

6-1948

EC876 Revised 1948 Annual Farm Business Report : Washington County, Nebraska 13 Farms

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ANNUAL FARM BUSINESS REPORT

WASHINGTON COUNTY

NEBRASKA

13 Farms

Nebraska
Cooperative Extension Work
In Agriculture and Home Economics
U. of N. Agr'l College and U. S. Dept. of Agr. Cooperating
H. G. Gould, Acting Director
Lincoln 1

E.C. # 876 (1947)

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FARM BUSINESS REPORT
WASHINGTON COUNTY, NEBRASKA
1947

Arthur G. George, Department of Rural Economics

This report is made from farm business records kept by 13 Washington county farmers covering the 1947 calendar year. This county is located in eastern Nebraska just north of Omaha. It touches the Missouri river on the east. The county contains rolling land for the most part except for Missouri river bottom land which extends back from the river for a few miles along the eastern edge of the county. Combinations of a fertile soil, favorable climate and adequate rainfall make this a very productive county. Corn is the most important single crop. Cattle feeding and hog production are the leading livestock enterprises.

Excessive rainfall in the spring and early summer of 1947 prevented timely planting and cultivation of corn. Much corn was washed out or the ground was too wet for planting.

The greater part of the summer was excessively hot and dry. These circumstances resulted in a much smaller than average corn crop and low yields of other crops as well.

The year was characterized by high industrial activity in the United States, a high level of employment and an active demand for farm products both at home and abroad. Prices received by farmers were high as were prices paid by them. Net dollar returns were higher than normal. The average rate earned on the investment after paying all operating costs and allowing wages to the operator and other unpaid labor at \$125 per month for these 13 farms was 15.3 per cent. These 13 farms returned on the average \$7,311 to the operator for his work and ability as a manager. This amount was the return to the operator after deducting \$125 per month from net receipts for the labor of other members of the family who did field work, and an allowance for interest of 5 per cent on the farm capital.

The 5 most profitable farms of the group had average earnings of 20.9 per cent or an average labor and management wage of \$10,903. The 5 least profitable farms earned an average of 9.1 per cent on the investment or a labor and management wage of \$3,914.

The number of records obtained was too few to be representative of all farms in Washington county, but they give important clues as to the type of organization and management that will result in greatest returns on most farms in the county.

The data from the farm records are presented in 10 tables which follow. Tables 1 thru 6 show beginning and closing inventories, summary of land use, both in acres and per cent of total land in farms, summary of income and

*Cooperating agencies: The Department of Rural Economics and Agricultural Extension Service of the College of Agriculture, University of Nebraska, and farmers in Washington county.

expenses including inventory changes with resultant earnings, and a comparison of factors that affect farm incomes on Washington county farms. Each of these tables show average data for the 13 farms, for the 5 most profitable, and for the 5 least profitable farms. They are presented without further discussion. Tables 7 to 10, inclusive, show the influence of certain important factors on incomes as found on the 13 farms studied. A brief discussion accompanies each table.

The thermometer chart is a device for showing at a glance how an individual compares with the average of the group for each of the efficiency factors shown. The rating of each operator is marked on the particular circular received by each farmer who contributed a record.

Explanations and Definitions

1. Work Unit (Productive Man Work Unit). The amount of work a man can do in a ten hour day when working on crops and productive livestock at average speed with the type of equipment in most common use in his community.

2. Productive man work required for major crops and types of livestock.

Item	Unit	Hours of labor required	
		Eastern Nebraska	Central Nebraska
Milk cow butterfat production			
More than 160 pounds	1 head	130	130
Less than 160 pounds	1 head	100	100
Feeder cattle	1 head	15	15
Other cattle	1 animal unit	40	40
Hogs	100 lbs. gain	3	3
Sheep, farm flock	1 animal unit	35	35
Poultry	100 head	200	200
Corn, husked	1 acre	8	7
Corn, hogged	1 acre	4	4
Corn, silage	1 acre	14	10
Wheat	1 acre	6	4
Oats, barley	1 acre	6	5
Soybeans	1 acre	9	-
Alfalfa hay	1 acre	12	9
Seed (alfalfa or clover)	1 acre	10	-
Other hay	1 acre	6	3
Temporary pasture	1 acre	3	3
Sorghum (Grain or hay)	1 acre	8	6

3. Animal Unit: One cow, one bull, one feeder, 2 stock cattle 1-2 years old, 4 calves under one year, 7 sheep, 1,000 pounds of hogs produced, 100 head of poultry.

Table 1. Summary of beginning inventories on 13 Washington county, Nebraska, farms, 1947.

