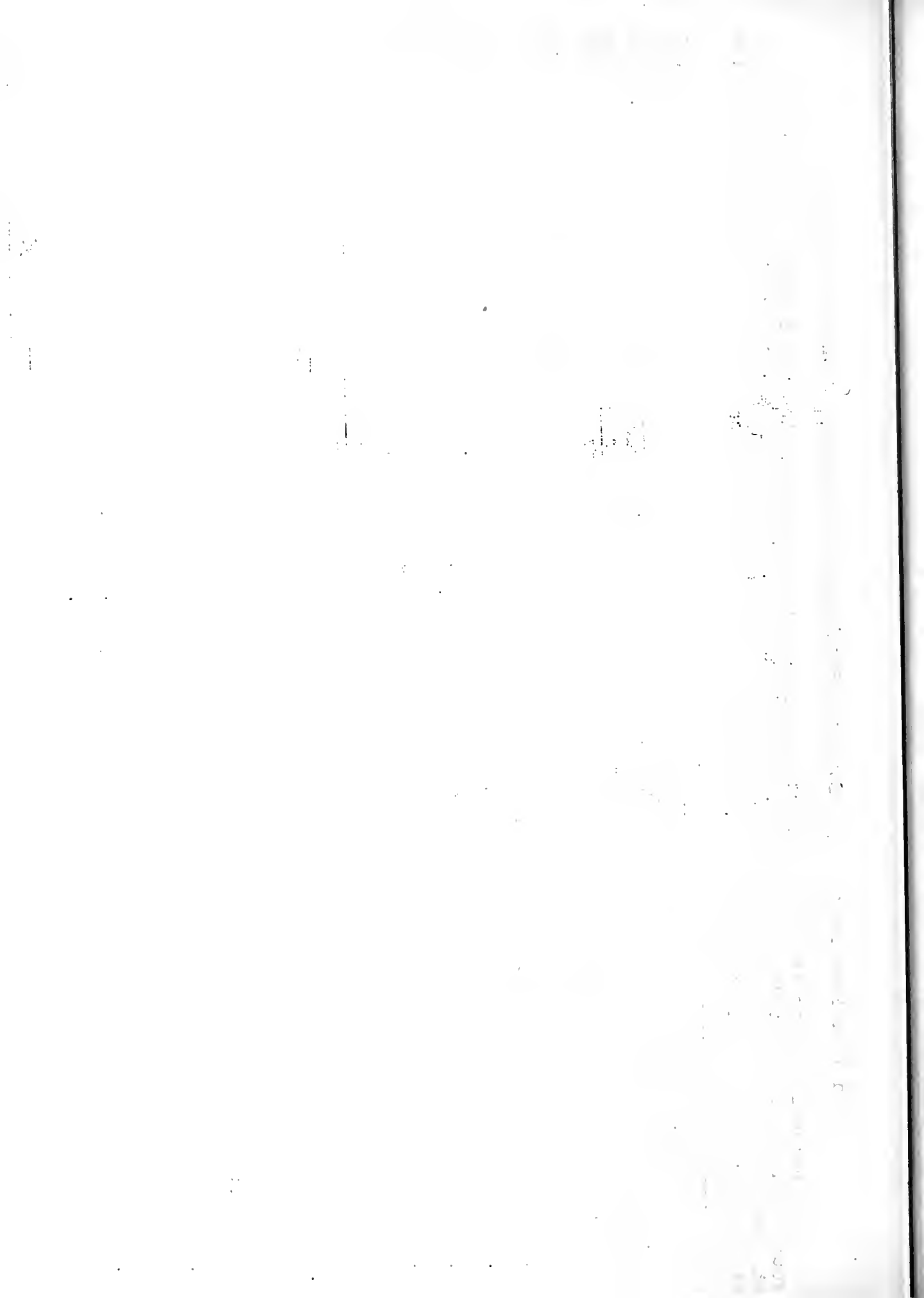Jo Daviess, Stephenson, Carroll Counties - 1925

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

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

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

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

DUPAGE, KANE, LAKE AND WILL COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-eight Farms

for

1925

Urbana, Illinois

June 15, 1926

# ANNUAL FARM BUSINESS REPORT ON DAIRY FARMS

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

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

The 28 dairy farmers in this group of counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $564 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $223 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $1,851, while the third who were least successful lacked an average of $731 of having enough income to pay 5% interest on their investments allowing nothing for their labor and management.

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

Expressed in another way, these 28 farmers earned 4.78% on their investments after allowing $720 each to pay for their own labor. On the same basis the most successful third earned 8.03%, and the least successful third 1.03%. The average investment on the 28 farms was $37,376, which amounts to $223 an acre. The higher profit third had an average investment of $214 and the lower profit third $244 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops, as listed in the table on page 4.

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

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

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

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

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

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

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

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

DuPage, Kane, Lake and Will Counties - 1925

| Factors helping to analyze the farm business | Your farm | Average of 28 farms | 10 most profitable farms | 10 least profitable farms |
|---|---|---|---|---|
| Rate earned | % | 4.78% | 8.03% | 1.03% |
| Labor and management wage | $ | $564. | $1 851. | $-731. |
| Size of farm - Acres | A | 167.8 A | 184.5 A | 142.3 A |
| Percent of land area tillable | % | 83.1 % | 77.0 % | 83.4 % |
| Acres in Corn | A | 44.0 A | 40.7 A | 36.6 A |
| Oats | A | 29.1 A | 27.6 A | 28.5 A |
| Wheat | A | 6.6 A | 2.8 A | 4.7 A |
| Crop Yields - Corn | bu. | 34.9 bu. | 32.7 bu. | 38.6 bu. |
| Oats | bu. | 38.5 bu. | 41.8 bu. | 36.0 bu. |
| Wheat | bu. | 21.6 bu. | 27.7 bu. | 28.1 bu. |
| Returns per $100 invested in all productive livestock | $ | $152.00 | $ 171.00 | $ 142.00 |
| For $100 in Cattle | $ | $145.00 | $ 168.00 | $ 141.00 |
| Swine | $ | $183.00 | $ 184.00 | $ 128.00 |
| Poultry | $ | $186.00 | $ 177.00 | $ 198.00 |
| Percent of gross income from livestock | % | 94.5 % | 91.4 % | 98.6 % |
| Man labor cost per acre | $ | $ 8.06 | $ 6.24 | $ 10.70 |
| Crop acres per man | A | 85.9 A | 110.0 A | 64.5 A |
| Crop acres per horse | | | | |
| (with tractor) | A | 27.0 A | 29.7 A | 22.8 A |
| (without tractor) | A | 18.1 A | 17.2 A | 17.7 A |
| Expense per $100 gross income | $ | $ 62.00 | $ 46.00 | $ 91.00 |
| Machinery cost per acre | $ | $ 3.08 | $ 2.65 | $ 3.69 |
| Building & fencing cost per acre | $ | $ 1.58 | $ 1.50 | $ 1.94 |
| Gross receipts per acre | $ | $ 28.04 | $ 31.78 | $ 27.51 |
| Total expenses per acre | $ | $ 17.40 | $ 14.60 | $ 25.00 |
| Net receipts per acre | $ | $ 10.64 | $ 17.18 | $ 2.51 |
| Farms with tractor | % | 53.0 % | 60.0 % | 20.0 % |
| Value of land per acre | $ | $146.00 | $ 143.00 | $ 154.00 |
| Total investment per acre | $ | $223.00 | $ 214.00 | $ 244.00 |

DuPage, Kane, Lake and Will Counties, 1925

| | Your farm | Average of 28 farms | 10 most profitable farms | 10 least profitable farms |
|---|---|---|---|---|
| 1. Capital Investment - Total | $ | $37 376 | $39 555 | $34 724 |
| 2. Land | | 24 511 | 26 779 | 21 945 |
| 3. Farm improvements | | 5 319 | 4 931 | 5 872 |
| 4. Machinery and equipment | | 1 964 | 2 322 | 1 656 |
| 5. Feed and supplies | | 2 255 | 2 435 | 2 156 |
| 6. Livestock | | 3 327 | 3 488 | 3 095 |
| 7. Horses | | 494 | 514 | 490 |
| 8. Cattle | | 2 283 | 2 421 | 2 164 |
| 9. Swine | | 398 | 424 | 290 |
| 10. Sheep | | 12 | 4 | 31 |
| 11. Poultry | | 140 | 135 | 120 |
| 12. Receipts-Net Increases-Total | | 4 705 | 5 863 | 3 915 |
| 13. Feed and grain | | 169 | 424 | --- |
| 14. Miscellaneous | | 92 | 82 | 53 |
| 15. Livestock - Total | | 4 444 | 5 357 | 3 862 |
| 16. Horses | | --- | --- | --- |
| 17. Cattle | | 455 | 644 | 325 |
| 18. Swine | | 699 | 895 | 334 |
| 19. Sheep | | 11 | 3 | 27 |
| 20. Poultry | | 102 | 97 | 104 |
| 21. Egg sales | | 174 | 152 | 155 |
| 22. Dairy sales | | 3 003 | 3 566 | 2 917 |
| 23. Expenses-Net Decreases-Total | | 1 954 | 1 762 | 2 670 |
| 24. Farm improvements | | 265 | 277 | 276 |
| 25. Livestock | | --- | --- | --- |
| 26. Horses | | 23 | 24 | 12 |
| 27. Cattle | | -- | -- | -- |
| 28. Swine | | -- | -- | -- |
| 29. Sheep | | -- | -- | -- |
| 30. Poultry | | -- | -- | -- |
| 31. Machinery and equipment | | 516 | 489 | 525 |
| 32. Feed and supplies | | --- | --- | 455 |
| 33. Livestock expense other than feed | | 169 | 156 | 110 |
| 34. Crop expense | | 159 | 183 | 138 |
| 35. Labor hired | | 387 | 220 | 635 |
| 36. Taxes, Insurance, etc. | | 399 | 383 | 472 |
| 37. Miscellaneous | | 36 | 30 | 47 |
| 38. Receipts less Expenses | | 2 751 | 4 101 | 1 245 |
| 39. Operator's and unpaid family labor | | 965 | 932 | 888 |
| 40. Net income from investment | | 1 786 | 3 169 | 357 |

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

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

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

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

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

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.
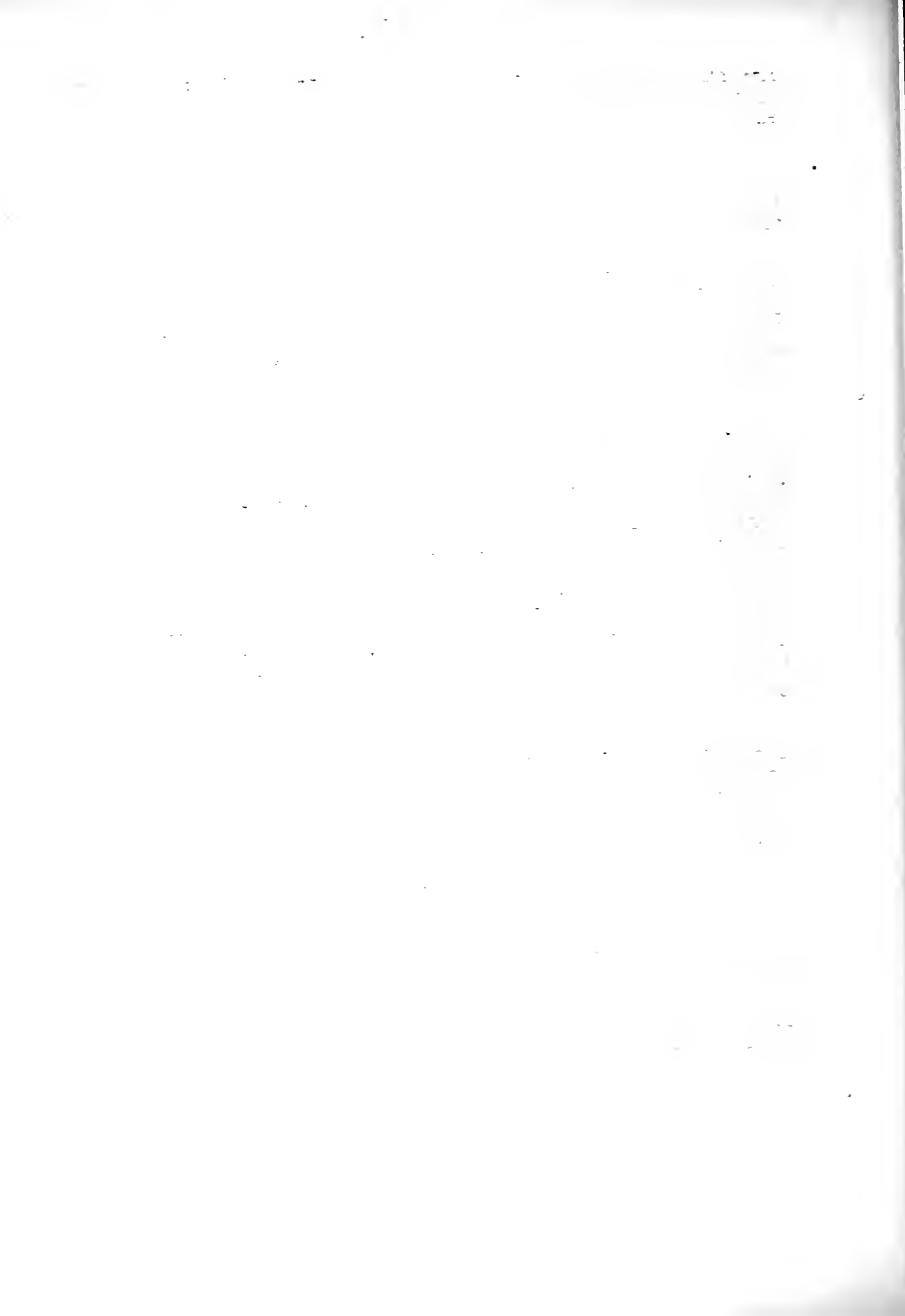
Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

WHITESIDE, HENDERSON, ROCK ISLAND AND MERCER COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-four Farms

for

1925

Urbana, Illinois

April 26, 1926

ANNUAL FARM BUSINESS REPORT

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

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

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

Expressed in another way these 34 farmers earned 5.27% on their investment after allowing $600 each to pay for their own labor. On the same basis, the most successful third earned 12.35% and the least successful third 2.04%. The average investment on the 34 farms was $40,323, which amounts to $197 an acre. The higher profit third had an average investment of $192 and the lower profit third $194 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

The income figures given in this report should not be considered as representative of all farms in the above named Counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

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

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

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

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

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

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

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

## Whiteside, Henderson, Rock Island and Mercer Counties - 1925

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

## Whiteside, Henderson, Rock Island and Mercer Counties - 1925

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

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

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

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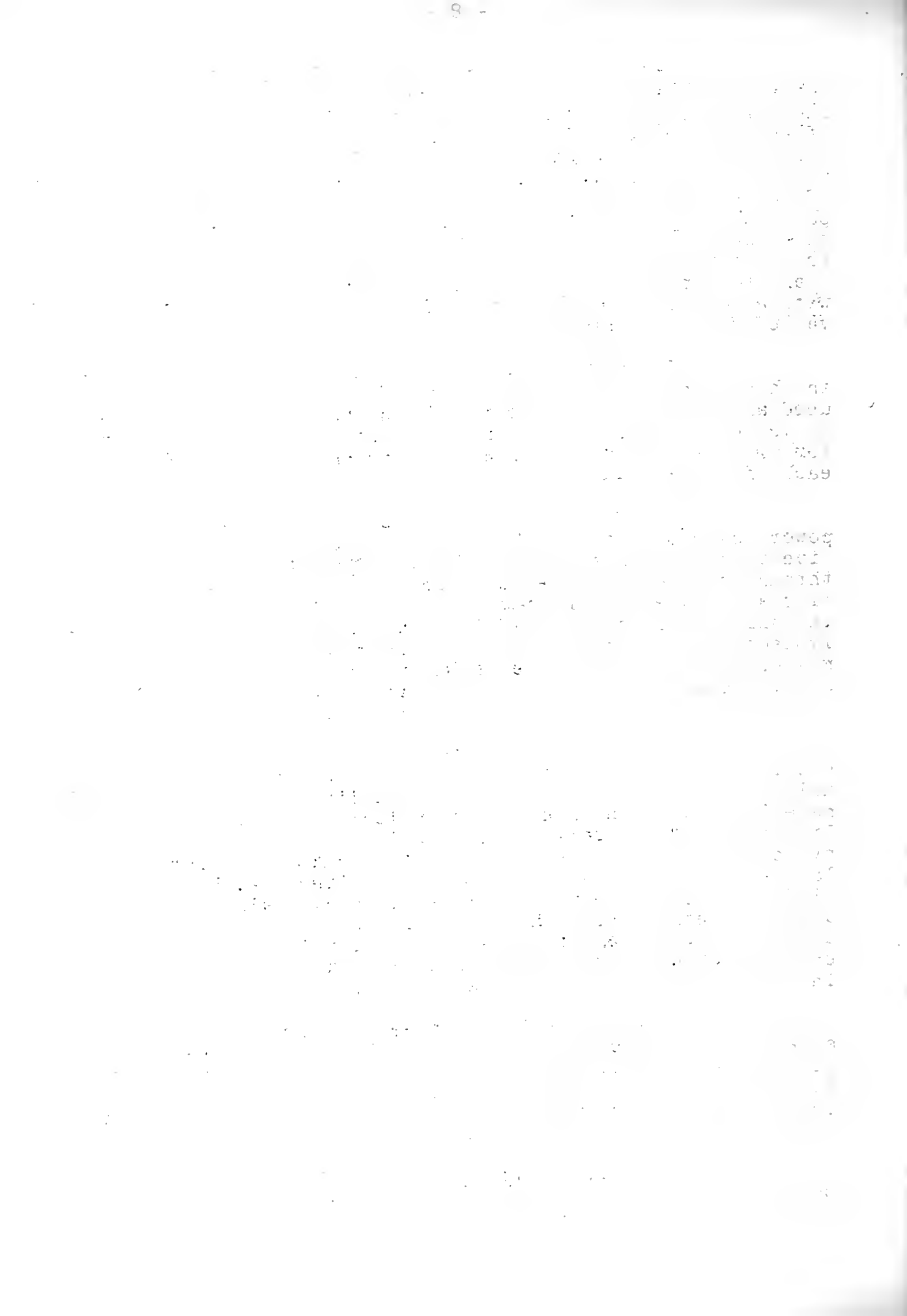
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opportunities for spending all the farm earnings in operating costs have greatly increased. It has become necessary to keep a closer watch on expenses.

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

HENRY COUNTY FARM BUREAU

Cooperating

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ANNUAL FARM BUSINESS REPORT

on

Forty-five Farms

for

1925

Urbana, Illinois

April 6, 1926

ANNUAL FARM BUSINESS REPORT

HENRY COUNTY, ILLINOIS - 1925

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

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

Expressed in another way these 45 farmers earned 7.08%
on their investments after allowing $600 to pay for their own la-
bor.  On the same basis the most successful third earned 10.48%
and the least successful third 3.97%.  The average investment on
the 45 farms was $48,286, which amounts to $238 an acre.  The
higher profit third had an average investment of $244 and the low-
er profit third $237 an acre.  The term investment per acre is
used to include the capital in land, buildings, equipment, live-
stock, and crops as listed in the table on page 4.

In addition to the above earnings each farm family se-
cures certain items of produce such as milk, butter, eggs, etc.,
not listed in these accounts.  These together with the use of the
farm home, not included in the above investment, amounted to about
$725 a year on a group of Champaign County farms where this phase
of the farm business was given special study.

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

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

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

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

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

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

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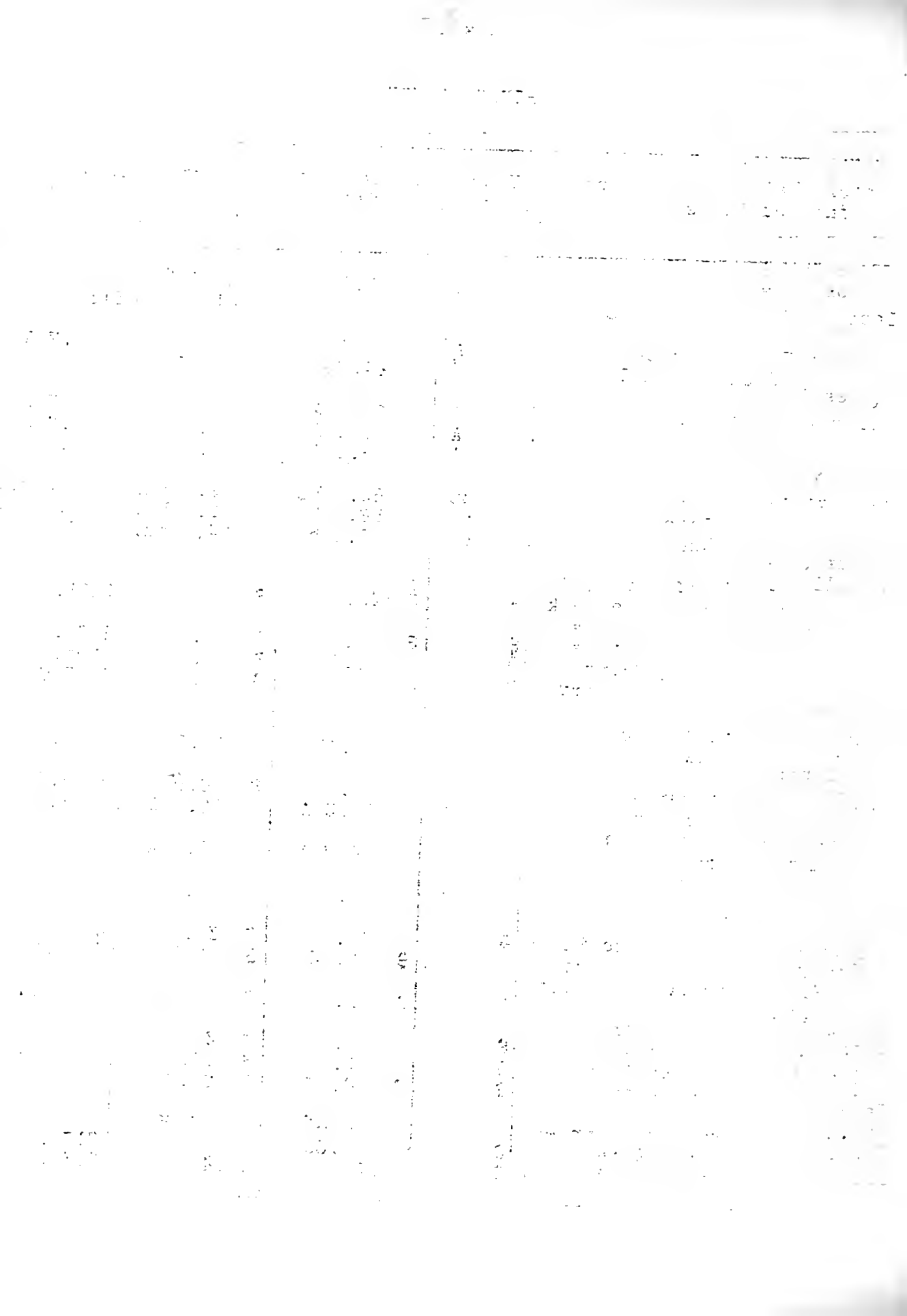horse than the less successful third.

