University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Historical Materials from University of Nebraska-Lincoln Extension

Extension

5-1931

EC854 Annual Farm Business Report : Thirty Six Hamilton County farms in 1930.

Ralph H. Cole

Arthur G. George

L. F. Snipes

Follow this and additional works at: http://digitalcommons.unl.edu/extensionhist

Cole, Ralph H.; George, Arthur G.; and Snipes, L. F., "EC854 Annual Farm Business Report : Thirty Six Hamilton County farms in 1930." (1931). *Historical Materials from University of Nebraska-Lincoln Extension*. 2309.
http://digitalcommons.unl.edu/extensionhist/2309

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

AGRI
S
85
E7
#854

E.C. #854 (1930)

May 1931 Extension Circular 854

Annual Farm Business Report

Thirty-Six Hamilton County Farms

1930

RECEIVED
MAR 11 1970
COLLEGE OF AGRICULTURE
LIBRARY

Farming is a business. The essentials
of success are good management
and efficient operation.

The University of Nebraska Agricultural College Extension Service
and Rural Economics Department, United States Department
of Agriculture, and Hamilton County Farm Bureau
Cooperating, W. H. Brokaw, Director
Lincoln, Nebraska.

c.1

ACKNOWLEDGMENT

The records which form the basis for this report were kept under the supervision of J. P. Ross, county extension agent, of Hamilton county.

The statistical work in summarizing the records was done under the supervision of Miss Virginia Dougall of the Extension Service.

Credit is due Messrs. Arthur W. Medlar and Harold Hedges for advice and suggestions relative to the analysis of the data included in this study.

* * *

ANNUAL FARM BUSINESS REPORT

Hamilton county, Nebraska, 1930

Ralph H. Cole, Arthur G. George, and L. F. Snipes

Farm earnings in 1930 were very low over the entire country. The principal cause of the situation was the severe decline in prices of farm products which took place during the year. The world-wide business depression which started in July, 1929, continued through 1930 and became more severe as the year progressed. In December of 1930 the index of farm prices stood at 97 per cent or 38 per cent below December, 1929, and 3 per cent below the pre-war level, 1910-1914. These price declines during the past year made it necessary to reduce inventory values materially, and thus contributed to the low earnings of 1930. As is usually the case, prices of commodities which farmers sell declined more rapidly than prices of things which farmers buy, and as a result agriculture has been placed in a very unfavorable position. The index of purchasing power of farm products in December, 1930, stood at 65 as compared with an average of 100 for the 5-year period, 1910-1914.

The 36 farmers in Hamilton county who completed business records in the Nebraska Farm Account Project in 1930 earned, as pay for the use of capital invested and for the management and risk of operating the business, an average of 2.03 per cent on their investments. A wage of $60 per month was deducted for each operator's labor. A deduction was made for the labor of members of the family other than the operator on the basis of $60 for each month of man labor replaced. Thus the percentage return on investment represents the combined return for the use of capital and the operator's management.

Rate earned on investment is one measure of farm earnings. Another measure is Labor and Management Wage, the method of computing which is to deduct 5 per cent interest for the use of capital and to regard the remaining income as pay for the operator's labor and management. The average Labor and Management Wage on the 36 farms included in this study was a negative $311. In other words, after a deduction was made for family labor the operators of the 36 farms lacked an average of $311 of making enough to pay 5 per cent interest on the total investment in the business, and received nothing at all to pay for their labor and management. The rate earned on investment and the labor and management wage are computed by using the entire investment in the farm business including both owned and rented real estate.

The income figures given in this report should not be taken as representative of all farms in the county. These men are progressive farmers as evidenced by their keeping accounts and studying their businesses with a view to increasing their efficiency. Evidence that farmers who keep accounts make larger profits than the average of the community in which they live has been found in other states. A survey made by the Farm Management Department of the University of Illinois indicates that men who were keeping accounts in 3 Illinois counties made net incomes of approximately $1200 per farm greater than the average of all farmers in the same localities.

10108b

DIFFERENCES IN EARNINGS BETWEEN FARMS

For purposes of comparison the farms included in this report have been divided into groups. The average figures for the 12 farms which earned the highest rate on the investment are found in Column 3 of Table I. The average figures for the 12 farms which returned the lowest rate on investment are found in Column 4 of the table. Column 2 includes the average figures for the entire group of 36 farms. In this report comparisons are made between the group which includes the 12 most profitable and the group of the 12 least profitable farms without particular reference to the 12 farms in the intermediate group.

