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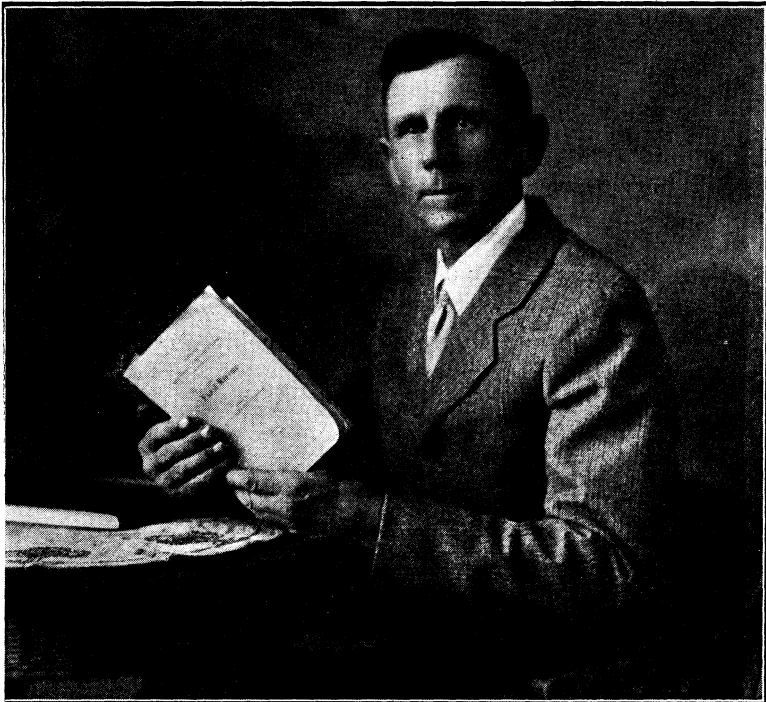
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What Oklahoma Farm Account Records Show

By

T. S. THORFINNSON,

Extension Farm Management Specialist.



FOREWORD

A farm account record shows the farmer who keeps it the facts about his own farm which he needs to know in order to study the farm business. Study of these facts often points the way to changes in organization which increases the farm profit.

Figures from other farms reveal the experiences of other farmers which are often of great value to younger farmers with less experience. It is possible to profit by the other man's success or by his mistakes.

Averages of groups of farms may be used to good advantage. Comparison of figures from an individual farm with these averages show roughly whether or not that farm is up to standard.

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CONTENTS

Table with 2 columns: Item and Page. Includes sections like ART I. FACTS FROM ONE OKLAHOMA FARM, ART II. COMPARISON OF DIFFERENT FARMS, and ART III. AVERAGES OF 37 OKLAHOMA FARM RECORDS.

PART I

Facts From One Oklahoma Farm

Following are a few of the facts which one Oklahoma farmer obtained from his farm account book in 1927:

How Much Did the Farm Pay?

Table with 2 columns: Item and Amount. Rows include Gross Farm Income (\$3116), Farm Expenses (899), Farm Income (2217), and Return for Labor (1552).

This farmer knew that as a result of the year's business his farm had netted \$2217.00 as pay for his labor and management and also for interest on investment.

The total farm investment was \$13,293.00. Five per cent interest on this amount amounted to \$665.00 which when deducted from the farm income of \$217.00 left \$1552.00 to pay the farmer for his labor and management.

From What Sources Did the Money Come?

The gross income of \$3116.00 came from the crops and livestock raised on the farm. The summary of the account book showed how much money and what percentage of the whole came from each. The income was divided as follows:

| | | |
|------------------------------|----------------|-------------|
| Wheat | \$1,140 | 37% |
| Other crops | 561 | 18% |
| Hogs | 825 | 26% |
| Poultry and eggs | 290 | 9% |
| Dairy products | 211 | 7% |
| Cattle sales | 45 | 1% |
| Miscellaneous receipts | 44 | 2% |
| Total | <u>\$3,116</u> | <u>100%</u> |

It was evident from these figures that \$1701 or 55% of the income was from crops while \$1415 or 45% of the income came from livestock and miscellaneous sources. Evidently the farm was well balanced, sufficient livestock being kept to pay all farm expenses and keep the family fed and clothed in case the crops failed. The cattle, hog and poultry enterprises each contributed substantially to the farm income.

What Were the Farm Expenses?