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

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

# HENRY COUNTY

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

HENRY COUNTY
1925

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

Find Your Farm Leaks - (Henry County - 1925)

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

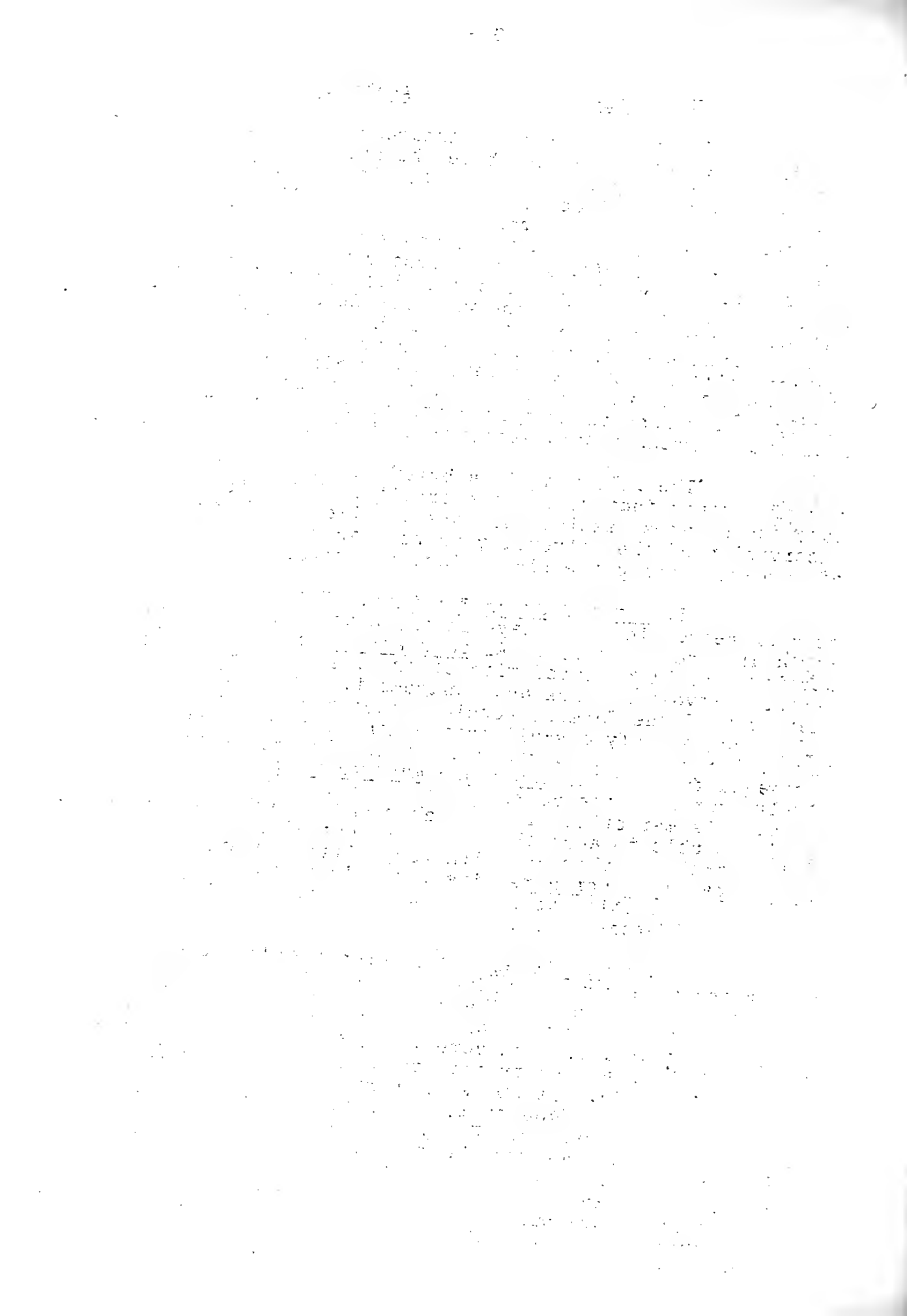| Rate Earned | Bushels per acres of | | | Returns per $100 invested in | | | Percent income from L.S. | Man Lab. cost per acre | Crop acres per | | | Expense per $100 income | Gross rect. per A. | Size of farm |
| | Corn | Oats | Wheat | Cattle | Hogs | Poultry | | | Man | Tractor | Horse No Tractor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

## Using the Farm Account Analysis

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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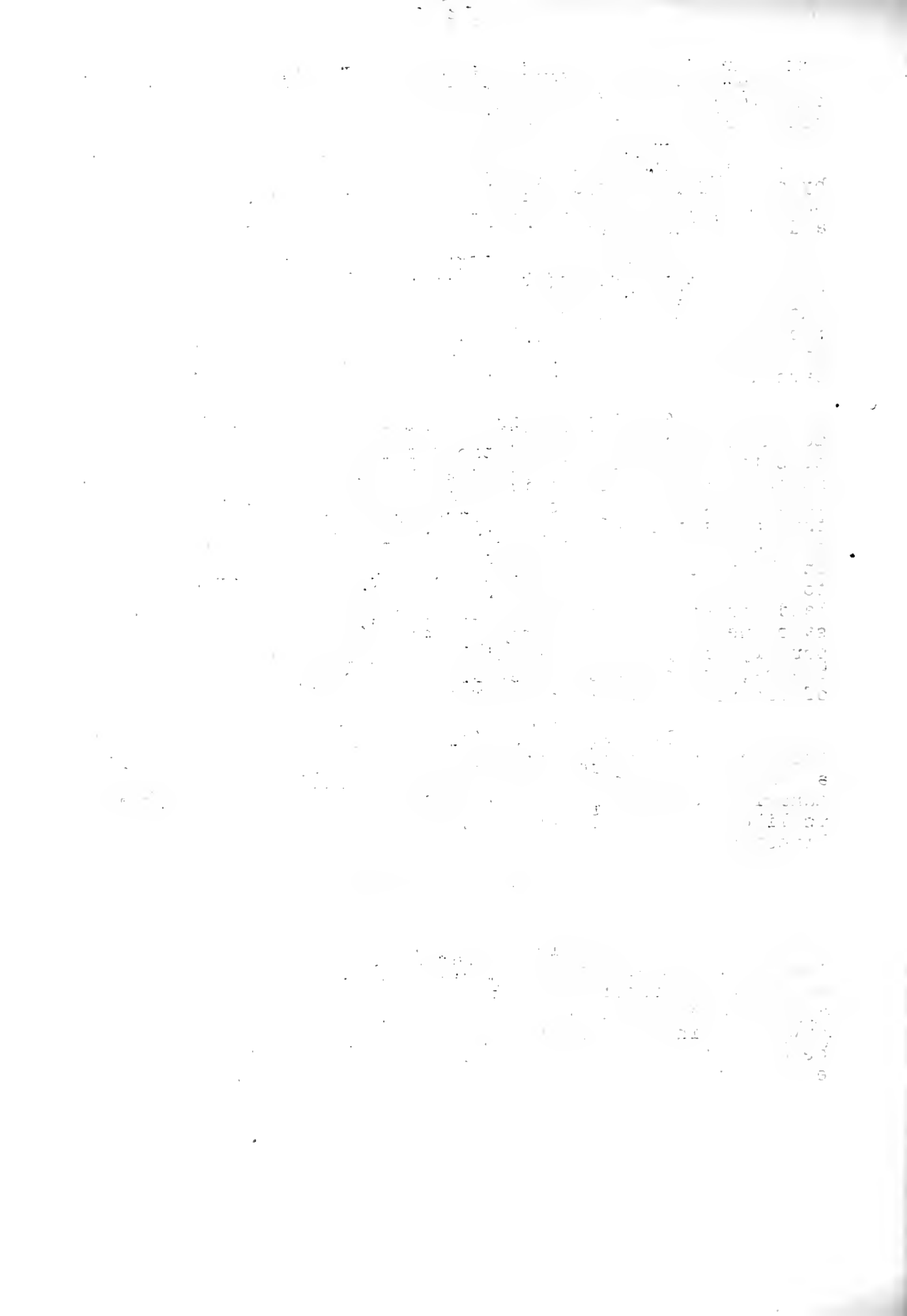
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6. Size of Farm. It is common to find farms whose accounts show that they are doing too small a volume of business to carry the minimum expense involved in keeping a four horse team and one set implements and buildings. Such a farm often fails also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

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

Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

STARK AND PEORIA COUNTY FARM BUREAUS

Coooerating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

May 10, 1926

# ANNUAL FARM BUSINESS REPORT

## STARK AND PEORIA COUNTIES, ILLINOIS - 1925

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

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

Expressed in another way, these 30 farmers earned 6% on their investments after allowing $600 each to pay for their own labor. On the same basis the most successful third earned 8.9% and the least successful third 3.57%. The average investment on the 30 farms was $46,767, which amounts to $250 an acre. The higher profit third had an average investment of $256 and the lower profit third $255 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

The income figures given in this report should not be considered as representative of all farms in this area. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

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

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

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

The biggest advantage of the high profit group was in a greater livestock efficiency. Since all groups secured around 80% of their income from livestock this was a big advantage. The 10 most successful farmers secured 56% more income for each $100 invested in productive livestock than the 10 least successful ones. Much the largest single source of livestock income was the hog enterprise and the 10 most successful farmers secured nearly 25% more income per $100. invested in hogs than the low profit group. In the case of cattle, both groups had about the same investment but the higher profit group secured twice as much income. In spite of the fact that there was little difference between groups in acres or yields of the chief grain crops, the higher profit group of farmers satisfied their feed requirements, had about a half more livestock income, and still secured nearly twice as much income from crops as the least successful group. This indicates a high degree of efficiency in producing livestock and in marketing.
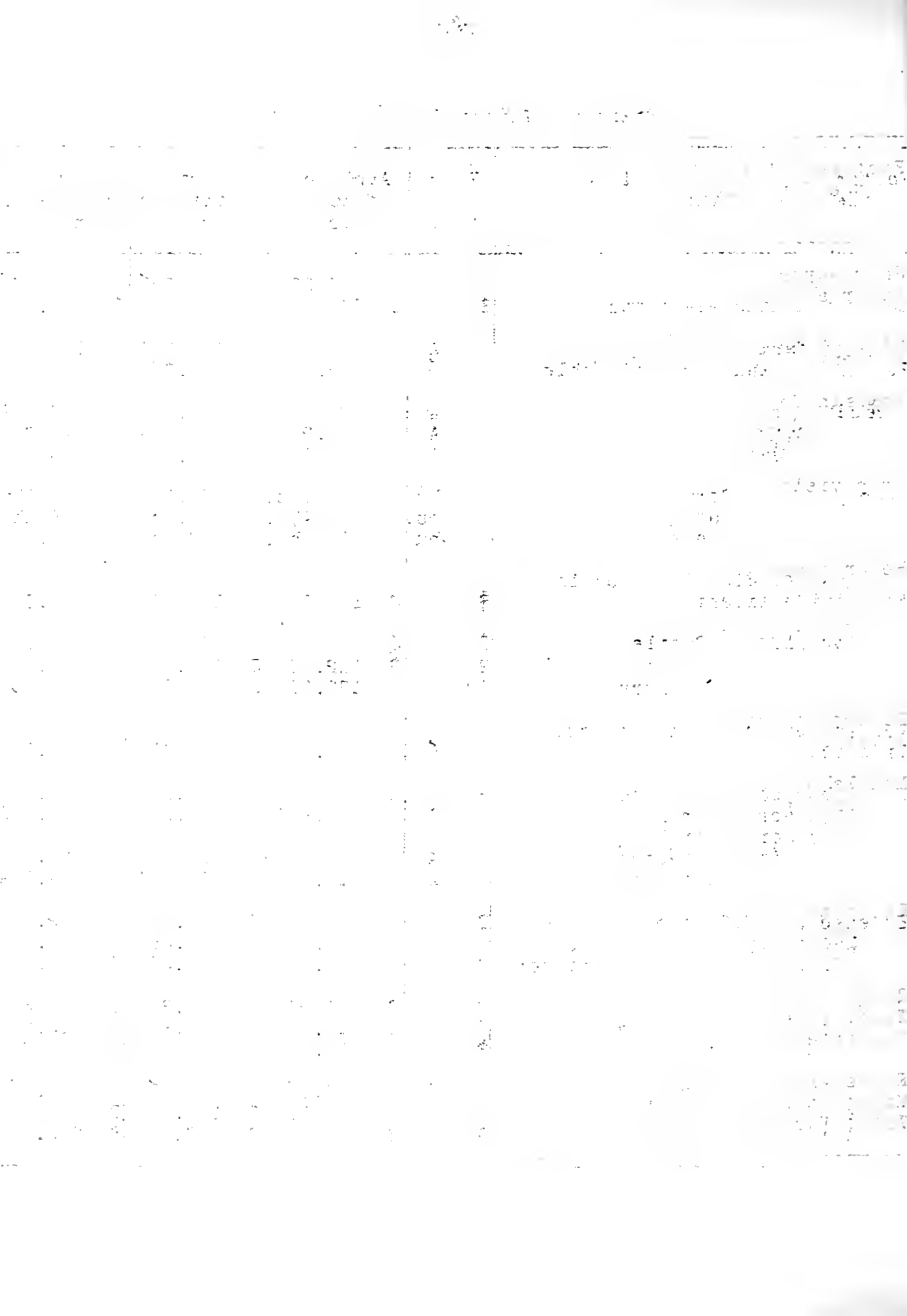
The 10 most successful farmers spent slightly more for man labor but the tractor farmers constituting 80% of this group handled more crop acres per horse than the tractor farmers in the low profit group. The latter group had slightly more expense for machinery and for buildings in spite of the fact that a smaller percentage of them had tractors. Taking all expenses together, the low profit group of farmers spent only 34 cents an acre more than the higher profit group but they had a gross income $13.32 an acre less than the latter group. This made a big difference in the proportion of income used to pay expenses. The 10 most successful farmers spent only $36 out of each $100 income in running the business while the 10 least successful farmers spent $59. It is the net receipts which pay interest and profits.

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

## Stark and Peoria Counties - 1925

| Factors helping to analyze the farm business | Your #27 farm | Average of 30 farms | 10 most profitable farms | 10 least profitable farms |
|---|---|---|---|---|
| Rate earned | 3.1 % | 6.06% | 8.89% | 3.57% |
| Labor and management wage | $-893 | $1 008. | $2 201. | $- 186. |
| Size of farm - Acres | 329 A | 187.1 A | 172.8 A | 199.7 A |
| Percent of land area tillable | % | 88.5% | 87.7% | 86.9% |
| Acres in Corn | A | 78.4 A | 72.1 A | 76.7 A |
| Oats | A | 42.2 A | 43.8 A | 44.7 A |
| Wheat | A | 5.0 A | 7.3 A | 4.2 A |
| Crop yields - Corn | 52 bu. | 61.4bu. | 60.3bu. | 61.1bu. |
| Oats | 62 bu. | 54.4bu. | 56.2bu. | 55.8bu. |
| Wheat | bu. | 25.7bu. | 26.0bu. | 15.0bu. |
| Returns per $100 invested in all productive livestock | $91 | $ 123.00 | $ 181.00 | $ 116.00 |
| For $100 in Cattle | $ 41 | $ 85.00 | $ 147.00 | $ 55.00 |
| Swine | $ 159 | $ 182.00 | $ 195.00 | $ 158.00 |
| Poultry | $ 165 | $ 162.00 | $ 163.00 | $ 151.00 |
| Percent of gross income from livestock | % | 76.5% | 78.7% | 81.8% |
| Man labor cost per acre | $ 4.91 | $ 6.09 | $ 6.16 | $ 6.00 |
| Crop acres per man | 84 A | 87.8 A | 86.2 A | 91.0 A |
| Crop acres per horse (with tractor) | 33 A | 22.2 A | 24.2 A | 20.0 A |
| (without tractor) | A | 19.1 A | 19.1 A | 24.2 A |
| Expense per $100 gross income | $63 | $ 46.00 | $ 36.00 | $ 59.00 |
| Machinery cost per acre | $ 3.06 | $ 2.40 | $ 2.05 | $ 2.77 |
| Building & fencing cost per A | $ 1.74 | $ 1.07 | $ 1.03 | $ 1.07 |
| Gross receipts per acre | $ 19.77 | $ 27.94 | $ 35.62 | $ 22.30 |
| Total expenses per acre | $ 2.40 | $ 12.80 | $ 12.87 | $ 13.21 |
| Net receipts per acre | $ 2.37 | $ 15.14 | $ 22.75 | $ 9.09 |
| Farms with tractor | % | 60.0% | 80.0% | 70.0% |
| Value of land per acre | $ | $ 189.00 | $ 192.00 | $ 192.00 |
| Total investment per acre | $ | $ 250.00 | $ 256.00 | $ 255.00 |

-4-

## Stark and Peoria Counties - 1925

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

## Find Your Farm Leaks – (Stark and Peoria Counties – 1925)

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

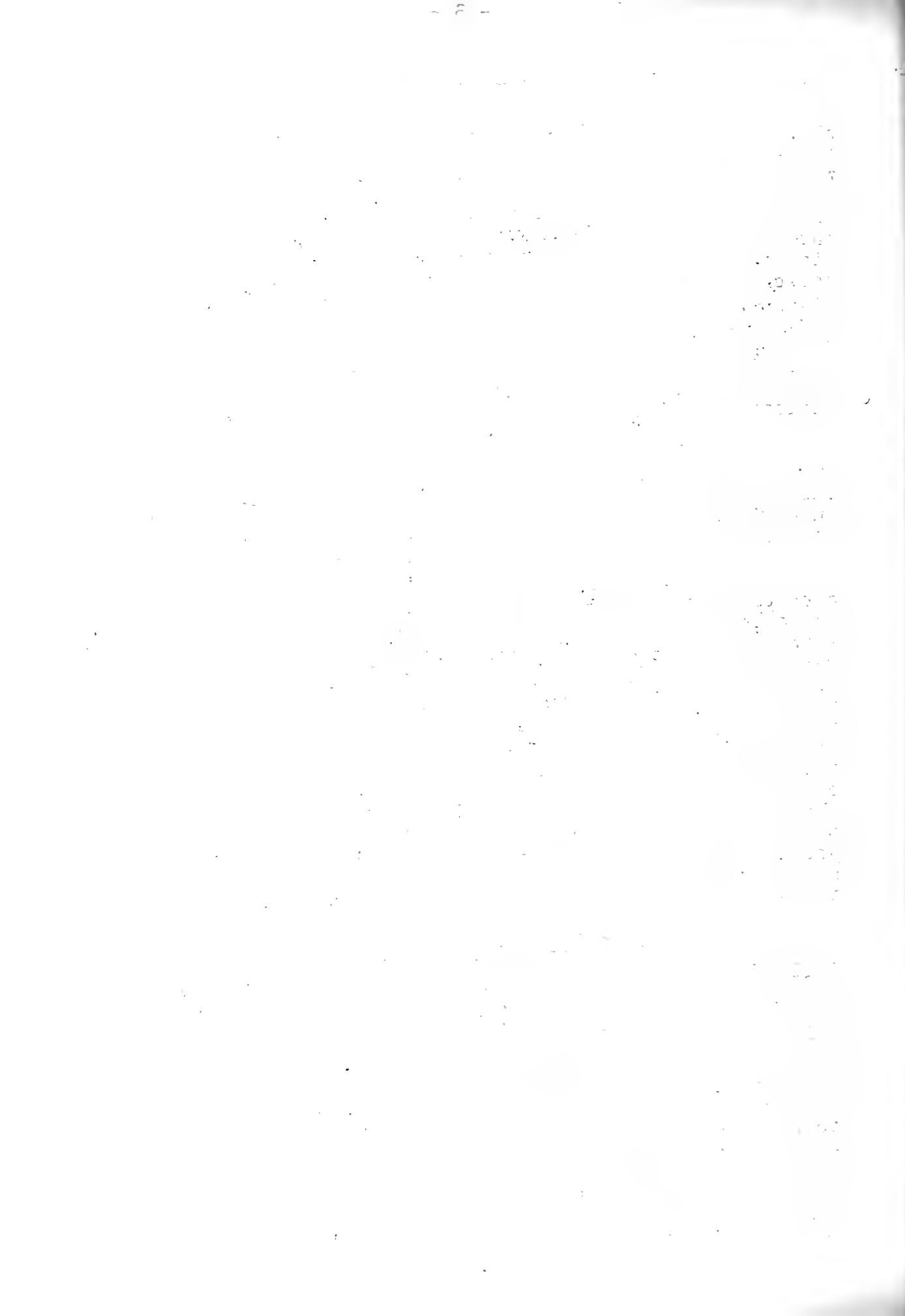| Rate earned | Bushels per acre of | | | Returns per $100 invested in | | | Percent income from L.S. | Man lab. cost per acre | Crop acres per | | | Expense per $100 income | Gross rect. per A. | Size of farm |
| | Corn | Oats | Wheat | Cattle | Hogs | Poultry | | | Man | Horse Trac-tor | No Tractor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

## Using the Farm Account Analysis

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

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

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

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.
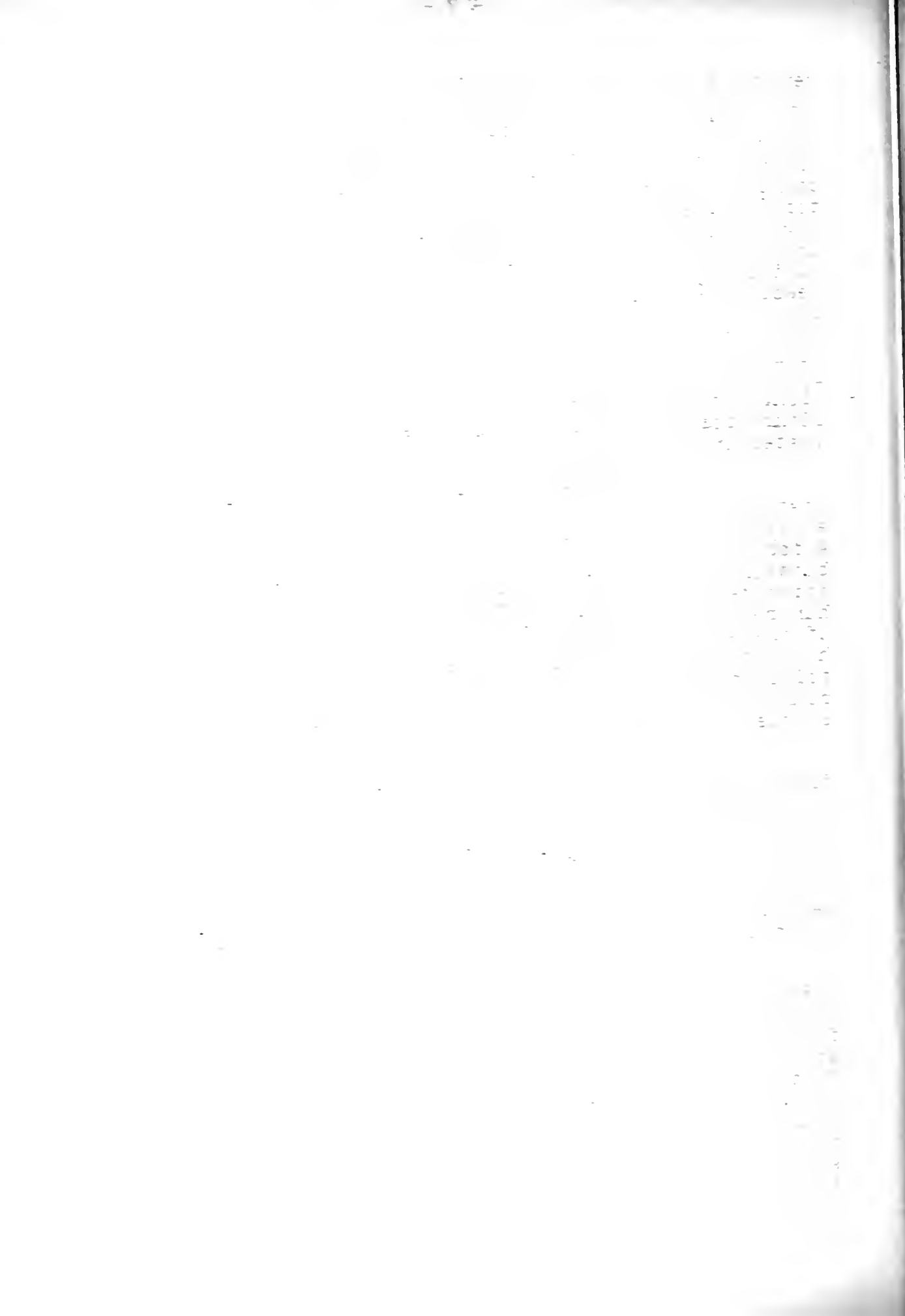
3. <u>Returns from Livestock</u>. The best measure of
general success with livestock from the simple farm account
is expressed in amount of returns for each $100.00 invested
in livestock. Since horses are usually kept as a source of
power and not for profit, they are excluded from this figure.
The amount of returns for each $100.00 invested in livestock
can be affected adversely by having an abnormally high inven-
tory at the beginning and end of the year as well as by hav-
ing low sales. A better measure of success is the amount of
income for each $100.00 worth of feed fed, but this cannot
be included in the general summary until more of the account
keepers will keep the feed records on pages 38 and 39 of the
account book. In general it may be said that from 70 to 85%
of the cost of producing meat animals is feed cost. Numerous
Illinois farm records have reflected the improvement in prof-
its when the farmers keeping them adopted better practices
along the line of breeding, sanitation, and feeding to get more
return for each $100. worth of feed fed, and for each $100. in-
vested in livestock.

