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September, 1943
Area 1A

Extension Circular 841-42
1942

ANNUAL FARM BUSINESS REPORT
Southeast Nebraska Loess Soil Areas
Thirty Farms
Cass, Nemaha, Otoe, and Richardson Counties
and the
Twentieth Annual Farm Business Report
Fourteen Farms
Cass County

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1942

Report prepared by F. J. Chase, Assistant Agricultural
Extension Economist, with the aid of the Rural
Economics Department, county extension agents
and cooperating farmers.

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

"Issued in furtherance of the acts of May 8 and June 30, 1914."

c. 1

FINANCIAL STATEMENT

1942

CASH INCOME	Your Farm	Ave. of 30 Farms	CASH EXPENDITURES	Your Farm	Ave. of 30 Farms
Livestock	$	$5,895	Livestock bought	$	$1,933
Feed, grain and supplies	$	$2,287	Feed bought	$	$2,270
Machinery and equipment	$	$ 135	Machinery expense	$	$1,080
Farm improvements	$	$ 1	Farm improvements	$	$ 287
Egg sales	$	$ 433	Livestock expense	$	$ 83
Dairy sales	$	$ 492	Crop expense	$	$ 157
Labor off farm	$	$ 41	Hired labor	$	$ 553
Miscellaneous	$	$ 383	Taxes	$	$ 299
			Miscellaneous	$	$ 65
Total	$	$9,667	Total	$	$6,727

INVENTORY GAINS			INVENTORY LOSSES		
Livestock	$	$1,342	Livestock	$	$ -
Feed, grain and supplies	$	$ 877	Feed, grain and supplies	$	$ -
Machinery and equipment	$	$ 224	Machinery and equipment	$	$ -
Farm improvements	$	$ 90	Farm improvements	$	$ -
Total	$	$2,533	Total	$	$ -
Net cash gain	$	$2,940	Net cash loss	$	$ -
Net inventory gain	$	$2,533	Net inventory loss	$	$ -
Net gain	$	$5,473	Net loss	$	$ -

Above figures include
- No change in value on land
- No wages for unpaid family labor
- No wages for operator
- No interest on investment
- No interest actually paid

The preceding Financial Statement supplements this circular. It shows in summarized form the cash received and paid out, the inventory gains and losses, the net cash gain or loss, the net inventory gain or loss, and the net gain or loss for the farm. The figures given are for the average of the entire group of farms discussed in this report.

In the circular sent to each cooperator is a statement which gives the figures for his individual farm.

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TABLE I SUMMARY OF 30 FARM BUSINESS RECORDS

Item		Your Farm	Averages for each group: All 30 farms	12 farms 100-199 acres	9 farms 200-299 acres	4 farms 300-399 acres	5 farms 400 or more acres
Capital Investments							
Land	$		21715	10869	19500	32981	42720
Farm improvements	$		3272	1668	2466	3996	7994
Horses	$		227	166	201	338	330
Cattle	$		2499	803	2641	1528	7090
Hogs	$		1065	358	761	857	3473
Sheep	$		67	41	-	166	169
Bees	$		-	-	-	4	-
Poultry	$		130	114	97	139	221
Livestock--total	$		3988	1482	3700	3032	11283
Machinery and equipment	$		1991	1194	1719	1850	4509
Feed, grain, & supplies	$		2396	1135	2169	2878	5443
Total	$		33362	16348	29554	44737	71949
Receipts--Net Increases							
Horses	$		-	2	-	-	-
Cattle	$		1935	477	2107	1304	5630
Hogs	$		3101	1275	2339	2879	9035
Sheep	$		103	50	-	179	354
Bees	$		1	-	-	5	-
Poultry	$		168	117	156	213	275
Egg sales	$		433	375	396	472	608
Dairy sales	$		493	246	325	482	1394
Livestock--total	$		6234	2542	5323	5534	17296
Feed, grain, & supplies	$		893	1342	1160	3780	-
Labor off farm	$		41	55	29	36	28
Miscellaneous receipts	$		383	233	342	468	752
Total	$		7551	4172	6854	9818	18076
Expenses--Net Decreases							
Farm improvements	$		196	87	155	133	580
Horses	$		4	-	3	8	17
Miscellaneous livestock decreases	$		-	-	-	-	-
Machinery and equipment	$		722	408	546	750	1770
Feed, grain, & supplies	$		-	-	-	-	2972
Livestock expense	$		82	36	55	89	238
Crop expense	$		157	104	163	133	292
Hired labor	$		553	141	399	546	1825
Taxes	$		299	151	275	358	649
Miscellaneous expense	$		65	17	37	33	257
Total	$		2078	944	1633	2050	8600
Receipts less expenses	$		5473	3228	5221	7768	9476
Total unpaid labor	$		942	790	960	1230	1044
Net income from investment and management	$		4531	2438	4261	6538	8432
RATE EARNED ON INVESTMENT			14.5	14.6	15.8	15.1	11.7
Return to capital and operator's labor & management	$		5274	3158	5061	7258	9152
5% Interest on investment	$		1668	818	1478	2237	3597
Labor and management wage	$		3606	2340	3583	5021	5555

