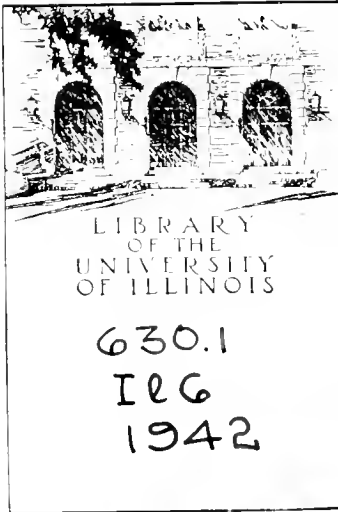
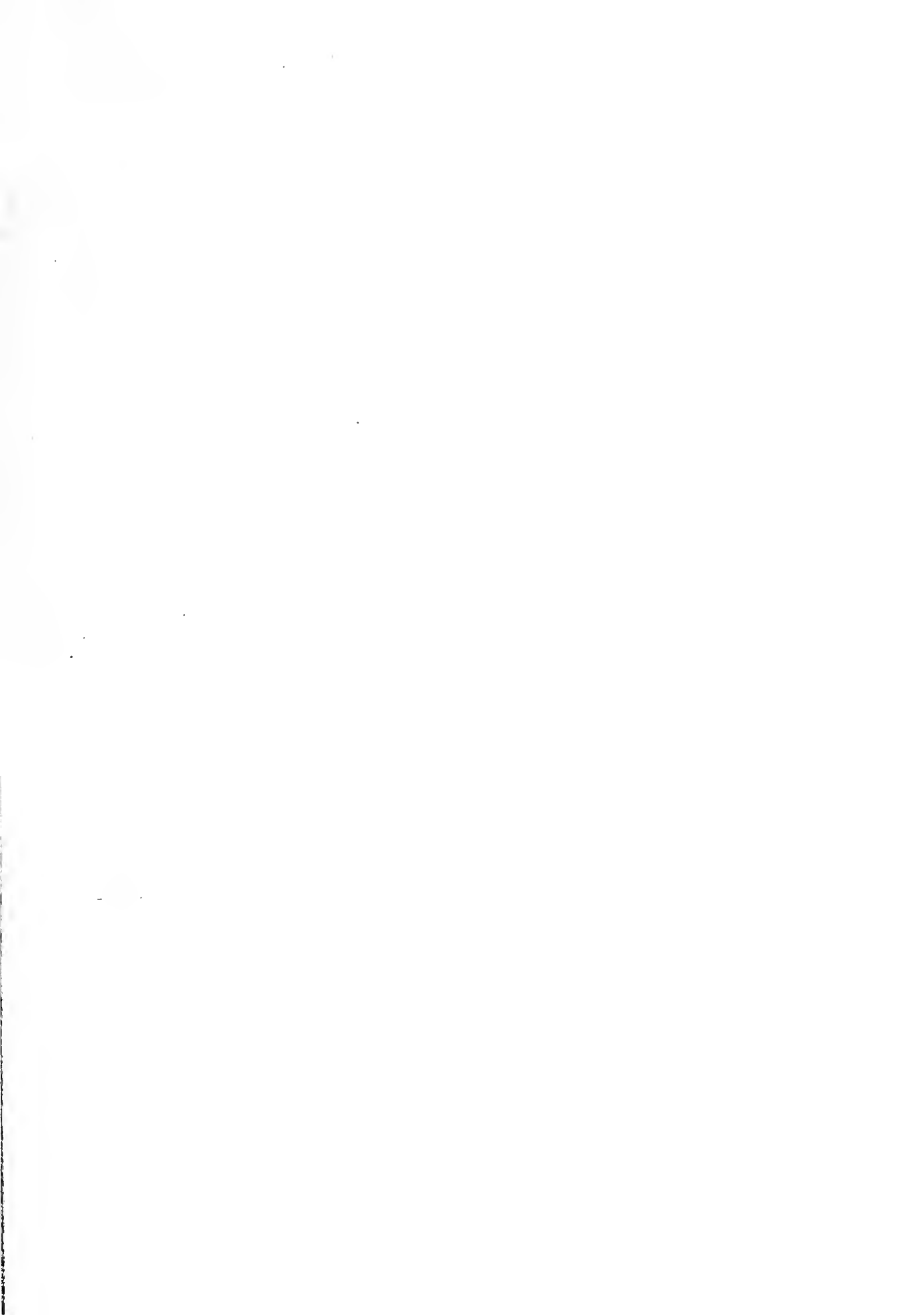


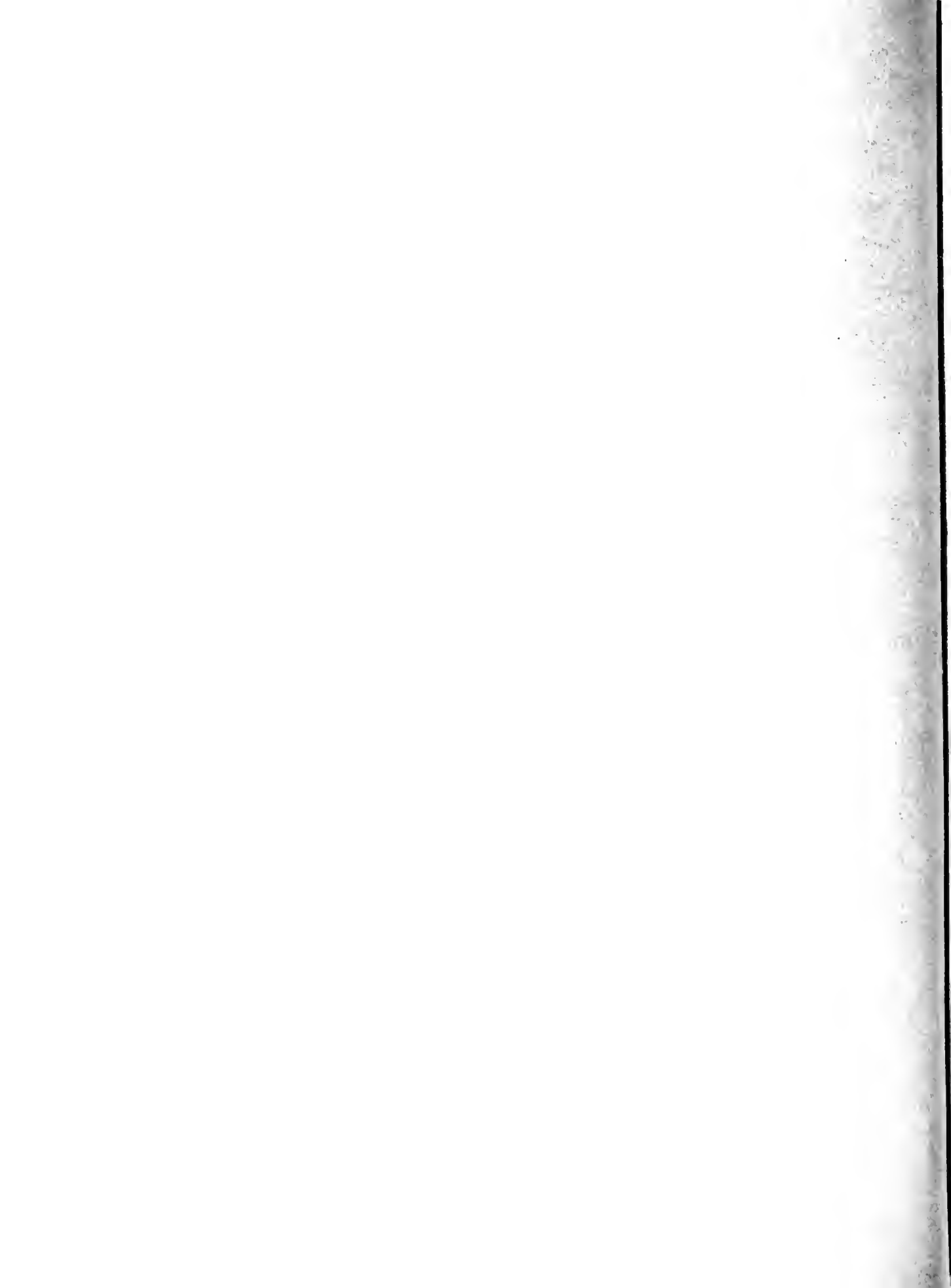
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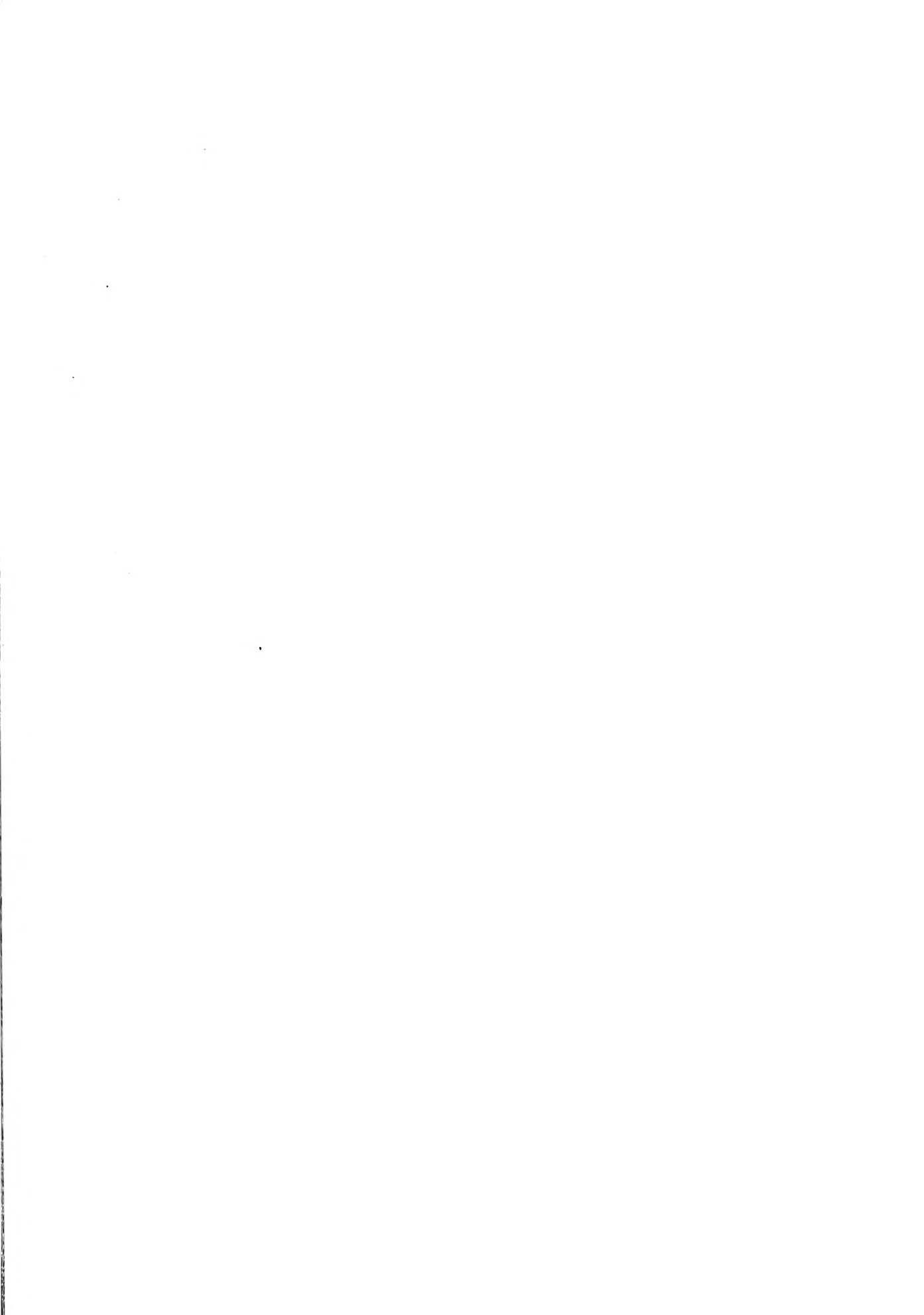


