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April
1946

Annual Farm Business Report

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Nineteen Fillmore and York County Farms

1945

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This report has been prepared by members of the Department of Rural Economics and the Agricultural Extension Service to enable each farmer cooperator to compare his business with that of similar farm businesses in the same section of the state. Special emphasis has been placed upon factors that affect returns to the farm operator. By studying the facts about his business presented in this report and comparing his accomplishments with those of other farmers who derive their incomes from the same general types of enterprises, the operator can get some ideas of changes he can make in farming operations that will increase his earnings.

Cooperative Extension Work in Agriculture and Home Economics
University of Nebraska College of Agriculture, and the United States
Department of Agriculture cooperating. W. H. Brokaw, Director, Lincoln.

ANNUAL FARM BUSINESS REPORT

19 FILLMORE AND YORK COUNTY FARMS

The labor income for 1945 averaged \$2,888 on 19 farms in York and Fillmore counties where records were kept for analysis. Farm receipts averaged \$6,534. Farm expenses increased materially during 1945 especially the cost of labor. There was considerable variation among the 19 farms in the receipts, expenses, and net returns (Figure 1). Receipts varied much more than expenses on the farms included in this report.

Most of the farms in York and Fillmore county are diversified, having several crop and livestock enterprises. The principal crops are corn, wheat, and oats. Livestock consists generally of dual purpose or dairy cattle, hogs, and chickens.

The area is comparatively level. The soils are mostly silt loams. Some land in the two counties is poorly drained. The lagoons in the area were completely filled in 1945 reducing the acreage of hay and pasture on some farms.

The monthly and annual precipitation at York and Geneva is given in Table 1. The total precipitation for 1945 was slightly below normal at Geneva but considerable above normal at York. However, corn suffered for lack of moisture in July and August because much of the rainfall came in the form of very heavy thunder showers and did not penetrate the soil very deeply because of rapid runoff.

The general organization of farms in this area is indicated in Tables 2 and 3 which show the land use and the number and classes of livestock kept on the farms. Comparisons are made between the average of all farms and the most profitable and least profitable groups of farms.

Figure 1. Labor income, receipts, expenses and net farm income on 19 farms in Fillmore and York counties. - 1945.