FACTORS THAT AFFECT FARM INCOME

TABLE II — Summary of 30 Farm Business Records in Cass, Nemaha, Otoe, and Richardson Counties

FACTORS	Your Farm	All 30 Farms	12 Farms 100-199 acres	9 Farms 200-299 acres	4 Farms 300-399 acres	5 Farms 400 or more acres
I. Size of Business						
A. Measures of Size						
1. Total acres in farm		264	153	240	328	523
2. Acres in cropland		219	125	211	280	412
3. Total work units needed		467	286	411	528	953
II. Farm Organization						
A. Acres in Principal Crops						
1. Corn		83	53	84	113	132
2. Oats		28	20	30	43	29
3. Wheat		31	17	30	41	60
4. Alfalfa		23	11	19	25	60
B. Numbers of Livestock						
1. All cattle		33	16	31	28	83
2. Milk cows		6	5	5	7	11
3. Litters farrowed		15 (19)	8 (9)	11 (5)	11 (3)	64 (2)
4. Hens		180	168	143	197	262
III. Rates of Production						
A. Crop Yields per Acre						
1. Corn (bus.)		43	42	44	46	43
2. Oats (bus.)		29	31	34	30	18
3. Wheat (bus.)		22	21	23	24	19
4. Alfalfa (tons)		2.1	2.0	2.4	3.3	1.7
B. Livestock Production						
1. Dairy sales per cow		81	54	65	71	127
2. Egg sales per hen		2.40	2.23	2.76	2.40	2.32
3. Pigs weaned per litter		6 (19)	6 (9)	6 (5)	7 (3)	6 (2)
IV. Efficiency in the Use of Feed, Labor, & Equipment						
A. Returns per $100 feed						
1. All productive stock		165	181	163	190	156
2. Cattle		132 (18)	218 (7)	118 (8)	149 (3)	-
3. Hogs		228 (17)	223 (6)	238 (8)	205 (3)	-
4. Sheep		232 (2)	-	-	271 (1)	248 (1)
5. Poultry		190 (19)	188 (7)	192 (8)	207 (3)	123 (1)
B. Total Labor Work Units Accomplished per Man		257	238	237	237	307
1. Crops		108	95	105	113	121
2. Livestock		143	131	127	119	185
3. Crop acres per man		121	104	122	126	133
4. Crop acre, labor cost		6.67	7.15	6.28	6.25	6.93
C. Equipment						
1. Power and machinery cost per acre cropland		4.18	4.15	3.52	3.81	5.01
V. Miscellaneous						
A. Farm Organization Balance						
1. Days productive work						
a. Needed on crops		197	114	183	252	374
b. Needed on livestock		260	157	220	266	572
2. Livestock recpt's per A.		23.85	16.95	22.56	17.07	33.18
B. Other Factors						
1. % of farm in crops		83.0	81.5	87.8	85.6	78.8
2. Value of land per A.		82	71	81	101	82
3. Total investment per A.		126	107	123	137	138
4. Gross receipts per A.		28.59	27.19	28.56	29.98	34.59
5. Total expenses per A.		11.44	11.30	10.81	10.02	18.45
6. Net receipts per A.		17.15	15.89	17.75	19.96	16.14