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

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

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

- 8 -

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 18 Knox and Warren County farms for the same year was from $78.71 to $157.38 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 781.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

The average cost of operating 69 two-plow tractors in Champaign County in 1925 was $233. These tractors were used an average of 300 hours, giving an average hourly cost of 79 cents. The average annual cost for 33 three-plow tractors in the same area was $328.54 or an average of $1.39 for each of the 237 hours of use.

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

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

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

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

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

This factor can be influenced favorably either by holding down expenses or increasing the volume of sales to take care of them. It is always necessary to keep expenses and gross income in a favorable relation to each other.
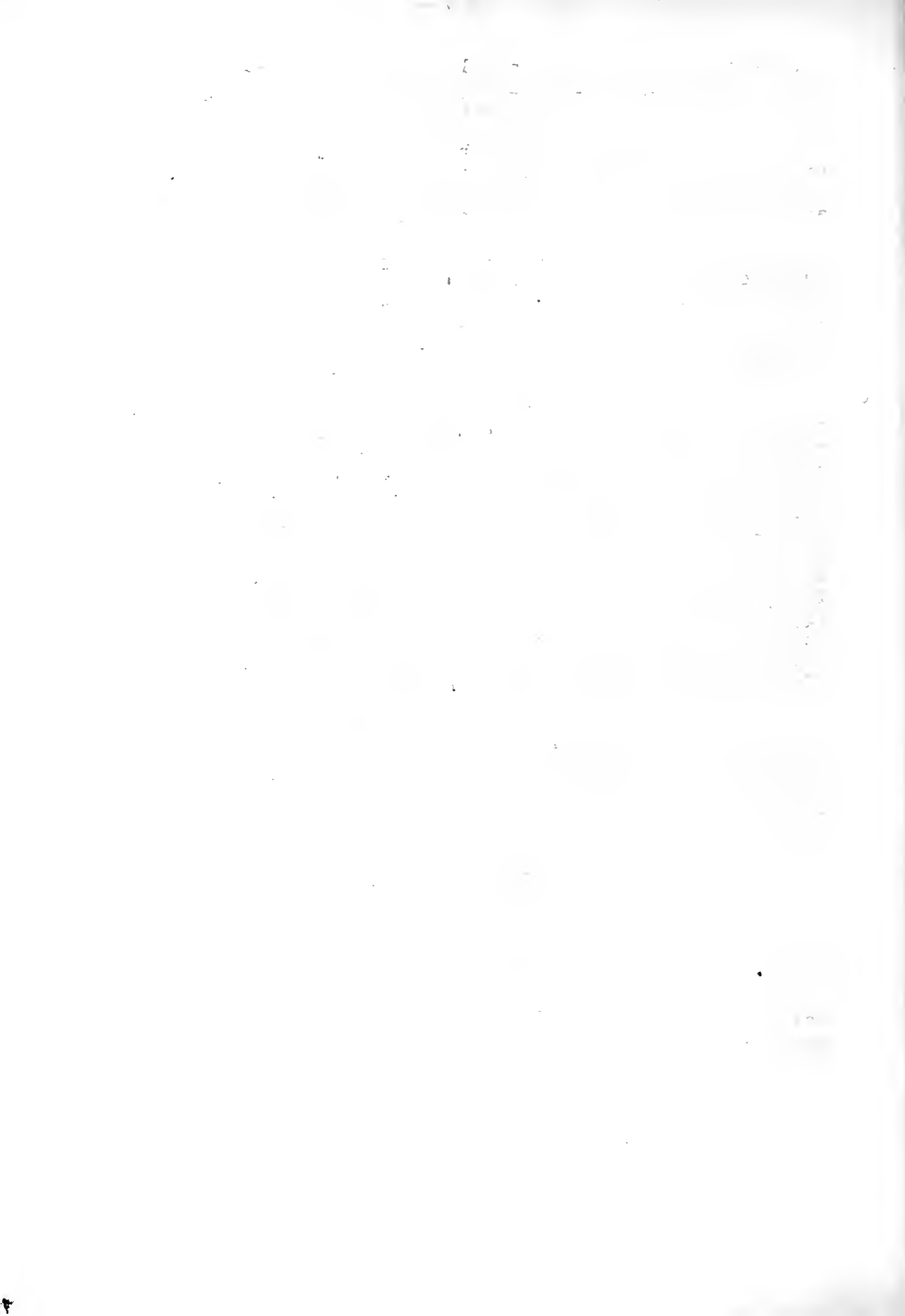
Such special items of expense as hired labor, machinery expense, and building and fence overhead are set out in these tables so that they may be seen in relation to income. Many repair bills can be saved by doing the work at home during slack seasons and preventing breaks through careful use and constant attention to lubrication.

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

LASALLE COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-two Farms

for

1925

Urbana, Illinois

April 30, 1926

# ANNUAL FARM BUSINESS REPORT

## LASALLE COUNTY, ILLINOIS - 1925

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

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

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

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

The income figures given in this report should not be considered as representative of all farms in LaSalle County. A field survey of the earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000. greater net incomes per farm for 1925 than farmers in the same locality keeping no financial records.

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

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

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

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

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

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

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

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

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

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

LaSalle County - 1925

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

## LaSalle County - 1925

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

# Find Your Farm Leaks – (LaSalle County – 1925)

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

| Rate earned | Bushels per acre of | | | Returns per $100 invested in | | | Percent income from L.S. | Man lab. cost per acre | Crop acres per | | | Expense per $100 income | Gross rect. per A. | Size of farm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Corn | Oats | Wheat | Cattle | Hogs | Poultry | | | Man | Tractor | Horse No Trac-tor | | | |
| 9.70 | 73 | 68 | 40 | 168 | 323 | 302 | 96 | 2.25 | 130 | 41 | 35 | 29 | 56 | 382 |
| 8.70 | 70 | 65 | 38 | 158 | 303 | 282 | 91 | 2.75 | 125 | 39 | 33 | 34 | 51 | 362 |
| 7.70 | 67 | 62 | 36 | 148 | 283 | 262 | 86 | 3.25 | 120 | 37 | 31 | 39 | 46 | 342 |
| 6.70 | 64 | 59 | 34 | 138 | 263 | 242 | 81 | 3.75 | 115 | 35 | 29 | 44 | 41 | 322 |
| 5.70 | 61 | 56 | 32 | 128 | 243 | 222 | 76 | 4.25 | 110 | 33 | 27 | 49 | 36 | 302 |
| 4.70 | 58 | 53 | 30 | 118 | 223 | 202 | 71 | 4.75 | 105 | 31 | 25 | 54 | 31 | 282 |
| 3.70 | 55 | 50 | 28 | 108 | 203 | 182 | 66 | 5.25 | 100 | 29 | 23 | 59 | 26 | 262 |
| 2.70 | 52 | 47 | 26 | 98 | 183 | 162 | 61 | 5.75 | 95 | 27 | 21 | 64 | 21 | 242 |
| 1.70 | 49 | 44 | 24 | 88 | 163 | 142 | 56 | 6.25 | 90 | 25 | 19 | 69 | 16 | 222 |
| 0.70 | 46 | 41 | 22 | 78 | 143 | 122 | 51 | 6.75 | 85 | 23 | 17 | 74 | 11 | 202 |
| -0.30 | 43 | 38 | 20 | 68 | 123 | 102 | 46 | 7.25 | 80 | 21 | 15 | 79 | 6 | 182 |
| -1.30 | 40 | 35 | 18 | 58 | 103 | 82 | 41 | 7.75 | 75 | 19 | 13 | 84 | -- | 162 |
| -2.30 | 37 | 32 | 16 | 48 | 83 | 62 | 36 | 8.25 | 70 | 17 | 11 | 89 | -- | 142 |
| -3.30 | 34 | 29 | 14 | 38 | 63 | 42 | 31 | 8.75 | 65 | 15 | 9 | 94 | -- | 122 |
| -4.30 | 31 | 26 | 12 | 28 | 43 | 22 | 26 | 9.25 | 60 | 13 | 7 | 99 | -- | 102 |
| -5.30 | 28 | 23 | 10 | 18 | 23 | -- | 21 | 9.75 | 55 | 11 | 5 | 104 | -- | 82 |

Using the Farm Account Analysis

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- 9 -

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

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

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

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

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

Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

KENDALL AND GRUNDY COUNTIES

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-one Farms

for

1925

Urbana, Illinois

May 25, 1926

# ANNUAL FARM BUSINESS REPORT

## KENDALL AND GRUNDY COUNTIES, ILLINOIS - 1925

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

The 21 farmers in Kendall and Grundy Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $569 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $223 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $1,468, while the third who were least successful lacked $73 of having enough income to pay 5% on their investment, allowing nothing for their labor and management.

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

Expressed in another way, these 21 farmers earned 4.74% on their investments after allowing $720 to pay for their own labor. On the same basis the most successful third earned 7.61% and the least successful third 3.35%. The average investment on the 21 farms was $39,919, which amounts to $223 an acre. The higher profit third had an average investment of $226 and the lower profit third $208 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

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

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

_____

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

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

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

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

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

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

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

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

Kendall and Grundy Counties, 1925

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

Kendall and Grundy          Counties - 1925

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

# Find Your Farm Leaks – (Kendall and Grundy Counties – 1925)

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

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

## Using the Farm Account Analysis

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

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

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

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4. Use of Man and Horse Labor. Man labor and horse and tractor power are the largest items of operating cost on the farm. For this reason they will be watched carefully by the efficient farm operator. Every year these items are found to vary widely in any group of farms in the same locality where weather and prices are similar. Fourteen farms in Champaign and Piatt Counties on which detailed cost accounts are kept showed a variation from $3.51 to $5.50 in cost of man labor to grow and harvest an acre of corn during the same season. The variation in power cost ranged from $3.83 to $6.90 on two farms each having a tractor and with similar conditions. The power cost ran up to $11.48 an acre on one small farm with too few acres of crops to make good use of even one team.

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

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

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

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

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

- 5 -

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

WILL COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-three Farms

for

1925

Urbana, Illinois

April 28, 1926

# ANNUAL FARM BUSINESS REPORT

## WILL COUNTY, ILLINOIS - 1925

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

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

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

Expressed in another way these 33 farmers earned 4.13% on their investments after allowing $600. each to pay for their own labor. On the same basis the most successful third earned 6.34% and the least successful third 1.54%. The average investment on the 33 farms was $43,647. which amounts to $230 an acre. The higher profit third had an average investment of $217. and the lower profit third $254 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on Page 4.

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

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

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

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

nearly twice as many acres of corn and five times as many acres of wheat as the 11 least successful farms. The average farm had 58 acres of corn, 33 acres of oats and 21 acres of wheat, making up a total of 112 acres of these three crops and leaving 73 acres for other purposes such as pasture, hay and miscellaneous crops.
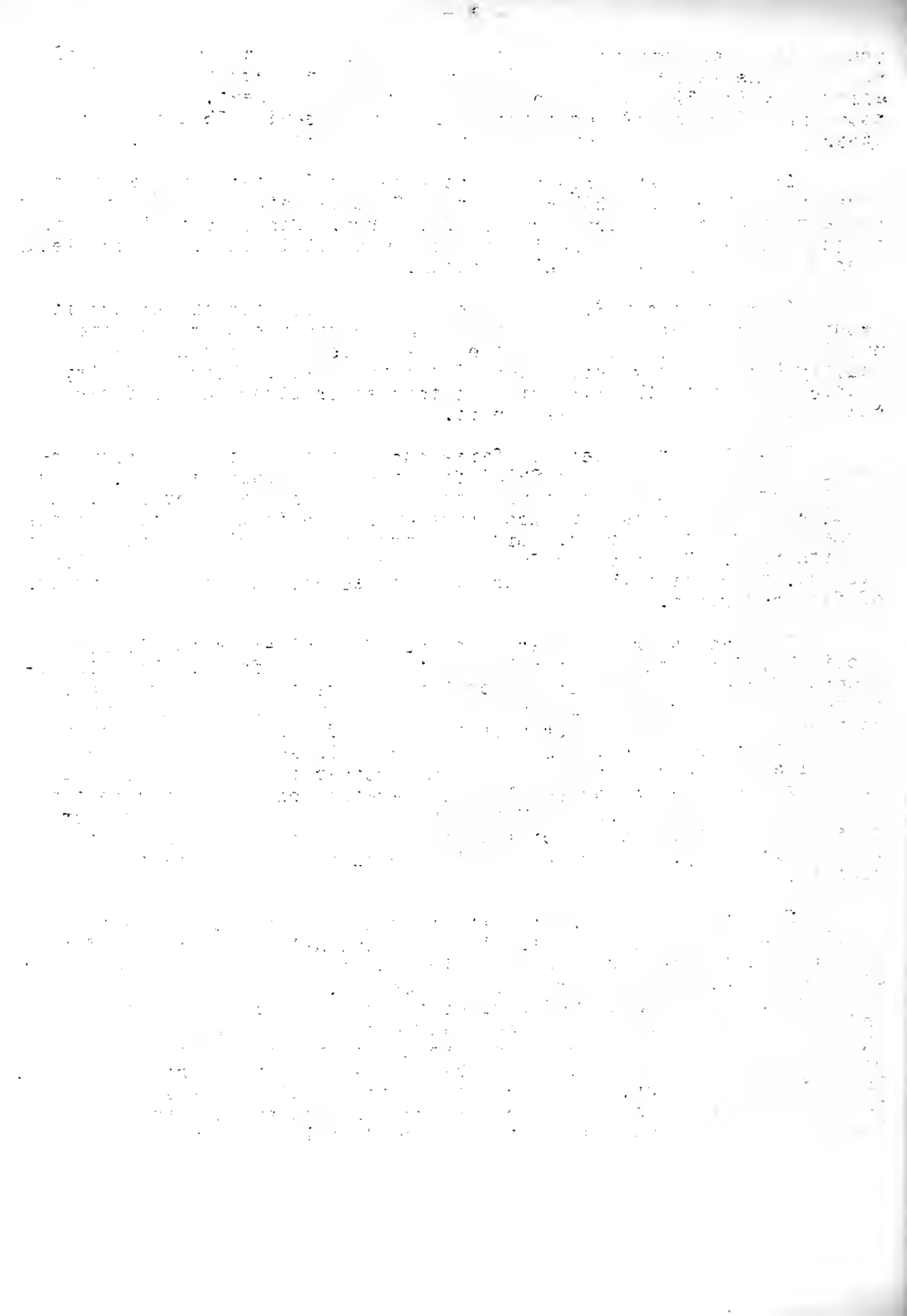
In yields per acre the 11 most successful farms had a great advantage. They grew 25% more corn, 17% more oats and 55% more wheat per acre than the 11 least successful farms. Since operating costs do not ordinarily increase in proportion to yield these higher yields mean a lower cost per bushel of grain.

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

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

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

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

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

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

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

Will County - 1925

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

Will County - 1925

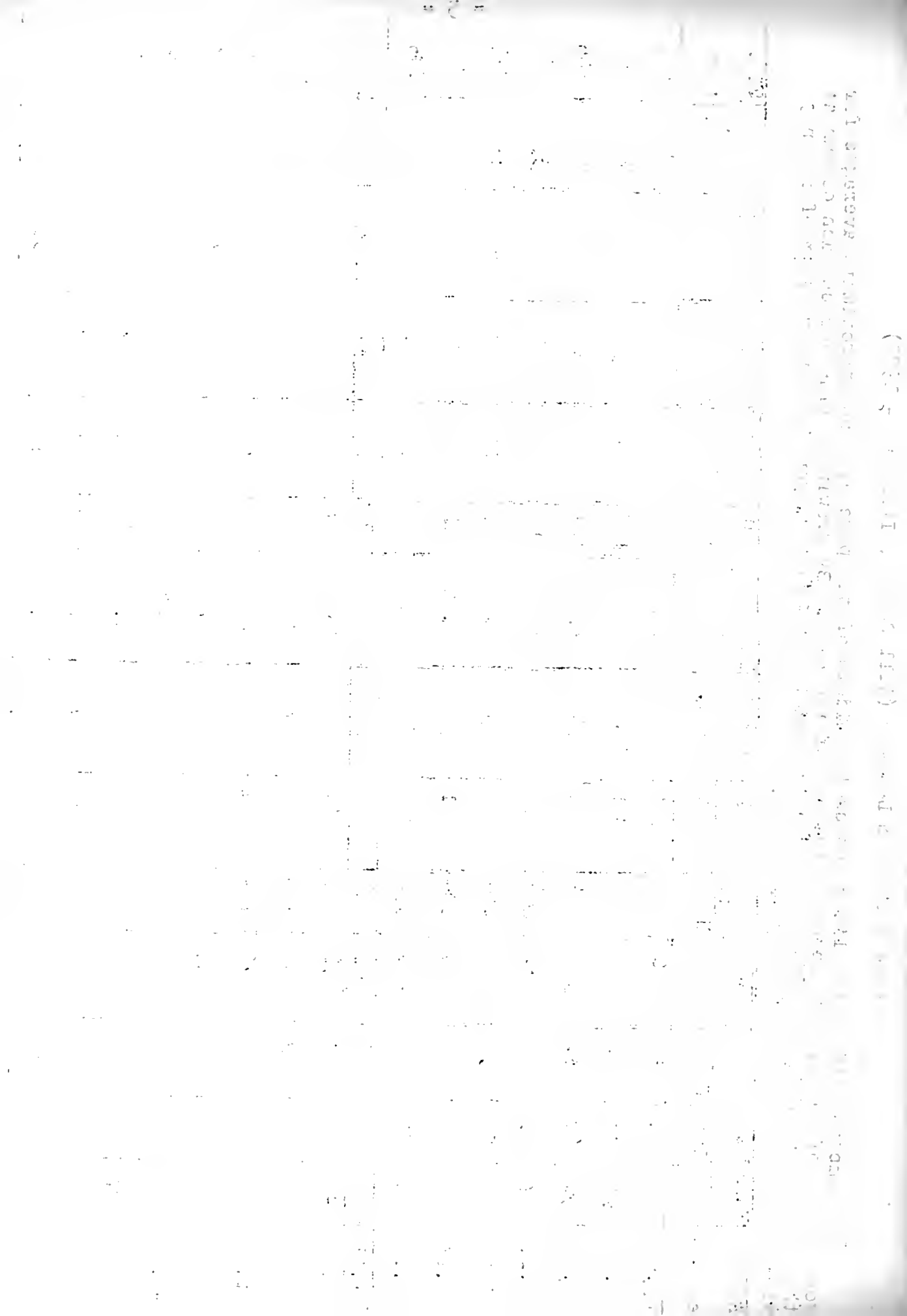| | | Your farm | Average of 33 farms | 11 most profitable farms | 11 least profitable farms |
|---|---|---|---|---|---|
| 1. | Capital Investment - Total | $ | $42 647 | $49 774 | $30 406 |
| 2. | Land | | 30 644 | 36 984 | 21 300 |
| 3. | Farm improvements | | 4 600 | 4 928 | 3 075 |
| 4. | Machinery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

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

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

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

## Using the Farm Account Analysis

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

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

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

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

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

opportunities for spending all the farm earnings in operating
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keep a closer watch on expenses.

This factor can be influenced favorably either
by holding down expenses or increasing the volume of sales
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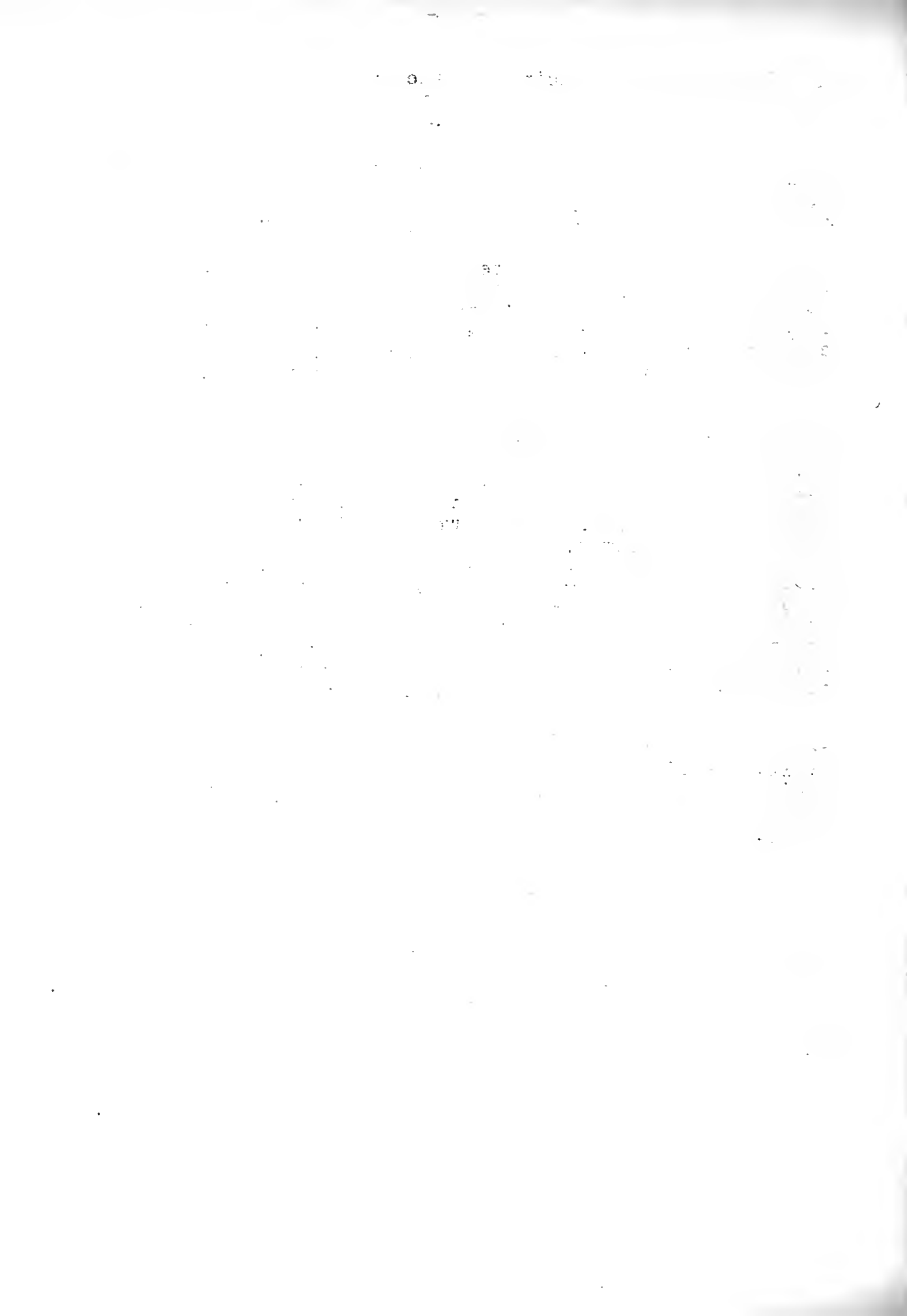and gross income in a favorable relation to each other.

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

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

Accumulating evidence from farm records bears out
the statement that year by year with changing price relations
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UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

MARSHALL AND PUTNAM COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Twenty-seven Farms

for

1925

Urbana, Illinois

May 10, 1926

ANNUAL FARM BUSINESS REPORT

MARSHALL AND PUTNAM COUNTIES, ILLINOIS - 1925

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


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

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

    Expressed in another way these 27 farmers earned 4.33% on their investments after allowing $600 to pay for their own labor. On the same basis the most successful third earned 6.36% and the least successful third 2.15%. The average investment on the 27 farms was $62,085, which amounts to $273 an acre. The higher profit third had an average investment of $262 and the lower profit third $281 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

    The income figures given in this report should not be considered as representative of all farms in these counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

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

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

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

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

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

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

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

## Marshall and Putnam Counties - 1925

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

## Marshall and Putnam Counties - 1925

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

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

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

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

## Using the Farm Account Analysis

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

WOODFORD COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty-four Farms

for

1925

Urbana, Illinois

May 3, 1926

# ANNUAL FARM BUSINESS REPORT

## WOODFORD COUNTY, ILLINOIS - 1925

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

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

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

In addition to the above earnings each farm family secures
certain items of produce such as milk, butter, eggs, etc., not listed
in these accounts.  These together with the use of the farm home, not
included in the above investment, amounted to about $725. a year on
a group of Champaign County farms where this phase of the farm busi-
ness was given special study.

