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# Indebtedness on 48 Potter County Farms, 1930

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March. 1932

## Indebtedness on 48 Potter County Farms, 1930

Preliminary Report

C. M. Hampson, Poul Christophersen

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Agricultural Economics Department Agricultural Experiment Station South Dakota State College of Agriculture and Mechanic Arts, Brookings

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## Indebtedness on 48 Potter County Farms, 1930

C. M. Hampson, Poul Christophersen

Foreword.—A study of farm operations and farm management was made on 48 farms in Potter county, South Dakota during 1930, through the method of accounts kept by the farm operators, assisted at regular monthly intervals by a resident field man. The study was made by the Department of Agricultural Economics of the South Dakota Agricultural Experiment station.

The results of the study will be published first as preliminary reports, each dealing with only one or a few phases of the study. Data supporting certain statements is omitted in this report for want of space, but in most cases will be published in later reports. This, the first report, deals with indebtedness, one of the most important problems in farm management at present. Its chief objective is to make available information that will aid farmers in financing their business in the best manner.

Historical.—In 1890 the average value of all farm property per farm in Potter county, according to the United States census, was \$2,029. It was \$4,187 in 1900; \$23,815 in 1910; \$38,081 in 1920 and \$22,819 in 1930. This great increase in capital per farm from 1890 to 1920 was due to increased values of lands, buildings, livestock, crops, implements and machinery; increased size of farm; change in number, sizes and moderness of buildings; and increase in numbers and prices of implements and machinery. This increase in capital requirements was accompanied by decreasing ability of farmers to finance a farm business with their own savings, in turn creating a demand for more and larger loans. The census shows real estate mortgage indebtedness to have increased from an average of about \$500 per mortgaged farm in 1890 to \$5,200 per farm in 1930. In 1890 fifty-five per cent of the farms in the county operated by owners were without mortgage indebtedness on real estate; in 1930 only 27 per cent. The farms studied averaged 652 acres in area and ranged from a quarter section farm to a farm of 1,418 acres. There was included also a ranch with 550 acres of farm land and about 5,350 additional acres of hay and pasture land.

In 1930 the amount of rainfall and the length of growing season were about normal; the crop yields were slightly below normal for the region. The farm income was, however, greatly below that of recent years due to the great decline during 1930 of prices paid to farmers for their products.

How Many Were in Debt and How Much?—Twenty-one of the 48 farms had mortgages on livestock, 42 had miscellaneous notes and accounts outstanding, and 35 of the 39 owner-operated farms had mortgages on real estate. (Table 1.) Two farms had no debts whatsoever, while others had total debts ranging from one per cent of their total farm investment up to 115 per cent of their investment t. (Table 12). The average indebtedness per farm was \$8,075 on January 1.

TABLE 1. AVERAGE INDEBTEDNESS OF 48 POTTER COUNTY FARMS, IANUARY 1 1930

| Mortgages on livestock             | 1,146 |
|------------------------------------|-------|
| Mortgages on real estate<br>Total8 |       |
|                                    | 0,010 |

Where Were the Loans Secured?—Thirty four per cent of the total amount of all loans was secured from the Federal Land Bank, the State Rural Credit Board, State school funds, insurance companies and investment companies; 13 per cent from Potter county banks; 45 per cent from individuals; and eight per cent from miscellaneous sources. (Table 2.)

| TABLE 2SOURCES | <b>OF BORRO</b> | WED FUNDS,    | AVERAGE | 48 FARMS, |
|----------------|-----------------|---------------|---------|-----------|
|                | DOTTED (        | DEDE VENALLOF |         |           |

| Creditor Inde                       | Indebtedness January 1 |  |  |
|-------------------------------------|------------------------|--|--|
| Amoun                               | t Per cent of total    |  |  |
| Farm financing organizations\$2.75  | 4 34                   |  |  |
| Potter County banks 1,11            | 0 13.5                 |  |  |
| Individuals 8.62                    | 8 45                   |  |  |
| Accrued insurance premiums 4        | 0.5                    |  |  |
| Accounts with stores and dealers 54 | 8 7                    |  |  |
| Tetals\$8,07                        | 5 100                  |  |  |

On January first there were 47 mortgages on real estate, averaging \$5,823 per farm; of these 42 were first mortgages averaging \$4,741, and five were second martgages averaging \$1,082 each. Mortgages on livestock averaged \$1,106 per farm. The sum of all other farm business indebtedness averaged \$1,146 per farm. These miscellaneous debts included open store accounts; accounts for equipment, tractors, trucks and autos; unpaid rent and hail insurance premums; unsecured loans from relatives other individuals and banks; and loans on life insurance policies and stored crops.