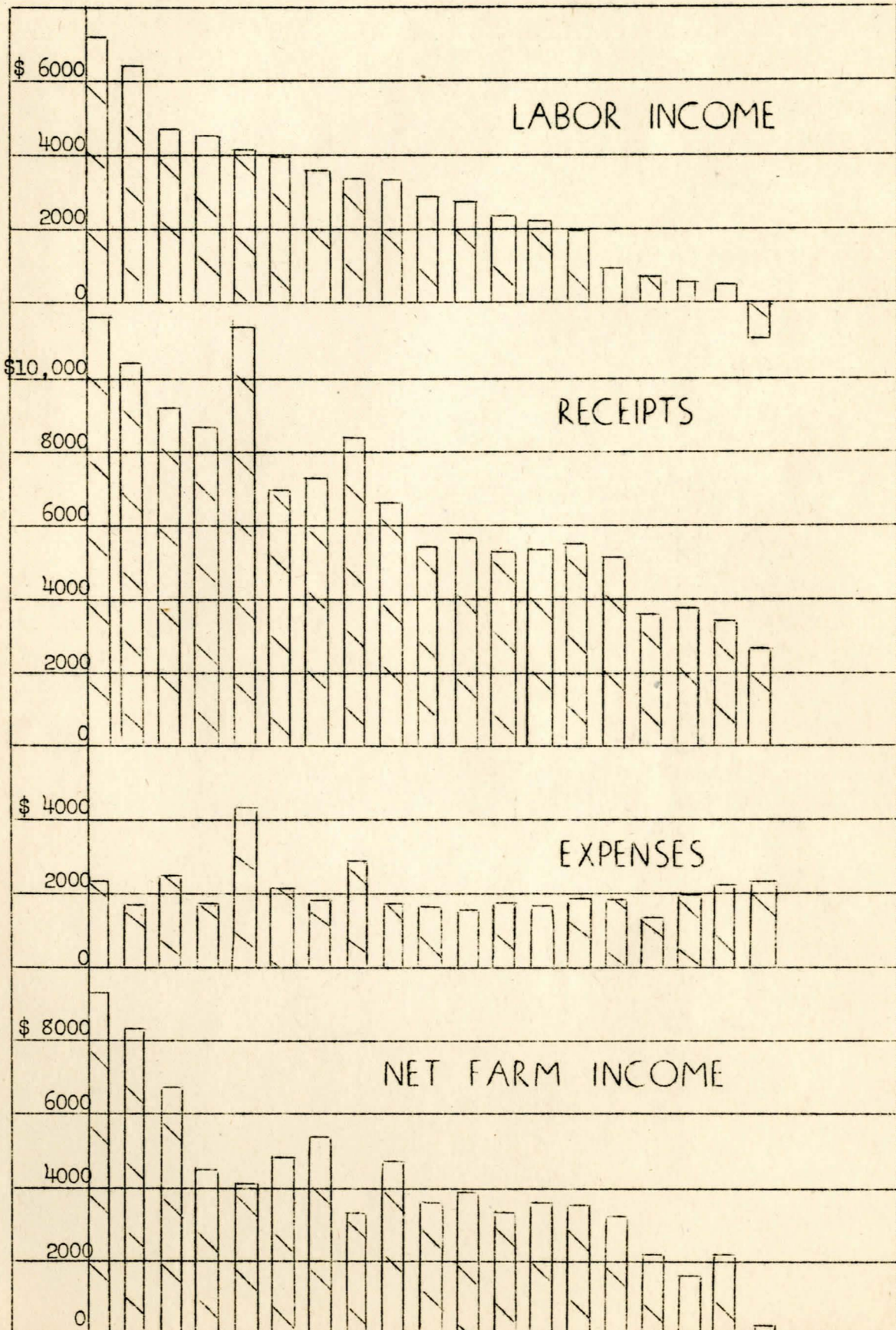


Table 1. Monthly and annual precipitation at York and Geneva.

Month	G e n e v a		Y o r k	
	Precipitation inches	Departure from normal inches	Precipitation inches	Departure from normal inches
1944				
May	5.73	+1.67	5.56	+1.73
June	6.42	+2.25	4.35	+ .45
July	1.31	-1.82	3.61	+ .13
August	9.59	+6.09	5.66	+2.40
September	1.45	-1.37	1.51	-1.38
October	1.75	- .48	1.42	- .45
November	1.99	- .88	1.28	- .28
December	.42	- .45	.20	- .59
1945				
January	.61	-.04	.57	-.07
February	1.35	+.28	.87	-.01
March	.81	-.38	.83	-.39
April	5.21	+2.54	4.66	+1.82
May	4.00	-.06	4.08	+ .25
June	3.70	-.47	8.59	+4.69
July	2.16	-.97	4.74	+1.26
August	1.19	-2.31	1.58	-1.68
September	2.69	-.13	4.80	+1.96
October	.51	-1.72	Trace	-1.87
November	.04	-1.07	Trace	-1.00
December	2.76	+1.89	1.97	+1.18
1945 Total	25.03	-2.44	32.69	+6.14
1944 Total	39.21	+11.74	32.90	+6.35
Normal precipitation	27.47		26.55	

Table 2. Summary of land use on 19 South Central Nebraska farms, 1944.

Item	Acres on your farm	Average for		
		19 farms	6 most profit- able farms	6 least profit- able farms
Corn		92	125	61
Oats		30	38	24
Wheat		81	132	38
Other grains		3	2	4
Alfalfa		7	7	9
Forage sorghum		2	1	1
Summer fallow		1	1	2
Brome for seed		2	0	0
Legume and other tilled pasture		10	8	8
Wild hay		6	4	9
Total cropland		234	318	156
Permanent Pasture		43	39	47
Farmstead, roads, and waste		25	27	18
Total land in farm		302	384	221

Table 3. Summary of livestock organization on 19 south central Nebraska farms, 1945.
(Number of head)

Type of livestock	Beginning of year inventory			End of year inventory		
	Average for			Average for		
	Your farm	19 farms	6 most profitable farms	Your farm	19 farms	6 most profitable farms
			6 least profitable farms			6 least profitable farms
Horses		3	3		3	2
Dairy cows		5	6		4	5
Feeder cattle		8	12		10	12
Other cattle		17	10		15	13
Brood sows		5	5		5	5
Other hogs		15	18		23	14
Sheep		3	5		3	-
Poultry		213	242		207	195

Tables 4 and 5 show the beginning and closing inventories for 1945.