The income figures given in this report should not be considered
as representative of all farms in Woodford County.  A field survey of
earnings on all farms in one McLean County township indicated that
those farmers keeping accounts averaged about $1000. greater net earn-
ings per farm for 1925 than the average of all farmers in the same
locality.

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

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

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

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

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

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

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

2a

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

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

Some points of strength and some of weakness in your farm busi-
ness 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 mak-
ing the least profits.

## Woodford County - 1925

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

Woodford County - 1925

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

## Find Your Farm Leaks — (Woodford County – 1925)

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

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

## Using the Farm Account Analysis

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

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

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

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

- 7 -

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and the

Farm Bureaus of

Livingston, McLean, Tazewell and Woodford Counties

Cooperating


FIRST ANNUAL REPORT

of the

FARM BUREAU-FARM MANAGEMENT SERVICE

for the year

1925

This report prepared for the farm operated by

_____


Urbana, Illinois

April 17, 1926

FIRST ANNUAL REPORT

For the Cooperators in the

Farm Bureau-Farm Management Service

For the Year 1925

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

The 225 farmers whose records were used in preparing this report, after paying all expenses of operating their farms, without including any allowance for their own labor, lacked $332 of making 5% return on their investment. The average investment per acre, including buildings, livestock and other equipment, was $258.15 per acre. Expressed in another way these men earned 3.21% on their investment, after deducting all expenses of operating their farms and $720 allowance for the value of their own labor.

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

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

## Differences in Earnings Between Farms

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

This amounts to a total difference of $4724 in the return for the the labor and management of the operators between the high and low groups of farms. This may be expressed in another way by saying, after all expenses were paid and the operator allowed $720 for his own labor, the most profitable group made 8.1% on the investment, while the least profitable group lacked .57 of 1% of getting any return for the money invested.

2.

## What Accounted for the Difference in Farm Earnings

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

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

## Factors Affecting Farm Income

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

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

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

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

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

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

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

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

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

# Table 1.  SUMMARY OF THE YEARS FARM BUSINESS

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

| | Items | Your farm | Average of 225 farms | 25 most profitable farms | 25 least profitable farms |
|---|---|---|---|---|---|
| 1 | Capital Investments - Total | $ | $59890 | $52451 | $55064 |
| 2 | Land | | 44440 | 39035 | 40733 |
| 3 | Farm Improvements | | 5694 | 4258 | 4853 |
| 4 | Machinery & Equipment | | 1815 | 1498 | 1748 |
| 5 | Feed, Grain & Supplies | | 4842 | 3818 | 4343 |
| 6 | Livestock - Total | | 3099 | 3842 | 2887 |
| 7 | Horses | | 867 | 814 | 899 |
| 8 | Cattle | | 1114 | 1080 | 993 |
| 9 | Hogs | | 864 | 1635 | 788 |
| 10 | Sheep | | 111 | 189 | 79 |
| 11 | Poultry | | 140 | 124 | 128 |
| 12 | Bees | | 3 | --- | --- |
| 13 | Receipts & Net Increases - Total | $ | $ 5356 | $ 7987 | $ 3084 |
| 14 | Farm Improvements | | 8 | 11 | 0 |
| 15 | Feed, Grain & Supplies | | 2097 | 2010 | 1093 |
| 16 | Labor off the Farm | | 80 | 147 | 27 |
| 17 | Miscellaneous | | 25 | 21 | 4 |
| 18 | Livestock - Total | | 3146 | 5798 | 1960 |
| 19 | Horses | | 28 | 43 | 16 |
| 20 | Cattle | | 560 | 798 | 265 |
| 21 | Hogs | | 1846 | 3935 | 1234 |
| 22 | Sheep | | 103 | 235 | 56 |
| 23 | Poultry | | 121 | 139 | 95 |
| 24 | Egg Sales | | 137 | 130 | 81 |
| 25 | Dairy Sales | | 346 | 518 | 213 |
| 26 | Bees | | 5 | --- | --- |
| 27 | Expenses & Net Decreases - Total | $ | $ 2514 | $ 2784 | $ 2489 |
| 28 | Farm Improvements | | 247 | 208 | 236 |
| 29 | Machinery & Equipment | | 513 | 485 | 444 |
| 30 | Feed, Grain & Supplies | | 196 | 544 | 293 |
| 31 | Miscellaneous Livestock Exp. | | 47 | 59 | 45 |
| 32 | Miscellaneous Crop Expense | | 234 | 251 | 201 |
| 33 | Hired Labor | | 668 | 654 | 648 |
| 34 | Taxes, Insurance, etc. | | 493 | 482 | 499 |
| 35 | Miscellaneous Expenses | | 54 | 54 | 59 |
| 36 | Horses - Decreases | | 53 | 45 | 55 |
| 37 | Miscellaneous Livestock Decreases | | 9 | 2 | 9 |
| 38 | Receipts less Expenses | $ | $ 2842 | $ 5203 | $ 595 |
| 39 | Operator's and Family Labor | | 922 | 957 | 910 |
| 40 | Net Income from Investment | | 1920 | 4246 | -315 |

5.

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

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

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

6.

Table 2 - Continued

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

## Table 3 - FIND YOUR FARM LEAKS

The numbers between the lines across the middle of the page are the averages for the 225 farms used in this summary of the factors named at the tops of the columns. By drawing a line across each column at the number measuring the efficiency of your farm as shown in Table 2, you can compare your efficiency with that of the other farms in the project.

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

## Profitable Farming and Basis of Study

Profitable farming requires balanced farming. Weaknesses in some parts of the farm business may offset the advantages gained at other points. The more important points to be considered, most of which are well illustrated in the data in this report, include the following:

1. Crop yields
2. Kinds of crops grown
3. Amount of livestock
4. Efficiency with which livestock is fed
5. Use of man labor
6. Use of horse labor and farm power
7. Relationship of expenses to receipts
8. Size of farms

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Table 6 – Practices with Growing Oats

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

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

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

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

## Table 7 - Practices with Growing Wheat

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

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

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

## The Best Combination of Crops

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

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

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

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

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

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

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

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

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

## The Place of Livestock on Farms in Central Illinois

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

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

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

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

### The Use of Man Labor and Farm Power

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

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

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

### Size of Farms

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

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

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

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

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

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

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

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

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

| | Your farm | Farms of 40-140 acres | Farms of 141-180 acres | Farms of 181-220 acres | Farms of 221-260 acres | Farms of 261-320 acres | Farms of 321-640 acres |
|---|---|---|---|---|---|---|---|
| Number of farms | | 33 | 47 | 34 | 41 | 43 | 27 |
| Average size of farm | | 118.9 | 161.8 | 204.8 | 240.4 | 298.2 | 403.4 |
| Value of land per acre | | $ 194.68 | $ 188.11 | $ 193.56 | $ 192.76 | $ 189.18 | $ 193.26 |
| Total investment per acre | | $ 274.06 | $ 254.16 | $ 263.77 | $ 261.52 | $ 250.96 | $ 257.07 |
| Rate earned on investment | | 3.61% | 2.48% | 3.90% | 3.19% | 3.29% | 3.02% |
| Labor and management wage | | $ 194.50 | $-339.25 | $ 106.25 | $-424.64 | $-587.56 | $-1382.71 |
| Gross receipts per acre | | $ 28.12 | $ 22.09 | $ 25.56 | $ 22.95 | $ 22.05 | $ 21.74 |
| Total expense per acre | | $ 18.23 | $ 15.79 | $ 15.28 | $ 14.61 | $ 13.80 | $ 13.97 |
| Net receipts per acre | | $ 9.89 | $ 6.30 | $ 10.28 | $ 8.34 | $ 8.25 | $ 7.77 |
| Percent of farm tillable | | 91.0% | 89.7% | 88.2% | 90.1% | 88.9% | 90.8% |
| Percent of tillable land in | | | | | | | |
| Corn | | 43.2% | 43.5% | 44.2% | 45.9% | 42.7% | 46.1% |
| Oats | | 24.3% | 25.7% | 28.6% | 25.8% | 25.1% | 26.7% |
| Wheat | | 5.5% | 7.2% | 5.5% | 6.8% | 10.1% | 5.2% |
| Legumes | | 19.6% | 17.2% | 15.1% | 14.8% | 13.6% | 13.7% |
| Blue grass | | 3.7% | 3.3% | 2.9% | 3.2% | 4.0% | 6.1% |
| Timothy | | .6% | .8% | 1.2% | 1.8% | 3.0% | .7% |
| Miscellaneous | | 3.1% | 2.2% | 2.5% | 1.8% | 1.5% | 1.5% |
| Percent of income from livestock | | 69.4% | 57.6% | 66.9% | 60.5% | 55.5% | 47.8% |
| Investment in productive L.S. per A. | | 15.25 | 9.44 | 13.51 | 9.42 | 8.94 | 7.98 |
| Livestock returns per acre | | 19.26 | 12.55 | 16.95 | 13.74 | 12.09 | 10.37 |
| Pounds of pork per acre | | 91.8 | 59.6 | 91.0 | 77.7 | 59.3 | 46.7 |
| Crop acres per man | | 73.5A. | 81.1A. | 83.7A. | 94.0A. | 93.5A. | 101.8A. |
| Crop acres per horse | | 18.0A. | 19.9A. | 21.9A. | 25.5A. | 24.0A. | 28.0A. |
| Expense per $100 gross income | | 64.83 | 71.48 | 59.79 | 63.66 | 62.58 | 64.26 |
| Expense per acre of whole farm | | | | | | | |
| Farm improvements | | 1.19 | 1.01 | .99 | 1.20 | .93 | 1.14 |
| Machinery and equipment | | 2.49 | 2.27 | 2.34 | 2.29 | 2.01 | 2.16 |
| Hired and home labor | | 8.14 | 7.39 | 7.13 | 6.82 | 6.51 | 6.28 |
| Other expenses | | 6.41 | 5.12 | 4.83 | 4.29 | 4.35 | 4.39 |
| Farm produce used in home | | $ 353.98 | $ 406.98 | $ 450.83 | $ 443.67 | $ 487.11 | $ 423.18 |
| House rent (10% of value) | | $ 356.61 | $ 353.00 | $ 515.06 | $ 462.80 | $ 441.59 | $ 621.74 |
| Total living furnished by farm | | $ 710.59 | $ 759.98 | $ 965.89 | $ 906.47 | $ 928.70 | $ 1044.92 |

## ORGANIZATION AND PURPOSE OF THE FARM BUREAU-

## FARM MANAGEMENT SERVICE PROJECT

The Farm Bureau Farm Management Service Project was organized during the latter part of the year 1924. Its purpose is to assist the farmers cooperating in it to keep such farm accounts as will enable them to study the efficiency with which they are conducting their farm business and to help them to apply to their individual farms the practices in farm organization and operation which have proven profitable on other farms of a similar type. The project in which 239 farmers cooperated is an outgrowth of the regular Extension Project in Farm Organization and Management of the College of Agriculture of the University of Illinois.

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

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

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

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

### Plan of Organization

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

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

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

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

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

SURVEY OF FARM BUSINESS ON 113 FARMS

in

Gridley Township

McLean County, Illinois

Urbana, Illinois

June 1, 1926

# SURVEY OF FARM BUSINESS ON 113 FARMS

## TOWNSHIP, Mc LEAN COUNTY, ILLINOIS

### 1925

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

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

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

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

## Differences in Earnings Between the Farms

For purposes of comparison and analysis the 113
farms were divided into three equal groups according to the
rate earned on the money invested in the farm and equipment.
By comparing the farms in the upper one-third and the lower
one-third an attempt was made to discover the factors which
contributed to the success or failure of the farms in these
two groups. There are wide differences in the earnings between
the more successful and the less successful groups. The one-
third (38 farms) more profitable of the 113 farms made $3\frac{1}{2}$% on
their investment, or, in other words, after allowing $610 to
each operator for labor, they lacked $165 of making 5%; while
the one-third less profitable showed a loss of $\frac{1}{2}$% on their invest-
ment, or they lacked $1,780 of earning 5% interest. This
means that there was a difference of $1,615 in farm earnings
between the one-third that had the higher incomes and the one-
third of the farms that had the lower incomes.

## Factors Affecting Farm Income

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

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

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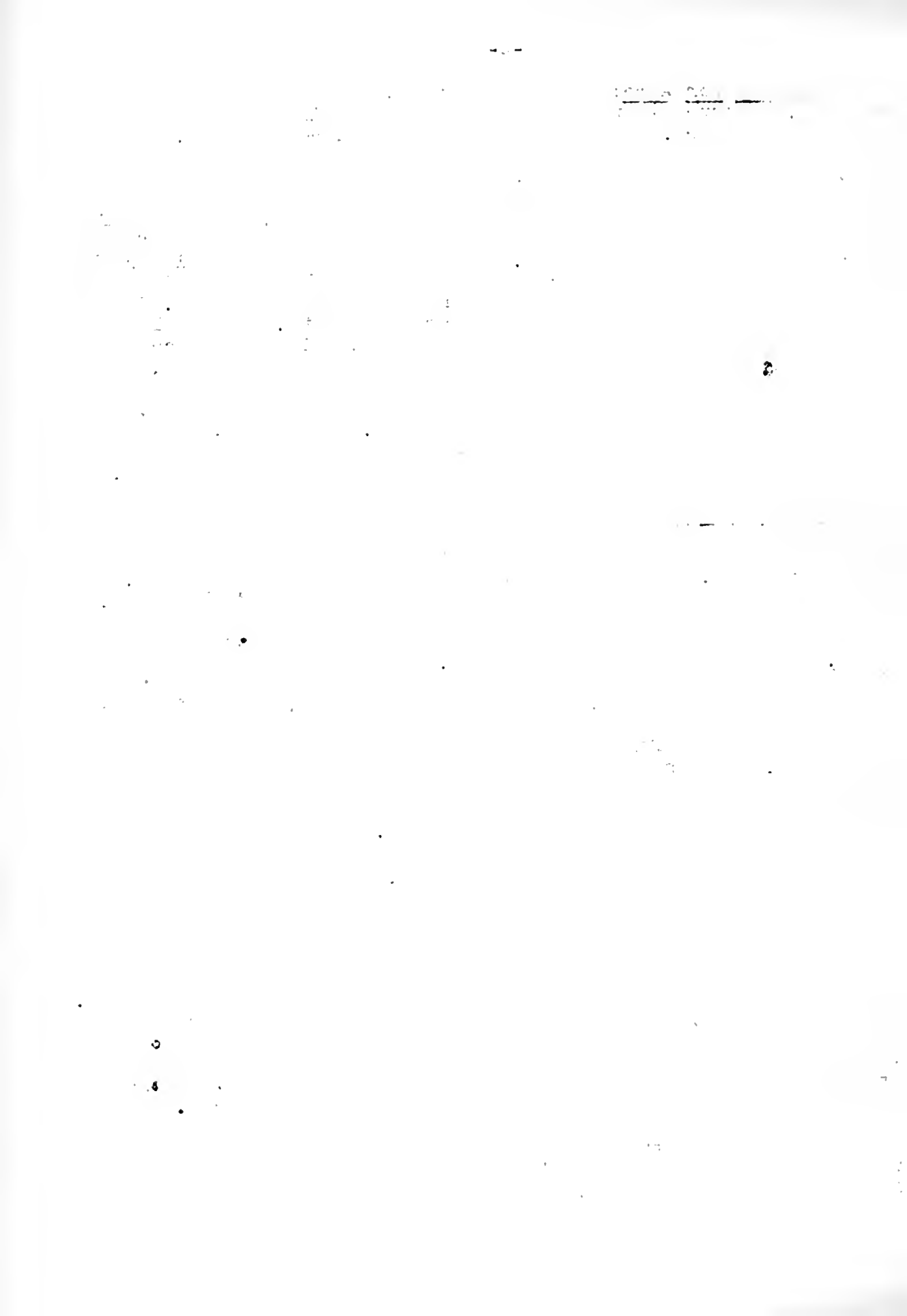more acres per man and per horse and had a lower cost per acre in
keeping up machinery, buildings and fences.

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

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

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

# GRIDLEY TOWNSHIP, MCLEAN COUNTY, ILLINOIS - 1925

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

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

## GRIDLEY TOWNSHIP, MCLEAN COUNTY, ILLINOIS - 1925

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

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

Cooperating

.

ANNUAL FARM BUSINESS REPORT

on

Thirty-eight Farms

for

1925

Urbana, Illinois

April 21, 1926

# ANNUAL FARM BUSINESS REPORT

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

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

The 38 farmers in this group of Counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $1006. to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $188 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $2686, while the third who were least successful lacked $424 of having enough earnings to pay 5% interest on their capital when nothing was allowed for labor and management. There was, therefore, a difference of about $3110 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way these 38 farmers earned 6.02% on their investments after allowing $600 to pay for their own labor. On the same basis the most successful third earned 11.11% and the least successful third 2.4%. The average investment on the 38 farms was $40,430, which amounts to $188 an acre. The higher profit third had an average investment of $167 and the lower profit third $203 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

The income figures given in this report should not be considered as representative of all farms in the above named Counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000. greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

In size of farm both the high and low profit groups were slightly under the average but not sufficient to materially affect profits. Each group averaged around 200 acres per farm. All three groups averaged from 76 to 79% of tillable land which gave them close to the same amount of tillable land per farm. In acreage of the chief grain crops, the more successful group averaged about $7\frac{1}{2}$ acres more corn and 10 acres less wheat than the less successful group. It is not probable that this favored the more successful farms, however, since wheat prices were relatively

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

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

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

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

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

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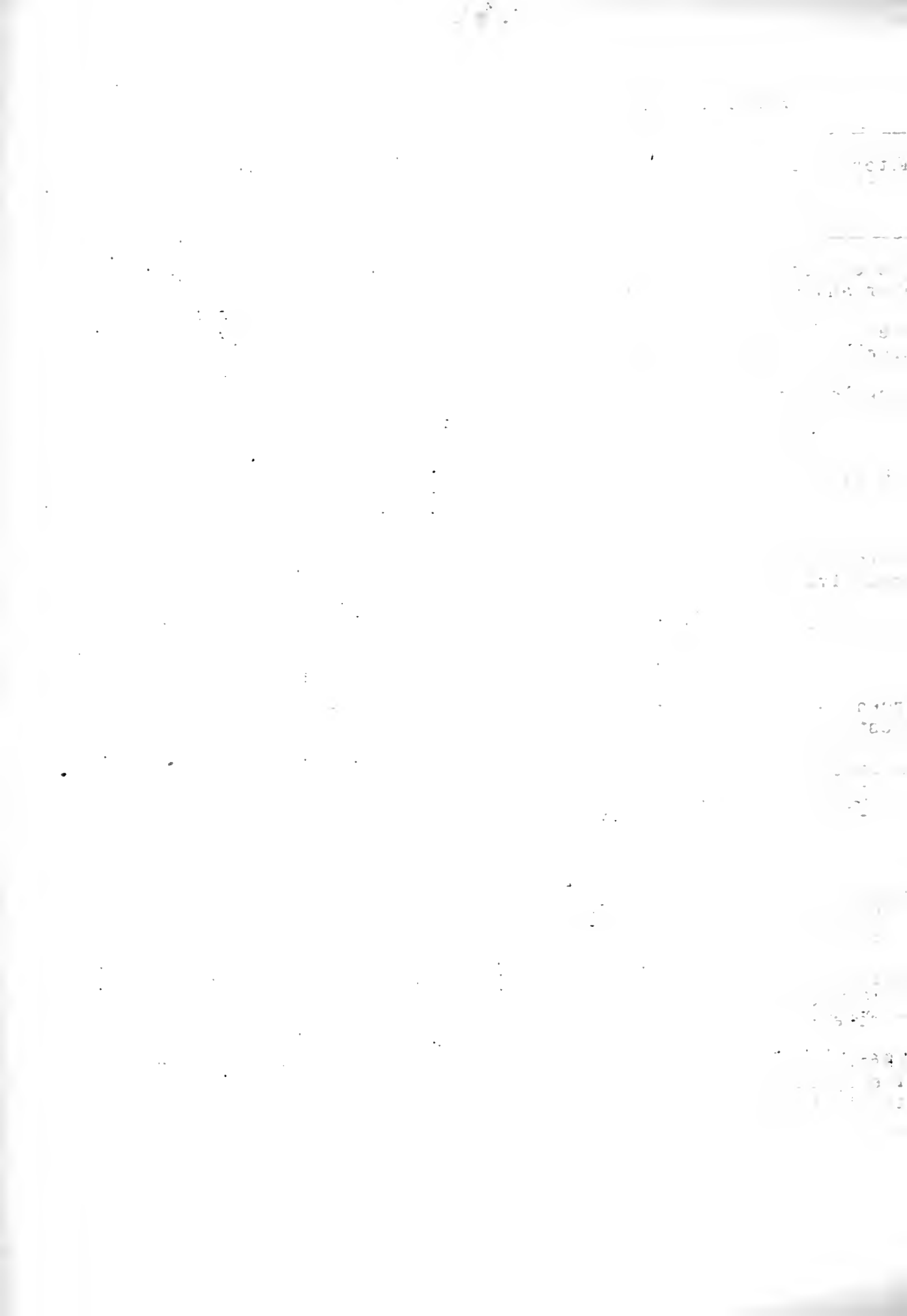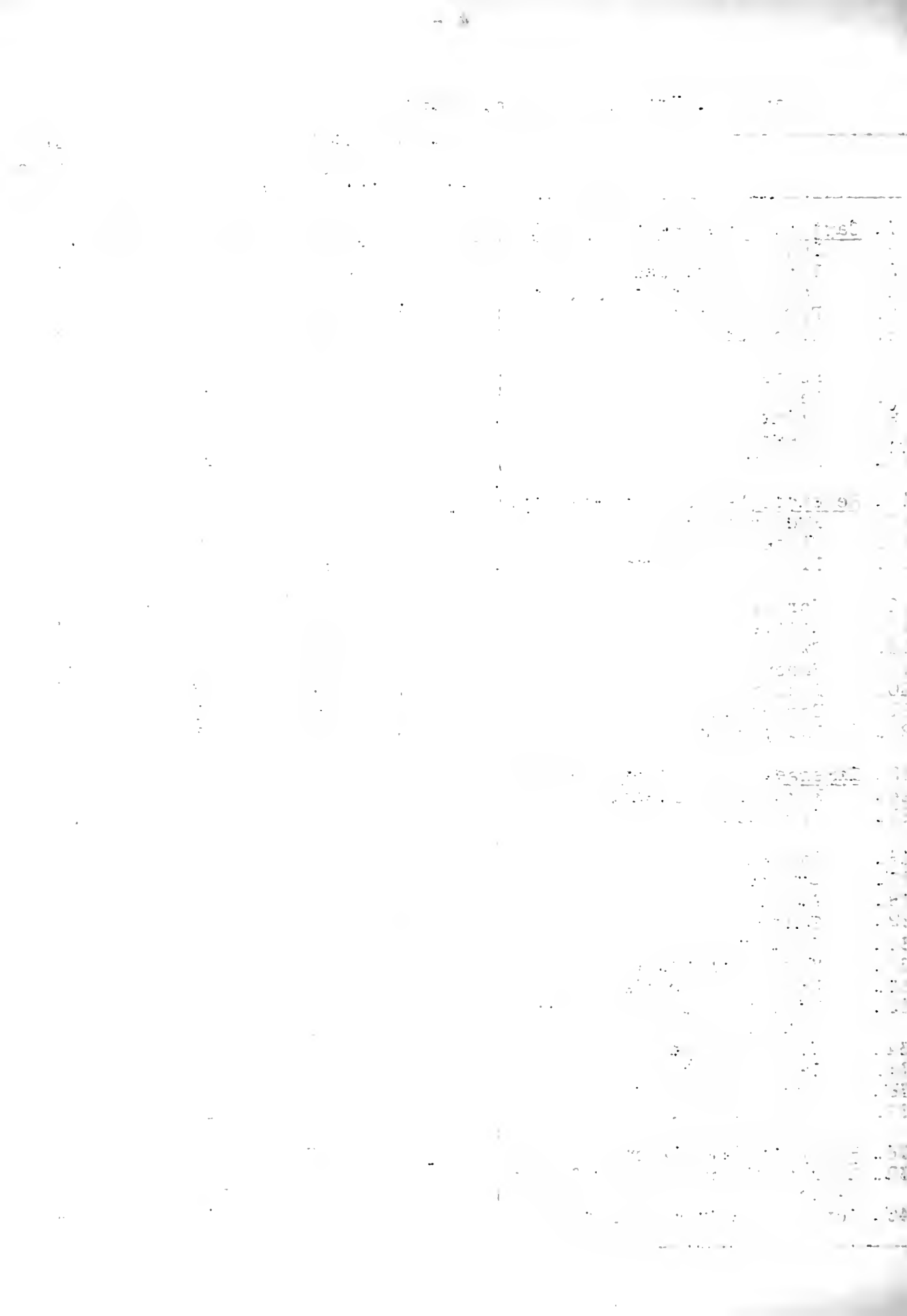the group making the least profits.