Debts Increased During the Year.—Real estate mortgages increased \$44 per farm on the average, miscellaneous accounts increased \$219, and livestock mortgages decreased \$31 per farm during the year. (Table 3). Livestock mortgages were reduced in numbers and in amounts, largely due to demands of creditors as the value of the mortgaged chattel decreased with the decline in prices which occurred during the year. In some cases the amount of the mortgage was maintained by giving additional security in the way of other livestock or machinery. Total indebtedness was decreased on 15 farms, increased on 25 farms and remained the same on eight. The total amount increased \$232 per farm on the average.

|                                  | Amount<br>Jan. 1 | Average<br>Amount<br>Dec. 31 | Changes |
|----------------------------------|------------------|------------------------------|---------|
| Real estate mortgages            | \$5,823          | \$5,867                      | + \$ 44 |
| Livestock chattel mortgages      | 1,106            | 1,075                        | — 31    |
| Miscellaneous notes and accounts | 1,146            | 1,365                        | + 219   |
| Total indebtedness               | \$8,075          | \$8.307                      | + \$232 |

TABLE 3.—CHANCES IN INDEBTEDNESS OF 48 POTTER COUNTY FARMS DURING 1930

Why Some Prospered More than Others.—Some of those who had no increase in debts were aided by one or more of the following factors: High livestock production per breeding animal, low cash labor expense due to several workers in the family, low expenses for pasture, low expenses for indebtedness, and income other than from the current farm business. Others had no special advantages but did well through practicing careful planning and management of the farm business.

Some of the causes of increased indebtedness not common to all farms were low production of livestock per breeding animal, low crop production per acre, high labor expense, and high cost of indebtedness. In addition to these were other factors of poor farm management and cash demands of the family living exceeding the 1930 earnings. Common to all was the decline in prices of all farm products.

Terms of the Loans.—The average indebtedness of \$5,800 against real estate was, of course, secured by real estate mortgages and purchase contracts, 29 per cent of the amount was for terms of from 30 to 33 years, 36 per cent for terms of from 11 to 29 years, and 34 per cent for terms ranging from 5 to 10 years. Nearly all of the remaining indebtedness, averaging \$2.252 per farm, consisted of open accounts and notes running for periods of not more than one year.

Real estate mortgages bore an average interest rate of 5.5 per cent. Loans from school funds were at 5 per cent, some from individuals were at 7 per cent and one land contract was at 4 per cent. Livestock chattel mortgages were drawn up bearing an average rate of 9 per cent; the lowest rate was 7 and the highest 10 per cent. Loans were obtained from life insurance companies at 6 per cent, from individuals at 5 to 8 per cent, from banks unsecured at 8 to 10 per cent. and on machinery at 7 to 10 per cent. Finance companies carried the purchasers of autos. tractors and trucks at their usual rates, and an average of more than \$500 indebtedness per farm bore no direct interest charge.

The Annual Burden of Indebtedness.—As shown in table 1 the mortgages on livestock averaged \$1,106 per farm and the amount of the miscellaneous notes and accounts was \$1,146. Besides this the average amount of interest due in 1930 was \$499, making a total of \$2,751 due per farm. Since the indebtedness on January 1 was probably not much different from that of other years recently, it means that about \$2,700 of indebtedness obligations were to be met in some way each year regardless of the farm income.

In addition to this was the average real estate mortgage of \$5,823 per farm, some with five-year paper, some with 30 or more years. Some loans were being paid on the amortization plan whereby a part of the principal is paid each year and the entire loan is paid in 30 to 34 years. The principal of some other loans had not been reduced for several years.

Little Debts Grow Big.—On the average each farm of those studied had, during the year, about four outstanding accounts not secured by mortgages, some of which were not secured in any way. During the year the number of these accounts increased from 163 to 211, or 29 per cent. Their total amount increased from \$55,000 to \$65,000, or 17 per cent. (Table 4.) The average amount of each account dropped from \$338 to \$307. This reduction was largely due to installment payments reducing indebtedness on autos without offsetting purchases of new autos, the purchase of used machinery instead of new, and inability to secure loans from individuals as in past years.

The average indebtedness of the 48 farms for the type of loans under discussion increased from \$1,146 to \$1.351. This apparent discrepancy from the foregoing statement is due to the large increase in the number of accounts in comparison with the small decrease in the amount of each account.

Personal accounts regularly carried for short periods and personal accounts totaling only small amounts were not included in the records, but where personal accounts were allowed to accumulate as a method of securing additional finances for the farming business, they were included. There were 14 such accounts at the beginning of the year and 17 at the end of the year. The average amount of these debts increased from \$101 each to \$127 each.

| Purpose or source of accounts | No. of accounts |         | Average amount |         |
|-------------------------------|-----------------|---------|----------------|---------|
|                               | Jan. 1          | Dec. 31 | Jan. 1         | Dec.1   |
| Personal accounts (open)      | 14              | 17      | \$ 101         | \$ 127  |
| Business accounts (open)      | 61              | 82      | 90             | 92      |
| New improvements              | 6               | 4       | 465            | 487     |
| New equipment                 | _ 8             | 15      | 365            | 226     |
| Tractors and trucks           |                 | 20      | 580            | 550     |
| New autos                     | 10              | 3       | 400            | 364     |
| Hail insurance, accrued       | 4               | 11      | 109            | 108     |
| Rentals                       | _ 9             | 19      | 202            | 313     |
| From relatives                | 12              | 17      | 1,271          | 989     |
| From other individuals        | 6               | 3       | 340            | 123     |
| Local banks unsecured         | 16              | 13      | 533            | 512     |
| On life insurance policies    | _ 2             | 5       | 772            | 1,052   |
| On stored crobs               |                 | 2       | 0              | 755     |
|                               |                 |         |                |         |
| Total number of accounts      |                 | 211     |                |         |
| Average per account           |                 |         | \$838          | \$307   |
| Average per farm              | .3.4            | 4.4     | \$1,146        | \$1,351 |