The total farm expense of \$899 was divided between the following items as indicated below:

| | | |
|----------------------------------|--------------|-------------|
| Threshing expense | \$286 | 32% |
| Machinery repairs | 92 | 10% |
| Machinery depreciation | 70 | 8% |
| Hired labor | 74 | 8% |
| Gas and oil | 74 | 8% |
| Taxes | 60 | 7% |
| Livestock expense | 44 | 5% |
| Feed bought | 40 | 4% |
| Seed bought | 33 | 4% |
| Building repair | 32 | 4% |
| Building depreciation | 42 | 4% |
| Miscellaneous farm expense | 52 | 6% |
| Total farm expense | <u>\$899</u> | <u>100%</u> |

How Much Money was Invested in the Farm Business?

The total farm investment was divided as follows:

| | | |
|-------------------------|-----------------|-------------|
| Land | \$10,000 | 75% |
| Buildings | 1,050 | 8% |
| Machinery | 485 | 4% |
| Livestock | 780 | 6% |
| Feeds, seeds, etc. | 978 | 7% |
| Total investment | <u>\$13,293</u> | <u>100%</u> |

The productive livestock on this farm consisted of 4 milk cows, 2 other cattle, 24 hogs and 151 chickens.

There were 160 acres of land in the farm and 55% of the crop land was devoted to wheat which yielded 18 bushels per acre. There were four substantial sources of income on this farm—**crops, cattle, hogs and poultry.**

These are facts which every farmer ought to know about his farm. They furnish a basis for a study of the farm business and often point out weak points which can be strengthened. It is certainly worth while to know where one stands financially and just how well the farm is paying each year. It is worth even more to know how the facts concerning one's farm compare with other farms or averages of other farms. Such a comparison often brings out in a striking manner the weak points of the farm organization.

Finding the Leaks

In order to illustrate the use of averages of other farms in making comparisons which point to the weak places in the organization of an individual farm the figures from the farm just discussed are compared with the average of several farms in the same county in the table below:

| | Average of 7 Farms | Farm No. 1 |
|---|---------------------|---------------------|
| Average farm income | \$2290 | \$2217 |
| Size of Business: | | |
| Farm area | 200 acres | 160 acres |
| Total farm expense | \$1400 | \$899 |
| Diversity of Business: | | |
| Amount of livestock per 100 acres in farm | 12 animal units (1) | 10 animal units (1) |
| Per cent of acreage in cash crops | 68% | 55% |
| Number of important sources of income | 3 | 4 |
| Quality of Business: | | |
| Yield of wheat per acre | 12 bu. | 18 bu. |
| Gross income of dairy products per milk cow | \$49 | \$53 |
| Gross income per 100 chickens | \$164 | \$192 |

(1) An animal unit of livestock is the equivalent in feed consumption and manure production of one mature horse or cow. It takes two colts or calves, five hogs, ten pigs, seven sheep, fourteen lambs or a hundred chickens to make an animal unit.

The income on farm number 1 was about equal to the average. The farm was below the average in size, 160 acres compared with an average of 200 acres, and the volume of business was below the average, as indicated by a total farm expense of \$899 compared with an average of \$1400.

There were four sources of income on farm number 1 compared with an average of three sources, and the per cent of acreage in cash crops was 55 as compared with an average of 68%. Both of these points indicate that farm number 1 was more diversified than the average, which is favorable. However, the amount of livestock on farm number 1 was below average, ten ani-

mal units compared with an average of twelve. This is inconsistent with the other points just referred to for a farm smaller in size and more diversified than the average would ordinarily have more than the average amount of livestock in proportion to the land.

The quality of the enterprises on farm number 1 was above the average. The yield of wheat was 18 bushels compared with an average of twelve; the income per milk cow was \$53 compared with an average of \$49, and the returns per hundred chickens amounted to \$192 compared with an average of \$164.

Comparison of farm number 1 with the average brings out the fact that the quality of the livestock was above average, that farm number 1 was more diversified than the average but that the volume of business was a little smaller than average. This could be remedied by increasing somewhat the amount of livestock on the farm. It might be advisable to increase the size of the poultry flock and the number of hogs or cattle kept might also be increased. Such changes would be consistent with the idea that farms smaller than the average in size, as measured by the number of acres, should have a larger than average business per acre in order to make the largest possible profit.