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

| Factors helping to analyze the farm business | Your farm | Average of 38 farms | 13 most profitable farms | 13 least profitable farms |
|---|---|---|---|---|
| Rate earned | % | 6.02% | 11.11% | 2.40% |
| Labor and management wage | $ | $1006. | $2686. | $-424. |
| Size of farm - Acres | A. | 215.5 A | 204.8 A | 193.7 A |
| Percent of land area tillable | % | 76.3% | 77.3% | 79.4% |
| Acres in Corn | A | 60.7 A | 62.2 A | 54.6 A |
| Oats | A | 23.0 A | 21.7 A | 20.6 A |
| Wheat | A | 22.6 A | 15.2 A | 25.2 A |
| Crop yields - Corn | bu. | 58.6bu. | 65.8bu. | 51.3 bu. |
| Oats | bu. | 34.9bu. | 33.2bu. | 30.3 bu. |
| Wheat | bu. | 15.1bu. | 13.0bu. | 13.5 bu. |
| Returns per $100 invested in all productive livestock | $ | $ 174.00 | $ 220.00 | $ 95.00 |
| For $100 in Cattle | $ | $ 95.00 | $ 108.00 | $ 77.00 |
| Swine | $ | $ 251.00 | $ 318.00 | $ 190.00 |
| Poultry | $ | $ 203.00 | $ 219.00 | $ 217.00 |
| Percent of gross income from livestock | % | 98.5% | 99.2% | 80.3% |
| Man labor cost per acre | $ | $ 5.81 | $ 6.44 | $ 5.87 |
| Crop acres per man | A | 72.4 A | 63.4 A | 81.1 A |
| Crop acres per horse | | | | |
| (with tractor) | A | 23.0 A | 22.0 A | 26.0 A |
| (without tractor) | A | 21.1 A | 18.6 A | 20.6 A |
| Expense per $100 gross income | $ | $ 52.00 | $ 41.00 | $ 71.00 |
| Machinery cost per acre | $ | $ 1.95 | $ 1.48 | $ 1.74 |
| Building & fencing cost per A | $ | $ .90 | $ .89 | $ 1.03 |
| Gross receipts per acre | $ | $ 23.31 | $ 31.62 | $ 16.70 |
| Total expenses per acre | $ | $ 12.01 | $ 13.11 | $ 11.83 |
| Net receipts per acre | $ | $ 11.30 | $ 18.51 | $ 4.87 |
| Farms with tractor | % | 45 % | 31 % | 38 % |
| Value of land per acre | $ | $ 136.00 | $ 111.00 | $ 151.00 |
| Total investment per acre | $ | $ 188.00 | $ 167.00 | $ 203.00 |

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

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

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

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

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

## Using the Farm Account Analysis

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

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

1. Net and Gross Earnings.  Net earnings have been expressed in three ways in these analyses each way serving a different purpose.  As rate earned on investment, the earnings can be compared with other types of commercial investment involving risk and management.  It should be noted that many of the farmers keeping these accounts are tenants and hence own only a small part of the capital invested in the business.  Other degrees of ownership are represented in mortgaged farms.  The labor and management wage more effectively expresses the degree of success with which the farm operator is marketing his own labor and managing ability.  He should be able to earn the five per cent allowed on the farm capital without labor and with very little supervision.  Gross and net earnings per acre give the volume and profit of business done on a unit basis which aids in any comparison of farms of different sizes.
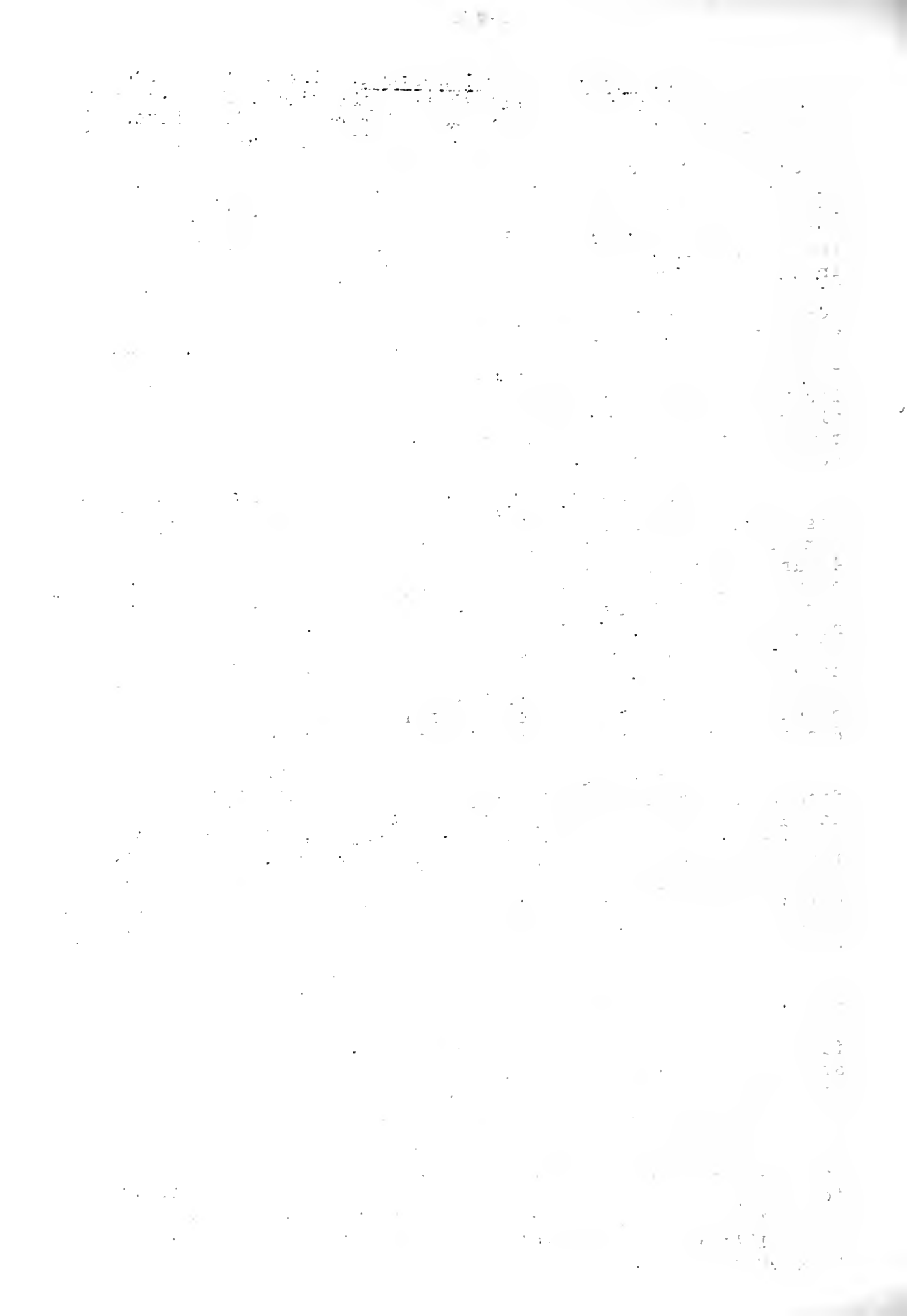
2. Crop Yields.  Good crop yields are essential to earning a margin of profit.  Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land.  At 60 cents a bushel, which was about the farm price of corn January 1, 1926, this requires 50 bushels of corn to pay expenses.  Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both.  The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

MC DONOUGH COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

May 25, 1926

# ANNUAL FARM BUSINESS REPORT

## MC DONOUGH COUNTY, ILLINOIS - 1925

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

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

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

Expressed in another way these 30 farmers earned 5.7% on their investments after allowing $600 each to pay for their own labor. On the same basis the most successful third earned 9.7% and the least successful third 1.4%. The average investment on the 30 farms was $42,847 which amounts to $238 an acre. The higher profit third had an average investment of $258 and the lower profit third $227 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

The income figures given in this report should not be considered as representative of all farms in Mc Donough County. A field survey of earnings on all farms in one Mc Lean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

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

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

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

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

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

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

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

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

Mc Donough County - 1925

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

## Mc Donough County - 1925

| | Your farm | Average of 30 farms | 10 most profitable farms | 10 least profitable farms |
|---|---|---|---|---|
| 1. Capital Investment - Total | $ | $42 847 | $41 768 | $39 506 |
| 2. Land | | 32 248 | 31 047 | 29 427 |
| 3. Farm improvements | | 3 586 | 3 346 | 3 485 |
| 4. Machinery and equipment | | 1 454 | 1 715 | 1 302 |
| 5. Feed and supplies | | 2 691 | 2 933 | 2 301 |
| 6. Livestock | | 2 858 | 2 728 | 2 991 |
| 7. Horses | | 635 | 599 | 633 |
| 8. Cattle | | 760 | 556 | 981 |
| 9. Swine | | 1 266 | 1 388 | 1 191 |
| 10. Sheep | | 63 | 60 | 61 |
| 11. Poultry | | 134 | 125 | 125 |
| 12. Receipts-Net Increases-Total | $ | 5 204 | 6 231 | 3 449 |
| 13. Feed and Grain | | 908 | 1 453 | 65 |
| 14. Miscellaneous | | 130 | 230 | 105 |
| 15. Livestock - Total | | 4 166 | 4 548 | 3 279 |
| 16. Horses | | --- | --- | --- |
| 17. Cattle | | 456 | 305 | 478 |
| 18. Swine | | 3 040 | 3 777 | 2 021 |
| 19. Sheep | | 74 | 60 | 56 |
| 20. Poultry | | 132 | 136 | 143 |
| 21. Egg sales | | 134 | 81 | 150 |
| 22. Dairy sales | | 330 | 189 | 431 |
| 23. Expenses-Net Decreases-Total | $ | 1 905 | 1 489 | 2 000 |
| 24. Farm improvements | | 303 | 197 | 228 |
| 25. Livestock | | --- | --- | --- |
| 26. Horses | | 13 | 4 | 31 |
| 27. Cattle | | -- | -- | -- |
| 28. Swine | | -- | -- | -- |
| 29. Sheep | | -- | -- | -- |
| 30. Poultry | | -- | -- | -- |
| 31. Machinery and equipment | | 418 | 367 | 458 |
| 32. Feed and supplies | | -- | -- | -- |
| 33. Livestock expenses other than feed | | 108 | 49 | 174 |
| 34. Crop expenses | | 173 | 147 | 145 |
| 35. Labor hired | | 408 | 318 | 471 |
| 36. Taxes, Insurance, etc. | | 441 | 347 | 460 |
| 37. Miscellaneous | | 41 | 60 | 33 |
| 38. Receipts less Expenses | $ | 3 299 | 4 742 | 1 449 |
| 39. Operator's and unpaid family labor | | 825 | 696 | 880 |
| 40. Net income from investment | | 2 474 | 4 046 | 568 |

Find Your Farm Leaks -- Mc Donough County - 1925

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

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

## Using the Farm Account Analysis

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

MASON, MACON, LOGAN, PIATT AND McLEAN COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-five Farms

for

1925

Urbana, Illinois

April 12, 1926

# ANNUAL FARM BUSINESS REPORT

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

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

The 35 farmers in this group of counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $44 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $236 an acre. This is called their labor and management wage. The one-third of these farmers who made the best profits had a labor and management wage of $1337, while the third who were least successful lacked $1219 of having enough earnings to pay 5% on their capital, allowing nothing for their labor and management. There was, therefore, a difference of $2556 in the relative success of these two groups in marketing their labor and managing ability.

Expressed in another way, these 35 farmers earned 4.11% on their investments after allowing $600 to pay for their own labor. On the same basis the most successful third earned 6.53% and the least successful third 2.30%. The average investment on the 35 farms was $60,436 which amounts to $236 an acre. The higher profit third had an average investment of $202, and the lower profit third $261 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

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

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

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

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

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

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

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

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

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

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

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

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

- 4 -

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

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

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

5 -

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

| Rate earned | Bushels per acre of | | | Returns per $100 invested in | | | Percent income from L.S. | Man lab. cost per acre | Crop acres per | Crop acres per Horse | | Expense per $100 income | Gross rect. per A. farm | Size of farm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Corn | Oats | Wheat | Cattle | Hogs | Poultry | | | Man | Trac-tor | No Tractor | | | |
| 11.11 | 88 | 70 | 33 | 175 | 336 | 277 | 92 | 1.80 | 141 | 41 | 38 | 20 | 42 | 396 |
| 10.11 | 83 | 65 | 31 | 165 | 316 | 257 | 87 | 2.30 | 136 | 39 | 36 | 25 | 39 | 376 |
| 9.11 | 78 | 60 | 29 | 155 | 296 | 237 | 82 | 2.80 | 131 | 37 | 34 | 30 | 36 | 356 |
| 8.11 | 73 | 55 | 27 | 145 | 276 | 217 | 77 | 3.30 | 126 | 35 | 32 | 35 | 33 | 336 |
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| 0.11 | 33 | 15 | 11 | 65 | 116 | 57 | 37 | 7.30 | 86 | 19 | 16 | 75 | 9 | 176 |
| -1.11 | 28 | 10 | 9 | 55 | 96 | 37 | 32 | 7.80 | 81 | 17 | 14 | 80 | 6 | 156 |
| -2.11 | 23 | -- | 7 | 45 | 76 | 17 | 27 | 8.30 | 76 | 15 | 12 | 85 | 3 | 136 |
| -3.11 | 18 | -- | 5 | 35 | 56 | 7 | 22 | 8.80 | 71 | 13 | 10 | 90 | - | 116 |
| -4.11 | 13 | -- | - | 25 | 36 | - | 17 | 9.30 | 66 | 11 | 8 | 95 | - | 96 |

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counts are kept showed a variation from $3.51 to $5.50 in cost
of man labor to grow and harvest an acre of corn during the
same season. The variation in power cost ranged from $3.82
to $6.90 on two farms each having a tractor and with similar
conditions. The power cost ran up to $11.48 an acre on one
small farm with too few acres of crops to make good use of
even one team.

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

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

FORD COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-one Farms

for

1925

Urbana, Illinois

April 23, 1926

# ANNUAL FARM BUSINESS REPORT

## FORD COUNTY, ILLINOIS - 1925

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

The 31 farmers in Ford County who kept financial records for 1925 in the Illinois Farm Account Project lacked an average of $1011 of having enough earnings to pay 5% on their average invest- ment of $253 an acre after paying expenses but allowing nothing for their own labor, risk and management. The one-third of these farms which made the best profits had an average of $865 to pay for their labor, risk and management after paying expenses and allowing 5% interest on their average investment of $254 an acre. This is called their labor and management wage. The least successful third of the 31 farms lacked an average of $2819 of having enough income to pay 5% on their average capital of $261 an acre, allowing noth- ing for their labor and management. From these figures it is clear that there was a difference of $3684 between the high and low profit groups in the labor and management wage secured by the aver- age farm operator.
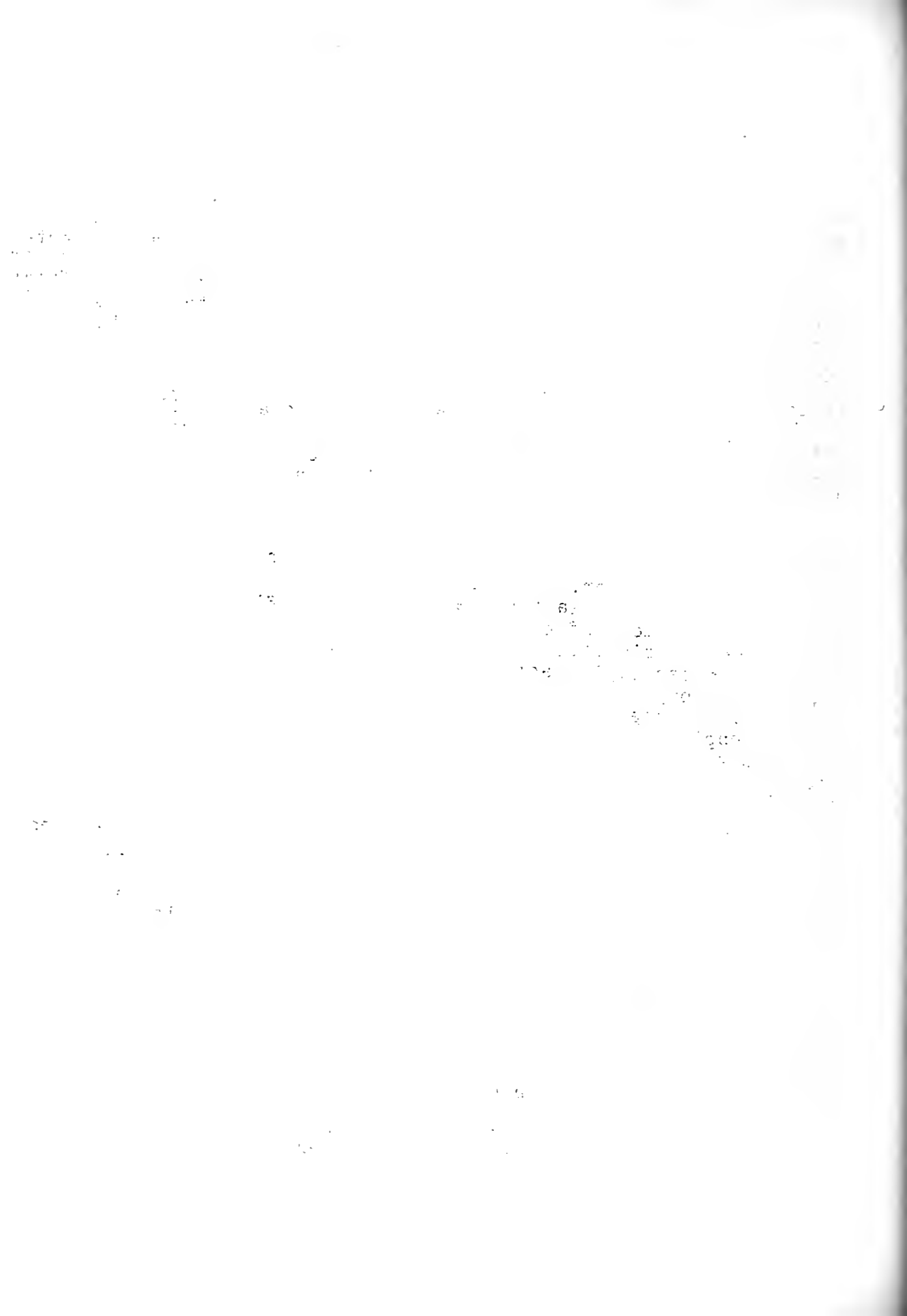
Expressed in another way, the average of these 31 farm oper- ators earned only 2.5% on his investment after allowing $600 to pay for his own labor. On the same basis the most successful third earned 5.5% and the least successful third lost .52% on their aver- age farm investment after paying expenses and allowing $600 to pay for the operator's labor. This latter group had an average of only $491 left after paying actual expenses. This $491 was all that remained to pay for the labor performed by members of the family, worth $816 at the going rate for farm help, and interest on an average capital of $61,924 per farm. The terms investment per farm and investment per acre are used to include capital in land, build- ings, equipment, livestock, and crops as listed in the table on page 4.

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

The income figures given in this report should not be con- sidered as representative of all farms in Ford County. A field survey of earnings on all farms in one McLean County township indi- cated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

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

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

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

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

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

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

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

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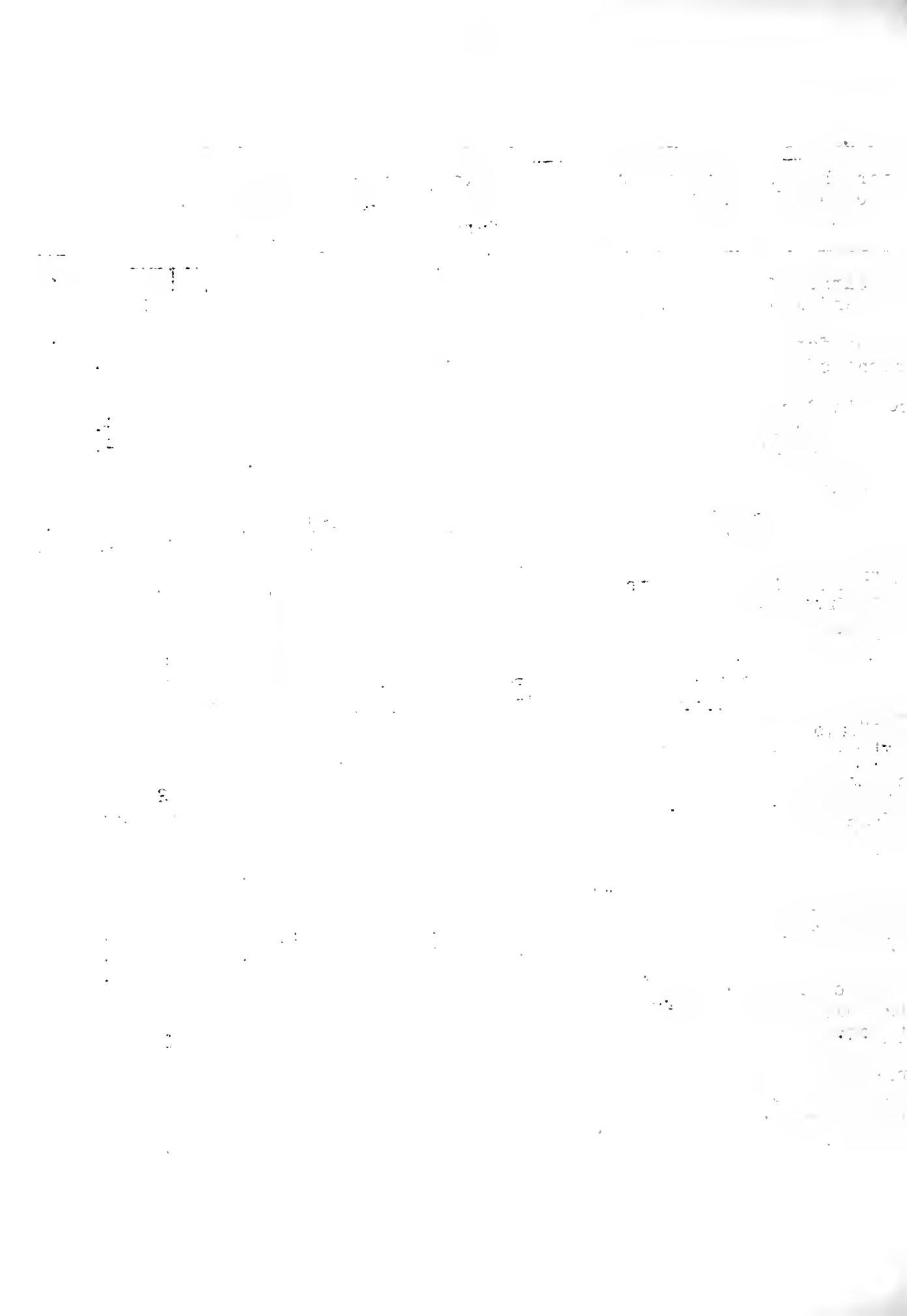probably indicates efficient feeding as well as good marketing.