TABLE 4,---NUMBERS AND AMOUNTS OF MISCELLANEOUS DEBTS OF 48 FARMS, POTTER COUNTY, 1930

Required by the banks to reduce chattel mortgages, curtailed in annual income by declining prices of farm products and delayed marketing, and ambitious to maintain an acquired standard of living, the average operator of the farms studied sought to secure money legally through channels not commonly employed by him. Because of this demand for substitute sources of income, the number and size of personal accounts was increased as noted above; also 21 new farm business accounts aver aging \$92 each were started; seven operators switched from old line hail insurance with premiums paid in advance to some arrangement whereby premium payments averaging \$108 might be delayed; five took out new loans from relatives averaging \$989; three borrowed an average of \$1,052 each on their life insurance policies; and two secured loans by mortgaging crops in storage. In some cases the increase in indebtedness was due to payments being delayed until farm products should be marketed, the marketings of 1930 being unusually late. This statement was especially true of rent payments.

The numbers of new accounts for machinery and power increased considerably but the average amount of the accounts was lowered due to the purchase mostly of used equipment. On the other hand, the number incurring debts for new improvements and new autos decreased; likewise the banks reduced their number of unsecured notes.

How was the Indebtedness Met in 1930? The average cash farm receipts per farm was \$4,383; the average cash farm expenses not including any interest or principal payments was \$3,032. This left \$1,351 cash to meet family expenses and debt obligations. The average cash living expenses recorded per family on the 48 farms was \$1,244. Deducting this from \$1.351 leaves only \$107 to apply on indebtedness. Then how were the obligations of interest and principal met? The average amounts actually paid were \$479 interest and \$122 principal, total \$601.

There was \$107 cash balance, listed in the preceding paragraph. \$162 per farm was received from sources outside the form business, and new indebtedness incurred averaged \$354, total \$623. (Table 5.) Thus old obligations were met by renewal of loans and by incurring new debts. The average increase in indebtedness per farm was \$232.

#### TABLE 5.—STATEMENT SHOWING HOW DEBT OBLIGATIONS WERE MET ON 48 POTTER COUNTY FARMS, 1920

| Receipts:                                    |       |
|--|-------|
| Cash farm income less personal expenses\$107 |       |
| Income from outside sources 162              |       |
| New indebtedness incurred 354                | \$623 |
| Payments on debts:                           |       |
| Interest actually paid\$479                  |       |
| Principal actually paid 122                  | \$601 |
| Balance unaccounted for*                     | \$22  |

"The \$22 discremancy in total accounts of the farm and home is due to failure to list all personal expenses.

Reducing Indebtedness.—To reduce indebtedness it is necessary that the cash income of the farm family be greater than the cash expenses (including interest paid on indebtedness) of the farm and the family. Incomes on some of the farms studied were good due to one or more of the following factors: good volume of sales, high livestock production, crop production better than the 1930 average of neighbors, and receipts from outside sources. Operating expenses on some farms were kept relatively low by: low expenses of production per acre due to large acreage. low cost of production per livestock unit due to good sized herds and flocks and/or low feed costs, low labor costs, and low rental rates on pasture and hay land. These factors of farm management will be discussed in later reports.

Farm adjustments which might be made in view of the present and prospective economic conditions are discussed in the South Dakota Agricultural Outlook for 1932, Circular Letter 80, pp. 10-13, under the headings "Adjustments on: owner farms with low indebtedness, owner farms with high indebtedness, and tenant farms."

Renting versus Ownership to Reduce Debt Burdens. Table 6 gives the business statements of two of the farms studied. They have about the same acreage and organization, as shown in table 7 and the operators had approximately the same net worth. Farm 1 had mortgaged indebtedness of \$10,640 while Farm 2 had none.

| TABLE 61930 | BUSINESS STATEMENTS | OF TWO POTTER ( | COUNTY FARMS COM- |
|-------------|---------------------|-----------------|-------------------|
| PARING      | AN OWNER WITH A RE  | NTER WITH EQUAL | L NET WORTH       |

|  | Farm 1   | Farm 2  |
|--|----------|---------|
| Investments January 1  |          |         |
| Real estate  | \$10,325 | \$      |
| Equipment  | 2.025    | 1,695   |
| Livestock, feeds, supplies   | 4,000    | 4,100   |
| Total  | \$16,350 | \$5,795 |
| Real estate mortgages\$8,940<br>Livestock mortgages1,700                     | 10.646   |         |
| Net worth  | \$5,710  | \$5,795 |
| Cash farm income, gross (a)  | \$5,678  | \$3,388 |
| Expenses:<br>Cash Cost of real estate:<br>Interest, taxes, insurance<br>Rent |          | *\$540  |
| All other cash farm expenses   | 1.765    | 1,085   |
| Decrease in inventory of livestock, crops, equipment_                        |          | 784     |
| Total (b)  |          | \$2,418 |
| Cash for spending ( a minus b )<br>Depreciation of real estate               |          | 970     |
| Actual income from farm  | \$765    | \$970   |
| Net advantage of renting   |          | \$205   |

•Includes \$196 cash rent for corn and oats land, and \$353 value of landlord's share of crops on share rented land.