Footnote: Figures in parentheses give the number of farms reporting. 26446vh-9/43

TABLE III

THERMOMETER CHART

SIZE		FARM ORGANIZATION				RATES OF PRODUCTION				EFFICIENCY		
Acres in Farm	Man Work Units	Acres in		Numbers of		Crop Yields		Livestock		Work Units Accomplished	Power & Machinery cost per acre	Labor and Management wage
		Corn	Wheat	Cattle	Litters farrowed	Corn	Wheat	Dairy sales per cow	Pigs weaned per litter			
HIGH 673	1147	195	89	243	76	60	30	118	9	344	1.71	10,679
564	977	173	70	153	51	58	-	-	9	-	-	8,406
464	807	143	57	113	39	53	28	115	8	337	-	6,806
364	637	113	44	73	27	48	25	98	7	297	2.93	5,206
AVERAGE 264	467	83	31	33	15	43	22	81	6	257	4.18	3,606
164	297	53	18	-	3	38	19	64	5	217	5.43	2,006
-	127	23	-	-	-	33	16	47	4	177	6.68	-
-	-	-	-	-	-	28	13	30	-	137	7.93	-
LOW 120	121	-	9	4	-	28	11	16	4	121	9.17	1,003

The numbers between the lines across the middle of the page are the approximate averages in the area of the factors named at the top of each column. The numbers set off by lines across the top of the page show the highest efficiency attained by cooperators in these factors. Those similarly indicated at the bottom of the page give the lowest efficiency shown by the records used in this study. The columns are independent of each other and each 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 (Table II), you can compare your efficiency with that of other farms included in this study.

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TABLE IV

Item		Cass Average 14 Farms	Area Average of 30 farms
Capital Investments			
Land	$	15,428	21,715
Farm improvements	$	2,028	3,272
Horses	$	236	227
Cattle	$	1,789	2,499
Hogs	$	490	1,065
Sheep	$	-	67
Bees	$	-	-
Poultry	$	85	130
Livestock--total	$	2,600	3,988
Machinery and equipment	$	1,302	1,991
Feed, grain, & supplies	$	1,760	2,396
Total	$	23,118	33,362
Receipts--Net Increases			
Horses	$	5	-
Cattle	$	1,401	1,935
Hogs	$	1,444	3,101
Sheep	$	-	103
Bees	$	-	1
Poultry	$	126	168
Egg sales	$	302	433
Dairy sales	$	280	493
Livestock--total	$	3,558	6,234
Feed, grain, and supplies	$	1,381	893
Labor off farm	$	47	41
Miscellaneous receipts		280	383
Total	$	5,266	7,551
Expenses--Net Decreases			
Farm improvements	$	115	196
Horses	$	-	4
Miscellaneous live stock decreases	$	-	-
Machinery and equipment	$	450	722
Feed, grain, and supplies	$	-	-
Live stock expense	$	40	82
Crop expense	$	135	157
Hired labor	$	276	553
Taxes	$	218	299
Miscellaneous expense	$	27	65
Total	$	1,261	2,078
Receipts less expenses	$	4,005	5,473
Total unpaid labor	$	866	942
Net income from investment and management	$	3,139	4,531
RATE EARNED ON INVESTMENT		14.3%	14.5%
Return to capital and operator's labor & management	$	3,911	5,274
5% Interest on investment	$	1,156	1,668
Labor and management wage	$	2,755	3,606

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FACTORS THAT AFFECT FARM INCOME