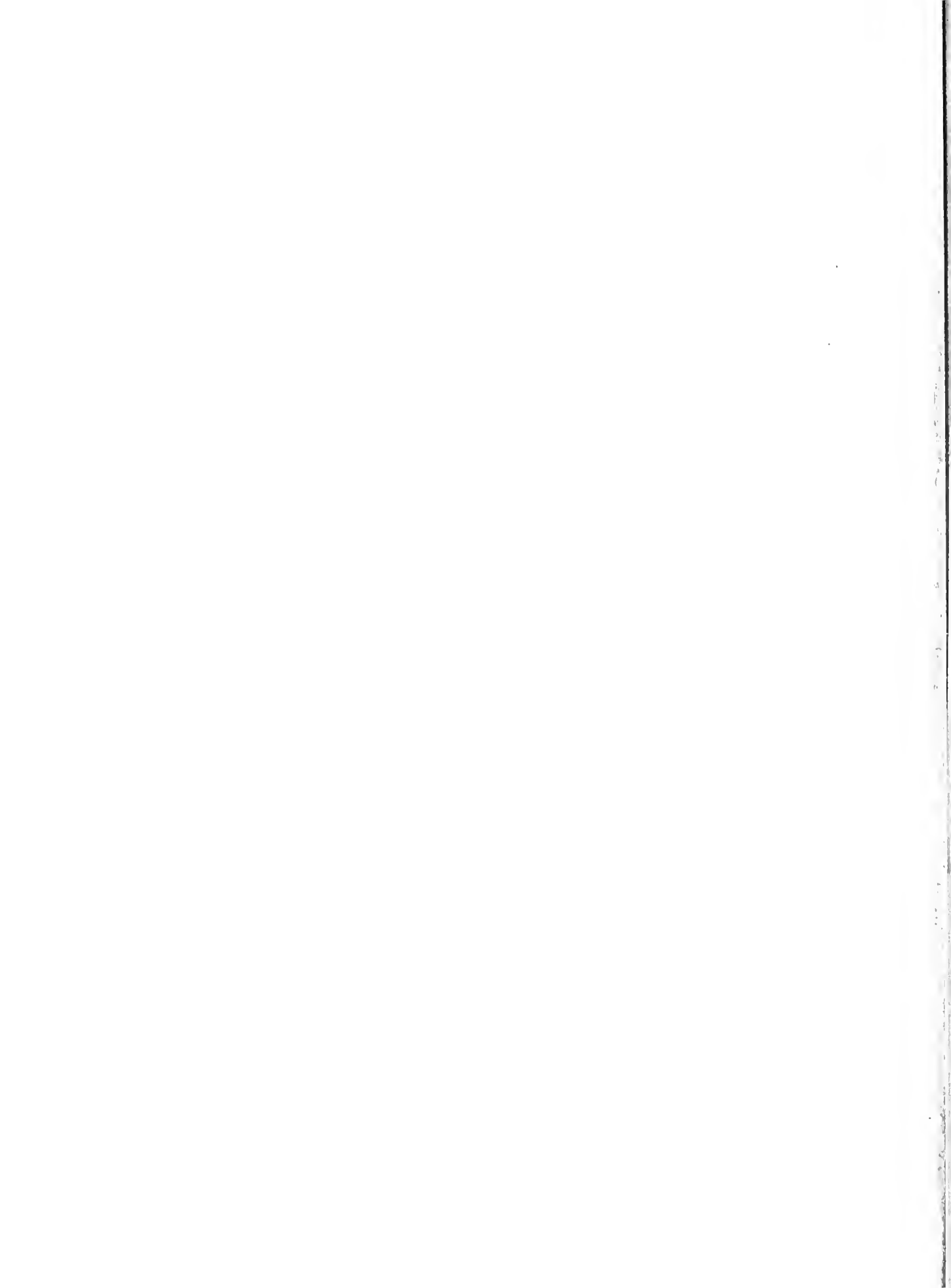
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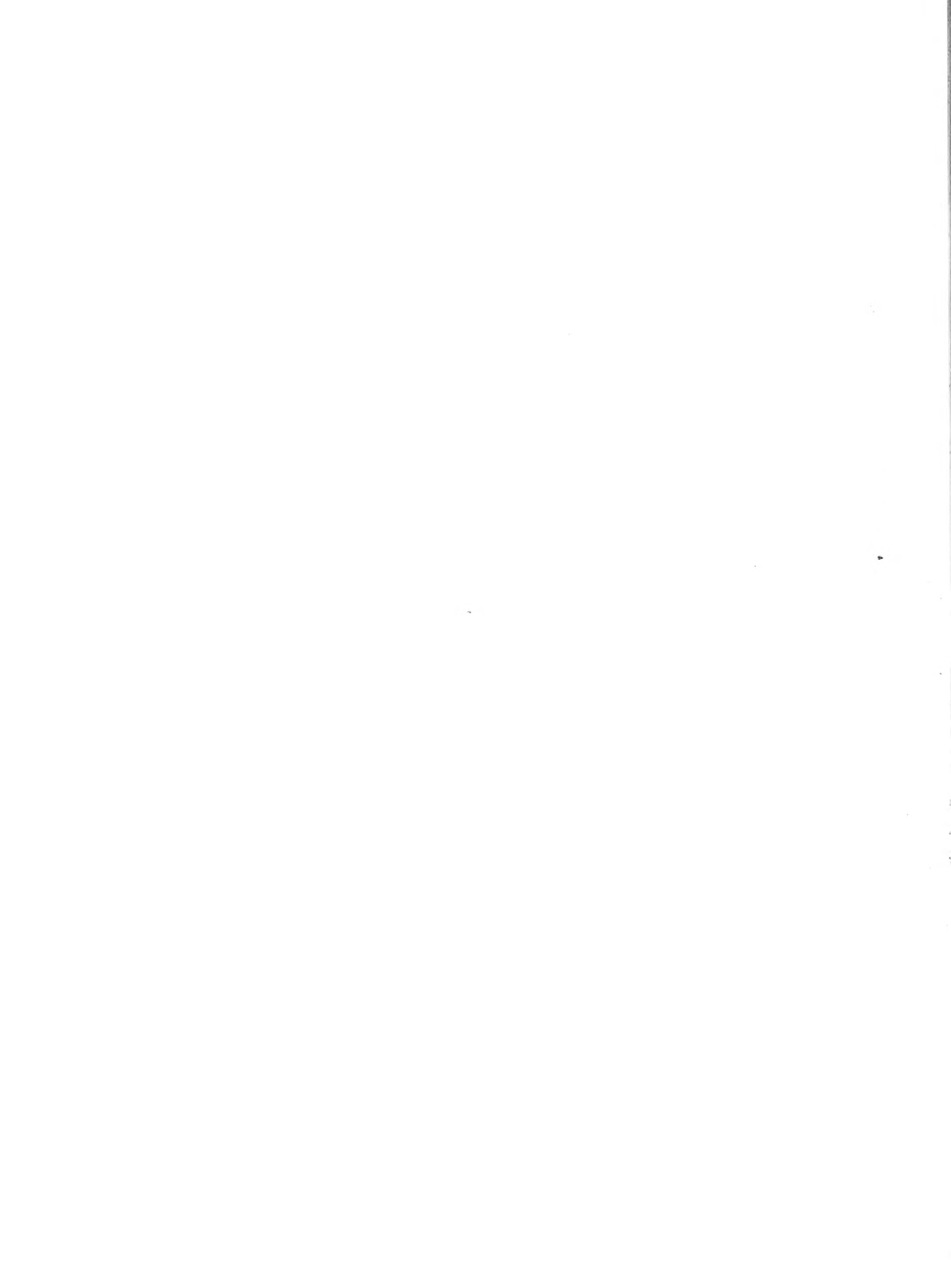
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FARM FINANCIAL RECORDS