"The large decrease in inventory was due to heavy sales of livestock. This is offset in the statement by the value of the livestock sales which is included in the farm cash income.

The cash costs of owning Farm 1 were \$810 in the way of interest on the mortgage. taxes and insurance. The rental cost of Farm 2 was \$549, a difference of \$261. In addition to the cash costs on Farm 1, depreciation on the real estate was estimated to be \$109 making a gross difference of \$370 in favor of renting.

#### TABLE 7.-ORGANIZATION OF FARMS OF TABLE 6

| Crops        | Farm 1 | Farm 2 | Livestock       | Farm 1 | Farm 2 |
|--------------|--------|--------|-----------------|--------|--------|
| Wheat        |        | 57A    | Brood sows      |        | 18     |
| Flax         | 80A    |        | Pigs raised     |        | 67     |
| Oats, barley | 78A    | 103A   | Stock cows      |        | 15     |
| Corn         | A 96A  | 59A    | Yearling steers | 19     | 35     |
| Alfalfa      | 25A    |        | Calves          |        | 18     |
| Pasture      | 291A   | 261A   | Hens            |        | 120    |
| Total        | 520A   | 480A   | Chicks raised   |        | 115    |

Neither farm had tractor or truck.

The total labor force on Farm 1 was equivalent to 19 months, that on Farm 2 to 13 months.

On both farms from 8 to 12 cows were milked throughout the year. The crop yields on Farm 1 were slightly better than on Farm 2.

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Neither figure represents the true difference, however, since there are other factors to be considered. Farmer 1 was further handicapped by a lower net income on account of demands made by his creditor to sell some livestock to meet the chattel mortgage, thus leaving no choice of marketing date, and each year he must meet a demand of \$810 for interest, insurance and taxes regardless of crops or livestock produced. Ownership, however, permitted the choice of corn and legume crops for the better feeding of more livestock. Farm 2 was handicapped by the lack of choice of crops best suited for livestock feeding, but had the choice of selling livestock or carrying it over, and had a demand of only \$196 for the use of real estate in case of crop failure. This amount was for corn and oats land. The remainder of the farm was rented on shares and the rental paid depended on the crop harvested.

Horses versus Tractors to Reduce Expenses.—This subject involves so many factors that space does not permit its discussion at length here, the next report will deal with farm power. As a cash expense, gas and oil had an average cost per farm of \$338 in 1930.

Reducing other Expenses.—Table 8 shows the average per farm of expense items in 1930. No evidence is offered herewith to prove that any item can be reduced with economy, but it appeared that four items might be so reduced. On various farms the labor bill could have been materially

#### TABLE 8.-AVERAGE CASH FARM EXPENSES ON 48 POTTER COUNTY FARMS,

| 1 | 9 | 3 |  |
|---|---|---|--|
|   |   |   |  |

| Hired labor                    | \$485   |
|--------------------------------|---------|
| Interest paid                  | 479     |
| Feeda bought                   |         |
| Machinery and equipment bought |         |
| Motor fuel and oil             |         |
| Cash leases                    | 280     |
| Upkeep and repairs             |         |
| Taxes                          | 221     |
| Livestock bought               | 221     |
| Seed bought and treated        | 158     |
| New farm improvements          |         |
| Paymenta on principal          | 122     |
| Insurance                      |         |
| Miscellaneous                  | 138     |
| Total                          | \$3,693 |

cut without lessening labor efficiency; waiting longer to replace machinery and equipment which is still useful, or purchasing good used equipment instead of new would have saved cash outlay; conservation in the use of tractors would have reduced fuel and oil expenses; and share leases could in some cases have been secured in place of cash leases, thus lowering the cash costs.

Good gardens, plus preserving of meats and vegetables, and the use of home produced dairy, poultry and meat products were a means of considerable saving of cash outlay on some farms. One family used home produced products valued at \$147 per member of the family, another family only \$68 per member. The average of all families was \$95.\* Since the families averaged almost exactly four members for the period of **a** 

\*Since most of the home produced products were food, the hired men were counted as family members, while tiny children were not included in the calculations. Products were valued at prices at the farm.

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year this meant a calculated saving of cash expenses of \$588 to the family using the most home produced goods, \$272 to the family using the least, and \$380 to the average. Here is a difference of \$316 between the best and the poorest.

A Comparison of High Debt and Low Debt Farms.—In order to make comparisons and exhibit contrasts between farms of high indebtedness and farms of low indebtedness, two groups of 10 farms each were selected and an average taken of each group. These averages represent: one, a farm with relatively high indebtedness, and the other a farm of relatively low indebtedness. Both are on an owner-operator basis.