Summary of Farm Business Records in

TABLE V

FACTORS	Cass County Average of 14 farms	Area Average of 30 farms
I. Size of Business		
A. Measures of size		
1. Total acres in farm	198	264
2. Acres in cropland	167	219
3. Total work units needed	335	467
II. Farm Organization		
A. Acres in principal crops		
1. Corn	72	83
2. Oats	26	28
3. Wheat	24	31
4. Alfalfa	15	23
B. Numbers of livestock		
1. All cattle	22	33
2. Milk cows	4	6
3. Litters farrowed	8 (8)	15 (19)
4. Hens	126	180
III. Rates of Production		
A. Crop yields per acre		
1. Corn (bus.)	41	43
2. Oats (bus.)	33	29
3. Wheat (bus.)	24	22
4. Alfalfa (tons)	2.2	2.1
B. Livestock production		
1. Dairy sales per cow	62	81
2. Egg sales per hen	2.40	2.40
3. Pigs weaned per litter	6 (8)	6 (19)
IV. Efficiency in the Use of Feed, Labor, & Equipment		
A. Feed returns per $100 feed fed		
1. All productive livestock	164	165
2. Cattle	119 (12)	132 (18)
3. Hogs	243 (11)	228 (17)
4. Sheep	-	232 (2)
5. Poultry	179 (12)	190 (19)
B. Total labor work units accomplished per man		
1. Crops	231	257
2. Livestock	104	108
3. Crop acres per man	119	143
4. Man labor cost per crop acre	115	121
C. Equipment	6.60	6.67
1. Power and machinery cost per acre cropland	3.67	4.18
V. Miscellaneous		
A. Balance in farm organization		
1. Days productive work		
a. Needed on crops	150	197
b. Needed on livestock	173	260
2. Recpt's from livestock per A.	18.35	23.85
B. Other Factors		
1. Per cent of farm in cropland	84.2	83.0
2. Value of land per acre	78	82
3. Total investment per acre	117	126
4. Gross receipts per acre	26.55	28.59
5. Total expenses per acre	10.72	11.44
6. Net receipts per acre	15.83	17.15

Footnote: Figures in parentheses give number of farms reporting.

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Annual Farm Business Report

Cass, Nemaha, Otoe, and Richardson Counties* 1942

Introduction

Farm business records of cooperating farmers are summarized by areas in 1942. Cass, Nemaha, Otoe, and Richardson counties have been grouped together because these counties are similar in soils, climate, type of farming, and market conditions.

Financial Statement

On the thirty farms reporting, the average cash income in 1942 was approximately one-third higher than average cash expenses. This net cash gain, which is the difference between expenses and income, is the amount of money the farmer and his family have for use after the farm business expenses have been paid. It may be used to pay debts, to buy additional livestock and equipment, to invest in bonds or savings, or for personal enjoyment.

Inventory gains in 1942 almost equaled the cash gains. (Both the net cash income and inventory changes are included in the net farm income.) Inventory gains may be due to an increase in the number of livestock, the amount of grain, feed and other products, or to an advance in prices or to both. In 1942 they were due to both increased amounts and advanced prices. Inventory increases resulting from price advances of farm products or livestock to be used or fed on the farm are less important to the farmer than cash gains. An advance of fifty cents per bushel in the price of corn held for feeding is purely a paper profit. The pounds of beef or pork that can be made by feeding corn does not increase with the price. For this reason farm inventories should be based on conservative values.

The detail of the financial statement is shown in Table I, page 3. "Receipts less expenses" shown near the bottom of this table is the same as the "net gain" shown in the financial summary on page 2. This item includes the net cash gain and the net increase in farm inventories and is not the amount of money available for spending.

"Total unpaid labor" is the cash value of the estimated time of the operator and members of the family spend working on the farm during the year. This was calculated uniformly at $60 per month for 1942.

"Net income from investment and management" is the amount left after wages for labor and all other expenses have been subtracted from receipts.

The "rate earned on the investment" is found by dividing the "net income from investment and management" by the "total capital investment." This will vary somewhat according to valuations of capital investments. A farm with a large amount of capital will not earn as high a rate on the investment as the same farm would with a lower valuation.

"The labor and management wage" is the estimated amount the farm operator receives for his labor and management after all costs of operating the farm have been allowed. These costs include all cash expenses, inventory decreases, unpaid family labor excepting the operator, and a capital charge of 5% on the total investment.

*Footnotes: Acknowledgement is made of the cooperation of the thirty farmers of southeast Nebraska loess soil areas who furnished their records for this report and of the county agents Willard H. Waldo, Cass County; A. H. DeLong, Otoe County; Walter Kriefels, Nemaha County; and Paul S. Schneider, Richardson County.

Groups of Farms

Farms have been grouped according to the total acres per farm in this analysis. There are four different groups in the summary.