Prepared by the Department of Agricultural Economics
of the University of Illinois

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ILLINOIS FARM ECONOMICS

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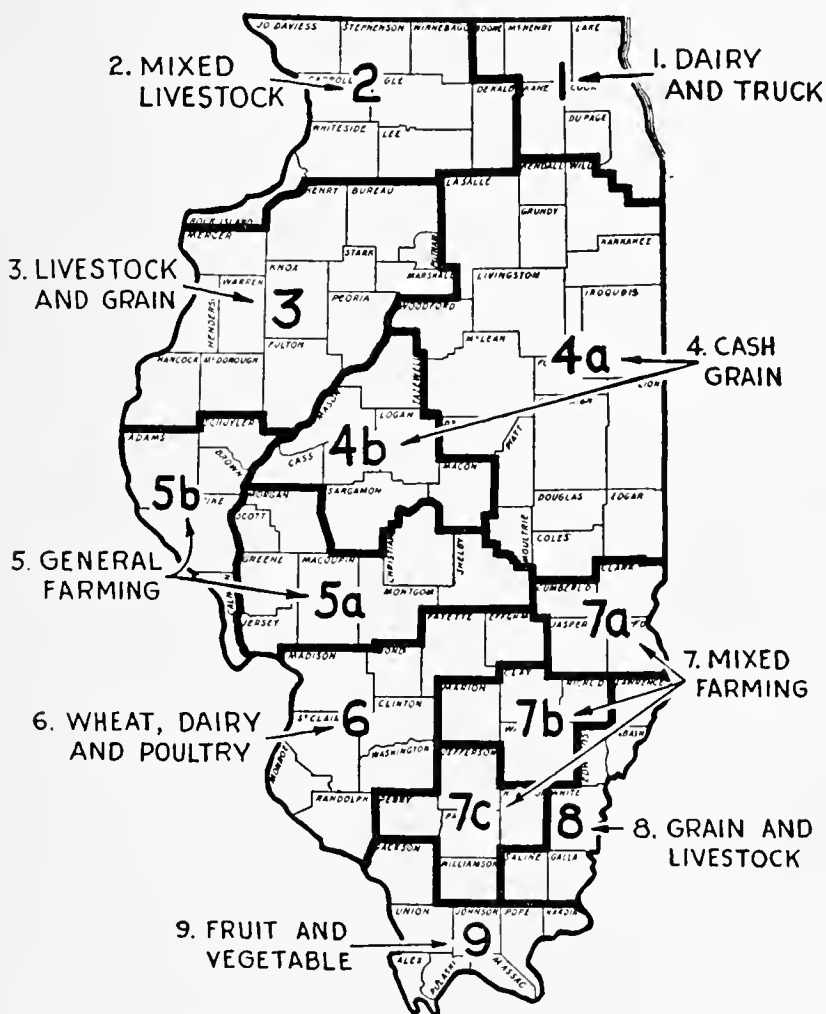
College of Agriculture · University of Illinois · Department of Agricultural Economics

G. L. Jordan, Editor

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Summary of Annual Farm Business Reports of 3,192 Illinois Farms For the Year 1942



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Articles in *Illinois Farm Economics* are based largely upon findings of the Agricultural Experiment Station.

FOREWORD

This issue of *Illinois Farm Economics* is devoted to an analysis of 3,192 farm records which were kept throughout Illinois during 1942. It also includes some comparisons of earnings for 1942 with those of previous years.

Illinois farmers have cooperated with the University of Illinois in keeping financial and production records of their farms for more than 25 years. These records have become more useful as more and more farmers have kept them and as they have been continued over a longer period of years. The greater value from these records is that of helping farmers who keep them to study their own business. As the records are kept over a period of years, they provide a basis for making changes which will improve the farm earnings and enable each individual to compare his farming operations with those of others who are farming under similar conditions.

The Illinois Farm Account Book, if properly used, contains all of the information needed to file an income tax report on the farm business on either the cash or the accrual basis. The record when summarized provides totals which may be transferred to the tax form with a minimum of time and effort.

Another value of the records is that of studying farm earnings from year to year on the same or similar farms as a means of showing the year-to-year changes in the financial condition of farmers. A comparison of the prices of things farmers buy and sell helps to accomplish this purpose, but farming is so complex, with the sources of income and the character of expenses varying widely on farms of different types, that farm records provide the most satisfactory basis for such comparisons.

A fourth value to be gained from the records is that of showing how the investments, incomes, expenses, earnings, yields, and sources of income vary in different parts of the state due to such factors as soil differences, size of farms, type of farming, climatic conditions, and available markets. The records also show the influence of variations within type-of-farming areas in quality of soil, size of farm, and type of organization on crop yields, capital investments, and earnings.

H. C. M. CASE

SUMMARY OF FARM BUSINESS REPORTS OF 3,192 FARMS IN ILLINOIS FOR 1942

J. B. CUNNINGHAM, P. E. JOHNSTON, AND M. L. MOSHER

Farm account cooperators in Illinois responded to the war demand for increased production in 1942 over 1941 by increasing grain acreage 5 percent and livestock production 6.2 percent. In expanding their production the cooperators milked 5 percent more cows, weaned 6.8 percent more pigs, kept 13.8 percent more hens, increased machinery investments 12.3 percent, and used .9 percent more labor.

Farming-type area	Acres of grain crops		Tons of grain produced		Livestock production	
	1941	1942	1941	1942	1941	1942 ^a
Area 1.....	82	90	113	124	\$6 462	\$7 247
Area 2.....	98	104	137	153	6 627	6 853
Area 3.....	124	137	165	187	6 898	7 811
Area 4.....	168	173	206	200	4 227	4 476
Area 5.....	120	123	136	120	5 256	5 372
Area 6.....	91	93	69	61	3 361	3 349
Area 7.....	82	90	64	60	2 746	2 799
Area 8.....	96	106	92	90	2 655	2 822
Area 9.....	66	75	48	48	2 260	2 412
Weighted average.....	117	123	133.6	133.5	\$4 608	\$4 894

^aReceipts and net increases for livestock and livestock products in 1942 were adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm prices for each class of livestock and livestock product.