Item	Your farm	Averages		
		13 farms	5 most profitable farms	5 least profitable farms
SIZE OF FARM (ACRES)		272	276	233
HORSES	\$	\$174	\$172	\$208
PRODUCTIVE LIVESTOCK (TOTAL)	\$	\$6,746	\$7,942	\$7,827
Milk cows		583	530	612
Feeder cattle		2,050	4,056	1,237
Other cattle		782	227	1,308
Hogs		3,144	2,983	4,434
Sheep		---	---	---
Poultry		187	146	236
MACHINERY AND EQUIPMENT (TOTAL)	\$	\$3,653	\$3,252	\$4,004
Truck		154	67	302
Automobile		383	487	474
Tractor		809	650	767
Other machinery		2,307	2,048	2,461
FEED, GRAIN AND SUPPLIES	\$	\$5,311	\$6,991	\$4,639
PERMANENT IMPROVEMENTS	\$	\$3,398	\$2,425	\$5,278
LAND	\$	\$34,453	\$35,415	\$28,874
TOTALS: BEGINNING INVENTORIES	\$	\$53,735	\$56,197	\$50,830

Table 2. Summary of closing inventories on 13 Washington county, Nebraska, farms, 1947.

Item	Your farm	Averages		
		13 farms	5 most profitable farms	5 least profitable farms
SIZE OF FARM (ACRES)		272	276	233
HORSES	\$	\$97	\$103	\$103
PRODUCTIVE LIVESTOCK (TOTAL)	\$	\$8,329	\$10,990	\$7,668
Milk Cows		652	675	569
Feeder cattle		2,867	6,821	574
Other cattle		1,058	462	1,555
Hogs		3,600	2,911	4,808
Sheep		---	---	---
Poultry		152	121	162
MACHINERY AND EQUIPMENT (TOTAL)	\$	\$5,029	\$5,283	\$5,067
Truck		168	56	356
Automobile		586	482	1,010
Tractor		1,161	1,224	933
Other machinery		3,114	3,521	2,768
FEED, GRAIN AND SUPPLIES	\$	\$5,853	\$7,094	\$6,418
PERMANENT IMPROVEMENTS	\$	\$3,760	\$3,411	\$5,279
LAND	\$	\$34,453	\$35,415	\$28,874
TOTALS: CLOSING INVENTORIES	\$	\$57,521	\$62,296	\$53,409

Table 3. Summary of land use by crops on 13 Washington county, Nebraska, farms, 1947.

Item	Your farm	Average acres		
		13 farms	5 most profitable farms	5 least profitable farms
Corn		92	90	79
Oats		48	41	59
Wheat		22	19	13
Soybeans		5	9	5
Alfalfa and Clover		19	23	21
Corn silage		5	9	4
Tilled pasture		24	30	16
Wild hay		2	4	---
Other cropland		8	2	5
Total cropland		225	227	202
Permanent pasture		28	30	9
Farmstead, roads, waste		19	19	22
Total acres in farm		272	276	233
Per cent of total acreage in each use				
Corn		33.8	32.6	33.9
Oats		17.6	14.9	25.3
Wheat		8.0	6.9	5.6
Soybeans		1.9	3.3	2.2
Alfalfa and Clover		7.0	8.3	9.0
Corn silage		1.9	3.3	1.7
Tilled pasture		8.8	10.9	6.9
Wild hay		.7	1.4	---
Other Cropland		3.0	.7	2.1
Total Cropland		82.7	82.3	86.7
Permanent pasture		10.3	10.8	3.9
Farmstead, roads, waste		7.0	6.9	9.4
Total		100	100	100

Table 4. Summary of cash income and cash expenses on 13 Washington county, Nebraska, farms, 1947.

Item	Your farm	Averages		
		13 farms	5 most profitable farms	5 least profitable farms
CASH INCOME				
Improvements		---	---	---
Horses	\$	\$42	\$55	\$54
Cattle		5,742	10,068	2,630
Hogs		7,016	6,404	9,833
Poultry		153	150	179
Egg sales		563	422	583
Dairy sales		904	1,022	521
Machinery and equipment		359	365	539
Feed, grain, and supplies		5,609	7,096	2,496
Labor off farm		19	8	37
Miscellaneous		144	140	234
Total Cash Income	\$	\$20,551	\$25,730	\$17,106
CASH EXPENSES				
Improvements	\$	\$927	\$1,619	\$710
Horses		50	36	94
Cattle		2,096	3,758	902
Hogs		852	323	1,731
Poultry		56	49	72
Livestock expense		419	200	831
Supplies		194	280	179
Machinery and equipment		3,823	4,501	3,707
Feed, grain and supplies		3,095	3,549	2,499
Crop expense		383	493	369
Hired labor		1,168	1,624	1,065
Taxes		541	668	450
Miscellaneous		434	587	477
Total Cash Expense	\$	\$14,038	\$17,687	\$13,086
Net Cash Gain	\$	\$6,513	\$8,043	\$4,020
Net Inventory Gain		3,785	6,100	2,578
Net Cash Loss		---	---	---
Net Inventory Loss		---	---	---
Net Farm Gain	\$	\$10,298	\$14,143	\$6,598