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

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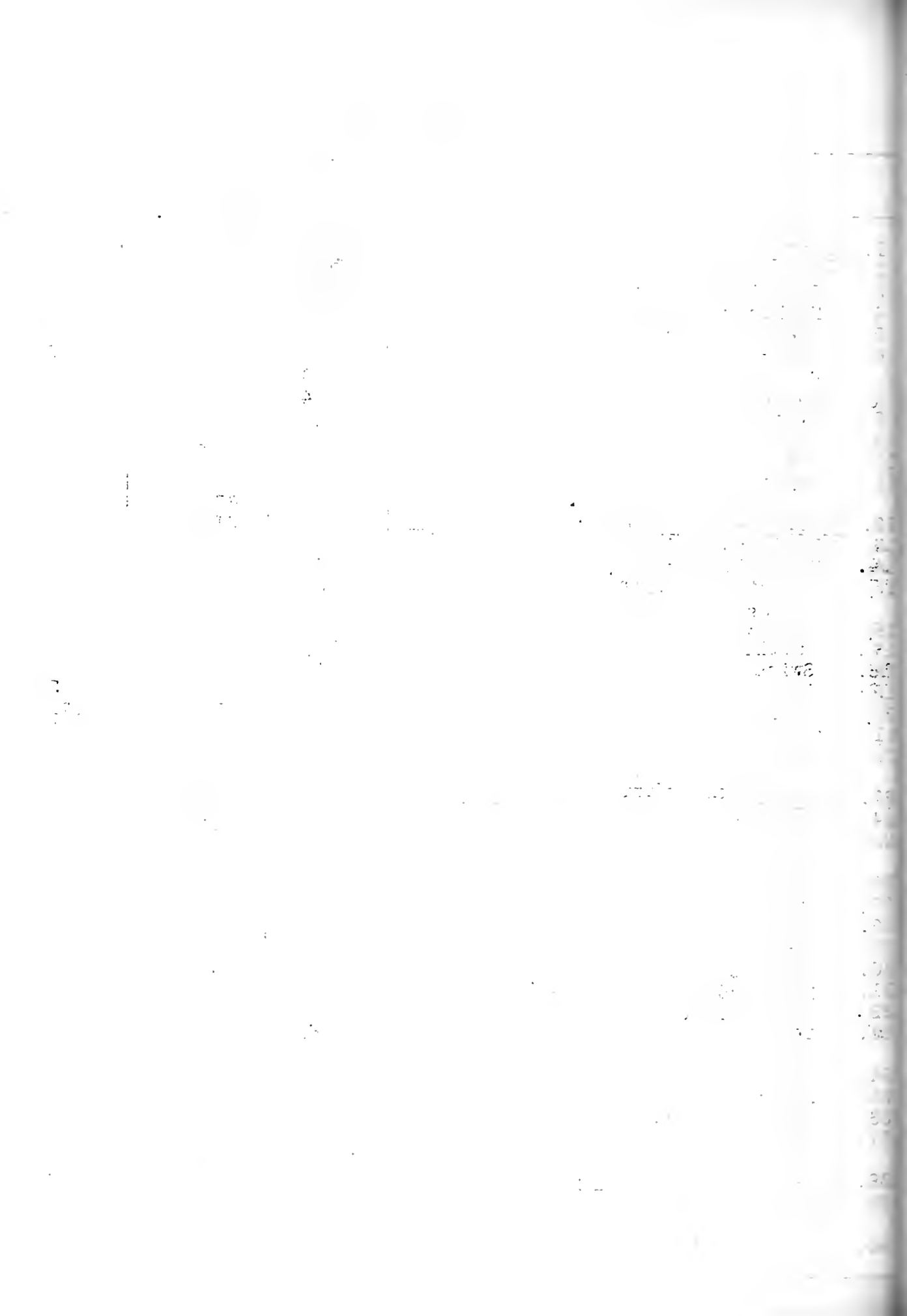the group making the least profits.

Ford County - 1925

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

Ford County - 1925

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

## Find Your Farm Leaks - (Ford County - 1925)

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

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

CHAMPAIGN COUNTY FARM BUREAU

Cooperating


ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925


Urbana, Illinois

April 27, 1926

# ANNUAL FARM BUSINESS REPORT

## CHAMPAIGN COUNTY, ILLINOIS - 1925

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Champaign County - 1925

| Factors helping to analyze the farm business | Your farm | | Average of 30 farms | 10 most profitable farms | 10 least profitabl farms |
|---|---|---|---|---|---|
| Rate earned | | % | 3.52% | 6.01% | 1.19% |
| Labor and management wage | $ | | $-201. | $1174. | $-1291. |
| Size of farm - Acres | | A | 214.7A | 225.8A | 191.2A |
| Percent of land area tillable | | % | 95.9% | 96.0% | 94.0% |
| Acres in Corn | | A | 92.0A | 96.3A | 85.4A |
| Oats | | A | 45.1A | 41.5A | 42.4A |
| Wheat | | A | 18.5A | 28.0A | 8.5A |
| Crop yields - Corn | | bu. | 52.0bu. | 57.9bu. | 43.9bu |
| Oats | | bu. | 33.8bu. | 37.0bu. | 34.3bu |
| Wheat | | bu. | 16.8bu. | 17.5bu. | 15.0bu |
| Returns per $100 invested in all productive livestock | $ | | $ 138.00 | $ 139.00 | $ 127.00 |
| For $100 in Cattle | $ | | $ 96.00 | $ 90.00 | $ 91.00 |
| Swine | $ | | $ 208.00 | $ 214.00 | $ 187.00 |
| Poultry | $ | | $ 175.00 | $ 167.00 | $ 194.00 |
| Percent of gross income from livestock | | % | 33.4% | 25.4% | 49.6% |
| Man labor cost per acre | $ | | $ 5.38 | $ 5.54 | $ 5.36 |
| Crop acres per man | | A | 109.5A | 109.9A | 101.6A |
| Crop acres per horse | | | | | |
| (with tractor) | | A | 32.6A | 36.6A | 26.8A |
| (without tractor) | | A | 20.7A | 18.2A | 22.2A |
| Expense per $100 gross income | | | 57.00 | 45.00 | 79.00 |
| Machinery cost per acre | | | 1.89 | 2.00 | 1.47 |
| Building & fencing cost per A | | | .99 | .98 | .99 |
| Gross receipts per acre | | | $ 20.67 | $ 27.25 | 14.58 |
| Total expenses per acre | | | 11.82 | 12.24 | 11.48 |
| Net receipts per acre | | | 8.85 | 15.01 | 3.10 |
| Farms with tractor | | % | 60.0% | 60.0% | 40.0% |
| Value of land per acre | | | $ 201.00 | $ 198.00 | $ 210.00 |
| Total investment per acre | | | 251.00 | 250.00 | 260.00 |

Champaign County - 1925

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

# Find Your Farm Leaks — (Champaign County – 1925)

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

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

# UNIVERSITY OF ILLINOIS

## Department of Farm Organization and Management

and

## COLES COUNTY FARM BUREAU

Cooperating


ANNUAL FARM BUSINESS REPORT

on

COLES COUNTY, ILLINOIS

for

1925




Urbana, Illinois

March 30, 1926

ANNUAL FARM BUSINESS REPORT

COLES COUNTY, ILLINOIS - 1925

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

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

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

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

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

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

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

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

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

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

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

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

Coles County - 1925

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

Coles County - 1925

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

# Find Your Farm Leaks - (Coles County - 19. .)

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

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

DOUGLAS, SHELBY, CHRISTIAN, MOULTRIE COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-two Farms

for

1925

Urbana, Illinois

April 27, 1926

# ANNUAL FARM BUSINESS REPORT

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

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

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

Expressed in another way these 32 farmers earned 3.96% on their investments after allowing $600 each to pay for their own labor. On the same basis the most successful third earned 8.43% and the least successful third 0.46%. The average investment on the 32 farms was $39,062, which amounts to $202 an acre. The higher profit third had an average investment of $160 and the lower profit third $192 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

The income figures given in this report should not be considered as representative of all farms in the above named Counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

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

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

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

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

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

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

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

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

- 3 -

## Douglas, Shelby, Christian and Moultrie Counties - 1925

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

Douglas, Shelby, Christian, and Moultrie Counties - 1925

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

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

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

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

## Using the Farm Account Analysis

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

JERSEY, GREENE AND MORGAN COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Forty Farms

for

1925

Urbana, Illinois

April 26, 1926

ANNUAL FARM BUSINESS REPORT

JERSEY, GREENE AND MORGAN COUNTIES, ILLINOIS - 1925

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

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

Expressed in another way these 40 farmers earned 7.1% on their investments after allowing $600 each to pay for their own labor. On the same basis the most successful third earned 12.3% and the least successful third 3.07%. The average investment on the 40 farms was $29,412, which amounts to $159 an acre. The higher profit third had an average investment of $130 and the lower profit third $194 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

The income figures given in this report should not be considered as representative of all farms in the above named counties. A field survey of earnings on all farms in one McLean County township indicated that those farmers keeping accounts averaged about $1000 greater net earnings per farm for 1925 than farmers in the same locality who kept no financial records.

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

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

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

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

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

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

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

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

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

Jersey, Greene and Morgan Counties - 1925

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

Jersey, Greene and Morgan Counties - 1925

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

MONTGOMERY, MACOUPIN, BOND AND MADISON COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

April 23, 1926

# ANNUAL FARM BUSINESS REPORT

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

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

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

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

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

The income figures given in this report should not be considered as representative of all farms in this group of Counties. A field survey of earnings on all farms in one McLean County township indicated that farm operators keeping accounts averaged substantially larger net farm incomes than those keeping no financial records.

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

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

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

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

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

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

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

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

Montgomery, Macoupin, Bond and Madison Counties - 1925

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

- 4 -

## Montgomery, Macoupin, Bond and Madison Counties, 1925

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

1. Capital in...
2. ... Land
3. Farm machine...
4. Machinery and...
5. Feed, grain and pasture
6. Livestock

7. Horses
8. Cattle
9. Swine
10. Sheep
11. Poultry

12. Receipts - Net Increases in...
13. Feed and ...
14. Miscellaneous
15. Inventory increase

16. Horses
17. Cattle
18. Swine
19. Sheep
20. Poultry
21. Eggs sold
22. Dairy sales

23. Expenses - Net Decreases in...
24. Farm improvement
25. Inventory

26. Horses
27. Cattle
28. Swine
29. Sheep
30. Poultry
31. Machinery and equipment
32. Feed and ...
33. Livestock ...
34. Crop expense
35. Labor hired
36. Taxes, insurance, etc.
37. Miscellaneous

38. Receipts less expenses
39. Operator's and ...
40. Net income from livestock

Find Your Farm Leaks - (Montgomery, Macoupin, Bond and Madison Counties - 1925)

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

| Rate earned | Bushels per acre of | | | Returns per $100 invested in | | | Percent income from L.S. | Man lab. cost per acre | Crop acres per | | | Expense per $100 income | Gross rect. per A | Size of farm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Corn | Oats | Wheat | Cattle | Hogs | Poultry | | | Man | Horse | | | | |
| | | | | | | | | | | Trac-tor | No tractor | | | |
| 13.5 | 68 | 47 | 23 | 180 | 460 | 355 | -- | 3.25 | 110 | 39 | 31 | 38 | 55 | 330 |
| 12.5 | 65 | 44 | 22 | 170 | 435 | 335 | -- | 3.50 | 105 | 37 | 29 | 42 | 50 | 310 |
| 11.5 | 62 | 41 | 21 | 160 | 410 | 315 | -- | 3.75 | 100 | 35 | 27 | 46 | 45 | 290 |
| 10.5 | 59 | 38 | 20 | 150 | 385 | 295 | 100 | 4.00 | 95 | 33 | 25 | 50 | 40 | 270 |
| 9.5 | 56 | 35 | 19 | 140 | 360 | 275 | 95 | 4.25 | 90 | 31 | 23 | 54 | 35 | 250 |
| 8.5 | 53 | 32 | 18 | 130 | 335 | 255 | 90 | 4.50 | 85 | 29 | 21 | 58 | 30 | 230 |
| 7.5 | 50 | 29 | 17 | 120 | 310 | 235 | 85 | 4.75 | 80 | 27 | 19 | 62 | 25 | 210 |
| 6.5 | 47 | 26 | 16 | 110 | 285 | 215 | 80 | 5.00 | 75 | 25 | 17 | 66 | 20 | 190 |
| 5.5 | 44 | 23 | 15 | 100 | 260 | 195 | 75 | 5.25 | 70 | 23 | 15 | 70 | 15 | 170 |
| 4.5 | 41 | 20 | 14 | 90 | 235 | 175 | 70 | 5.50 | 65 | 21 | 13 | 74 | 10 | 150 |
| 3.5 | 38 | 17 | 13 | 80 | 210 | 155 | 65 | 5.75 | 60 | 19 | 11 | 78 | 5 | 130 |
| 2.5 | 35 | 14 | 12 | 70 | 185 | 135 | 60 | 6.00 | 55 | 17 | 9 | 82 | 0 | 110 |
| 1.5 | 32 | 11 | 11 | 60 | 160 | 115 | 55 | 6.25 | 50 | 15 | 7 | 86 | -5 | 90 |
| 0.5 | 29 | 8 | 10 | 50 | 135 | 95 | 50 | 6.50 | 45 | 13 | 5 | 90 | -10 | 70 |
| -0.5 | 26 | 5 | 9 | 40 | 110 | 75 | 45 | 6.75 | 40 | 11 | 3 | 94 | -15 | 50 |
| -1.5 | 23 | 2 | 8 | 30 | 85 | 55 | 40 | 7.00 | 35 | 9 | 1 | 98 | -20 | 30 |

## Using the Farm Account Analysis

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

CUMBERLAND, CLARK AND CRAWFORD COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Nineteen Farms

for

1925

Urbana, Illinois

April 19, 1926

ANNUAL FARM BUSINESS REPORT

CUMBERLAND, CLARK AND CRAWFORD COUNTIES, ILLINOIS - 1925

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

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

Expressed in another way these 19 farmers earned 5.51% on their investments after allowing $600 to pay for their own labor. The average investment on the 19 farms was $19,659, which amounts to $123 an acre. The term investment per acre is used to include the capital in land, buildings, equipment, livestock, and crops as listed in the table on page 4.

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

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

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

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

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

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

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

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

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

Cumberland, Clark and Crawford Counties, 1925

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

Cumberland, Clark and Crawford Counties, 1925

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

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

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

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

## Using the Farm Account Analysis

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

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

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

2. Crop Yields. Good crop yields are essential to earning a margin of profit. Through the last five years cost accounting farms in Champaign and Piatt Counties have shown the cost of growing an acre of corn to remain very uniformly at about $30.00 an acre including taxes and an interest charge of 5% on a conservative value of $200.00 to $250.00 an acre for the land. At 60 cents a bushel, which was about the farm price of corn January 1, 1928, this requires 50 bushels of corn to pay expenses. Every farm operator who continues to produce low yields must be willing to take less than the going rate on his capital or labor or both. The ways and means of increasing yields cannot be discussed here but accounts of many farm businesses justify the statement that few if any farms are successful which commonly produce crop yields much below the average of their communities.

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

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

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

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

As to horse power costs, 1924 data from 14 Champaign and Piatt farms showed a variation in cost of keeping one horse for a year from $89.03 to $149.45 with an average of about $110.00. The variation on 19 Knox and Warren County farms for the same year was from $78.71 to $157.68 with an average of $119.74. There was also a wide variation in hours of horse labor done on these farms, the average for the Champaign and Piatt County farms being 791.4 hours per horse for the year. The resulting cost per hour of horse labor varied from 9 cents to 17 cents with an average of 14 cents on the Champaign and Piatt County farms, leaving out one small farm with a cost of over 37 cents. The Knox and Warren County farms varied from 11 cents to 25 cents with an average of 16 cents.

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management
and
RICHLAND, MARION AND EFFINGHAM FARM BUREAUS
Cooperating




ANNUAL FARM BUSINESS REPORT

on

Eighteen Farms

for

1925




Urbana, Illinois

April 6, 1926

# ANNUAL FARM BUSINESS REPORT

## RICHLAND, MARION AND EFFINGHAM COUNTIES, ILLINOIS - 1925

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

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

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

In addition to the above earnings each farm family secures certain items of produce such as milk, butter, eggs, etc., not listed in these accounts. These, together with the use of the farm home, not included in the above investment, constitute an additional income. On a group of Champaign County farms where this phase of the farm business was given special study, this additional income amounted to about $725 per farm.

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

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

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

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

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

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

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

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

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

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

Richland, Marion, Effingham Counties - 1925

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

Richland, Marion, Effingham Counties - 1925

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

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

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

| Rate earned | Bushels per acre of | | | Returns per $100 invested in | | | Percent income from L.S. | Man lab. cost per acre | Crop acres per | | Expense per $100 income | Gross rect. per A. | Size of farm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Corn | Oats | Wheat | Cattle | Hogs | Poultry | | | Man | Horse | | | |
| 11.40 | 50 | 39 | 29 | 195 | 338 | 387 | --- | --- | 180 | 41 | 28 | 24.25 | 360 |
| 10.40 | 47 | 36 | 27 | 185 | 328 | 367 | --- | --- | 170 | 39 | 34 | 22.25 | 340 |
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| -1.40 | 14 | 3 | 5 | 75 | 218 | 147 | 40 | 5.70 | 60 | 17 | 100 | --- | 120 |
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| -3.40 | 8 | --- | 1 | 55 | 198 | 107 | 20 | 6.70 | 40 | 13 | 112 | --- | 80 |
| -4.40 | 5 | --- | --- | 45 | 188 | 87 | 10 | 7.20 | 30 | 11 | 118 | --- | 60 |

## Using the Farm Account Analysis

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

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

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

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

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

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

Such special items of expense as hired labor,
machinery expense, and building and fence overhead are set
out in these tables so that they may be seen in relation to
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careful use and constant attention to lubrication.

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

It is also possible for a farm operator to have
too large a unit for efficient management although the point
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managing ability of the particular operator.  This condition
is likely to show itself in low yields and low efficiency with
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## Balanced Farming

Accumulating evidence from farm records bears out
the statement that year by year with changing price relations
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UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

WABASH, EDWARDS AND LAWRENCE COUNTY FARM BUREAUS

cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty-two Farms

for

1925

Urbana, Illinois

April 5, 1926

ANNUAL FARM BUSINESS REPORT

WABASH, EDWARDS and LAWRENCE COUNTIES, ILLINOIS - 1925

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

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

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

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

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

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

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

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

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

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

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

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

## Wabash, Edwards and Lawrence Counties

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

Wabash, Edwards and Lawrence Counties

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

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

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

| Rate Earned | Bushels per acre of | | | Returns per $100 invested in | | | Percent income from L. S. | Man lab. cost per acre | Crop acres per | | Expense per $100 income | Gross rect. per A. | Size of farm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Corn | Oats | Wheat | Cattle | Hogs | Poultry | | | Man | Horse | | | |
| 13.25 | 63 | 51 | 36 | 150 | 443 | 419 | ---- | 1.20 | 145 | 36 | 14 | 31 | 328 |
| 12.25 | 60 | 48 | 34 | 140 | 423 | 399 | ---- | 1.70 | 135 | 34 | 20 | 29 | 308 |
| 11.25 | 57 | 45 | 32 | 130 | 403 | 379 | ---- | 2.20 | 125 | 32 | 26 | 27 | 288 |
| 10.25 | 54 | 42 | 30 | 120 | 383 | 359 | ---- | 2.70 | 115 | 30 | 32 | 25 | 268 |
| 9.25 | 51 | 39 | 28 | 110 | 363 | 339 | ---- | 3.20 | 105 | 28 | 38 | 23 | 248 |
| 8.25 | 48 | 36 | 26 | 100 | 343 | 319 | 100 | 3.70 | 95 | 26 | 44 | 21 | 228 |
| 7.25 | 45 | 33 | 24 | 90 | 323 | 299 | 90 | 4.20 | 85 | 24 | 50 | 19 | 208 |
| 6.25 | 42 | 30 | 22 | 80 | 303 | 279 | 80 | 4.70 | 75 | 22 | 56 | 17 | 188 |
| 5.25 | 39 | 27 | 20 | 70 | 283 | 259 | 70 | 5.20 | 65 | 20 | 62 | 15 | 168 |
| 4.25 | 36 | 24 | 18 | 60 | 263 | 239 | 60 | 5.70 | 55 | 18 | 68 | 13 | 148 |
| 3.25 | 33 | 21 | 16 | 50 | 243 | 219 | 50 | 6.20 | 45 | 16 | 74 | 11 | 128 |
| 2.25 | 30 | 18 | 14 | 40 | 223 | 199 | 40 | 6.70 | 35 | 14 | 80 | 9 | 108 |
| 1.25 | 27 | 15 | 12 | 30 | 203 | 179 | 30 | 7.20 | 25 | 12 | 86 | 7 | 88 |
| 0.25 | 24 | 12 | 10 | 20 | 183 | 159 | 20 | 7.70 | 15 | 10 | 92 | 5 | 68 |
| -1.25 | 21 | 9 | 8 | 10 | 163 | 139 | 10 | 8.20 | 5 | 8 | 98 | 3 | 48 |
| -2.25 | 18 | 6 | 6 | 0 | 143 | 119 | 0 | 8.70 | -- | 6 | 104 | 1 | 28 |

## Using the Farm Account Analysis

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

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

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

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

CLINTON COUNTY FARM BUREAU

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Sixty Farms

for

1925

Urbana, Illinois

April 8, 1926

# ANNUAL FARM BUSINESS REPORT

## CLINTON COUNTY, ILLINOIS - 1925

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

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

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

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

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

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

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

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

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

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

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

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

A comparison of the data in the 1924 Clinton County report with the corresponding data for 1925 shows the stability of the type of farming followed by the Clinton County farmers who keep these records. While the earnings of most of the central Illinois farm operators who kept records in this project were materially lower for 1925 than for 1924, the Clinton County farmers show an average rate earned of 4.7% in 1924 and 5.9% in 1925, or a gain of a little more than 1%. The Clinton County group had a little higher expense in 1925 but corn and oat yields were about 1/3 better and all livestock sales were higher, particularly hog and poultry sales. The proportion of income from different sources remained about the same both years. The average Clinton County farm in this project for 1925 derived its income from the following sources: dairy products, $36\frac{1}{2}$%, crops, 22%, eggs, $16\frac{1}{2}$%, hogs, $8\frac{1}{2}$%, cattle, $7\frac{1}{2}$%, poultry, $4\frac{1}{2}$%, and miscellaneous small items, $4\frac{1}{2}$%. The high and low profit groups had about the same income distribution. They differed more in the relative success in each enterprise than in the proportionate size of the different enterprises. The result was a larger income from about the same type of organization on the more successful farms. The Clinton County records for 1923, 1924, and 1925 show about the same distribution of income as to enterprises and the respective

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

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

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

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

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

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

Clinton County - 1925

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

Clinton County - 1925

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

# Find Your Farm Leaks - (Clinton County. - 1925)

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

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

## Using the Farm Account Analysis

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

MONROE AND RANDOLPH COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

April 6, 1926

# ANNUAL FARM BUSINESS REPORT

## MONROE AND RANDOLPH COUNTIES, ILLINOIS - 1925

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

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

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

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

The income figures given in this report should not be considered as representative of all farms in Monroe and Randolph Counties. A field survey of earnings on all farms in a township in McLean County indicated that farms on which financial records are kept average considerably higher in net incomes than farms in the same locality on which no accounts are kept.

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

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

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

average farm in the lower profit group.  This is decidedly signif-
icant as affecting cost per bushel of grain and comparative earn-
ings.

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

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

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

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

Some points of strength and some of weakness in your farm
business may be found by comparing the factors of your own record
in the following tables with the same factors on the average farm
in each group.