1. Farms with 100 to 199 total acres
2. Farms with 200 to 299 total acres
3. Farms with 300 to 399 total acres
4. Farms with 400 or more total acres

With this grouping, the individual can compare his farm with the average of the group that includes his farm. Averages usually show what can be expected in a certain area, but the figures may not fit the individual farm. The enterprises that are important on the individual farm can be compared with the averages of the group. In such a comparison important enterprises of the individual farm should be equal to, or even better than the average of the group if the farmer is to be prosperous.

Factors that Influence Profits

As every farmer knows there are many factors that influence the success of the farm business. Some of these factors can be grouped as follows.

1. Size or volume of business
2. Farm organization
3. Rates of production
4. Efficiency in the use of feed, labor and equipment

Size or Volume of Farm Business

There are several measures of the size of a farm business. In Table II total acres in the farm, number of acres in important crops, total numbers of livestock, and the man work units accomplished by the labor force are used.

Operators on comparatively small farms who wish to increase the volume of their business might be able to do so by having their main crops on the most productive fields and by having more livestock per acre than is kept on large farms.

Efficiency

The rate of efficiency in operating a farm business can be measured in several different ways. The most important of these are the returns for the feed fed to livestock, the work units* accomplished per man, crop acres per man, man labor cost per crop acres and the power and machinery cost per acre of cropland.

Timeliness of all farm operations is considered by successful farmers probably the most essential item of efficiency. The proper timing of all farm operations may mean the success of the farm enterprises. All crops planted in the proper season has great influence on the yield. Machinery and equipment repaired when needed saves expenses. Man labor performed is more efficient and livestock gains more economically when "timeliness" is considered.

*WORK UNITS--A work unit is the average amount of work that can be accomplished by a mature worker in a 10-hour day while using standard equipment and working at an average rate of speed.

Farms 100 to 199 acres

From the table on page 3 it is indicated that farms ranging in size from 100 to 199 acres are valued at $71 per acre which is lower than the average. A good proportion of the land is in the principal crops that have average yields. This group of farms might increase the number of livestock somewhat and yet not have too much to do. Some attention should be given to the quality of livestock, as dairy sales per cow of $54 and egg sales per hen of $2.23 are lower than with any other group. Cows and hens may not be very profitable at such comparatively low cash returns when prices were as favorable as they were in 1942. Receipts from livestock per acre of $16.95 is much lower than the average. This is also further indicated in the gross and net receipts per acre which is below the average of the 30 farms.

Farms 200 to 299 acres in size

Those farms from 200 to 299 acres have a good acreage and average size fields of the principal crops. Income might be increased somewhat by milking more cows and having higher producing cows and more hens. This group of farms seems to have a lot of work to do (411 work units required) and should make every effort count. Pigs weaned per litter of 5 and returns of $118 for each $100 feed fed to cattle are comparatively low, indicating that better care and feeding might be profitable. However, indications are that this group of farms has good average returns for the entire farm. Labor costs per crop acre are lower than the average and power and machinery is apparently handled efficiently. Total receipts per acre are high.

Farms 300 to 399 acres in size

Land values of $101 per acre for this group are higher than the average of all farms. Farms of this size usually can make better use of their equipment and labor than smaller farms. A big acreage and better than average yields for the important crops is shown.

This group received high comparative returns ($190) for each $100 feed fed to all livestock, but they seem to be lower ($205) than any other group on $100 feed fed to hogs, also lower on total receipts from livestock per acre.

Labor and power and machinery cost per acre were lower than other groups and net receipts per acre were higher than any other group.

400 or more acres

The five farms in this group are large farms. These five farms average 132 acres of corn with average yield of 43 bushels per acre. These farmers may be putting corn, the most important crop, on the better ground and growing the minor crops on the poorer soil.

This group of farms are all livestock specialty farms. Hogs and cattle, either beef or dairy are the principal livestock. A large number of hens with low returns indicates some culling would be effective. Dairy sales per cow are high, but two farms of this group have dairy specialty farms which may account for this high return. Although the returns of $156 per $100 feed fed is not as high as in other groups, this group has more total net returns than where the livestock numbers are less.

Work units accomplished per man of 307 in this group show full use of labor, but the expenses for labor and power and machinery per crop acre are higher than in any other group. Net returns per acre, however, are good compared to size of farms.