The 12 most profitable of the 36 farms, after deductions were made for the value of family labor and $720 for each operator's labor, had an average of 5.52 per cent to pay the operator for his management and for the use of the capital invested, while the 12 least profitable farms, after the same deductions were made, showed an average loss of 1.58 per cent on the capital invested.

A comparison on the basis of labor and management wage shows similar results. The 12 most profitable farms, after deduction was made for the value of family labor and interest on investment at the rate of 5 per cent had an average of $854 to pay the operator for his labor, management and risk, while the 12 least profitable farms, after the value of family labor was deducted, lacked an average of $1,561 of making 5 per cent on the investment. This left nothing at all to pay for the labor and management of the operator.

The 12 farms in the high-income group had an average gross income of $19.32 per acre while those in the low-income group had an average of $10.16 per acre. The total expenses on the two groups of farms was $11.43 and $12.13 per acre, respectively. In other words, the most profitable group of farms with 70 cents less expense per acre returned an income of $9.16 more per acre. This gave the high-income group a net income of $7.89 per acre as contrasted with a net loss of $1.97 for those in the low-income group.

CAUSES OF DIFFERENCES IN EARNINGS

CROP YIELDS.- The average yields per acre on the 12 most profitable farms were: corn 39.7 bushels, and wheat 20.1 bushels. On the farms in the least profitable group the yields were: corn 34.5 bushels and wheat 19.3 bushels. The high-income farms had an advantage of 5.2 bushels in yield of corn and .8 bushel in yield of wheat.

ACRES IN CROPS.- The farms in the high-income group had an average of 67 acres in corn, 15 acres in oats, 18 acres in wheat, and 15 acres in alfalfa. The farms in the low-income group had an average of 94 acres in corn, 19 acres in oats, 60 acres in wheat, and 23 acres in alfalfa. The farms in the high-income group averaged 89 acres smaller in size and had an average of 77 acres fewer in crops than the farms in the low-income group.

LIVESTOCK RETURNS.- Livestock is an important source of income in eastern Nebraska. Approximately 75 per cent of the gross income on the 36 farms included in this study came from livestock and livestock products. Therefore the efficiency with which livestock is produced and marketed has an important bearing upon farm profits in this section of the state.

For each $100 invested in productive livestock the high-income farms returned $116 as compared with $83 for those in the low-income group. For each $100 worth of feed fed to productive livestock, farmers in the high-income group received $160 as compared with $112 for those in the low-income group. The total livestock receipts per farm were $2,908 and $1,947 for the two groups of farms respectively.

VOLUME OF BUSINESS.- A reasonably large volume of business is necessary for the profitable operation of a farm. One of the most satisfactory measures of volume of business is Total Receipts, often referred to as Gross Income. The average gross income of the 12 most profitable farms was $3,237 as compared with $2,615 for those in the least profitable group.

Since a large volume of business is necessary to the economical operation of a farm, it is to the interest of every farmer to secure such volume. One means of increasing volume is that of expanding farm acreage. Farmers who are not in a position to increase their farm acreages may increase volume by more intensive methods such as producing more livestock and livestock products.

EFFICIENCY OF MAN LABOR.- The labor cost, including the operator's and family labor at hired man rates, was $6.18 per acre on the high-income farms and $6.06 on those in the low-income group. The difference of 12 cents per acre is in favor of the farms in the low-income group. It will be noted that the low-income farms had larger acreages which gave them some advantage in this connection.

POWER AND MACHINERY COSTS.- The average cost per acre in crops for horse power, tractor power, and machinery was $4.24 on the high-income farms and $5.06 on those in the low-income group. These figures include the cost of horse feed, depreciation on horses, cost of repairs, fuel, oils, and greases as well as depreciation on all movable farm equipment. As indicated by the figures quoted the high-income farms had an advantage of 82 cents per acre in crops in cost of power and machinery.

INVESTMENT

The average investment in the 36 farm businesses included in this study was $31,377, or $137 per acre. These figures represent the average farm unit value and include land, buildings (except residence), livestock, feed, supplies, machinery, and equipment.

In making the analysis of these records the investment in the residence of each operator was left out of the farm inventory. The depreciation and upkeep on the residences were also omitted. This is done for the same reason that the business man in town does not include his residence as a part of his business; namely, that the use of the house is considered as an income from an investment outside of the farm business.