## Monroe and Randolph Counties - 1925

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

## Monroe and Randolph Counties - 1925

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

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

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

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

## Using the Farm Account Analysis

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

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

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

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

3. <u>Returns from Livestock</u>. The best measure of
general success with livestock from the simple farm account
is expressed in amount of returns for each $100.00 invested
in livestock. Since horses are usually kept as a source of
power and not for profit, they are excluded from this figure.
The amount of returns for each $100.00 invested in livestock
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ing low sales. A better measure of success is the amount of
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be included in the general summary until more of the account
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of the cost of producing meat animals is feed cost. Numerous
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its when the farmers keeping them adopted better practices
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vested in livestock.

Twenty-five McLean County farms keeping enterprise
cost records on hogs for 1924 show the importance of getting
a maximum of pork for the quantity of feed fed. Of this group,
4 farms produced pork at a cost of less than $8.00, 9 farms
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following the McLean County system of sanitation produced 100
pounds of pork with an average of 102 pounds less feed than
8 others paying little attention to sanitation.

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

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

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

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

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

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

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

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

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

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

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

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

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

### Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

and

SALINE, GALLATIN, WHITE, JOHNSON AND PULASKI COUNTY FARM BUREAUS

Cooperating

ANNUAL FARM BUSINESS REPORT

on

Thirty Farms

for

1925

Urbana, Illinois

April 6, 1926

# ANNUAL FARM BUSINESS REPORT

## SALINE, GALLATIN, WHITE, JOHNSON, PULASKI COUNTIES, ILLINOIS - 1925

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

The 30 farmers in this group of counties who kept financial records in the Illinois Farm Account Project for 1925 had an average of $633 to pay for their labor, risk and management after paying expenses and 5% on their average investment of $115 an acre. This is called their labor and management wage. The one-third of these farmers who were most successful had a labor and management wage of $1603 while the least successful third lacked $263 of making 5% on their investment allowing nothing for their labor and management. This amounts to an average difference in income from labor and management between the two groups of $1866.

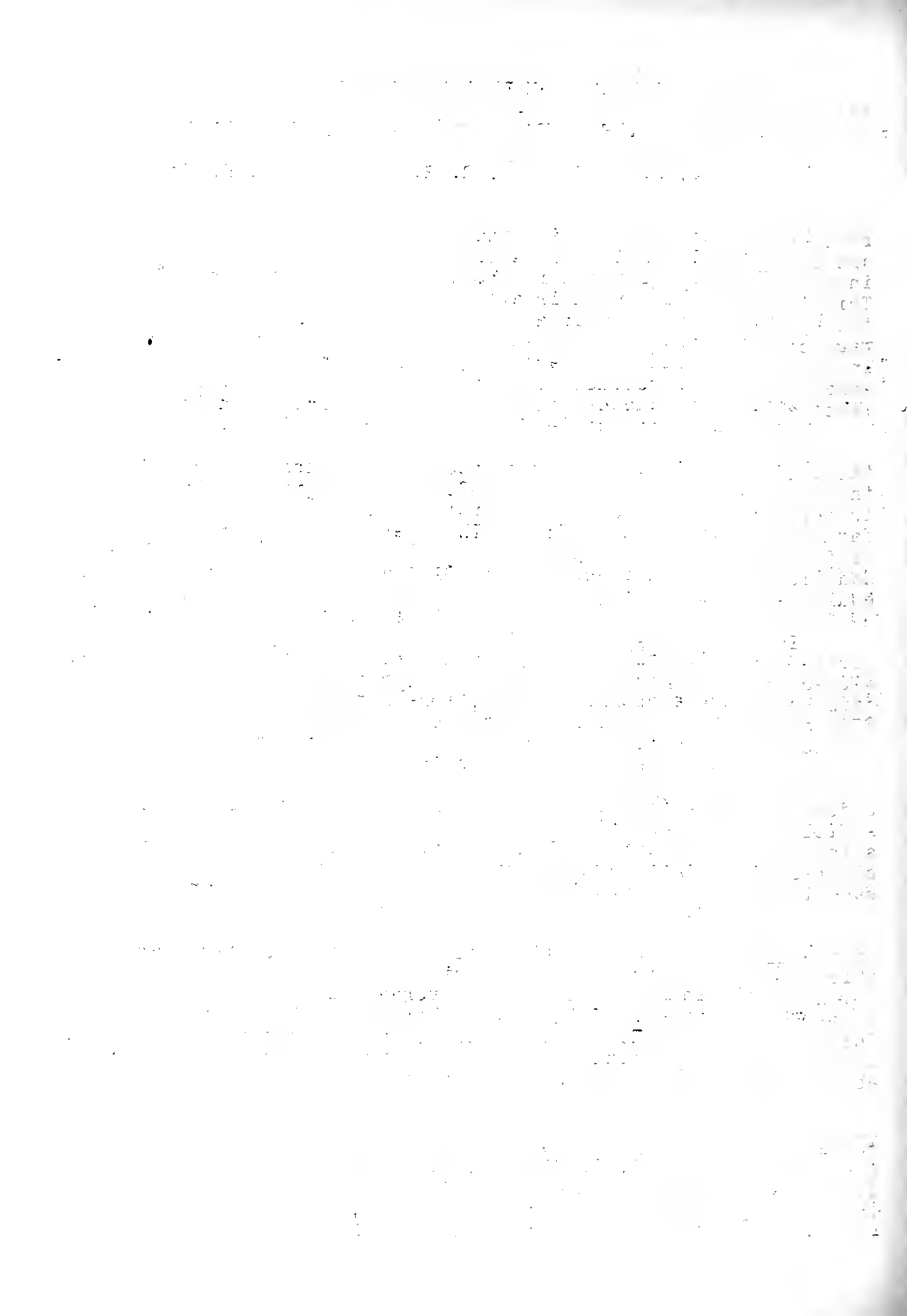Expressed in another way, these 30 farmers earned 5.72% on their investment after allowing $600 to pay for their labor. On the same basis, the most successful third earned 9.37% while the low profit third earned 1.32%. The average investment on the 30 farms was $23,171, which amounted to $115 per acre. The higher profit third had an investment of $127 an acre while the low third had $103. Investment per acre includes capital in land, buildings, equipment, livestock and crops as listed in the table on page 4.

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

The income figures given in this report should not be considered as representative of all farms in this group of counties. A field survey of earnings on all farms in one McLean County township indicated that farm operators keeping accounts averaged considerably higher in net incomes than the average of farms in the same locality keeping no financial records.

Size of farm had little influence on the relative earnings of the different groups of farms since the high third and the low third are within ten acres of the average for the thirty farms which was 202 acres. Neither was there much difference in percent of tillable land. Each group averaged about 85 percent tillable. There was no significant difference between groups in the acreage of the chief grain crops except that the high profit third had about 10 acres more corn than the average for all farms.

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*J. E. Whitchurch, C. W. Simpson, E. W. Creighton, J. G. McCall and E. A. Bierbaum, farm advisers in Saline, Gallatin, White, Johnson and Pulaski Counties respectively, cooperated in supervising and collecting the records used in this report.

In crop yields, the more successful third had over 30% more corn and oats to the acre but only a slight advantage in wheat yields. This difference in yields is quite significant as corn is the major crop in point of acreage and the larger yield reduced the cost per bushel materially.

In returns per $100 invested in productive livestock, the higher profit third of these farms averaged 17% larger returns than the low third. Examination of the sources of income shows this advantage to come from higher sales of cattle, hogs, and poultry and dairy products. The low third derived a higher percentage of their income from livestock than the average but the income figures show this to be due primarily to lower sales of crops rather than to a larger investment in livestock. The higher profit third had 48% more income from livestock but they had over four times as much income from crop sales as the low third.

In man labor and horse power efficiency, there was not a great difference between groups altho the high profit third had some advantage in crop acres per man and crop acres per horse on the tractor farms.

Chiefly on account of their larger yields and greater volume of crop sales the most successful third of these farms had a large advantage in amount of expenses per $100 of gross income. While they spent for operating $45 out of each $100 taken in, the low third spent $87.

The relation between gross and net income per acre for the different groups of farms, emphasizes the necessity for a margin of income above expenses in the farm business. The more successful group of farms with an average gross income per acre twice that of the low group and with expenses about equal, have a net income nine times that of the low group. It is the net receipts which pay interest and profits.

Some points of strength and some of weakness in your farm business may be found by comparing the factors of your own record in the following tables with the same factors on the average farm as well as on farms of the group making the best profits and the group making the least profits.
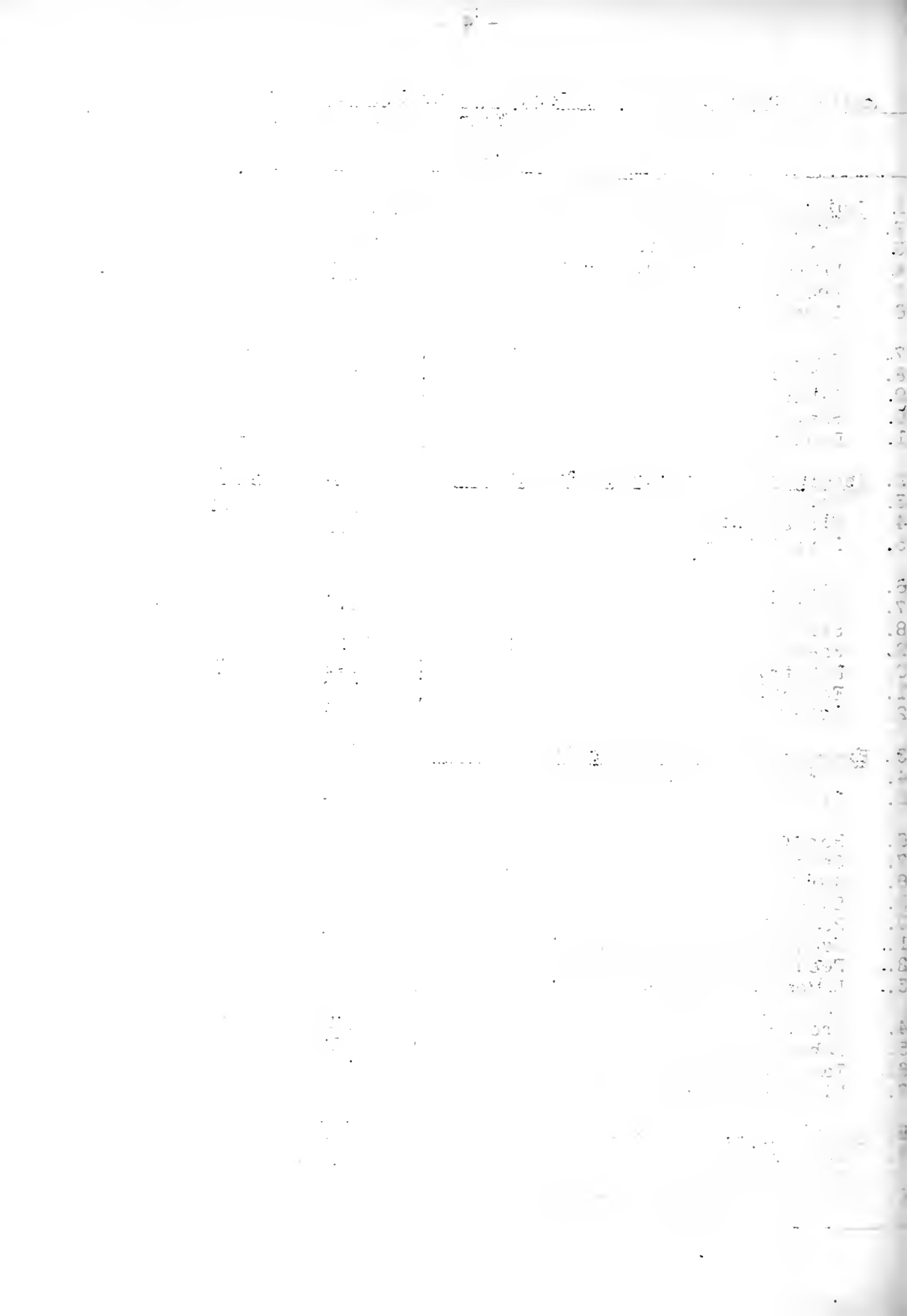
Saline, Gallatin, White, Johnson and Pulaski Counties - 1925

| Factors helping to analyze the farm business | Your farm | Average of 30 farms | 10 most profitable farms | 10 least profitable farms |
|---|---|---|---|---|
| Rate earned | % | 5.72% | 9.37% | 1.32% |
| Labor and management wage | $ | $633. | $1603. | $-263. |
| Size of farm - Acres | A. | 202.0 A. | 206.2 A. | 195.3 A. |
| Percent of land area tillable | % | 84.8% | 84.8% | 85.3% |
| Acres in Corn | A. | 54.6 A. | 65.2 A. | 53.3 A. |
| Oats | A. | 13.2 A. | 13.5 A. | 12.5 A. |
| Wheat | A. | 27.4 A. | 28.0 A. | 25.6 A. |
| Crop yields - Corn | bu. | 40.4 bu. | 45.8 bu. | 35.3 bu. |
| Oats | bu. | 27.1 bu. | 32.0 bu. | 20.3 bu. |
| Wheat | bu. | 19.4 bu. | 20.1 bu. | 19.0 bu. |
| Returns per $100 invested in all productive livestock | $ | $190.00 | $ 193.00 | $ 165.00 |
| For $100 in Cattle | $ | $122.00 | $ 130.00 | $ 90.00 |
| Swine | $ | $259.00 | $ 263.00 | $ 255.00 |
| Poultry | $ | $229.00 | $ 252.00 | $ 197.00 |
| Percent of gross income from livestock | % | 65.7% | 52.8% | 75.3% |
| Man labor cost per acre | $ | $ 4.75 | $ 4.98 | $ 4.72 |
| Crop acres per man | A. | 72.0 A. | 77.5 A. | 67.9 A. |
| Crop acres per horse | | | | |
| (with tractor) | A. | 27.1 A. | 29.4 A. | 22.0 A. |
| (without tractor) | A. | 18.5 A. | 17.3 A. | 20.0 A. |
| Expense per $100 gross income | $ | $ 59.00 | $ 45.00 | $ 87.00 |
| Machinery cost per acre | $ | $ 1.41 | $ 1.64 | $ 1.36 |
| Building and fencing cost per acre | $ | $ .78 | $ .70 | $ .81 |
| Gross receipts per acre | $ | $ 15.95 | $ 21.59 | $ 10.75 |
| Total expenses per acre | $ | $ 9.39 | $ 9.71 | $ 9.39 |
| Net receipts per acre | $ | $ 6.56 | $ 11.88 | $ 1.36 |
| Farms with tractor | % | 35.5% | 50.0% | 30.0% |
| Value of land per acre | $ | $ 80.00 | $ 95.00 | $ 71.00 |
| Total investment per acre | $ | $115.00 | $ 127.00 | $ 103.00 |

## Saline, Gallatin, White, Johnson, and Pulaski Counties - 1925

| | Your farm | Average of 31 farms | 10 most profitable farms | 10 least profitable farms |
|---|---|---|---|---|
| 1. Capital Investment - Total | $ | $23171 | $26151 | $20046 |
| 2. Land | | 16244 | 19566 | 13814 |
| 3. Farm improvements | | 2652 | 2126 | 2293 |
| 4. Machinery and equipment | | 923 | 986 | 842 |
| 5. Feed and supplies | | 1774 | 1883 | 1616 |
| 6. Livestock | | 1578 | 1590 | 1481 |
| 7. Horses | | 571 | 528 | 604 |
| 8. Cattle | | 489 | 550 | 402 |
| 9. Swine | | 333 | 340 | 272 |
| 10. Sheep | | 20 | 2 | 32 |
| 11. Poultry | | 165 | 170 | 171 |
| 12. Receipts-Net Increases-Total | | 3222 | 4452 | 2099 |
| 13. Feed and grain | | 998 | 1913 | 443 |
| 14. Miscellaneous | | 106 | 187 | 75 |
| 15. Livestock - Total | | 2118 | 2352 | 1581 |
| 16. Horses | | --- | 14 | --- |
| 17. Cattle | | 214 | 306 | 109 |
| 18. Swine | | 1078 | 1075 | 848 |
| 19. Sheep | | 38 | --- | 35 |
| 20. Poultry | | 142 | 172 | 92 |
| 21. Egg sales | | 252 | 296 | 245 |
| 22. Dairy sales | | 394 | 489 | 252 |
| 23. Expenses-Net Decreases-Total | | 1218 | 1363 | 1085 |
| 24. Farm improvements | | 157 | 145 | 158 |
| 25. Livestock | | 4 | --- | 10 |
| 26. Horses | | 4 | --- | 10 |
| 27. Cattle | | --- | --- | --- |
| 28. Swine | | --- | --- | --- |
| 29. Sheep | | --- | --- | --- |
| 30. Poultry | | --- | --- | --- |
| 31. Machinery and equipment | | 284 | 339 | 266 |
| 32. Feed and supplies | | --- | --- | --- |
| 33. Livestock expense other than feed | | 20 | 17 | 18 |
| 34. Crop expense | | 178 | 178 | 181 |
| 35. Labor hired | | 282 | 387 | 173 |
| 36. Taxes, Insurance, etc. | | 269 | 278 | 250 |
| 37. Miscellaneous | | 24 | 19 | 29 |
| 38. Receipts less Expenses | | 2004 | 3089 | 1014 |
| 39. Operator's and unpaid family labor | | 678 | 639 | 749 |
| 40. Net income from investment | | 1326 | 2450 | 265 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| 10.70 | 55 | 42 | 30 | 172 | 359 | 329 | -- | 2.25 | 122 | 37 | 28 | 29 | 26 | 302 |
| 9.70 | 52 | 39 | 28 | 162 | 339 | 309 | -- | 2.75 | 112 | 35 | 26 | 35 | 24 | 282 |
| 8.70 | 49 | 36 | 26 | 152 | 319 | 289 | 95 | 3.25 | 102 | 33 | 24 | 41 | 22 | 262 |
| 7.70 | 46 | 33 | 24 | 142 | 299 | 269 | 85 | 3.75 | 92 | 31 | 22 | 47 | 20 | 242 |
| 6.70 | 43 | 30 | 22 | 132 | 279 | 249 | 75 | 4.25 | 82 | 29 | 20 | 53 | 18 | 222 |
| 5.70 | 40 | 27 | 20 | 122 | 259 | 229 | 65 | 4.75 | 72 | 27 | 18 | 59 | 16 | 202 |
| 4.70 | 37 | 24 | 18 | 112 | 239 | 209 | 55 | 5.25 | 62 | 25 | 16 | 65 | 14 | 182 |
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| 0.70 | 25 | 12 | 10 | 72 | 159 | 129 | 15 | 7.25 | 22 | 17 | 8 | 89 | 6 | 102 |
| -1.70 | 22 | 9 | 8 | 62 | 139 | 109 | 5 | 7.75 | 12 | 15 | 6 | 95 | 4 | 82 |
| -2.70 | 19 | 6 | 6 | 52 | 119 | 89 | 0 | 8.25 | 2 | 13 | 4 | 101 | 2 | 62 |
| -3.70 | 16 | 3 | 4 | 42 | 99 | 69 | -- | 8.75 | -- | 11 | 2 | 107 | 0 | 42 |

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

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

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

- 8 -

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

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

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

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

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

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

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

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

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

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

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

## Balanced Farming

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

UNIVERSITY OF ILLINOIS

Department of Farm Organization and Management

SUMMARY

of

ANNUAL FARM BUSINESS REPORTS

on

One Thousand Forty-eight Farms

for

1925

Urbana, Illinois

June 30, 1926

SUMMARY OF ANNUAL FARM BUSINESS REPORTS

on

TWENTY-SIX LOCAL FARMING AREAS IN ILLINOIS

for 1925

Prepared by H. C. M. Case and R. R. Hudelson


Separate business reports for each of the areas shown in the follow-
ing tables have been prepared and distributed to each of the farm oper-
ators whose accounts were included, as well as to others interested in
keeping farm financial records. In these farm business reports the data
included herewith was fully discussed with a view to aiding the individual
account keeper to use his accounts as a guide to more profitable farm man-
agement. That discussion will not be repeated here but a limited number
of copies of the separate reports are available to those who are particu-
larly interested in a given area.

In this summary it is of particular interest to note the general level
of earnings for 1925 and the relation of type of farming to net earnings
under prevailing price and weather conditions.

In considering the data in the following tables it should be kept in
mind that the rank and file of all farmers make less average net earnings
than do those farmers who keep accounts. While there are many efficient
and successful farm operators who keep no financial records the selection
of the group who keep accounts eliminates a large number of the more care-
less and unbusinesslike operators who would generally rank near the bottom
in net earnings. A comparative study of earnings on 113 McLean County
farms located in a solid block whose operators had not been keeping ac-
counts, with a larger number of farms in the same locality whose operators
kept accounts indicated that the account keeping farmers earned about
2 percent more on their capital investment than did those who had not
been keeping financial records. In considering the following data it
would, therefore, seem to be necessary to deduct about 2% from the earn-
ings shown, if it is desired to estimate the rates earned by the average
farmer in the particular locality.

Net earnings on farms in Illinois for 1925 were at least one-fourth
less than for 1924 as judged by more than a thousand completed accounts
kept by individual farm operators under the supervision of representa-
tives of the University. This condition of reduced earnings was not uni-
form over the state, however, but varied widely with the type of farm-
ing and seasonal conditions prevailing in each part of the state.

The northeastern section where dairy farms predominate showed only
slightly lower earnings for 1925 than for 1924. The western and northwestern

sections in which hogs and beef cattle constitute the chief farm products
and where most farm operators feed their entire corn crop showed a little
better earnings in 1925 than in 1924. These sections were favored not only
by better hog prices but by better yields due to an exceptionally favorable
season. Forty-five farms in Henry County averaged 65 bushels of corn to
the acre which is much above their usual average. Southern Illinois with
its varied enterprises, including wheat, dairy products, fruit and vege-
tables, had about the same net earnings in 1925 and 1924.

Central and eastern Illinois were hardest hit by prevailing price
conditions during 1925. In this large section constituting more than a
third of the state the various county averages agreed closely in indi-
cating that rates earned dropped sharply to less than half of what they
were in 1924. In this area corn and oats are important products, and
prices on these grains were low through the season for marketing the 1925
crop.

In considering the following data it should be borne in mind that
all inventory values have been greatly reduced since 1920. In practi-
cally all of the accounts included in this summary, the land has been
inventoried at one-half to two-thirds of what it would have sold for
in 1919. If the farm operators represented in this report had entered
their property in the inventories at 1919 values, rates earned would be
about half as high as is shown in these records.

Chief Products

Dairy Products

Chief Products

Hogs and Cattle

Chief Products

Corn and Oats

Chief Products

Wheat, fruit, dairy products
and vegetables

Sections of Illinois having widely different types of farming
and affected differently by price conditions.

7.5%
$170

4.8%
$223

5.3%
$197

7.0%
$238

2.7%
$279

4.7%
$223

4.1%
$230

4.3%
$273

6.1%
$250

3.2%
$266

2.5%
$253

4.1%
$236

3.5%
$251

6.0%
$138

3.9%
$202

4.2%
$243

7.1%
$159

6.5%
$124

5.5%
$123

3.4%
$59

5.9%
$105

6.2%
$170

6.7%
$86

5.7%
$115

Rate earned and investment per acre on farms keeping accounts for 1925.
Figures given are averages for 30 to 240 farms in each section as outlined. The
average of all farms has been found to be about 2% less than the average of far.
keeping accounts.