There was no significant change in the distribution of the investment during the year. The cash income and expenses are summarized in Table 6. The cash receipts of the most profitable group were \$10,323 compared with \$5,706 for the least profitable group. There was less than \$500 difference in the expenses of the two groups. Table 7 gives a summary of the farm earnings.

Table 4. Summary of beginning inventories on 19 South Central Nebraska farms, 1945.

	Averages for			
	Your farm	19 farms	6 most profitable farms	6 least profitable farms
Size of farm (acres)		301	384	221
Size of business (work units*)		357	428	273
Horses		184	148	152
Productive livestock		2,583	2,456	2,541
Milk cows		379	473	413
Other cattle		1,437	1,113	1,574
Hogs		515	557	364
Bees		2	--	5
Sheep		32	65	--
Poultry		218	248	185
Feed grain and supplies		2,699	3,104	5,533
Machinery and equipment		1,854	2,564	1,304
Truck		13	14	--
Automobile		305	325	298
Tractor		371	572	300
Other machinery		1,165	1,653	706
Buildings, fences, etc.		1,716	2,489	1,460
Land		16,656	23,866	11,941
Total farm capital		25,692	34,627	22,931

*A productive man work unit is the amount of work a man can accomplish in a ten hour day when working at average speed with the type of equipment in most common use in the community. The total work units required to grow and harvest the crops and to care for the productive livestock on any one farm is a measure of the size of that farm business. The average amount of productive man work required on crops and livestock is shown below.

Productive man work required for major crops and types of livestock

<u>Item</u>	<u>Unit</u>	<u>Hours of labor required</u>
Milk cow producing:		
Less than 160 pounds of butterfat	1 head	100
More than 160 pounds of butterfat	1 head	130
Other dairy cattle	1 animal unit	40
Feeder cattle	1 head	15
Beef cows	1 head	40
Other beef cattle	1 animal unit	40
Hogs	100 pounds gain	3
Sheep, farm flock	1 animal unit	35
Poultry	100 head	200
Corn, husked	1 acre	8
Corn, hogged	1 acre	4
Corn, silage	1 acre	14
Wheat	1 acre	6
Oats or barley	1 acre	6
Alfalfa hay	1 acre	12
Seed (alfalfa or clover)	1 acre	10
Other hay	1 acre	6
Grain sorghum	1 acre	10
Forage sorghum	1 acre	12
Temporary pasture	1 acre	3

Table 5. Summary of closing inventories on 19 South Central Nebraska farms, 1945.

	: : Your : farm :	: : 19 : farms :	Averages for : 6 most : profitable : farms :	: : 6 least : profitable : farms :
Horses		\$145	\$ 132	\$ 126
Productive livestock		2,928	2,835	2,706
Milk cows		336	367	385
Other cattle		2,336	1,310	1,610
Hogs		696	880	529
Bees		3	-	10
Sheep		29	70	--
Poultry		200	208	172
Feed, grain and supplies		2,587	3,594	2,244
Machinery and equipment		1,923	2,671	1,314
Truck		12	14	--
Automobile		263	280	258
Tractor		404	682	248
Other machinery		1,244	1,695	808
Buildings, fences, etc.		1,811	2,409	1,607
Land		16,656	22,866	11,941
Total farm capital		\$26,722	\$34,507	\$19,938

Table 6. Summary of cash income and expenses on 19 South Central Nebraska farms, 1945.