* * *

10108b

Table I. SUMMARY OF 36 FARM BUSINESSES IN HAMILTON COUNTY, 1930

Factors Useful in Analyzing the Farm Business	Your Farm	Average of 36 farms	12 most Profitable farms	12 least Profitable farms
Size of farm - Acres	A.	228 A.	168 A.	257 A.
Acres in crops	A.	190 A.	138 A.	215 A.
Per cent of land area tilled	%	86.8 %	88.0 %	87.5 %
Gross receipts per acre $		$ 13.08	$ 19.32	$ 10.16
Total expenses per acre		10.67	11.43	12.13
Net receipts per acre		2.41	7.89	-1.97
Land investment per acre		100	99	99
Total investment per acre		137	141	135
Acres in Corn	A.	86 A.	67 A.	94 A.
Oats	A.	18 A.	15 A.	19 A.
Wheat	A.	45 A.	18 A.	60 A.
Alfalfa	A.	17 A.	15 A.	23 A.
Yield per acre of Corn	bu.	37.3 bu.	39.7 bu.	34.5 bu.
Wheat	bu.	19.1 bu.	20.1 bu.	19.3 bu.
Returns per $100 feed fed to productive livestock $		$ 133	160	112
Returns per $100 invested in:				
All productive livestock		98	116	83
Cattle		71	108	47
Hogs		149	135	152
Poultry		167	149	179
Dairy sales per cow		73	99	45
Receipts from productive livestock per acre		9.83	17.36	7.51
Investment in productive livestock per acre		10.05	14.92	9.06
Man labor cost per $100 gross income		42	32	60
Man labor, power, and mach. cost per $100 gross income		69	50	101
Man labor cost per acre		5.49	6.18	6.06
Total feed cost for horses		335	279	367
Power and machinery cost per acre in crops		4.26	4.24	5.06
Expense per $100 gross income $		$82	59	119
Farms with tractors		11	2	6

Table I. Continued

Item		Your Farm	Average of 36 farms	12 most Profitable farms	12 least Profitable farms
Capital Investments - Total	$		$ 31,337	$ 23,643	$ 34,693
Land	$		22,761	16,521	25,478
Farm improvements	$		2,669	1,815	2,519
Horses	$		485	355	567
Cattle	$		1,301	1,658	1,081
Hogs	$		815	746	864
Sheep	$		118	7	348
Bees	$		9	22	4
Poultry	$		94	105	89
Livestock - Total	$		2,822	2,893	2,953
Machinery & Equipment	$		1,359	1,117	1,731
Feed, grain, & supplies	$		1,726	1,297	2,012
Receipts - Net Increases-Total			2,987	3,237	2,615
Horses	$		-	-	-
Cattle	$		532	1,127	317
Hogs	$		1,198	984	1,302
Sheep	$		-	3	-
Bees	$		2	8	-
Poultry	$		41	34	49
Egg Sales	$		103	109	95
Dairy Sales	$		373	643	184
Livestock - Total	$		2,249	2,908	1,947
Feed, grain, & supplies	$		682	270	589
Labor off farm	$		24	36	26
Miscellaneous receipts	$		32	23	53
Expenses-net Decreases- Total			1,339	949	1,733
Farm Improvements	$		168	130	212
Horses	$		34	34	37
Misc. L.S. Decreases	$		3	-	14
Mach. & equipment	$		440	275	686
Feed, grain, & supplies	$		-	-	-
Livestock expense	$		41	38	47
Crop expense	$		176	172	179
Hired Labor	$		177	92	201
Taxes	$		278	195	331
Miscellaneous expense	$		22	13	26
Receipts less Expenses	$		1,648	2,288	882
Total unpaid labor	$		1,097	967	1,388
Net income from investment and management	$		551	1,321	-506
Rate earned on investment	%		2.03 %	5.52 %	-1.58 %
Return to capital and operator's labor and management	$		1,256	2,036	173
Interest on investment at 5 per cent	$		1,567	1,182	1,734
Labor and Management Wage	$		-311	854	-1,561

TABLE II. The numbers between the lines across the middle of the page are approximate averages in Hamilton county of the factors named at the top of each column. These columns are independent of each other and may be considered as a thermometer of efficiency. By drawing a line across each column at the number nearest approaching the figure for your farm in that factor (See Table I), you can compare your efficiency with that of other farms in Hamilton county.