PART II

Comparison of Different Farms

Comparison of records of farms which differ in organization bring out facts from which farmers can learn many valuable lessons.

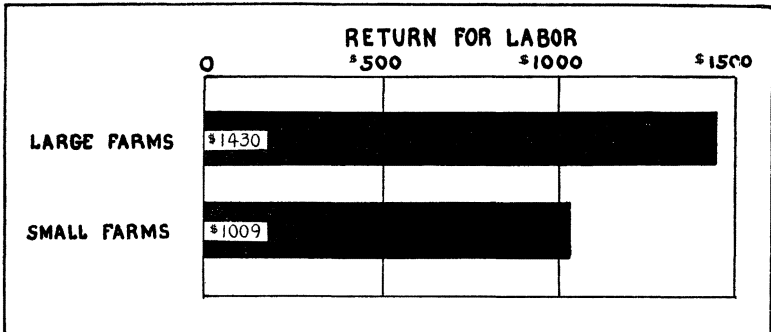


FIGURE 1.—RETURN FOR LABOR ON LARGE FARMS AND SMALL FARMS
Return for labor of farmer and family, average per farm of twelve farms having a large volume of business compared with average per farm of twelve farms having a small volume of business, Oklahoma, 1927.

Size of Business

The average returns from twelve Oklahoma farms having a comparatively large volume of business and twelve farms having a small volume of business are given in the table below:

| | Average Per Farm of 12 Small Farms | Average Per Farm of 12 Large Farms |
|-------------------------------|---------------------------------------|---------------------------------------|
| Average size of farm | 113 acres | 504 acres |
| Average farm expense | \$874 | \$1818 |
| Average farm income | \$1368 | \$2627 |
| Average return of labor | \$1009 | \$1430 |

The average return for labor of farmer and family was \$1430 per farm on the farms having a large volume of business and \$1009 on the small farms. (See figure 1 for graphic presentation). The farm incomes were \$2627 and \$1368, respectively, indicating that the returns were larger on the large business. Figures from twenty-four farms, of course, do not definitely prove anything, but they **illustrate the importance of size or volume** of business in its relation to net returns, a point which has previously been proved by figures from hundreds of farms from various localities in the United States. The greater the volume of business the greater the net returns over a period of years, provided the size of the undertaking does not exceed the managerial ability of the farmer.

Risk Insurance

In regions of Oklahoma where most of the income is from one crop, the importance of insuring the farm against the risk of crop failure is strikingly illustrated by comparison of figures from individual farms on which records were kept in 1927.

The figures given below are from neighboring farms in the wheat belt. The wheat crop on farm number 12 was almost a total failure. On farm number 11 it was a near failure, the average yield per acre being less than five bushels. Hail was responsible for the low yields in both cases. Farm number 12 depended almost entirely on wheat. On farm number 11 the acreage in wheat was about the same as that on farm number 12. However, there was considerably more livestock on farm number 11 than there was on farm number 12. Note the great difference in income.

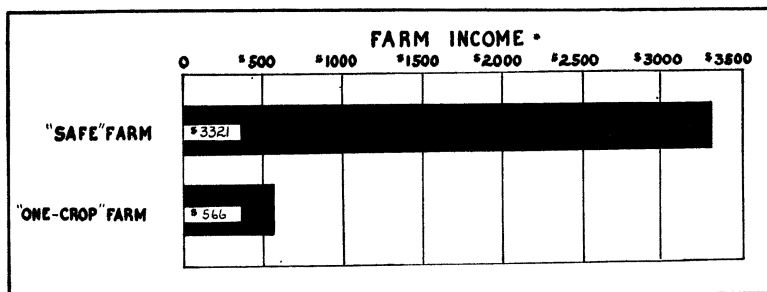


FIGURE 2.—FARM INCOME

Income on a "safe farm" compared with the income on a "one-crop" farm, under conditions where the main cash crop failed on both farms.

*Farm income is the money left to pay the farmer and family for their labor and to also pay interest on the investment after all other farm expenses have been deducted.

| | Farm No. 11 (A Safe Farm) | Farm No. 12 (A One-Crop Farm) |
|------------------------|------------------------------|----------------------------------|
| Gross income | \$5939 | \$1561 |
| Farm expenses | 2618 | 995 |
| Farm income | 3321 | 566 |
| Return for labor | 2102 | —106 |

Figure 2 shows graphically the comparison of the farm income on the two farms.