SUMMARY OF 1048 RECORDS BY AREAS
1925

| County or Area | Lake DuPage Kane | Ken-dall Grundy | Will | Jo Daviess Stephenson Carroll | Whiteside Henderson Rock Island Mercer | Henry | Stark Peoria |
|---|---|---|---|---|---|---|---|
| 1. Rate earned | 4.78% | 4.74% | 4.13% | 7.45% | 5.27% | 7.08% | 6.06% |
| 2. Labor & Management wage | $564. | $569. | $197. | $1345. | $700. | $1575. | $1008. |
| 3. Size of farm - acres | 167.8 | 178.7 | 185.6 | 187.9 | 204.9 | 202.5 | 187.1 |
| 4. Percent of land area tillable | 83.1% | 88.6% | 88.4% | 75.7% | 79.7% | 84.7% | 88.5% |
| 5. Acres in - Corn | 44.0 | 67.0 | 58.4 | 42.3 | 65.2 | 76.9 | 78.4 |
| Oats | 29.1 | 40.6 | 33.1 | 27.2 | 28.8 | 33.4 | 42.2 |
| Wheat | 6.6 | 7.6 | 21.5 | 1.6 | 10.8 | 6.4 | 5. |
| 6. Crop yields - corn (bu) | 34.9 | 47.7 | 44.5 | 53.2 | 46.6 | 65.0 | 61.4 |
| oats (bu) | 38.5 | 51.4 | 46.7 | 49.5 | 41.9 | 53.0 | 54.4 |
| wheat (bu) | 21.6 | 24.3 | 25.3 | 25.7 | 19.4 | 20.4 | 25.7 |
| 7. Returns per $100 invested in all productive livestock | $152. | $139. | $125. | $135. | $153. | $142. | $123. |
| 8. For $100 in - Cattle | $145. | $94. | $106. | $85. | $100. | $90. | $85. |
| 9. Swine | $183. | $196. | $164. | $235. | $219. | $193. | $132. |
| 10. Poultry | $186. | $236. | $181. | $206. | $184. | $174. | $162. |
| 11. Percent of Gross income from livestock | 94.5% | 70.2% | 69.4% | 91.7% | 93.6% | 85.4% | 76.5% |
| 12. Man labor cost per acre | $ 8.06 | $ 6.51 | $ 6.26 | $ 5.43 | $ 5.85 | $ 6.60 | $ 6.09 |
| 13. Crop acres per man | 85.9 | 90.2 | 92.1 | 63.7 | 71.1 | 80.3 | 87.8 |
| 14. Crop acres per horse (with tractor) | 27.0 | 26.6 | 31.2 | 22.3 | 27.7 | 23.9 | 22.2 |
| (without tractor) | 16.1 | 20.5 | 19.4 | 16.5 | 16.7 | 18.7 | 19.1 |
| 15. Expense per $100 gross income | $62. | $57. | $59. | $49. | $57. | $44. | $46. |
| 16. Machinery cost per acre | $ 3.03 | $ 1.99 | $ 2.30 | $ 1.75 | $ 1.96 | $ 2.43 | $ 2.40 |
| 17. Building and fencing cost per acre | $ 1.58 | $ 1.98 | $ 1.34 | $ 1.20 | $ 1.16 | $ 1.12 | $ 1.07 |
| 18. Gross receipts per acre | $23.04 | $24.23 | $22.89 | $24.15 | $23.09 | $30.39 | $27.94 |
| 19. Total expenses per acre | $17.40 | $14.20 | $13.40 | $11.46 | $13.52 | $13.52 | $12.30 |
| 20. Net receipts per acre | $10.64 | $10.53 | $ 9.49 | $12.69 | $10.37 | $16.37 | $15.14 |
| 21. Farms with tractors | 53% | 38% | 64% | 45% | 47% | 66.6% | 60% |
| 22. Value of land per acre | $146. | $155. | $165. | $112. | $137. | $172. | $139. |
| 23. Total investments per acre | $223. | $223. | $230. | $170. | $197. | $238. | $250. |

Summary of 1048 Records by Areas
1925

| County or Area | Lake DuPage Kane | Kendall Grundy | Will | Jo Daviess Stephenson Carroll | Whiteside Henderson Rock Island Mercer | Henry | Stark Peoria |
|---|---|---|---|---|---|---|---|
| Capital Investments-Total | $37 376 | $39 919 | $42 647 | $32 027 | $40 323 | $43 296 | $46 767 |
| Land | 24 511 | 27 709 | 30 644 | 21 039 | 28 050 | 34 531 | 35 417 |
| Farm Improvement | 5 319 | 5 170 | 4 600 | 4 352 | 5 051 | 4 756 | 3 930 |
| Machinery and equipment | 1 964 | 1 520 | 1 842 | 1 313 | 1 419 | 1 554 | 1 411 |
| Feed and supplies | 2 255 | 2 716 | 2 717 | 1 559 | 2 629 | 3 166 | 3 037 |
| Livestock | 3 327 | 2 304 | 2 844 | 3 259 | 3 174 | 3 957 | 2 972 |
| Receipts-Total | 4 705 | 4 429 | 4 249 | 4 539 | 4 096 | 6 154 | 5 223 |
| Feed and grain | 169 | 1 234 | 1 169 | 236 | ---- | 707 | 1 122 |
| Miscellaneous | 92 | 85 | 131 | 91 | 67 | 114 | 107 |
| * Livestock | 4 444 | 3 110 | 2 949 | 4 162 | 4 029 | 5 253 | 3 999 |
| Expenses-Total | 1 954 | 1 712 | 1 691 | 1 352 | 2 000 | 1 936 | 1 702 |
| Farm Improvements | 265 | 354 | 249 | 225 | 237 | 227 | 201 |
| Livestock | 23 | 20 | ---- | 14 | ---- | 27 | ---- |
| Machinery and equipment | 516 | 356 | 519 | 329 | 402 | 492 | 449 |
| Feed and supplies | ---- | ---- | ---- | ---- | 300 | ---- | ---- |
| Livestock expense other than feed | 169 | 46 | 37 | 65 | 66 | 50 | 65 |
| Crop expense | 159 | 224 | 152 | 126 | 153 | 222 | 174 |
| Labor hired | 337 | 338 | 320 | 213 | 423 | 536 | 447 |
| Tax, insurance, etc. | 399 | 344 | 330 | 331 | 359 | 356 | 343 |
| Miscellaneous | 36 | 30 | 34 | 44 | 30 | 23 | 23 |
| Receipts less expenses | 2 751 | 2 717 | 2 558 | 3 137 | 2 096 | 4 216 | 3 526 |
| Operators and unpaid family labor | 965 | 326 | 796 | 802 | 771 | 800 | 693 |
| Net income from investment | 1 786 | 1 891 | 1 762 | 2 305 | 2 125 | 3 416 | 2 833 |
| Number of Records in Report | 23 | 21 | 33 | 44 | 34 | 45 | 30 |

1925

| County or Area | Mc-Donough | Hancock Brown Schyler Adams Pike | Marshall Putnam | LaSalle | Woodford | Average of 225 farms | Ford |
|---|---|---|---|---|---|---|---|
| 1. Rate earned | 5.77% | 6.02% | 4.33% | 2.7% | 3.35% | 3.21% | 2.5% |
| 2. Labor & Management Wage | $937. | $1006. | $163. | $-87. | $-119. |  | $-1011. |
| 3. Size of farm - acres | 180.3 | 215.5 | 227.2 | 241.8 | 190. | 232. | 251.6 |
| 4. Percent of land area tillable |  | 76.3% | 88.2% | 92.1% | 86.6% | 89.7% | 93.4% |
| 5. Acres in - Corn | 68.7 | 60.7 | 87.8 | 91.4 | 75.3 | 92. | 102.7 |
|     Oats | 22.7 | 23.0 | 50.3 | 64.9 | 54.3 | 54. | 71.9 |
|     Wheat | 18.7 | 22.6 | 11.0 | 10. | 3.3 | 15. | 7. |
| 6. Crop yields - Corn(bu) | 57.8 | 58.6 | 63.0 | 51.6 | 55.5 | 55. | 46.8 |
|     Oats(bu) | 44.3 | 34.9 | 48.2 | 47.2 | 41.5 | 39. | 27.1 |
|     Wheat(bu) | 21.9 | 15.1 | 25.5 | 25.9 | 17. | 18. | 22.5 |
| 7. Returns per $100 invested in all productive livestock | $177. | $174. | $122. | $125. | $148. | $109. | $127. |
| 8. For $100 in - Cattle | $56. | $95. | $43. | $98. | $83. | $96. | $91. |
| 9. Swine | $237. | $251. | $186. | $183. | $225. | $212. | $185. |
| 10. Poultry | $183. | $203. | $105. | $162. | $187. | $234. | $173. |
| 11. Percent of Gross income from livestock | 80.1% | 98.5% | 53.5% | 61.1% | 51.2% | 58.7% | 46.3% |
| 12. Man labor cost per acre | $6.84 | $5.81 | $5.98 | $5.76 | $6.68 | $5.85 | $5.18 |
| 13. Crop acres per man | 69.2 | 72.4 | 88.5 | 94. | 88.3 | 89. | 110.0 |
| 14. Crop acres per horse (with tractor) | 21.1 | 23.0 | 27.2 | 26.8 | 24. | 25.9 | 29.2 |
|     (without tractor) | 17.6 | 21.1 | 23.0 | 21.1 | 19. | 19.1 | 22.1 |
| 15. Expense per $100 gross income | $52.46 | $52. | $53. | $64. | $60. | $64.14 | $54.0 |
| 16. Machinery cost per acre | $2.32 | $1.95 | $2.46 | $2.53 | $2. | $2.21 | $1.88 |
| 17. Building and fencing cost per acre | $1.68 | $.90 | $1.35 | $1.22 | $.91 | $1.07 | $.93 |
| 18. Gross receipts per acre | $28.91 | $23.31 | $25.15 | $20.81 | $22.06 | $23.09 | $17.45 |
| 19. Total expenses per acre | $15.16 | $12.01 | $13.33 | $13.28 | $13.16 | $14.81 | $11.12 |
| 20. Net receipts per acre | $13.75 | $11.30 | $11.82 | $7.53 | $8.90 | $8.28 | $6.33 |
| 21. Farms with tractors | 50.% | 45.% | 55.% | 68.7% | 52.% | 80.% | 80.% |
| 22. Value of land per acre | $179. | $136. | $209. | $216. | $211. | $191.55 | $200. |
| 23. Total investments per acre | $238. | $188. | $273. | $279. | $266. | $258.15 | $253. |

Summary of 1048 Records by Areas (Cont'd)
1925

| County or Area | Mc-Donough | Hancock Brown Schyler Adams Pike | Marshall Putnam | LaSalle | Wood-ford | Average of 225 Farms | Ford |
|---|---|---|---|---|---|---|---|
| Capital Investments-Total | $42 847 | $40 430 | $62 085 | $67 466 | $50 513 | $59 890 | $63 659 |
| Land | 32 248 | 29 248 | 47 510 | 52 182 | 40 163 | 44 440 | 50 220 |
| Farm Improvements | 3 596 | 4 223 | 4 985 | 5 167 | 3 331 | 5 694 | 4 842 |
| Machinery and equipment | 1 454 | 1 245 | 1 729 | 2 112 | 1 368 | 1 815 | 1 575 |
| Feed and grain | 2 691 | 2 469 | 4 433 | 4 701 | 3 428 | 4 842 | 4 561 |
| Livestock | 2 858 | 3 245 | 3 428 | 3 304 | 2 223 | 3 099 | 2 461 |
| Receipts-Total | 5 204 | 5 024 | 5 714 | 5 031 | 4 192 | 5 356 | 4 391 |
| Feed and grain | 908 | ---- | 2 559 | 1 891 | 1 996 | 2 097 | 2 293 |
| Miscellaneous | 130 | 72 | 95 | 65 | 48 | 113 | 66 |
| Livestock | 4 166 | 4 952 | 3 060 | 3 075 | 2 148 | 3 146 | 2 032 |
| Expenses-Total | 1 905 | 1 777 | 2 259 | 2 392 | 1 592 | 2 514 | 1 997 |
| Farm improvements | 303 | 194 | 307 | 294 | 173 | 247 | 233 |
| Livestock | 13 | 5 | ---- | 47 | ---- | 62 | 26 |
| Machinery and equipment | 418 | 420 | 560 | 612 | 379 | 513 | 473 |
| Feed and supplies | ---- | 3 | ---- | ---- | ---- | 196 | ---- |
| Livestock expense other than feed | 108 | 101 | 77 | 54 | 43 | 47 | 63 |
| Crop expense | 173 | 225 | 215 | 241 | 177 | 234 | 171 |
| Labor hired | 408 | 441 | 589 | 573 | 362 | 668 | 501 |
| Tax, insurance, etc. | 441 | 362 | 441 | 509 | 430 | 493 | 498 |
| Miscellaneous | 41 | 26 | 45 | 62 | 28 | 54 | 32 |
| Receipts less expense | 3 299 | 3 247 | 3 455 | 2 639 | 2 600 | 2 842 | 2 394 |
| Operators and unpaid family labor | 825 | 812 | 769 | 819 | 908 | 922 | 802 |
| Net income from investment | 2 474 | 2 435 | 2 686 | 1 820 | 1 692 | 1 920 | 1 592 |
| Number of Records in Report | 30 | 38 | 27 | 32 | 44 | | 31 |

| County or Area | Mason Macon Logan Piatt McLean | Champaign | Douglas Shelby Christian Moultrie | Coles | Cumberland Clark Crawford | Wabash Edwards Lawrence | Richland Marion Effingham |
|---|---|---|---|---|---|---|---|
| 1. Rate earned | 4.11% | 3.52% | 3.96% | 4.18% | 5.51% | 6.25% | 3.4% |
| 2. Labor and Management Wage | $44. | -$201. | $174. | $169. | $623. | $733. | $290. |
| 3. Size of farm - acres | 256.3 | 214.7 | 193.4 | 184.5 | 160.0 | 187.6 | 200.5 |
| 4. Percent of land area tillable | 94.1% | 95.9% | 89.7% | 92.2% | 75.4% | 81.1% | 82.8% |
| 5. Acres in - Corn (bu) | 97.5 | 92. | 72.3 | 66.8 | 46.4 | 45.1 | 31.2 |
|     Oats (bu) | 34.4 | 45.1 | 28.3 | 26.3 | 18.3 | 19.3 | 21.4 |
|     Wheat (bu) | 44.7 | 18.5 | 19.0 | 29.2 | 6.9 | 25.7 | 9.2 |
| 6. Crop yields - Corn (bu) | 53.4 | 52.0 | 42.5 | 49.8 | 44.0 | 41.6 | 25.8 |
|     Oats (bu) | 35.0 | 33.8 | 27.1 | 32.2 | 19.8 | 29.4 | 15.0 |
|     Wheat (bu) | 18.6 | 16.8 | 19.2 | 20.3 | 13.7 | 22.2 | 12.8 |
| 7. Returns per $100 invested in productive livestock | $132.00 | $138. | $148. | $160. | $163. | $181. | $152. |
| 8. For $100 in Cattle | $105. | $96. | $92. | $97. | $78. | $80. | $115. |
| 9. Swine | $196. | $208. | $236. | $244. | $232. | $303. | $258. |
| 10. Poultry | $137. | $175. | $151. | $188. | $194. | $279. | $227. |
| 11. Percent of Gross Income from livestock | 57.3% | 33.4% | 66.2% | 74.4% | 86.1% | 80.8% | 80.0% |
| 12. Man labor cost per acre | $5.31 | $5.38 | $5.87 | $5.79 | $5.19 | $4.70 | $3.70 |
| 13. Crop acres per man | 106.2 | 109.5 | 80.4 | 82.7 | 68.2 | 74.2 | 99.6 |
| 14. Crop acres per horse (with tractor) | 27.2 | 32.6 | 25.5 | 25.5 | 23.9 | 21.9 | 24.8 |
|     (without tractor) | 24.7 | 20.7 | 18.4 | ---- | 13.8 | ---- | ---- |
| 15. Expense per $100 gross income | $55. | $57. | $61. | $58. | $59. | $56. | $76. |
| 16. Machinery cost per acre | $1.93 | $1.89 | $1.98 | $1.95 | $1.46 | $1.52 | $.79 |
| 17. Building and fencing cost per acre | $1.10 | $.99 | $.81 | $1.13 | $.96 | $.82 | $.42 |
| 18. Gross receipts per acre | $21.48 | $20.67 | $20.18 | $22.03 | $16.69 | $17.22 | $8.26 |
| 19. Total expenses per acre | $11.79 | $11.82 | $12.25 | $11.98 | $9.91 | $9.71 | $6.26 |
| 20. Net receipt per acre | $9.69 | $8.85 | $7.93 | $10.05 | $6.73 | $7.51 | $2.00 |
| 21. Farms with tractor | 48.6% | 60.% | 53.1% | 53.% | 36.3% | 37.5% | 11.1% |
| 22. Value of land per acre | $134. | $201. | $156. | $185. | $98. | $383. | $40. |
| 23. Total investments per acre | $236. | $251. | $202. | $243. | ... | ... | $59. |

Summary of 1048 Records by Areas (Cont'd)
1925

| County or Area | Mason Macon Logan Piatt McLean | Champaign | Douglas Shelby Christian Moultrie | Coles | Cumber- land Clark Crawford | Wabash Edwards Lawrence | Richland Marion Effingham |
|---|---|---|---|---|---|---|---|
| Capital Investment-Total | $60 436 | $53 997 | $39 062 | $44 817 | $19 659 | $22 524 | $11 818 |
| Land | 47 051 | 43 219 | 30 081 | 34 205 | 14 109 | 15 701 | 8 023 |
| Farm improvement | 4 504 | 3 256 | 2 984 | 4 446 | 1 706 | 2 407 | 1 155 |
| Machinery and equipment | 1 697 | 1 436 | 1 117 | 1 199 | 774 | 857 | 531 |
| Feed and supplies | 3 986 | 4 382 | 2 591 | 2 583 | 1 427 | 1 822 | 869 |
| Livestock | 3 198 | 1 654 | 2 289 | 2 384 | 1 643 | 1 737 | 1 240 |
| Receipts-Total | 5 506 | 4 438 | 3 902 | 4 064 | 2 671 | 3 230 | 1 657 |
| Feed and Grain | 2 301 | 2 841 | 1 272 | 974 | 316 | 516 | 219 |
| Miscellaneous | 49 | 115 | 46 | 67 | 56 | 104 | 111 |
| Livestock | 3 156 | 1 482 | 2 584 | 3 023 | 2 299 | 2 610 | 1 327 |
| Expenses-Total | 2 246 | 1 846 | 1 614 | 1 543 | 931 | 1 175 | 614 |
| Farm Improvements | 283 | 213 | 156 | 209 | 153 | 153 | 85 |
| Livestock | 13 | 26 | 6 | 17 | ---- | ---- | ---- |
| Machinery and equipment | 494 | 405 | 382 | 351 | 234 | 285 | 158 |
| Feed and supplies | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| Livestock expense other than feed | 58 | 37 | 37 | 37 | 27 | 30 | 8 |
| Crop expense | 258 | 206 | 196 | 172 | 123 | 205 | 102 |
| Labor hired | 585 | 462 | 381 | 400 | 175 | 234 | 100 |
| Tax, insurance, etc. | 501 | 467 | 416 | 336 | 196 | 247 | 144 |
| Miscellaneous | 54 | 30 | 40 | 21 | 23 | 21 | 17 |
| Receipts less expenses | 3 260 | 2 592 | 2 288 | 2 521 | 1 740 | 2 055 | 1 043 |
| Operators and unpaid family labor | 777 | 691 | 755 | 668 | 655 | 647 | 642 |
| Net income from investment | 2 483 | 1 901 | 1 533 | 1 853 | 1 085 | 1 408 | 401 |
| Number of Records in Report | 35 | 30 | 31 | 30 | 19 | 32 | 18 |

SUMMARY OF 1048 RECORDS BY AREAS (Cont'd)
1925

| County or Area | Montgomery Bond Macoupin Madison | Jersey Greene Morgan | Clinton | Monroe Randolph | Saline Gallatin White Johnson Pulaski |
|---|---|---|---|---|---|
| 1. Rate earned | 6.5% | 7.1% | 5.94% | 6.67% | 5.72% |
| 2. Labor & Management wage | $913. | $1153. | $764. | $756. | $633. |
| 3. Size of farm - acres | 190.0 | 185.5 | 165.2 | 172.6 | 202. |
| 4. Percent of land area tillable | 81.8% | 79.1% | 82.4% | 79.3% | 84.8% |
| 5. Acres in - Corn (bu) | 50.0 | 53.5 | 31.2 | 24.8 | 54.6 |
|     Oats (bu) | 24.0 | 18.9 | 22.6 | 14.6 | 13.2 |
|     Wheat (bu) | 23.0 | 27.9 | 43.4 | 44.7 | 27.4 |
| 6. Crop yields - Corn (bu) | 47.0 | 54.6 | 37.9 | 40.5 | 40.4 |
| 7.     Oats (bu) | 26.2 | 22.6 | 22.9 | 26.2 | 27.1 |
|     Wheat (bu) | 16.3 | 16.3 | 14.9 | 18.8 | 19.4 |
| 7. Returns per $100 invested in all productive livestock | $160. | $177. | $168. | $144. | $190. |
| 8. For $100 in - Cattle | $109. | $114. | $151. | $122. | $122. |
| 9. Swine | $285. | $295. | $166. | $147. | $259. |
| 10. Poultry | $213. | $198. | $232. | $215. | $229. |
| 11. Percent of Gross income from livestock | 79.3% | 72.2% | 73.9% | 44.8% | 65.7% |
| 12. Man labor cost per acre | $5.06 | $6.15 | $6.34 | $5.98 | $4.75 |
| 13. Crop acres per man | 75.3 | 66.9 | 61.0 | 62.4 | 72. |
| 14. Crop acres per horse (with tractor) | 24.4 | 19.5 | 1.4 | 20.3 | 27.1 |
|     (without tractor) | 16.8 | ---- | 19.9 | ---- | 18.5 |
| 15. Expense per $100 gross income | $66. | $52. | $66.00 | $63. | $59. |
| 16. Machinery cost per acre | $1.93 | $2.10 | $1.75 | $1.35 | $1.41 |
| 17. Building and fencing cost per acre | $.77 | $1.07 | $1.10 | $.63 | $.78 |
| 18. Gross receipts per acre | $20.48 | $23.35 | $18.19 | $15.45 | $15.95 |
| 19. Total expenses per acre | $8.69 | $12.08 | $11.94 | $9.72 | $9.39 |
| 20. Net receipts per acre | $11.79 | $11.27 | $6.25 | $5.73 | $6.56 |
| 21. Farms with tractors | 33% | 30% | 18.3% | 40.0% | 35.5% |
| 22. Value of land per acre | $82.00 | $115. | $64. | $54. | $80.00 |
| 23. Total investments per acre | $124. | $159. | $105. | $86. | $115. |

Summary of 1926 Records by Areas (Cont'd)
1925

| County or Area | Montgomery Bond Macoupin Madison | Jersey Greene Morgan | Clinton | Monroe Randolph | Saline Gallatin White Johnson Pulaski |
|---|---|---|---|---|---|
| Capital Investment-Total | $23 550 | $29 412 | $17 370 | $14 305 | $23 171 |
| Land | 15 565 | 21 374 | 10 650 | 9 341 | 16 244 |
| Farm improvement | 2 875 | 3 025 | 2 708 | 1 923 | 2 652 |
| Machinery and equipment | 1 234 | 1 024 | 1 099 | 959 | 923 |
| Feed and supplies | 1 723 | 1 847 | 1 211 | 1 352 | 1 774 |
| Livestock | 2 143 | 2 142 | 1 702 | 1 230 | 1 578 |
| Receipts-Total | 3 437 | 4 332 | 3 005 | 2 666 | 3 222 |
| Feed and grain | 255 | 1 037 | 657 | 1 354 | 998 |
| Miscellaneous | 122 | 117 | 126 | 116 | 106 |
| Livestock | 3 060 | 3 123 | 2 222 | 1 196 | 2 118 |
| Expenses-Total | 1 192 | 1 539 | 1 012 | 654 | 1 216 |
| Farm improvements | 146 | 193 | 131 | 109 | 157 |
| Livestock | ----- | 34 | 13 | ----- | 4 |
| Machinery and equipment | 367 | 389 | 290 | 234 | 284 |
| Feed and supplies | ----- | ----- | ----- | ----- | ----- |
| Livestock expense other than feed | 59 | 44 | 25 | 13 | 20 |
| Crop expense | 137 | 148 | 167 | 138 | 178 |
| Labor hired | 253 | 439 | 169 | 208 | 282 |
| Tax, insurance, etc. | 203 | 252 | 140 | 139 | 269 |
| Miscellaneous | 27 | 35 | 27 | 13 | 24 |
| Receipts less expenses | 2 245 | 2 793 | 1 993 | 1 812 | 2 004 |
| Operators labor and family labor | 710 | 702 | 961 | 824 | 678 |
| Net income from investment | 1 535 | 2 091 | 1 032 | 988 | 1 326 |
| Number of Records in Report | 30 | 40 | 60 | 30 | 31 |