Table 5. Summary of income and expenses, including inventory changes on 13 Washington county, Nebraska, farms, 1947.

Item	Your farm	Averages		
		13 farms	5 most profitable farms	5 least profitable farms
RECEIPTS AND NET INCREASES				
Horses		---	---	---
Cattle	\$	\$4,809	\$9,455	\$1,269
Hogs		6,619	6,009	8,475
Poultry		61	76	34
Egg sales		563	422	583
Dairy sales		904	1,022	521
Machinery and equipment		---	---	---
Feed, grain and supplies		3,056	3,651	1,776
Labor off farm		19	8	37
Miscellaneous		144	140	234
Total Receipts and Net Increases	\$	\$16,175	\$20,783	\$12,929
EXPENSES AND NET DECREASES				
Improvements	\$	\$565	\$633	\$710
Horses		85	50	145
Cattle		---	---	---
Hogs		---	---	---
Poultry		---	---	---
Livestock expense		419	200	831
Supplies		194	280	179
Machinery and equipment		2,088	2,105	2,105
Feed, grain, and supplies		---	---	---
Crop expense		383	493	369
Hired labor		1,168	1,624	1,065
Taxes		541	668	450
Miscellaneous		434	587	477
Total Expenses and Net Decreases	\$	\$5,877	\$6,640	\$6,331
Return to Capital and Opera- tor's Family	\$	\$10,298	\$14,143	\$6,598
Value of Unpaid Labor at \$125 per month	\$	\$1,798	\$1,750	\$1,850
Net Income from Investment and Management	\$	\$8,500	\$12,393	\$4,748
Average Investment	\$	\$55,692	\$59,295	\$52,188
Rate Earned on Investment (%)		15.3	20.9	9.1
Returns to Capital and Opera- tor's Labor and Management	\$	\$10,096	\$13,868	\$6,523
5% Interest on average investment	\$	\$2,785	\$2,965	\$2,609
Labor and Management Wage	\$	\$7,311	\$10,903	\$3,914

Table 6. Comparison of factors that affect farm income on 13 Washington county, Nebraska, farms, 1947.

Item	Your farm	Averages		
		13 farms	5 most profitable farms	5 least profitable farms
Labor and Management Wage	\$	\$7,311	\$10,903	\$3,914
Rate Earned on Investment	%	15.3%	20.9%	9.1%
Size of Business				
Acres in farm		272	276	233
Acres in cropland		225	227	202
Average number of men		1.7	1.8	1.8
Productive work units		368	382	353
Animal Units (Productive livestock)		56	76	49.
Cows Milked		5.2	4.2	4.6
Litters of pigs weaned		18.8	17.4	25.0
Pigs weaned		114	102	157.
Volume of Production				
Corn, bus.		2,331	2,291	2,275
Oats, bus.		1,192	1,301	1,357
Wheat, bus.		469	443	349
Alfalfa, tons		30	35	31
Livestock				
Hogs, pounds produced		23,471	23,305	27,579
Dairy sales	\$	\$904	\$1,022	\$521
Egg sales	\$	\$563	\$422	\$583
Rates of Production				
Corn, bus. per acre		25.3	25.5	28.7
Oats, bus. per acre		24.9	31.6	23.2
Wheat, bus. per acre		20.9	22.8	26.4
Alfalfa, tons per acre		1.6	1.5	1.5
Crop index		100	114	99
Pigs weaned per litter		6.0	5.9	6.3
Dairy sales per cow	\$	\$175	\$243	\$113
Egg sales per hen	\$	\$3.32	\$2.87	\$3.35
Efficiency				
Productive work units per man		215.2	214.9	199.4
Labor, power and machinery cost per work unit	\$	\$14.10	\$14.81	\$14.48
Returns per \$100 worth of feed fed to productive livestock	\$	\$170	\$182	\$141
Balance				
Per cent of productive work on crops		42	42	41
Per cent of productive work on livestock		58	58	59
Productive Livestock Units per 100 acres		22	28	21

Influence of Certain Factors on Farm Income

SIZE OF BUSINESS.—The volume of sales or the quantity of grain, live-stock and livestock products produced in a year are very important factors in determining farm income. The size of a farm business can be measured in number of acres, amount invested, numbers of livestock, days of labor expended and in other ways. Table 7 considers the number of work units as a measure of size and shows its effect on the labor and management wage. The table shows greater incomes were received on those farms where more work units were employed.