|          |                                     | ebtedness  |  |
|----------|-------------------------------------|--|--|
| Dec. 31  | Jan. 1                              | Dec. 3   |  |
| \$18.411 | \$19,972                            | \$19,963   |  |
|          | 4,705                               | 4,316  |  |
| 4.612    | 3,987                               | 3,777  |  |
| 1,906    | 2.353                               | 2,282  |  |
| \$28,806 | \$31,047                            | \$30,338   |  |
|          | \$13,411<br>3,877<br>4,612<br>1,906 | \$15.411<br>\$19.972<br>3,877<br>4,705<br>4,612<br>3,987<br>1,906<br>\$31,047<br>\$19.972<br>4,705<br>4,705<br>4,705<br>\$3987<br>\$19.972<br>\$3,977<br>\$19.972<br>\$3,977<br>\$4,705<br>\$3,987<br>\$19.972<br>\$3,977<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,705<br>\$3,987<br>\$4,906<br>\$3,987<br>\$3,987<br>\$4,906<br>\$3,987<br>\$3,997<br>\$4,906<br>\$3,907<br>\$3,907<br>\$3,907<br>\$3,907<br>\$3,907<br>\$3,907<br>\$3,907<br>\$3,907<br>\$3,907<br>\$3,907<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007<br>\$3,007 |  |

 TABLE 9.—AVERAGE INVESTMENT OF 10 FARMS WITH HIGH INDEBTEDNESS

 AND 10 WITH LOW INDEBTEDNESS. POTTER COUNTY, 1930

Table 9 shows the close comparison between the two groups of farms in their investments and in the numbers of family workers. The small decrease in real estate values from the beginning to the end of the year is due to sufficient new investments and repairs having been made to nearly offset the depreciation. Equipment was not so replaced and repaired, and therefore there was a greater decrease in valuation. Livestock numbers were about the same on both dates but were depreciated in value in accord with the general decline in price level of all farm commodities. The quantity of crops on hand at the end of the year was greater than at the beginning of the year and thus sustained or increased the inventory values although prices were lower.

 TABLE 10.—AVERAGE INDEBTEDNESS OF 10 FARMS WITH HIGH INDEBTEDNESS

 AND 10 WITH LOW INDEBTEDNESS, POTTER COUNTY, 1930

|  |       | indebiedness<br>Dec. 31* | Low indebtedness<br>Jan. 1 Dec. 31 |                       |  |  |  |
|--|-------|--------------------------|------------------------------------|-----------------------|--|--|--|
| Real estate mortgagesS<br>Livestock Chattels<br>Miscellaneous notes and accounts | 2,388 | 2,034                    | \$2,382<br>1,0\$7<br>923           | \$2,241<br>943<br>988 |  |  |  |
| Totals   |       |                          | \$4,392                            | \$4,172               |  |  |  |

Table 10 shows that the average indebtedness of the one group of farms was approximately \$12,000 while that of the other group was only about \$4,000.

TABLE U.—AVERACE FIXED CHARGES ON INOEBTEDNESS OF 10 FARMS WITH HIGH INDEBTEDNESS AND 10 WITH LOW INDEBTEDNESS, POTTER COUNTY, 1930

| Kinds of debts                   | Indebtedness charges<br>High | Indebtedness charges<br>Low |
|----------------------------------|------------------------------|-----------------------------|
| Real estate mortgages            | \$494                        | \$159                       |
| Livestock chattels               | 218                          | 85                          |
| Miscellaneous notes and accounts |                              | 57                          |
|                                  | increase in the second       |                             |
| Totals                           | \$709                        | \$301                       |

The expenses of these incumbrances, shown in table 11, are \$799

per farm for those with the higher indebtedness, and only \$301 per farm for the other group of farms. This is a fixed annual cost to the one group of \$498 more than the other group, or 2.6 times as great. This means that the farms with high indebtedness must have an annual net cash income \$498 greater than those with low indebtedness so as to have the same amount for family spending, although the size of the business measured by total investments is practically the same. This amount would mean the sale of 30 to 35 more hogs, or 10 more yearling steers, or 1,900 pounds more butterfat, or 900 more bushels of wheat per farm annually at the prices prevailing in December, 1930. If similar estimates are made based on December, 1931 prices, it would be necessary to sell 60 to 70 more hogs, or about 15 more yearling steers on the farms with high indebtedness to meet the extra fixed charges on indebtedness. The amount \$799 was 14 per cent of total cash income of the high indebtedness group; \$301 was only 6 per cent of the cash income of the other group; or 22 per cent and 10 per cent respectively of the cash expenses.

## POLICIES OF BORROWING

The following suggestions have been found helpful to those who have need of other people's money to conduct their own business with the greatest success.

"All business experience has pointed to the fact that a conservative use of other men's funds is a good business policy."—C. L. Holmes.

One should make sure that the project for which the money is to be used will produce a return greater than that needed to pay the debt, including interest.

The loan contract should provide for payment at the most convenient time as regards expected returns from the investment, and never at a time greater than the expected productive life of the investment.

On long-time loans provision should be made for gradual reduction of principal.

Lowest possible interest rates are desirable. One per cent interest on \$10,000 is \$100. In 10 years this amounts to \$1,000.

To secure the highest credit rating at a bank one should keep accounts of the business and provide his banker with a business statement, —a simple recital of assets, liabilities, net worth, production program, and anticipated receipts and expenses during a limited period, usually a season or year.

A frank discussion with creditors regarding future plans is frequently helpful.

One should remember the banker is loaning the money of other people who do not care to share in big risks.

Meeting all obligations promptly helps one's credit rating.

A good reputation as a farmer is an asset when borrowing.

## APPENDIX

Table 12 shows for each of the 48 farms studied the total investment, indebtedness, net worth, the per cent the net worth was of the investment on January 1, and the per cent each kind of debt was of the investment. 'The table is arranged according to the degree of total indebtedness to total investment, ranging from the farm with the lowest percentage of indebtedness to the one with the highest per cent, first for the owner-operators then for the renter-operators.