Despite an increase in the acreage of grain in each area of the state, average grain production for all accounting farms failed to increase because less favorable weather in 1942 than in 1941 caused lower yields of wheat, oats, and soybeans (especially in the south half of the state). Furthermore, in 1941 the accounting farms had already reached a high level of production and hence were nearer a "ceiling" of production, than if they had started at a lower level. For the entire state, however, the crop report shows a higher total grain production for 1942 than for 1941. In 1941, corn yields per acre averaged 62 bushels on the accounting farms and 53 bushels on all farms. The cash income per farm averaged \$8,002 on the accounting farms and \$5,703 on all Illinois farms when adjusted to the same size as the accounting farms. In 1942 the cash income per farm increased to \$10,865 on the accounting farms (an increase of \$2,863) and to \$7,613 (an increase of \$1,910) on all Illinois farms when adjusted to the same size as the accounting farms.

Volume of production on efficient, large-scale farms. The response of the operators of efficient, large-scale farms to the call for maximum production in 1942 is indicated by an analysis of 430 northern Illinois

Farm Bureau Farm Management Service records on the same farms. The average production figures in 1941 and 1942 and the percentage increase were as follows:

<i>Product</i>	<i>1941 volume</i>	<i>1942 volume</i>	<i>Percent increase</i>
Hogs (tons).....	19.1	22.2	16.2
Cattle (tons).....	10.0	9.6	-4.0
Milk (tons).....	24.7	24.8	.4
Eggs (dozens).....	1 335	1 544	15.8
All livestock (value) ^a	\$5 471	\$5 842	6.8
Grain (tons).....	223.1	242.2	8.6

The production per worker on these farms in 1942 was 117.5 tons of grain and 12.2 tons of hogs and cattle.

These farms are located in Areas 2, 3, and 4, where crop yield indexes were higher in 1942 than for the remainder of the state (Fig. 3). Consequently, the increases in grain production were greater than for all accounting farms in the state, but approximately the same as for all accounting farms in the same areas.

Obviously, every farmer, including the operators of small farms, should do his best to increase production during the war period, but those who plan the programs designed to influence production should recognize that a large percentage of the production must come from the large size family farms which are well equipped with machinery and which have efficient operators. Furthermore, it is just as important to maintain high production on farms which have reached a high level of production as it is to increase production on farms with a low level of production.

Net cash income an acre. The average net cash income an acre for accounting farms was higher in 1942 than for any year for which comparable records are available. The average net cash income an acre of \$14.99 for 1942 compared with \$9.91 for 1941, \$7.40 for 1936, \$7.78 for 1929, and an average of \$5.30 for the years 1934, 1935, 1937, 1938, and 1939, when earnings were practically the same for each year (Fig. 1).

The average cash income an acre for Illinois accounting farms was as follows for the successive years 1928-1942:

1928.....	\$6.22	1933.....	\$3.00	1938.....	\$5.25
1929.....	7.78	1934.....	5.40	1939.....	5.40
1930.....	6.22	1935.....	5.14	1940.....	6.82
1931.....	2.69	1936.....	7.40	1941.....	9.91
1932.....	1.47	1937.....	5.33	1942.....	14.99

The net cash income an acre was computed by subtracting the value of unpaid labor from the cash balance for the year and by dividing that difference by the number of acres on the farms. In order to calculate the

^aAll livestock and livestock products were valued at 1930 to 1941 prices to make the figures comparable.

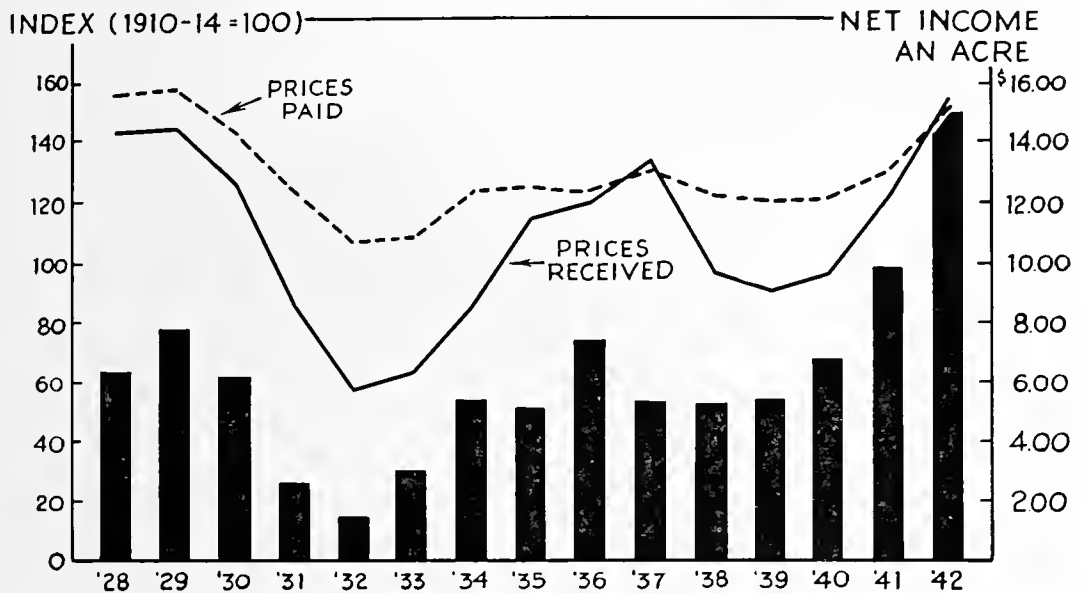


FIG. 1.—AVERAGE NET CASH INCOME AN ACRE (UNPAID LABOR DEDUCTED) ON ILLINOIS ACCOUNTING FARMS, PRICES PAID BY FARMERS IN THE UNITED STATES, AND PRICES RECEIVED BY ILLINOIS FARMERS, 1928-1942

state averages, farming-type area averages were weighted by the acres of land in the farms (census) in each farming-type area.

These returns do not include the inventory changes or the money value of food, fuel, and other items of living, all of which are secured from the farm. The net cash income an acre is one of the best measures for comparing incomes of groups of farms over a period of years, or for contrasting the level of income for different type-of-farming areas, because it is not influenced by changes in the inventory of land. During any period of years, earnings fluctuate more widely from year to year when inventory changes are included, since there are usually inventory losses when prices are declining and inventory increases when prices are rising.

Earnings for World War I and II compared. Were net farm earnings for accounting farms as high in 1942 as in 1917, comparable years

Item	1917	1942
Number of farms.....	19	74
Size of farm, acres.....	214	237
Value of land an acre.....	\$199	\$131
Gross receipts an acre ^a	40.95	46.84
Gross expenses an acre.....	9.31	16.88
Net income an acre.....	31.64	29.96
Rate earned on investment, percent.....	12.8	14.3
Corn yield an acre, bushels.....	51	72

^aThe value of farm products used in the household was excluded from receipts for both years.

in World War I and II? This question can be answered for several individual counties, but not for the state as a whole, because in 1917 farm accounts did not have state-wide coverage.

For accounting farms in Woodford County, for example, net income an acre on an inventory basis was slightly larger in 1917 than in 1942 because in 1917 gross expenses were relatively less in relation to gross receipts than in 1942. The investment per acre in land, however, was much lower in 1942 than in 1917 and as a result the rate earned on investment was 14.3 percent in 1942 as contrasted to 12.8 in 1917. Corn yield per acre, an important factor affecting earnings in Woodford County, averaged 51 bushels an acre in 1917 and 72 bushels in 1942.

Effect of large production and high prices on earnings. Farm incomes were much higher in 1942 than in 1937, years in which price ratios were about the same. In 1937, the ratio of prices received by Illinois farmers to prices paid for supplies was 102 percent of the 1910-1914 ratio, and in 1942, it was 103 percent (Fig. 1).

Why, then, should the net cash income an acre be so much larger in 1942 than in 1937? The answer is simply that, due to the war, the level of both domestic and foreign demand was high in 1942, and farmers had a large supply of salable products because of an accumulation of grain and livestock resulting from six consecutive years of better than average crop yields and from favorable feeding ratios. Such a combination of circumstances is unusual. Therefore, the farmer should be cautious about making long-time commitments based on 1942 net earnings.

We have had years of low volume of sales, as 1937, when prices were high but there was little to sell, and we have had years like 1939 when a large volume of products was sold at relatively low prices. The effect of both of these combinations was a fairly low level of farm incomes. In 1936, a fair volume of products was marketed at good prices, but 1942 was a year when a large volume of products was sold for high prices.

In 1942, with a strong domestic demand resulting from the high incomes of city workers, and with a stronger foreign demand, the large volume of agricultural products was sold at increasing prices. As a result, the average cash income per farm on accounting farms advanced from \$8,002 a farm in 1941 to \$10,865 a farm in 1942. When inventory changes were included, the gross income per farm increased from \$10,084 a farm in 1941 to \$12,427 a farm in 1942, a 24-percent increase. These data indicate that farm incomes increase very rapidly when a rise in price accompanies an increase in production.