	: : Your : farm : :	: : : : :	Averages for	
		19 farms	6 most profitable farms	6 least profitable farms
	<u>Cash</u>	<u>Income</u>		
Horse		9	--	19
Cattle		1,248	1,204	1,262
Hogs		1,001	888	619
Sheep		59	93	--
Poultry		240	233	203
Egg sales		729	767	658
Dairy sales		450	583	405
Machinery and equipment		161	245	59
Feed, grain and supplies		3,869	6,216	2,406
Labor off farm		53	73	7
Miscellaneous receipts		40	21	68
Total cash income		7,859	10,323	5,706
	<u>CASH</u>	<u>EXPENSES</u>		
Improvements		187	79	344
Horses		5	-	9
Cattle		432	438	366
Hogs		141	86	189
Supplies		108	94	103
Sheep		5	-	-
Poultry		67	86	51
Livestock expense		38	33	29
Machinery and equipment		1,231	1,591	1,011
Feed and grain		769	718	857
Crop expense		120	116	118
Hired labor		266	444	162
Taxes		233	297	211
Miscellaneous		52	44	59
Total cash expense		3,654	4,026	3,509

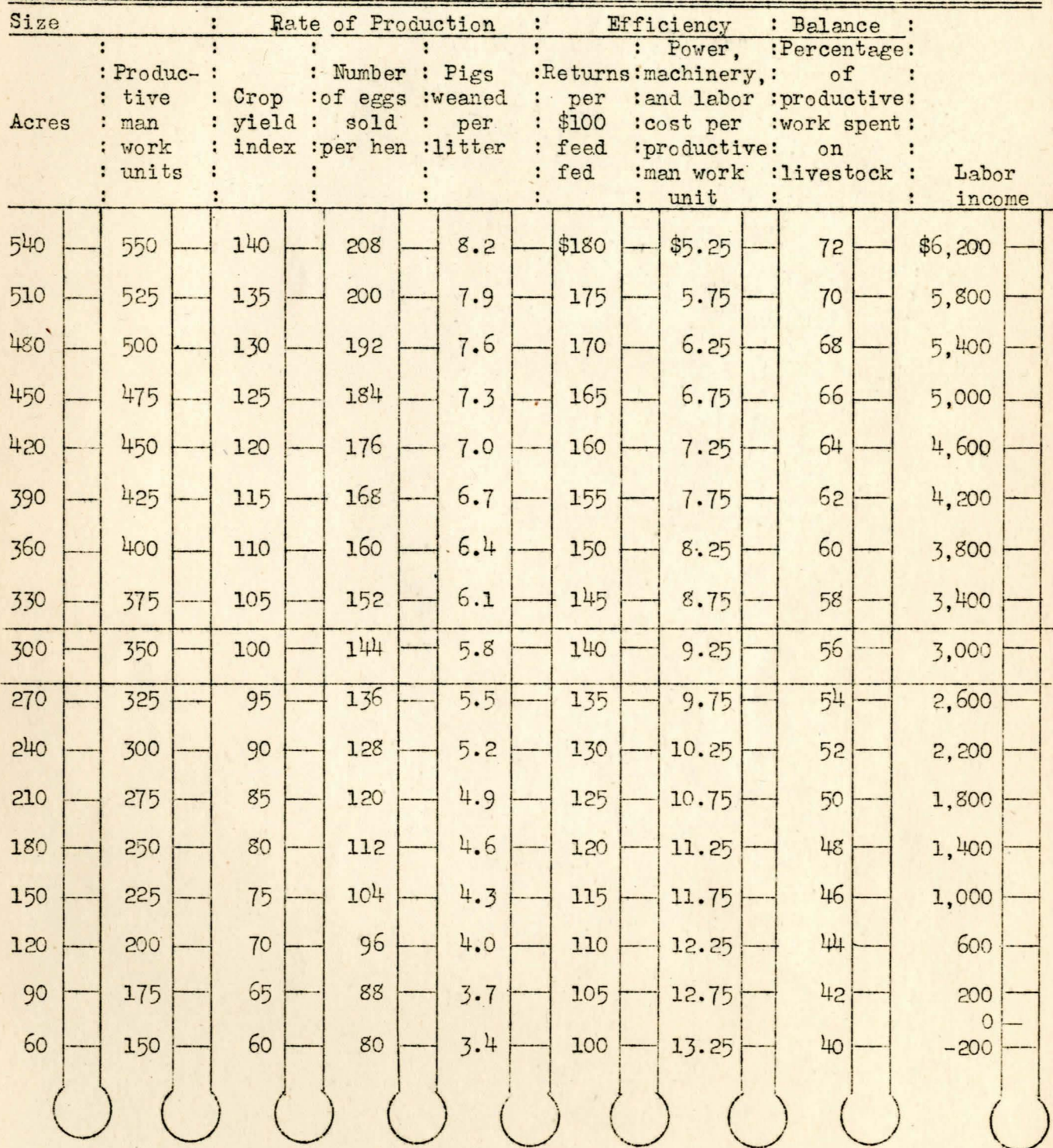
Table 7. Summary of farm earnings on 19 South Central Nebraska farms, 1945.