For the purpose of obscuring identity the usual farm numbers were not used in this table.

As shown by the table the indebtedness ranged from zero, or no indebtedness, to 115 per cent of the investment of the farm represented on line 39. This farm carried an indebtedness 15 per cent greater than the total appraised value of the farm business. 'Sixteen of the 39 owners had debts totaling 25 per cent or less of their total assets; 30, less than 50 per cent; and 9, greater than 50 per cent. The range among renters was from 4 to 78 per cent. Twenty-five farms incurred an increase in total indebtedness during the year, 8 farms experienced no change, and 15 farms decreased the total.

The percentage of indebtedness secured by real estate mortgages varied from four farms with no such encumbrances to one with 97 per cent of the value of the land and buildings mortgaged at the end of the year. Seventeen farms had no liens on livestock, and of the 31 which had, the largest lien was 21 per cent of the appraised value of the stock. Six farms were without other types of financial obligations, while among the remaining 42 the indebtedness not secured by livestock or real estate ranged from one per cent to 58 per cent of the total value of the farm investments.

Since the sum of the net worth of a business plus the indebtedness of that business equals the total investment, it follows that the farms with low indebtedness had a high percentage of net worth to investment and those with large debts had comparatively low net worth. Likewise if the indebtedness increases during the year and there is no corresponding increase in total assets, the net worth must decrease, and vice versa. Six farms shown on lines 1, 5, 20 26, 31 and 32, increased in net worth, three liad no change and 39 decreased in net worth ranging from one per cent to 26 per cent of the value of the farm investment on January first.

Nothing was found in the study to indicate that low indebtedness (high net worth). nor large total assets. was a guarantee of success on the farm although they are favorable factors and especially valuable in periods of low nrices. Neither was there evidence that farms with a high percentage of indebtedness (low net worth), nor small total assets were doomed to endless loads of debts.

Two farms with no indebtedness at the beginning of the year decreased in net worth, one of them 10 per cent. Among the 20 with the lowest per cent of indebtedness seven increased the amount owed. and six decreased the amount. Among the 20 with the highest per cent of indebtedness eight decreased the amount and 10 increased the amount.

When comparing the 20 farms with the largest assets with the 20

with the least, the numbers of changes in indebtedness were found to be just the same: five in each group reduced their debts while 11 increased them and four made no change. The total amount of the increases was slightly higher in the high asset group.

Increases in net worth were influenced by various factors including: income other than from the current farm business, high livestock production per unit of livestock, low cash costs for labor due to several family workers, low cost of pasture and low cost of indebtedness. None of these advantages, however, is sufficient to overcome all weak points in farm management, thus insuring success. Factors that were especially influential in decreasing the net worth of farms studied were: low production of livestock per unit of livestock, low crop production per acre, high labor costs, and the costs of high indebtedness.