Table 7. Relationship between size of business as measured by work units, and labor and management wage on 13 Washington county, Nebraska, farms, 1947.

Range	Work units used		Number of farms	Average labor and management wage
	Average			
Below 300	219	4		\$3,702
300 to 430	356	5		\$7,352
430 and above	531	4		\$10,871

CROP YIELDS.—Crop yields have a decided influence on farm incomes. They must be considered in connection with acreage, however, and the kind and number of different crops grown. Table 8 presents crop yield index data and shows that as the index of production per acre increases, incomes increase. The crop yield index is a measure of yields of all crops when the average for all 13 farms was taken as 100.

Table 8. Relation of crop yields to labor and management wage on 13 Washington county, Nebraska, farms, 1947.

Range	Crop yield index		Number of farms	Average labor and management wage
	Average			
Below 90	83	4		\$5,836
90 to 107	96	5		\$6,198
107 and over	129	4		\$10,180

PRODUCTIVE LIVESTOCK.—Amount of productive livestock, which is all livestock except horses and mules has a distinct influence on farm returns. Experiences of many farmers in eastern Nebraska over a period of years show that livestock farmers obtained greater returns than did crop farmers. For some individual years, however, the opposite may be true. Table 9 shows that greater incomes were received by those farmers who received a considerable part of their income from the sale of livestock and livestock products than by the farmers who had but little livestock.

Table 9. Relation of number of units of productive livestock to labor and management wage on 13 Washington county, Nebraska, farms, 1947.

Productive animal units		Number of farms	Average labor and management wage
Range	Average		
Below 37	30	5	\$4,628
37 to 56	47	4	\$7,798
56 and above	99	4	\$10,180

EFFICIENT LIVESTOCK FEEDING.—Many things contribute to high or low returns on the feed fed to productive livestock. Prices of feeds in relation to prices of livestock, quality of feed and type and grade of livestock, balancing of rations, sanitary conditions, health of livestock, and perhaps other factors all have an influence on the amount of returns from a given quantity of feed consumed. Table 10 shows that farm incomes increase as the returns for each \$100 worth of feed fed increases.

Table 10. Relation of returns from feed fed to productive livestock to labor and management wage on 13 Washington county, Nebraska, farms, 1947.

Returns per \$100 worth of feed fed to productive livestock		Number of farms	Average labor and management wage
Range	Average		
Below \$157	\$143	5	\$3,913
\$157 to \$180	\$169	4	\$7,994
\$180 and above	\$222	4	\$10,874

THERMOMETER CHART. By using the figures for your farm in Table 6, each operator can determine his standing in comparison with the averages of the farms included in this study. The averages for the 13 records used in this summary are located between the lines across the center of the page.

13 Washington County, Nebraska, farms, 1947

Size		:Productive rates :			Efficiency			:	Balance		
Acres per farm	Work units	Live- stock units	Crop yield index	Pigs per litter	Returns per \$100 feed fed	Work units per man	Labor, power mach. cost per work unit	Percent work on live- stock	Livestock units per 100 acres	Rate earned on in- vestment	Labor and management wage
422	568	106	120	7.0	\$220	290	\$9.10	68	37	25.3%	\$12,311
392	528	96	116	6.8	210	275	10.10	66	34	23.3	11,311
362	488	86	112	6.6	200	260	11.10	64	31	21.3	10,311
332	448	76	108	6.4	190	245	12.10	62	28	19.3	9,311
302	408	66	104	6.2	180	230	13.10	60	25	17.3	8,311
Average 272	368	56	100	6.0	\$170	215	\$14.10	58	22	15.3%	\$7,311
242	328	46	96	5.8	160	200	15.10	56	19	13.3	6,311
212	288	36	92	5.6	150	185	16.10	54	16	11.3	5,311
182	248	26	88	5.4	140	170	17.10	52	13	9.3	4,311
152	208	16	84	5.2	130	155	18.10	50	10	7.3	3,311
122	168	6	80	5.0	120	140	19.10	48	7	5.3	2,311