	Your farm	Averages for		
		19 farms	6 most profitable farms	6 least profitable farms
<u>Receipts and net increases</u>				
Horses	--	--	--	--
Cattle	1,000	858	905	
Hogs	1,041	1,125	594	
Sheep	51	98	--	
Poultry	156	107	139	
Egg sales	729	767	658	
Dairy sales	450	583	405	
Feed and Grain	3,010	5,971	1,099	
Labor off farm	53	73	7	
Miscellaneous receipts	44	20	79	
Total receipts and net increases	6,534	9,602	3,886	
<u>Expenses and Net Decreases</u>				
Improvements	196	158	222	
Horses	37	17	24	
Cattle	--	--	--	
Sheep	--	--	--	
Poultry	1	--	--	
Livestock expense	37	33	29	
Supplies	108	94	103	
Machinery and equipment	1,001	1,239	941	
Feed and grain	22	--	71	
Crop expenses	120	116	118	
Hired labor	266	444	162	
Taxes	235	297	211	
Miscellaneous expense	52	44	59	
Total expense and net decreases	2,075	2,442	1,940	
Returns to Operator's family and capital	4,460	7,159	1,948	
Operator's and family labor	1,768	1,791	1,776	
Net income from capital	2,692	5,368	172	
Rate earned on capital	10.5%	15.3%	.8%	
Return to capital and operator's labor and management	4,190	6,868	1,677	
Interest on capital (%)	1,302	1,753	1,033	
Labor income	2,888	5,115	644	

Table 8. Comparison of factors that affect farm income on 19 South Central Nebraska farms in 1945.

Item	Your farm	Averages of		
		19 farms	6 most profitable farms	6 least profitable farms
Labor and management wage		2,888	5,115	644
Rate earned on investment		10.5	15.3	.8
SIZE OF BUSINESS				
Acres in farm		302	384	221
Acres of cropland		234	319	156
Productive man work units		357	428	273
Man equivalent		1.4	1.5	1.3
VOLUME OF PRODUCTION				
Bushels of corn		2,108	3,332	1,307
Bushels of oats		928	1,161	756
Bushels of wheat		1,614	2,691	685
Pounds of hogs produced		6,672	8,225	4,062
Pounds of butterfat sold		299	562	125
Dozens of eggs sold		2,139	2,288	1,878
RATES OF PRODUCTION				
Yields of corn		23	27	22
Yields of oats		31	31	32
Yields of wheat		20	21	20
Crop index		100	110	98
Pounds butterfat sold per cow		57.4	103.2	28.8
Pigs weaned per litter		5.8	6.2	5.4
Eggs sold per hen, dozens		12.1	11.8	11.0
EFFICIENCY				
Productive man work units accomplished per worker		260	279	213
Returns from productive livestock per \$100 feed fed		140	144	118
Labor cost per man work unit		5.93	5.03	7.66
Power and machinery cost per man work unit		3.32	3.17	3.96
Improvement cost per work unit		.55	.37	.77
Labor, power, machinery and improvement cost per man work unit		9.80	8.57	12.39
Power and machinery cost per crop acre		5.45	4.51	7.09
BALANCE				
Percentage of productive work spent on crops		43	50	37
Percentage of productive work spent on livestock		57	50	63
Productive livestock units per 100 acres of cropland and pasture		11.4	9.2	13.1

THERMOMETER CHART. By using the figures for "Your farm" in Table 8, each operator can locate his standing in comparison with the average of the farms included in this study. The average for the 19 farms falls between the lines across the center of the page.