|             |        |              |              |        |           |        | net                               | cent<br>worth |                          | Dis  |                        |      | debtedn<br>investr     |      | a     |     |
|-------------|--------|--------------|--------------|--------|-----------|--------|-----------------------------------|---------------|--------------------------|------|------------------------|------|------------------------|------|-------|-----|
| Line<br>No. | invest | tal<br>.ment | Indebtedness |        | Net worth |        | was of<br>January 1<br>investment |               | Real estate<br>mortgages |      | Livestock<br>mortgages |      | Miscellaneous<br>debta |      | Total |     |
|             | Jan.   | Dec.         | Jan.         | Dec.   | Jan.      | Dec.   | Jan.                              | Dec.          | Jan.                     | Dec. | Jan.                   | Dec. | Jan.                   | Dec. | Jan.  | Dee |
|             | \$     | \$           | -\$-         | \$     | \$        | \$     | %                                 | %             | °;•                      | 9%   | 10                     | %    | 0                      | %    | %     | %   |
|             |        |              |              |        |           | Owne   | er-operato                        | orø           |                          |      |                        |      |                        |      |       |     |
| 1           | 46.828 | 48,139       |              |        | 46.828    | 48,139 | 100                               | 103           |                          |      |                        |      |                        |      |       |     |
| 2           | 11.829 | 11.542       |              |        | 11.829    | 11,542 | 100                               | 98            |                          |      |                        |      |                        |      |       |     |
| 3           | 14.557 | 13.27.5      |              | 133    | 14,557    | 13.142 | 100                               | 90            |                          |      |                        |      | 0                      | 1    | 0     | 1   |
| ă.          | 39,013 | 37.600       | 2,180        | 2,473  | 36,833    | 35.127 | 94                                | 90            | 3                        | 3    |                        |      | 3                      | 3    | 6     | 6   |
| 5           | 44,956 | 43,145       | 3,100        | 1,000  | 41,856    | 42,145 | 93                                | 94            | 5                        | 2    |                        |      | 2                      | 0    | 7     | 2   |
| 6           | 38,999 | 38,362       | 4.443        | 4.512  | 34.556    | 33.850 | 89                                | 87            | 4                        | 3    |                        |      | 7                      | 8    | 11    | 11  |
| 7           | 21,967 | 21,425       | 3,223        | 3.936  | 18.744    | 17.489 | 85                                | 80            |                          |      | 12                     | 9    | 3                      | 9    | 15    | 18  |
| 8           | 21,307 | 19,873       | 3,5\$4       | 2,758  | 17.893    | 17.115 | 83                                | 80            | 14                       | 11   |                        | •    | 3                      | 1    | 17    | 12  |
| 9           | 25.975 | 25,667       | 4,345        | 5.188  | 21.630    | 20,179 | 83                                | 78            | 17                       | 16   |                        |      | ō                      | 5    | 17    | 21  |
| 10          | 20,833 | 20,166       | 3,631        | 3.563  | 17,202    | 16,603 | 83                                | 80            | 17                       | 17   |                        |      | · ·                    |      | 17    | 17  |
|             |        |              |              |        |           |        |                                   |               |                          |      |                        |      |                        |      |       |     |
| 11          | 30,742 | 28,159       | 5,456        | 4,143  | 25,286    | 23,716 | 82                                | 77            | 2                        | 2    | 13                     | 10   | 3                      | 3    | 18    | 15  |
| 12          | 15,632 | 14,426       | 2,882        | 3,521  | 12,750    | 10,905 | 81                                | 70            | 10                       | 10   |                        |      | 9                      | 12   | 19    | 22  |
| 13          | 24,004 | 21,939       | 4,899        | 4,543  | 19,105    | 17,896 | 80                                | 72            | 10                       | 10   | - 4                    | 4    | 6                      | 5    | 20    | 19  |
| 14          | 29,698 | 28,094       | 6,480        | 6,635  | 23,218    | 21,459 | 78                                | 72            | 16                       | 16   | 6                      | 5    | 0                      | 2    | 22    | 23  |
| 15          | 25,697 | 25,030       | 6,086        | 6,802  | 19,612    | 18,228 | 76                                | 71            | 23                       | 24   |                        |      | 1                      | 2    | 24    | 26  |
| 16          | 17.777 | 18,742       | 4.472        | 5,397  | 13.305    | 13.345 | 75                                | 75            | 20                       | 20   | 0                      | 8    | 5                      | 8    | 25    | 31  |
| 17          | 42.881 | 43,433       | 11,102       | 11.573 | 31.779    | 31,860 | 74                                | 74            | 17                       | 18   | 7                      | 5    | 2                      | 4    | 26    | 27  |
| 18          | 90,954 | 89,799       | 25,805       | 28.847 | 65,149    | 61,462 | 71                                | 68            | 19                       | 20   | 8                      | 10   | 2                      | 1    | 29    | 31  |
| 19          | 28,646 | 29,348       | 9,562        | 12,040 | 19,084    | 17,308 | 67                                | 60            | 32                       | 32   |                        |      | 1                      | 10   | 33    | 42  |
| 20          | 11,749 | 12,507       | 4,000        | 4,000  | 7,749     | 8,507  | 66                                | 72            | 34                       | 34   |                        |      |                        |      | 34    | 34  |
| 21          | 31,376 | 30,446       | 10,800       | 10,876 | 20,576    | 19,570 | 66                                | 62            | 22                       | 22   | 8                      | 3    | 4                      | 9    | 34    | 35  |
| 22          | 43,878 | 43,753       | 15,710       | 15,916 | 28,168    | 27,837 | 64                                | 63            | 21                       | 21   | 11                     | 9    | 4                      | 7    | 36    | 37  |
| 23          | 21,750 | 21.085       | 7,900        | 8,563  | 13,850    | 12,522 | 64                                | 58            | 34                       | 36   |                        |      | 2                      | 3    | 36    | 39  |
| 24          | 45,302 | 41,089       | 18,878       | 16,779 | 26,424    | 24,310 | 58                                | 54            | 28                       | 28   | 6                      | 6    | 8                      | 3    | 42    | 37  |
| 25          | 22,708 | 22,082       | 9.762        | 9,100  | 12,946    | 12.982 | 57                                | 57            | 35                       | 35   |                        | 4    | 2                      | 1    | 43    | 40  |