Accounting farms represent better than average condition. *The data contained in this report represent Illinois farm conditions which are*

better than average because the accounting farms are larger than average, the crop yields are above average, and the farms on the whole are operated with an efficiency which is greater than average. Records of this type are useful for showing variations in income from year to year and for demonstrating differences between farming-type areas. The variation in income from farm to farm within the groups is shown in Table 3.

The extent to which the volume of production from accounting farms exceeds that from the average of all farms in each farming-type area is indicated by the following data which give the value of farm products sold, traded, or used by farmers in 1939:

Farming-type areas	Value of products per farm	
	All farms	Accounting farms
1.....	\$2 814	\$4 769
2.....	2 666	6 295
3.....	2 741	7 033
4.....	3 156	6 665
5.....	2 088	5 603
6.....	1 391	3 413
7.....	712	2 821
8.....	1 026	3 131
9.....	787	2 632
Weighted average.....	\$2 174	\$5 220

Value of farm products used in the household. In the farm business reports published since 1938, and in the printed tables at the back of this report, the farm value of meat, milk, eggs, and other farm products used in the household was included as a source of income. In comparing the 1938-1942 records with those for other years, the value of farm products used in the household has been omitted because the data are not available for years prior to 1938. The average values per farm and per acre of farm products used in the household for the various farming-type areas are as follows:

VALUE OF FARM PRODUCTS USED IN HOUSEHOLD, 1940, 1941, AND 1942

Area	Per farm			Per acre		
	1940	1941	1942	1940	1941	1942
Area 1.....	\$253	\$279	\$332	\$1.41	\$1.54	\$1.72
Area 2.....	247	276	330	1.17	1.33	1.60
Area 3.....	252	293	366	1.01	1.22	1.47
Area 4.....	236	284	344	.87	1.07	1.34
Area 5.....	244	283	342	.96	1.13	1.36
Area 6.....	250	282	349	1.25	1.32	1.61
Area 7.....	244	292	334	.99	1.18	1.33
Area 8.....	211	267	317	.93	1.21	1.46
Area 9.....	220	278	345	.94	1.20	1.61
State average ^a	\$242	\$284	\$342	\$1.02	\$1.20	\$1.53

^aWeighted by the number of census farms in each area.

TABLE 1.—SELECTED ITEMS OF INCOME AND EXPENSE ON ACCOUNTING FARMS IN ILLINOIS, 1935-1942^a

Item	1935	1936	1937	1938	1939	1940	1941	1942
Acres per farm.....	216	227	227	232	237	242	239	239
Cash income per farm.....	\$4 342	\$5 374	\$5 309	\$5 285	\$5 920	\$6 334	\$8 002	\$10 865
Cash expenditures per farm.....	2 605	3 034	3 424	3 421	4 001	4 094	4 983	6 470
Cash balance.....	\$1 737	\$2 340	\$1 885	\$1 864	\$1 919	\$2 240	\$3 019	\$ 4 395
Inventory increase.....	779	802	727	428	1 117	541	2 082	1 562
Cash balance plus inventory increase	\$2 516	\$3 142	\$2 612	\$2 292	\$3 036	\$2 781	\$5 101	\$ 5 957
Unpaid labor.....	668	740	733	698	696	691	769	1 011
Net farm income.....	\$1 848	\$2 402	\$1 879	\$1 594	\$2 340	\$2 090	\$4 332	\$ 4 946
Gross receipts per acre ^b	\$17.14	\$19.55	\$18.00	\$16.66	\$19.89	\$19.16	\$30.07	\$35.44
Total expense per acre ^c	8.68	9.06	9.86	9.95	10.26	10.47	11.63	14.82
Net receipts per acre ^b	\$ 8.46	\$10.49	\$ 8.14	\$ 6.71	\$ 9.63	\$ 8.69	\$18.44	\$20.62
Net receipts per acre (cash basis)...	\$ 5.14	\$ 7.40	\$ 5.33	\$ 5.25	\$ 5.40	\$ 6.82	\$ 9.91	\$14.99

^aIn this table and in succeeding tables where data are on a farm basis rather than on an acre basis, state averages were obtained by weighting area averages by the number of farms in each area.

^bGross receipts include inventory changes.

^cTotal expense includes unpaid labor.

From the records which are used to analyze the farm business, rental value of the farm residence as well as depreciation and maintenance expenses of the residence are omitted. Thus the accounting for farm buildings agrees with income tax rulings.

Cash income per farm. The average cash income and cash expenditures per farm were larger in 1942 than in any year for which comparable records are available (1926).¹

The average cash balance of \$4,395 for 1942 was over four times as large as the average cash balance of \$968 for 1932, the low-income year

¹Comparable records are available to 1926 and a limited number, to 1916.

TABLE 2.—CASH FARM BUSINESS EXPENDITURES ON ILLINOIS ACCOUNTING FARMS 1936-1942

Nature of expenditures ^a	Average per farm							Percent 1942 is of 1941
	1936	1937	1938	1939	1940	1941	1942	
Land improvements and farm buildings.....	\$ 212	\$ 274	\$ 314	\$ 368	\$ 368	\$ 389	\$ 532	137
Machinery and equipment..	841	956	969	961	1 019	1 335	1 430	107
Feed and grain.....	612	656	471	634	647	947	1 461	154
Crop and sealing expense..	205	276	148	144	152	159	220	138
Hired labor.....	261	306	348	371	369	432	548	127
Taxes.....	231	234	256	272	287	294	302	103
Livestock and miscellaneous	672	722	915	1 251	1 252	1 427	1 977	139
Total cash expenses.....	\$3 034	\$3 424	\$3 421	\$4 001	\$4 094	\$4 983	\$6 470	130

^aTotal for each item of expenditure was determined by weighting the averages of each area by the number of census farms in the area.

of the depression (Table 1). The average cash balance for 1942 was \$1,376 a farm larger than in 1941, but income tax payments made in 1942 for 1941 must be deducted from this sum in order to calculate the increase available for farm family living and savings.

Cash farm business expenditures. Illinois accounting farmers spent more money to run their farms in 1942 than in any year of record (since 1926) and probably established an all-time high because farms are larger now and farmers purchase a higher percentage of the materials used to operate their farms. Expenditures averaged 30 percent larger in 1942 than in 1941 and 113 percent larger in 1942 than in 1936 (Table 2). More money was spent in 1942 than in 1941 for all items, with the largest increases for feed and livestock, and the smallest increases for taxes, machinery, and equipment. The expenditures included both capital and operating items. For instance, outlays for new machinery and repairs as well as gas and oil expenses are included under machinery and equipment.

The average expenditure per farm of \$6,470 in 1942 may be contrasted with an average expenditure of \$1,494 per farm in 1933, the low point for expenditures in the depression period—an increase of 433 percent. This increase reflects changes in the price level, changes in the quantities purchased, and changes in the average size of farm.

Inventory increases. Inventory increases have occurred each year since the depression year of 1932, and these annual increases have ranged from \$428 per farm in 1938 to \$2,082 per farm in 1941. The average annual increase for the 10-year period ending in 1942 was \$902 a farm; for the 10-year period it has totaled \$9,020 a farm.

An inventory increase indicates that the combined value of livestock, grain, improvements, and machinery was larger at the end of the year than at the beginning. The ending inventory of each year is for the same farms as the beginning inventory, but the farms included in the averages for one year are not exactly the same as those for any other year because some old cooperators are dropped each year and new ones are added.¹

The series of inventory increases for a period of 10 years reflects the increase in prices for farm products, heavy investments in improvements and machinery, and an accumulation of grain and livestock following the drouth of 1934. Enough money has been spent for machinery and improvements so that the value per farm on January 1, 1942, was 99 percent larger for machinery and 25 percent larger for improvements than it was in 1934. Earnings were larger during the last 10 years if inventory changes are included than if calculations are made on a cash basis. On the other hand, inventory losses averaged \$866 a year for the 3 years,

¹A high percentage of the cooperators for one year continues for the next.