Rate Earned On Investment %	Bushels per Acre: Corn	Bushels per Acre: Wheat	Returns per $100 Invested: Cattle	Returns per $100 Invested: Hogs	Returns per $100 Invested: Poultry	Returns per $100 Worth of Feed Fed	Power and Machinery Cost per Acre in Crops	Man Labor Cost per Acre	Expense per $100 Gross Income	Gross Receipts: Per Acre	Gross Receipts: Per Farm	Size of Farm
9.03	58	33	141	289	307	273	-	-	-	34	10,000	438
8.03	55	31	131	269	287	253	1.26	-	-	31	9,000	408
7.03	52	29	121	249	267	233	1.76	-	-	28	8,000	378
6.03	49	27	111	229	247	213	2.26	3.49	42	25	7,000	348
5.03	46	25	101	209	227	193	2.76	3.99	52	22	6,000	318
4.03	43	23	91	189	207	173	3.26	4.49	62	19	5,000	288
3.03	40	21	81	169	187	153	3.76	4.99	72	16	4,000	258
2.03	37	19	71	149	167	133	4.26	5.49	82	13	3,000	228
1.03	34	17	61	129	147	113	4.76	5.99	92	10	2,000	198
.03	31	15	51	109	127	93	5.26	6.49	102	7	1,000	168
-97	28	13	41	89	107	73	5.76	6.99	112	4	0	138
-1.97	25	11	31	69	87	53	6.26	7.49	122	1	-	108
-2.97	22	9	21	49	67	33	6.76	7.99	132	-	-	78
-3.97	19	7	11	-	47	13	7.26	8.49	142	-	-	-
-4.97	16	-	1	-	27	-7	7.76	8.99	152	-	-	-

FARM MANAGEMENT SUGGESTIONS

The profitableness of any business is determined by the margin between cost of production and selling price. Farm profits to the individual farmer may be increased in two general ways:

I. An increase in the selling price of farm products.
II. A decrease in the cost of producing farm products.

Prices are made through the operation of the forces of supply and demand. By giving attention to quality and studying market conditions both as to time, place, and strategy, the farmer may take advantage of price variations and secure somewhat better prices than he would otherwise. However, the individual farmer has practically no control over the price level of farm products and can hope to accomplish little by the first method listed above.

The individual farmer does have considerable control over his costs of production. It is within his power to increase the efficiency of his business at certain points, and through this means, to decrease his production costs. He may approach the problem of increasing his efficiency from two different angles, as follows:

I. The proper organization of his farm business
II. The adoption and use of efficient practices in the operation of his farm.

The organization of the farm has to do with such questions as:

1. Size of farm,
2. Kinds of crops produced and acreages devoted to each,
3. Types of livestock produced and size of livestock enterprises,
4. Sources of power,
5. Supply of labor

Examples of practices which make for efficiency in the operation of a farm are as follows:

1. Use of legumes in building up soil fertility,
2. Prevention of erosion by various methods,
3. Feeding balanced rations to livestock,
4. Culling of low-producing cows and hens,
5. Sanitary methods in producing livestock in order to prevent disease,
6. Use of large units of equipment to save labor,
7. Early plowing of stubble to conserve moisture,

Farm management studies in various states have established certain definite principles which may well be observed in the organization and operation of a farm. A valuable treatment of these principles is included in Illinois Experiment Station Bulletin No. 329, "Organizing the Corn Belt Farm For Profitable Production". The principles discussed in Bulletin 329 are listed below:

"1. Good yields tend to reduce the unit cost of producing farm crops.

"2. A large percentage of land in the higher profit crops means larger profits.
"3. Livestock production as a means of marketing crops makes for larger farm income
"4. Efficient feeding and handling of livestock materially reduces cost of production.
"5. A large volume of business is necessary for profitable farming.
"6. A well-organized system of crop and livestock production helps use available man labor advantageously.
"7. Costs are reduced when the supply of horse and mechanical power fits the farm needs and is economically handled.
"8. Buildings, machinery, and other equipment expense must be kept under control if low production costs are to be obtained.
"9. A good farm layout and a well-developed farmstead make for economical operation.
"10. Diversity of crop production helps to insure long-time profits.
"11. Production planned in accordance with market demands makes for a larger margin of profit."

These principles are general in nature and certain ones of them may not apply under all circumstances.

Market demands are continually changing. This makes it necessary, for even those farmers who have their businesses well organized, to make adjustments in order to keep their production planned in accordance with market demands. So far as possible it is desirable that these adjustments be made on the basis of what "will be" rather than in response to what "has been" in the immediate past. In practice many adjustments are made on a basis of what is now happening or what has just happened. "Sheep are low in price so let's quit the sheep business," represents an attitude which is too common. A better basis for decision would be that implied by the question, "What is the outlook for sheep over the next three, five, or ten years?"