#### TABLE 12.—THE INDEBTEDNESS AND NET WORTH OF 48 POTTTER COUNTY FARMS BASED ON TOTAL INVESTMENT JANU-ARY 1, 1930

| Line |            | otal   | le del       | * a / a | Per cent<br>net worth<br>Net worth was of |           |                         |         | Dist                  |      | n of in<br>tage of     |      |                        | A    |       |      |
|------|------------|--------|--------------|---------|---|-----------|-------------------------|---------|-----------------------|------|------------------------|------|------------------------|------|-------|------|
| No.  | investment |        | Indebtedness |         | Net worth                                 |           | January 1<br>investment |         | Real estate mortgares |      | Livestock<br>mortKakes |      | Miscellaneous<br>debta |      | Total |      |
| -    | Jan.       | Dec.   | Jan.         | Dec.    | Jan.                                      | Dec.      | Jan.                    | Dec.    | Jan.                  | Dec. | Jan.                   | Dec. | Jan.                   | Dec. | Jan.  | Dec. |
|      | \$         | \$     | \$           | \$      | \$  | \$        | 170                     | %       | %                     | %    | %                      | 76   | %                      | %    | e%    | 70   |
|      |            |        |              |         |   | Owner-ope | rators co               | ntinued |                       |      |                        |      |                        |      |       |      |
| 26   | 12.647     | 12,619 | 5,543        | 5,211   | 7.104                                     | 7.408     | 56                      | 69      | 32                    | 32   |                        |      | 12                     | ,    | 44    | 41   |
| 27   | 30.034     | 29.176 | 13.662       | 13.299  | 16.472                                    | 16,876    | 55                      | 54      | 25                    | 25   | 13                     | 13   | 7                      | 6    | 45    | 44   |
| 28   | 27,223     | 26,815 | 13,108       | 13,625  | 14,115                                    | 13,190    | 52                      | 48      | 24                    | 24   | 20                     | 17   | 4                      | 8    | 48    | 50   |
| 29   | 11.270     | 10,865 | 6,469        | 5,848   | 5,801                                     | 5,017     | 51                      | 45      | 44                    | 44   |                        |      | 5                      | 7    | 49    | 51   |
| 80   | 24,996     | 24,187 | 12,820       | 12,187  | 12.676                                    | 12,000    | 51                      | 48      | 32                    | 32   | - 4                    | 7    | 13                     | 9    | 49    | 48   |
| \$1  | 11,602     | 11,790 | 6,000        | 5,820   | 5,692                                     | 5,970     | 49                      | 51      | 17                    | 17   |                        |      | 34                     | 33   | 51    | 50   |
| 82   | 29,889     | 28,545 | 16,425       | 14.671  | 13.414                                    | 13.974    | 45                      | 47      | 36                    | 36   | 8                      | 5    | 11                     | 8    | 65    | 49   |
| 33   | 17,626     | 15,468 | 10,725       | 9,165   | 6.901                                     | 6,293     | 39                      | 36      | 61                    | 49   | 10                     | 3    |                        |      | 61    | 52   |
| 34   | 14,067     | 13,643 | 9,000        | 9,540   | 5,057                                     | 4,103     | 36                      | 29      | 64                    | 68   |                        |      |                        |      | 64    | 68   |
| 36   | 62,962     | 60,436 | 35,178       | 34,928  | 17,789                                    | 15,508    | 34                      | 29      | 60                    | 68   | 6                      | 6    | 0                      | 2    | 66    | 66   |
| 86   | 21,760     | 20,096 | 14,450       | 14.812  | 7.300                                     | 5.283     | 34                      | 24      | 59                    | 61   |                        |      | 7                      | 7    | 66    | 68   |
| 87   | 28,178     | 28,663 | 21,592       | 22,886  | 6,581                                     | 5,678     | 24                      | 20      | 71                    | 75   |                        |      | S                      | Ġ    | 76    | 81   |
| 38   | 29,676     | 33,119 | 26.800       | 81.207  | 2.876                                     | 1,906     | 10                      | 7       | 86                    | 91   | 2                      | 11   | 2                      | 3    | 90    | 105  |
| 39   | 12,067     | 12,176 | 13,905       | 15,057  | -1,848                                    | -2,882    | 15                      | -24     | 94                    | 97   |                        |      | 23                     | 28   | 115   | 125  |
|      |            |        |              |         |   | Rente     | r.o perat               | Ors     |                       |      |                        |      |                        |      |       |      |
| 40   | 5,859      | 5,182  | 240          | 663     | 5,619                                     | 46.519    | 96                      | 77      |                       |      |                        |      | 4                      | 12   | 4     | 12   |
| 41   | 8,093      | 7,868  | 667          | 678     | 7,536                                     | 7,290     | 93                      | 90      |                       |      |                        |      | 7                      | 7    | 7     | 7    |
| 42   | 6,043      | 5,268  | 480          |         | 5,563                                     | 5,268     | 92                      | 37      |                       |      |                        |      | 8                      | 0    | 8     | 0    |
| 43   | 6,268      | 6,478  | 500          |         | 5,763                                     | 5,478     | 92                      | 87      |                       |      |                        |      | 8                      | 0    | 8     | Ő    |
| 44   | 8,920      | 6,887  | 1,787        | 1,887   | 7.133                                     | 5,000     | 80                      | 84      |                       |      |                        |      | 20                     | 20   | 20    | 20   |
| 45   | 6,924      | 5,661  | 1,993        | 1,482   | 4,931                                     | 4,079     | 71                      | 69      |                       |      | 16                     | 14   | 13                     | 7    | 29    | 21   |
| 46   | 6.316      | 4,781  | 1,666        | 1,710   | 3,759                                     | 3,071     | 71                      | 58      |                       |      |                        |      | 29                     | 32   | 29    | 32   |
| 47   | 4.710      | 4,362  | 2,052        | 2,462   | 2,658                                     | 1.890     | 66                      | 40      |                       |      | 21                     | 21   | 23                     | 31   | 44    | 62   |
| 48   | 12,097     | 12,801 | 6,095        | 9,444   | 6,002                                     | 2,867     | 60                      | 24      |                       |      | 17                     | 20   | 83                     | 58   | 60    | 78   |

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#### TABLE 12. (Cont.)—THE INDEBTEDNESS AND NET WORTH OF 48 POTTER COUNTY FARMS BASED ON TOTAL INVESTMENT JANUARY 1, 1930

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