In order to see what was responsible for the great difference in income, note the amount of money coming from each source.

| | Farm No. 11 | Farm No. 12 |
|---------------------|-------------|-------------|
| Crops | \$1599 | \$967 |
| Livestock | 3702 | 594 |
| Miscellaneous | 638 | — |

On farm number 11 the income from crops was about \$600 greater than that on farm number 12 but the greatest difference was in the livestock income, \$3702 in the first case and \$594 in the second case, a difference of about \$3100 in favor of farm number 11.

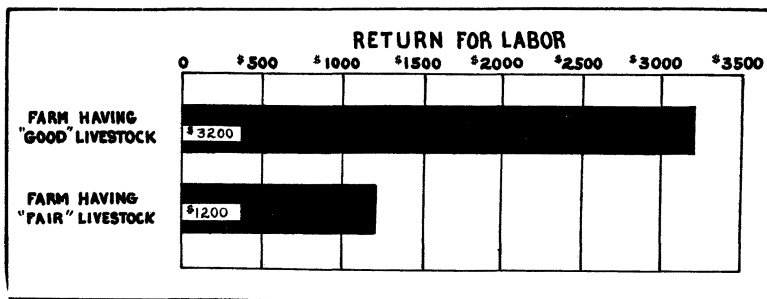


FIGURE 3.—RETURN FOR LABOR

Return for labor of farmer and family on farm number 29, having high quality of livestock compared with farm number 31 on which the quality of livestock was about average.

A hail storm struck both farms. Neither carried hail insurance, but on one of the farms sufficient livestock was kept to guarantee a substantial income in spite of crop failure, while on the other farm the income from livestock was very small.

On farm number 11 the income came mainly from **crops, cattle, hogs and poultry**. On farm number 12 most of the income was from two sources, crops and cattle.

Quality of Business

The importance of **quality** production and its effect upon the farm income is illustrated by comparison of records from two farms in northeastern Ok-

lahoma. About the same amount of livestock was kept on these two farms but there was considerable difference in the **quality** of the livestock.

On the farm having better quality of livestock, farm No. 29, the return for the labor of farmer and family was \$3200 compared with \$1200 on farm No. 31 on which the livestock kept was not as productive. See Figure 3.

| | Farm No. 29 | Farm No. 31 |
|--|------------------|------------------|
| Return for labor | \$3200 | \$1200 |
| Farm area | 182 acres | 194 acres |
| Amount of livestock per 100 acres in the farm | 13 animal units* | 13 animal units* |
| Gross income of dairy products per milk cow | \$128 | \$76 |
| Gross income per 100 chickens | \$300 | \$240 |

*An animal unit of livestock is the equivalent of one mature horse or cow in feed consumption and manure production. It takes two head of young stock of horses or cattle to make an animal unit, or 5 hogs, 10 pigs, 7 sheep, 14 lambs or 100 chickens.

The two farms were of about the same size, 182 acres and 194 acres respectively, and the total amount of all classes of livestock combined was about equal. On farm number 31 there was a larger number of dairy cows which was offset by larger numbers of hogs and chickens on farm number 29. The superior quality of the livestock on farm number 29 is reflected in the gross income per cow of \$128 compared with \$76 per cow on farm number 31 and the gross income per 100 chickens of \$300 compared with \$240 on farm number 31. The difference in the gross income from the livestock on the two farms is brought out by comparison of the figures below.

| | |
|--|---------------|
| Gross income from all livestock on farm No. 29 | \$4674 |
| Gross income from all livestock on farm No. 31 | <u>\$2282</u> |
| Difference in favor of the farm having superior quality of livestock | \$2392 |

It must be recognized, of course, that the difference in the return for labor on these two farms was not due entirely to difference in quality of livestock. Unquestionably other factors also had a bearing on the results. Allowance must be made for this, but nevertheless, the quality of the livestock was a big factor.

The Cow and Hen Pay the Bills

Many of the records kept on Oklahoma farms show how the dairy and poultry enterprises provide a steady income which meets the farm expenses as they fall due. Figures from a farm in Northeast Oklahoma show the following facts in this regard.

| | |
|---|------------|
| Annual gross income from dairy and poultry | \$1651 |
| Annual operating expense for the whole farm | <u>922</u> |
| Balance | \$ 729 |

In other words, the income from dairy and poultry paid all the current cash expenses on this farm and left a balance of \$729. The expenses included were feed bought, gas and oil, machinery and building repairs, livestock expense, taxes, land rent, threshing, seed bought, and hired labor.