TABLE 3.—VARIATIONS IN EARNINGS FROM FARM TO FARM BY FARMING-TYPE AREAS, 1942^a

Farming-type area	Level of earnings	Number of farms	Average rate earned on investment	Net earnings per farm	Labor and management earnings
	(rate earned on investment)		(percent)		(per farm)
1	Less than 13.00.....	73	8.8	\$3 441	\$2 142
	13.00 to 16.99.....	40	15.0	5 535	4 442
	17.00 or more.....	42	19.8	7 382	6 280
2	Less than 15.00.....	165	11.1	\$4 295	\$3 137
	15.00 to 19.99.....	141	17.4	6 397	5 354
	20.00 or more.....	178	24.7	7 707	6 960
3	Less than 17.00.....	231	12.7	\$5 307	\$3 989
	17.00 to 21.99.....	170	19.4	8 580	7 142
	22.00 or more.....	179	26.3	10 357	9 156
4	Less than 14.00.....	305	10.6	\$4 400	\$3 079
	14.00 to 17.99.....	176	15.8	7 800	6 117
	18.00 or more.....	182	21.3	9 044	7 705
5	Less than 14.00.....	154	9.5	\$2 810	\$2 089
	14.00 to 18.99.....	91	16.6	5 258	4 467
	19.00 or more.....	107	24.8	7 555	6 847
6	Less than 10.00.....	142	5.1	\$ 999	\$ 731
	10.00 to 14.99.....	83	12.5	2 460	2 190
	15.00 or more.....	95	20.2	3 799	3 588
7	Less than 10.00.....	62	4.4	\$ 646	\$ 462
	10.00 to 14.99.....	17	12.1	2 069	1 820
	15.00 or more.....	68	21.4	3 373	3 208
8	Less than 12.00.....	24	7.8	\$1 195	\$ 936
	12.00 to 19.99.....	37	16.8	2 642	2 463
	20.00 or more.....	31	25.0	4 995	4 617
9	Less than 10.00.....	8	5.1	\$ 660	\$ 545
	10.00 to 19.99.....	12	14.7	1 822	1 749
	20.00 or more.....	8	28.7	3 245	3 319

^aFor a more detailed analysis of variations in earnings, see the 1942 reports for each area.

1930-1932. The cash basis more nearly reflects the ability of the farmer to pay his interest, to buy the things that the family needs, and to add something to the savings than does the method of accounting which includes inventory changes. Inventory changes must be included, however, in order to find the net position of the farm business for the year.

Variations in earnings from farm to farm. Earnings for the farms included in each area vary widely. Much of the farm-to-farm variation is due to the managerial ability of the operators and to the manner in which the farms are organized and operated. The records were grouped for this study into high-, medium-, and low-income farms on the basis of the rate earned on investment. The value of farm products used in the household was included as a farm receipt in this tabulation.¹ The wide variation in rate earned on investment, net earnings per farm, and labor

¹The records for Grundy, LaSalle, Livingston, McLean, Tazewell, and Woodford counties were not available when the averages for Area 4 were calculated.

and management earnings indicates the opportunities which some farmers have for improving the income from their farms because these variations are largely due to factors over which the operator has some control (Table 3).

Prices of important farm products. During 1942, hog prices advanced 25 percent; beef cattle prices, 16 percent; butterfat prices, 38 percent; and corn prices, 21 percent.

The index of all Illinois farm prices averaged 28 percent higher in 1942 than in 1941. The increase for the various groups was as follows: meat animals, 32 percent; dairy products, 18 percent; chickens and eggs, 27 percent; grain, 24 percent; and fruit, 42 percent.

A great deal of the variation in earnings between the different types of farming in Illinois is due to the constantly shifting ratios between the prices of livestock, livestock products, and feeds. During 1942, the index of hog prices was materially higher than that of butterfat. Likewise, the ratio of hog prices to corn prices was much more favorable to the hog feeder than to the dairyman. Therefore, earnings as well as production increased on hog farms in relation to dairy farms.

Farm product	December 15 farm prices		Average yearly farm prices	
	1941	1942	1941	1942
Corn, bu.....	\$.66	\$.80	\$.63	\$.77
Wheat, bu.....	1.14	1.24	.93	1.13
Oats, bu.....	.47	.49	.36	.48
Barley, bu.....	.70	.80	.55	.74
Soybeans, bu.....	1.48	1.59	1.24	1.65
Hay, ton.....	11.40	11.90	8.49	11.32
Horses, head.....	69.00	85.00	68.00	84.00
Hogs, cwt.....	10.70	13.40	9.37	13.37
Beef cattle, cwt.....	10.80	12.50	10.07	11.93
Lambs, cwt.....	10.60	13.70	9.85	12.27
Milk cows, head.....	91.00	120.00	80.00	102.42
Milk, cwt.....	2.50	2.80	2.05	2.42
Butterfat, lb.....	.34	.47	.33	.39
Chickens, lb.....	.15	.20	.15	.19
Eggs, doz.....	.32	.34	.22	.29

In 1942, 17.3 bushels of corn equaled in value 100 pounds of live hog compared with an average of 14.8 bushels in 1941, and an average of 12.8 bushels for 1931-1940. Under favorable feeding ratios, hog production reached record levels in 1941 and continued to expand in 1942. This upward swing may be expected to terminate in 1943.

Variations in supplies. Prices of farm products at inventory time influence farm earnings because all feed, grain, livestock, and other farm property must be valued at the beginning and at the end of the year. The influence is greatest where large stocks are on hand at inventory

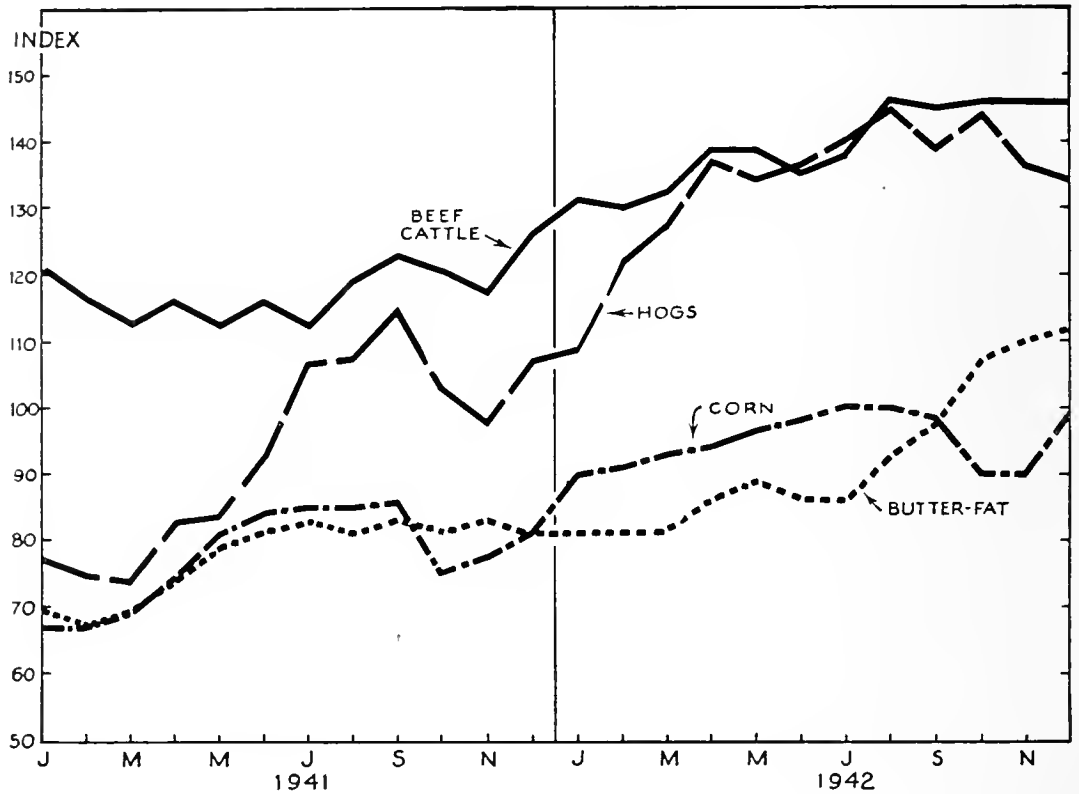


FIG. 2.—INDEXES OF THE AVERAGE MONTHLY ILLINOIS FARM PRICES OF BUTTERFAT, CORN, HOGS, AND BEEF CATTLE, 1941 AND 1942. (1924-1929 = 100)

time. Abundant feed supplies and increasing inventories have characterized the years since the drouth year of 1936. In 1942, the high crop yield resulted in large inventories of feed on most farms. There was an average inventory per farm of 2,937 bushels of corn and 710 bushels of oats on accounting farms on January 1, 1943. This was 119 bushels more corn per farm and 28 bushels less oats per farm than a year earlier. For the state as a whole, the corn reserves on January 1, 1943, were larger than they had been a year earlier. According to the Division of Agricultural Statistics at Springfield, the supplies of the four major grain crops on Illinois farms on January 1, 1942 and 1943 were as follows:

Type of grain	1942 (million bushels)	1943 (million bushels)
Corn.....	333	338
Oats.....	99	90
Wheat.....	9	3
Soybeans.....	17	29

Livestock numbers continued to increase on accounting farms in 1942. The following data indicate the percentage increase in livestock numbers on accounting farms during the calendar years 1941 and 1942:

Type of livestock	Percent of increase		Type of livestock	Percent of increase	
	1941	1942		1941	1942
Milk cows.....	4	1	Brood sows.....	24	13
Beef cows.....	14	3	Spring pigs.....	4	17
Feeder cattle.....	0	4	Summer pigs.....	13	24
Feeder lambs.....	25	-29	Fall pigs.....	23	8

In 1942, 15.3 litters were farrowed per farm on accounting farms, compared with 13.7 litters in 1941, 12.7 litters in 1940, and 12.0 litters in 1939. Most of the increase in 1942 over 1941 was in spring and summer litters.