REASONS FOR DIFFERENCES IN LABOR INCOME

The labor income of farm operators who kept records in 1945 varied widely. Operators of the 6 most profitable farms received an average of \$5,115 for their labor and management. Those on the 6 least profitable farms received an average of \$644. Some of the causes of these differences are beyond the control of the operator, but changes can be made in the organization of most farm businesses that will improve the net income.

Size of business, volume of production, rates of production and efficiency in the use of labor, feed and equipment are important factors that influence net returns. The relationship between some of these factors and labor income is pointed out in the following analysis.

SIZE OF BUSINESS

This factor can be controlled to a considerable extent. The size of the business can be increased by renting additional land, or by increasing the livestock enterprises, especially milk cows and poultry. A capable manager with a large business usually has the advantage of greater efficiency in the use of labor, power, and equipment. The relationship between size of business and labor income is shown in Table 9.

CROP YIELDS

Crop yields are determined by the productivity of the soil and climatic conditions. Yet the farm manager has considerable influence on yields through seed selection and the cultural practices adopted. High yields tend to lower the cost per bushel of grain or per ton of hay produced. High crop yields and high production from livestock can be obtained at too high cost. However, as long as the value of the increase exceeds the additional expense of getting increase, net returns can be increased. The relationship between crop yields and labor income is shown in Table 10.

Table 9. Relation between size of business and labor income on 19 farms in York and Fillmore counties, 1945.

Productive man work units accomplished :		Number of farms	Average labor income
Range :	Average :		
Below 320	264	7	\$1,194
320 - 420	370	6	3,194
Over 420	453	6	4,558

Table 10. Relation between crop yields and labor income on 19 York and Fillmore county farms in 1945.

Crop yield index :		Number of farms	Average labor income
Range :	Average :		
Below 92	84	6	\$2,428
92 - 108	99	8	2,901
Over 108	125	5	3,418

EFFICIENCY IN THE USE OF FEED

Feed is the major item of cost in livestock production, varying from 50 per cent to 85 per cent for the different classes of livestock. Returns per \$100 worth of feed fed is a good measure of the efficiency of the livestock on the farm. Table 11 shows the relationship between returns per \$100 worth of feed fed to livestock and labor income. Some variation in the types of livestock on the different farms at least partially accounts for the slightly higher income on farms where the returns from livestock average lower than in the intermediate group.

Cost Factors and Labor Income

The costs of operating a farm reduce the net returns. Efficiency in the operation of the farm business helps to increase the net income. Efficient operation is not necessarily low cost operation for it is possible to keep expenses low by failure to provide the necessary equipment and by neglecting essential work, but the net returns will generally be unsatisfactory on farms that are not operated efficiently because of reduced yields and low volume of production. On the other hand, expenses may be unnecessarily high because of over-investment in equipment and poor organization of the labor force. Generally labor, power and machinery is used more efficiently on the successful farms than on farms of low income as is shown in Table 12.

Other factors influence net returns. The proper balance between crops and livestock, between labor required and labor available, between feed available and feed required especially roughage and pasture and between the amount of power and machinery available and the peak load for power during the year are important considerations.

Few operators rate high in all measures of efficiency. Table 13 shows the relationship of the labor income to the number of factors in which the farmer is above average. A careful study of this table and the thermometer chart on

Table 11. Relation of returns from feed fed to productive livestock and labor income on 19 York and Fillmore county farms, 1945.

Returns per \$100 worth of feed fed to productive livestock		Number of farms	Average labor income
Range	Average		
Below 120		6	\$2,687
120 - 145		7	2,651
Over 145		6	3,365

Table 12. Relation between labor, power and machinery cost per productive man work unit and labor income on 19 farms in York and Fillmore counties, 1945.

Labor, power, and machinery cost per man work unit		Number of farms	Average labor income
Range	Average		
Over \$10.00	\$12.63	6	\$1,254
\$7.60 - \$10.00	8.49	7	3,265
Below \$7.60	6.75	6	4,083

Table 13. Relation between the number of factors above average and the labor income on 19 farms in York and Fillmore counties, 1945.

Number of factors above average	Number of farms	Average labor income
Less than 3	4	\$ 853
3 or 4	8	2,624
5 or more	7	4,353

page 11 enables each farm operator to compare his business with others in the same area. By this comparison each operator may discover some changes that can profitably be made in his business.

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