The organization of the farm should not be planned on the basis of profits for a single year, but should be planned in such a way as to give the greatest continuous profit over a period of years. Radical changes in the cropping or livestock system of a farm are costly. For example, a man may decide to double his number of brood sows because the prospect for hog prices is good. Such a move would involve the provision of more hog equipment, as well as more labor and a larger feed supply for the hog enterprise. If, a year or two later, because the outlook for hog prices appears unfavorable, this same farmer decides to breed only half as many sows as before his farm organization is again disrupted. He now has hog equipment lying idle, and a part of the labor and feed supply formerly utilized by the hog enterprise must be used elsewhere.

Slight increases or decreases in line with what supply and demand conditions "will be" are justifiable, but radical changes based on short time conditions are seldom advisable. The operations of the "in-and-outer" are usually detrimental both to himself and to the industry as a whole.
9937a

When a permanent change in supply and demand conditions occurs the quicker an adjustment is made in accordance with the change the better. For example, the demand for timothy and prairie hay has fallen off materially due to the decline of horse numbers, particularly in the cities. The farmer who recognized this change and shifted his production from timothy or prairie hay to some other crop, fared much better than the farmer who stuck tenaciously to his old cropping system in the face of a rapidly disappearing market.

The present wheat situation is in the nature of a permanent change which will require some adjustment. It is evident that some of the land in the United States which has been used in producing wheat must eventually be used for some other purpose. Many farmers in Nebraska are already reducing their wheat acreage or eliminating this crop from their cropping systems.

Two or three years hence the adjustments which are being made will probably place wheat in a more favorable position than it now is. However, there is little evidence to indicate that wheat will, in the next decade, return to the favorable price relationship which existed from 1925 to 1929.

These illustrations serve to point out the fact that permanent changes do occur and that these changes require adjustments in the farm program. When it becomes necessary to make such changes in the cropping and livestock program of the farm, economic information as to probable supply and demand conditions in the future provides a sound basis for use in deciding what changes to make.

Where may such economic information be secured? The county extension agent in each county having such an agent will be able to secure publications containing economic information for persons living in his county. Persons living in non-agent counties may secure these publications through the Nebraska College of Agriculture. A list of the original sources of economic information suitable for farmers is listed below.

SOURCES OF ECONOMIC INFORMATION

1. NEBRASKA ECONOMIC SITUATION

This brief publication is issued once each month by the Extension Service of the Nebraska College of Agriculture. It contains a discussion of supply, demand conditions, and the price situation of farm products of importance in Nebraska.

2. AGRICULTURAL OUTLOOK FOR NEBRASKA

This is a presentation of facts relating to the agricultural situation with particular reference to the supply and demand conditions affecting products produced on Nebraska farms. This report is published in February of each year and may be secured by addressing the Nebraska College of Agriculture, Lincoln.

9937a

3. UNITED STATES DEPARTMENT OF AGRICULTURE OUTLOOK REPORT

This report attempts to bring together facts relating to prospective world-wide supply and demand conditions which are not generally known to farmers. It is published early in February each year and may be secured in limited numbers by addressing the Nebraska College of Agriculture, or the United States Department of Agriculture, Washington, D. C.

4. THE FARM OUTLOOK FOR 1931

This is a shortened edition of the United States Department of Agriculture report mentioned just previously. It may be secured from the same sources.

5. THE AGRICULTURAL SITUATION

The Agricultural Situation, a monthly publication of the Bureau of Agricultural Economics of the United States Department of Agriculture, gives current information on supply, demand, and price conditions for the United States and for sections of the United States. It is condensed and is useful in keeping up to date on the latest economic information. It is not a free publication, but a subscription price of 25 cents per year is charged for it. Address the Superintendent of Documents, Government Printing Office, Washington, D. C.

6. MISCELLANEOUS MARKET REPORTS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

This group includes a variety of reports giving supply, demand, and price information on different commodities. Persons interested can secure a list of these reports by addressing the Bureau of Agricultural Economics of the United States Department of Agriculture, Washington, D. C. A few of these reports with the approximate date of release are listed below. They may be secured free of charge by writing to the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

a. Monthly Crop Report.- This report which shows acreage, condition, prices, and probable production of crops is issued once each month of the year beginning with March. A summary of this report may be secured from the "Agricultural Statistician's" office, State House, Lincoln, Nebraska.

b. Special Pig Surveys.- Results of pig surveys are published about January 1 and July 1 of each year. They show supplies of hogs on farms and intentions to breed for the following season.

c. Report of Cattle on Feed or Movement of Feeder Cattle.- This report is issued about the 12th of January, April, August, October, November and December.

d. Report of Lamb Crops and Sheep and Lambs on Feed.- This report is issued about the twelfth of January, March, July, October, November and December.

9937a