The increase in beef cows and hogs was general throughout the United States. All cattle numbers and hog numbers were at record levels on January 1, 1943, and marketings of hogs will reach an all-time high this year. Livestock production trends and grain reserves on farms on January 1, 1942 and 1943 indicate that there will be a material reduction in feed supplies in 1943 unless another bumper grain crop is forthcoming.

Crop yields in Illinois, 1942. The year 1942 was the sixth consecutive year of high crop yields in Illinois. The weighted average yield of corn, oats, wheat, and soybeans for 1942 was 128 percent of the 10-year average, 1931-1940 (Fig. 3).

In 1942, yields of the four principal grain crops, as expressed in percentages of the 1931-1940 averages, follow: corn, 143; oats, 127; soybeans, 109; and wheat, 70. Corn yields were higher than the average for the ten years in each of the counties of the state except Cumberland; oat yields were higher in 88 counties including all of the principal oat producing counties of northern Illinois; and soybean yields were higher in all counties except McHenry, Boone, Winnebago, JoDaviess, Shelby, Richland, and Cumberland. Wheat yields, on the other hand, were lower than the 10-year average in 74 counties including all of the principal wheat producing counties of southern and western Illinois.

The variation in crop yields between counties and groups of counties as well as between townships, communities, and even individual farms was greater than usual in 1942 because of rainfall and other climatic differences.

Crop yields, in relation to the 10-year average, were highest in the northeast counties where weather conditions were particularly favorable for all grain crops except soybeans which are grown on a more restricted basis than in the central Illinois counties. The counties with the lowest yields, for the most part, were in an area across the south central part of the state.

Variations in net cash income an acre. The average net cash income per acre for Illinois accounting farms in 1942 varied from \$3.40 in Area 7 to \$20.25 in Area 4 (Table 4).

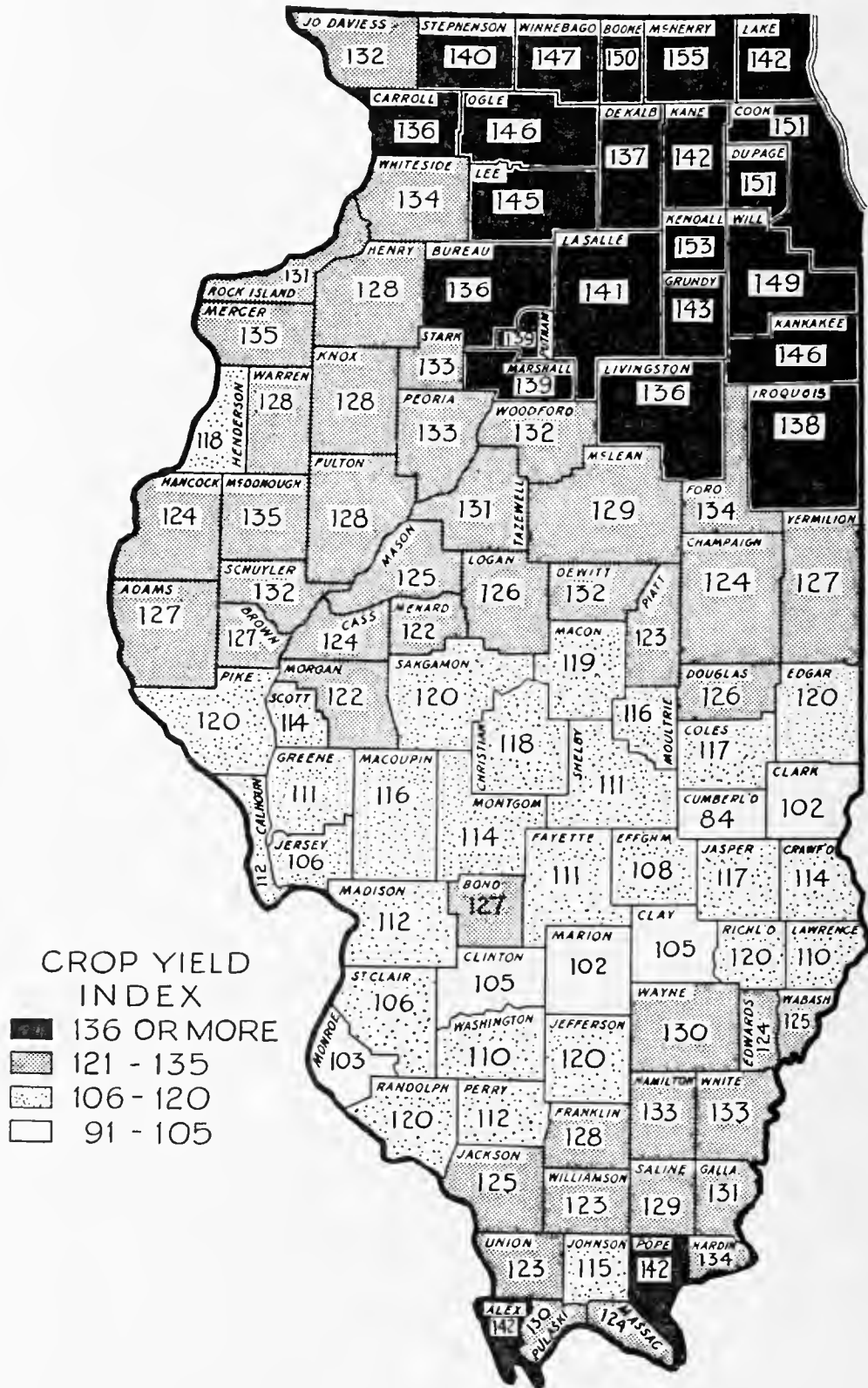


FIG. 3.—CROP YIELDS FOR 1942 COMPARED WITH 10-YEAR AVERAGE YIELDS (1931-1940) FOR THE SAME COUNTY. THE INDEXES ARE BASED ON COUNTY YIELDS OF CORN, OATS, WHEAT, AND SOYBEANS (DATA FROM ILLINOIS COOPERATIVE CROP REPORTING SERVICE)

TABLE 4.—NET CASH INCOME AN ACRE FOR ILLINOIS ACCOUNTING FARMS BY FARMING-TYPE AREAS FOR THE PERIODS 1925-1929 AND 1930-1934 AND FOR THE YEARS 1938, 1939, 1940, 1941, AND 1942

Farming-type areas	1925-1929	1930-1934	1938	1939	1940	1941	1942
Area 1, Chicago Dairy ^a	\$9.59	\$5.25	\$4.97	\$4.04	\$8.66	\$9.05	\$15.71
Area 2, Northwestern Mixed Livestock ^b	7.94	4.92	6.16	5.76	8.71	12.01	16.83
Area 3, Western Livestock and Grain ^b	9.05	4.86	6.88	6.83	8.01	12.49	19.63
Area 4, East-Central Cash Grain ^b	8.91	4.46	6.69	7.08	9.02	13.28	20.25
Area 5, West-Central General Farming.....	6.35	3.23	4.64	4.55	4.68	8.30	13.21
Area 6, St. Louis Dairy and Wheat.....	3.26	2.03	2.84	3.69	4.34	4.82	5.69
Area 7, South-Central Mixed Farming.....	2.21	.91	1.41	1.39	1.81	2.99	3.40
Area 8, Wabash Valley Grain and Livestock.....	4.57	1.73	2.63	4.19	3.11	3.82	7.51
State Average (weighted by acres in each area).....	\$7.13	\$3.74	\$5.25	\$5.40	\$6.82	\$9.91	\$14.99

^aIncludes records from the Farm Bureau Farm Management Service for 1942.

^bIncludes records from the Farm Bureau Farm Management Service for 1938, 1939, 1940, 1941, and 1942.