Not only was the income from dairy and poultry more than sufficient to "pay the bills," but the money came in from week to week and month to month in such a way as to make it possible to pay the bills as they came in. The table below shows the income each month from poultry and dairy on this farm, and also the farm expenses incurred during the corresponding months.

| | Income From Dairy and Poultry | Farm Expenses |
|--------------------|----------------------------------|---------------|
| January | \$ 142 | \$ 52 |
| February | 151 | 92 |
| March | 170 | 51 |
| April | 163 | 110 |
| May | 165 | 62 |
| June | 130 | 110 |
| July | 174 | 279 |
| August | 145 | 2 |
| September | 128 | 8 |
| October | 91 | 95 |
| November | 89 | 19 |
| December | 103 | 42 |
| Total | \$1651 | \$922 |

The income from dairy and poultry exceeded the farm expenses in every month excepting July and October and the balance left from previous months was more than sufficient to meet the deficit in July and October. There was no necessity for borrowing money to pay current bills. The cows and chickens took care of this.

PART III

Averages of the 37 Farm Records

The tables which follow are made up of averages of the records from the 37 Oklahoma farms on which farm account records were kept in 1927. Thirty-five of the records were from farms in the northern half of the state, and two were from Southwestern Oklahoma. See Figure 4.

The averages of these records cannot be accepted as representative of the state, first, because no records were obtained from southern and southeastern Oklahoma; second, because the records are not numerous enough to insure a fair sample, and third, because it seems probable that farmers who kept the records are above the average in many respects.

The following tables are presented in the light of these limitations and the reader is cautioned against drawing from them conclusions which are not justifiable. In the absence of more authentic figures these may be of some value.

Table I

Income and Expense per Farm, Average 37 Farms, Oklahoma, 1927

| | |
|---------------------------------|--------|
| Number of farms reporting | 37 |
| Gross income per farm | \$3592 |
| Farm expenses per farm | \$1560 |
| (1) Farm income | \$2032 |
| (2) Return for labor | \$1266 |

(1) Farm income is the money left to pay interest on the investment and to pay the farmer and family for their labor after all other farm expenses have been deducted.

(2) Return for labor is the money left to pay the farmer and family for their time after all other farm expenses have been paid and also five per cent on the farm investment.

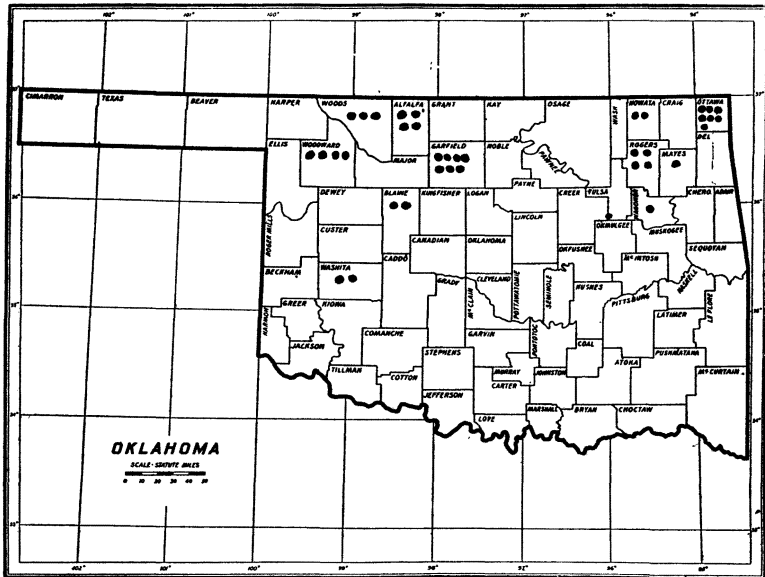


FIGURE 4.

Showing location of farms on which the records were kept. Each dot indicates a farm on which a record was kept.

The cost of maintaining the household and supporting the family were not included in the farm expenses. This means that groceries and living expenses must be paid out of the \$1266 which is listed as return for labor in Table I.

Some wheat was raised on twenty-seven of the farms included in the averages in Table II, cotton was raised on four farms and fruit in commercial quantities on only two of the farms. This accounts for the small income from fruit and cotton on the "per farm" basis. Study of the "percentage"

column in Table II shows that 43 percent of the income was from crops, 51 percent from livestock and six percent from miscellaneous sources. Many of the farms included in the group received the greater part of their income from crops while several farms received nearly all of their income from livestock.

Table II

Distribution of Gross Income per Farm, Average of 37 Farms, Okla., 1927.

| SOURCES OF INCOME | GROSS INCOME | |
|------------------------|--------------|---------|
| | Dollars | Percent |
| Wheat | 1003 | 28 |
| Strawberries | 33 | 1 |
| Grapes | 3 | |
| Cotton | 135 | 4 |
| Other crops | 363 | 10 |
| Cattle | 390 | 11 |
| Dairy products | 415 | 12 |
| Hogs | 585 | 16 |
| Sheep and wool | 43 | 1 |
| Poultry | 167 | 5 |
| Eggs | 208 | 6 |
| Horses and mules | 12 | |
| Miscellaneous | 235 | 6 |
| Total | 3592 | 100 |

Table III

Distribution of Expense per Farm, Average of 37 Farms, Oklahoma, 1927.

| | EXPENSES PER FARM | |
|------------------------------|-------------------|---------|
| | Dollars | Percent |
| Hired labor | 203 | 13 |
| Feed bought | 344 | 22 |
| Seed bought | 48 | 3 |
| Threshing expense | 73 | 5 |
| Gas and oil | 131 | 9 |
| Machinery repair | 144 | 9 |
| Building repair | 36 | 2 |
| Livestock expense | 75 | 5 |
| Taxes | 96 | 6 |
| Machinery depreciation | 151 | 10 |
| Building depreciation | 53 | 3 |
| Misc. farm expense | 204 | 13 |
| Total | 1558 | 100 |

Expenses for different items varied a great deal between individual farms. For instance, the money paid out for hired labor varied from nothing at all to more than \$800, and the expense for feed bought varied from zero to nearly \$700. The figures in Table III represent the average of 37 farms and therefore do not apply exactly to any individual farm.

Table IV

Distribution of Investment per Farm, Average of 37 Farms, Oklahoma, 1927.

| | INVESTMENT PER FARM | |
|-------------------------|---------------------|---------|
| | Dollars | Percent |
| Land | 10305 | 58 |
| Buildings | 1965 | 11 |
| Machinery | 1529 | 9 |
| Livestock | 2287 | 13 |
| Feeds, seeds, etc. | 1627 | 9 |
| Total | 17713 | 100 |

The figures in Table IV show the average amount of capital invested in land, buildings, machinery, livestock, feeds, seeds, etc. The proportion of the total investment in each of these is indicated in the right hand column.

Table V

Number of Head of Livestock per Farm, Average of 37 Farms, Okla., 1927.

| | Number of Head |
|------------------------------|----------------|
| Milk cows | 7 |
| Other mature cattle | 5 |
| Young stock | 10 |
| Brood sows | 2 |
| Other hogs | 19 |
| Mature sheep | 5 |
| Lambs | |
| Poultry | 203 |
| Work horses and mules | 7 |
| Other horses and mules | 2 |

Table VI

Size of Business, Amount of Livestock and Quality of Livestock
Average of 34 Farms, Oklahoma, 1927.

| | |
|---|--------|
| Farm area (acres) | 279 |
| Total farm expense | \$1558 |
| (1) Animal units of livestock per 100 acres in farm | 13 |
| Gross income of dairy products per milk cow | \$51 |
| Gross income per 100 chickens | \$161 |
| Gross income per \$100 invested in hogs | \$232 |

(1) An animal unit of livestock is the equivalent of one mature horse or cow in feed consumption and manure production. It takes two head of young stock of horses or cattle to make an animal unit, or five hogs, ten pigs, seven sheep, fourteen lambs or 100 chickens.

The gross income per cow in Table VI was arrived at by dividing the total amount received from the sale of dairy products by the number of cows milked. The gross income per 100 chickens represents the total receipts from the sale of poultry and eggs per 100 chickens on hand at the beginning of the year. The gross income per \$100 invested in hogs represents the amount of hog sales per every \$100 worth of hogs on hand at the beginning of the year.

At best these are very "rough" measures of the quality of the livestock on these farms. Pounds of butterfat per cow, number of eggs per hen and number of pigs saved per sow are better measures of quality when this information is available.