Net cash incomes were higher in 1942 than in 1941 in all areas. In Area 3, the increase from 1941 to 1942 was \$7.14 or 57 percent, as contrasted to 41c or 14 percent in Area 7, and 87c or 18 percent in Area 6. Crop yields in both 1941 and 1942 were relatively better in Area 3 than in Areas 7 and 6, and the price of hogs advanced more rapidly in 1942 than the price of wheat, dairy products, and poultry products. Hogs are a more important source of income in Area 3 than in Areas 7 or 6, whereas wheat, dairy products, and poultry products are of more importance in Areas 7 and 6 than in Area 3. The net cash income reflects, in part, the crop yields of the preceding year, because a large percentage of grain and livestock sales are from crops harvested during the prior calendar year. The effect of large crop yields in 1941 on net cash earnings in 1942 is apparent in Area 1, where the net cash earnings per acre increased from \$9.05 to \$15.71 or 73 percent.

TABLE 5.—INVENTORY INCREASES BY FARMING-TYPE AREAS, 1942

Farming-type areas	Livestock	Feed and grain	Machinery	Buildings	Land improvements	Total
Area 1.....	\$ 827	\$489	\$ 57	\$232	\$ 83	\$1 688
Area 2.....	1 429	739	147	22	22	2 359
Area 3.....	1 600	792	164	-19	28	2 565
Area 4.....	980	486	178	-9	70	1 705
Area 5.....	840	188	137	7	52	1 224
Area 6.....	329	150	124	-14	40	629
Area 7.....	471	240	97	-8	84	884
Area 8.....	542	379	113	8	64	1 106
Weighted average.....	\$ 919	\$437	\$139	\$ 10	\$57	\$1 562

TABLE 6.—BUSHELS OF CORN AND OATS IN INVENTORIES ON ACCOUNTING FARMS BY FARMING-TYPE AREAS, JANUARY 1, 1942, AND 1943

Farming-type areas	Corn		Oats	
	Jan. 1, 1942	Jan. 1, 1943	Jan. 1, 1942	Jan. 1, 1943
Area 1.....	2 156	2 230	1 011	1 150
Area 2.....	2 776	3 154	987	1 047
Area 3.....	3 988	4 262	844	823
Area 4.....	4 473	4 516	1 153	1 043
Area 5.....	2 505	2 506	498	434
Area 6.....	913	975	356	374
Area 7.....	1 042	1 106	219	210
Area 8.....	1 436	1 714	277	240
Weighted average.....	2 818	2 937	738	710

Inventory changes by farming-type areas. The average inventory increased \$1,562 a farm in 1942. This amount included inventory increases for all the areas and for all the items except buildings in Areas 3, 4, 6, and 7 (Table 5). The inventory increases were largest for livestock and feed and grain, the two items combined accounting for 87 percent of the total inventory increase. The inventory increases for both grains and livestock were the result of increased supplies on hand and higher prices (Table 6).

The increase in inventory of \$139 a farm in 1942 for machinery indicates that farmers were still adding to their equipment, as they had been doing each year since 1935 when earnings reached a level which encour-

TABLE 7.—NET INCOME AN ACRE (INVENTORY BASIS) FOR ILLINOIS ACCOUNTING FARMS BY FARMING-TYPE AREAS FOR THE PERIODS 1925-1929 AND 1930-1934 AND FOR THE YEARS 1938, 1939, 1940, 1941, AND 1942

Farming-type areas	1925-1929	1930-1934	1938	1939	1940	1941	1942
Area 1, Chicago Dairy ^a	\$11.04	\$ 2.64	\$ 8.12	\$ 9.23	\$13.50	\$22.35	\$24.47
Area 2, Northwestern Mixed Livestock ^b	15.11	2.70	8.34	11.45	12.34	23.02	28.26
Area 3, Western Livestock and Grain ^b	10.24	2.84	9.24	13.01	10.66	23.70	29.92
Area 4, East-Central Cash Grain ^b	10.30	2.76	8.66	13.42	9.99	23.85	26.89
Area 5, West-Central General Farming.....	7.69	1.99	6.78	8.79	8.08	17.26	18.08
Area 6, St. Louis Dairy and Wheat.....	5.41	.92	3.71	6.65	6.90	8.95	8.60
Area 7, South-Central Mixed Farming.....	3.34	.55	2.47	3.18	3.36	6.49	6.91
Area 8, Wabash Valley Grain and Livestock.....	5.34	1.20	3.31	5.04	5.22	9.44	12.59
State Average (weighted by acres in each area)...	\$ 8.59	\$ 2.20	\$ 7.14	\$10.33	\$ 9.09	\$18.99	\$21.79

^aArea 1 includes records from the Farm Bureau Farm Management Service for 1942.

^bFor these areas, records from the Farm Bureau Farm Management Service are included for the years 1938, 1939, 1940, 1941, and 1942.

TABLE 8.—PERCENT OF ILLINOIS ACCOUNTING FARMERS RECEIVING AGRICULTURAL CONSERVATION PAYMENTS IN 1942 AND THE PAYMENTS PER FARM AND PER ACRE BY FARMING-TYPE AREAS

Farming-type area	Number of farms	Acres per farm	Percent of farms receiving payments	Payments per farm, all farms	Payments per farm, cooperating farms	Payments per acre, cooperating farms	Taxes per acre, all farms
Area 1.....	155	193	75	\$324	\$433	\$2.24	\$1.54
Area 2.....	484	206	62	326	525	2.55	1.36
Area 3.....	580	249	82	582	706	2.83	1.47
Area 4.....	1 034	257	79	592	746	2.90	1.58
Area 5.....	352	251	72	331	457	1.82	1.26
Area 6.....	320	216	83	235	283	1.31	.86
Area 7.....	147	251	82	188	229	.91	.67
Area 8.....	92	218	84	307	367	1.68	.92
Area 9.....	28	214	89	202	227	1.06	.78

aged the purchase of new equipment. For the most part, purchases of machinery were made early in the year before rationing started.

The \$57 increase in the inventory of land improvements is significant because it indicates relatively large purchases of limestone and rock phosphate. Average building values increased only \$10 because of governmental restrictions on new construction.

Variations in net income an acre with inventory changes included. When inventory changes were included, the average net income an acre on Illinois accounting farms was 15 percent higher in 1942 than in 1941 (Table 7). This increase of 15 percent with inventories included is in contrast with a 51-percent increase on the cash basis. The net income an acre for 1942 was \$5.00 larger on the inventory basis than on the cash basis. Incomes have been larger on the inventory basis than on the cash basis for all years since 1925, with the exceptions of 1930, 1931, and 1932.

Net incomes an acre, on the inventory basis, were higher in 1942 than in 1941 in all areas of the state except in Area 6. The range in net income per acre was from \$6.91 in Area 7 to \$29.92 in Area 3.

Income from agricultural conservation payments. Cash farm incomes of accounting farmers in 1942 included government payments which were received during the accounting year for participation in agricultural conservation programs. In a few cases, delayed payments for 1941, as well as payments for 1942, were included. Of the 28 farms in Area 9, 89 percent received payments (Table 8).

The percent of farms receiving payments in other areas ranged down to 62 in Area 2. The largest payments per farm and per acre were in the areas with the highest investments an acre, Areas 1, 2, 3, and 4. In all the areas, the payments an acre far exceeded the taxes an acre.

Standards for Measuring Operating Efficiency

Farm account studies have repeatedly shown the principal factors affecting relative earnings to be land use, crop yields, amount of livestock, livestock efficiency, labor cost, machinery cost, and prices received for things sold. They have also shown the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the kinds and amounts of feed fed as well as the returns for feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of products produced affect the relative profitability of various types of farming for any particular year.

With the foregoing facts in mind, 2,079 farms in Areas 2, 3, 4, and 5 were sorted into groups as indicated in Figures 4, 5, and 6 and in Tables 9 and 10. Similar figures and tables for each of the nine major type-of-farming areas of the state can be found in the area reports for 1942. These reports are available upon request and may be used by any farmer who keeps records to analyze his efficiency.

The terms used in the various figures and tables are the same as those used in the Illinois Farm Account Book. For example, "improved land," a term that is used in Figure 4, means tillable land and land occupied by farmstead, roads, and orchards.

Crop yields. Figure 4 shows the effect of quality of land (expressed as value an acre) on yields of corn, oats, wheat, and soybeans. Land valued at \$40 an acre produced about 44 bushels of corn, 30 bushels of oats, 13 bushels of wheat, and 16 bushels of soybeans; land valued at \$140 an acre produced about 73 bushels of corn, 45 bushels of oats, 17 bushels of wheat, and 25 bushels of soybeans. The differences in acre-yields between \$40 land and \$140 land are as follows: corn, 29 bushels; oats, 15 bushels; wheat, 40 bushels; and soybeans, 9 bushels.

Such variations are significant, but the fact should be kept in mind that they apply only to the conditions which prevailed in 1942. Wheat yields may be higher or lower in relation to corn yields in years with growing conditions different than those in 1942. Data of this type are valuable because they enable farmers to compare the yields on their own farms with those on farms having a similar quality of land.

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

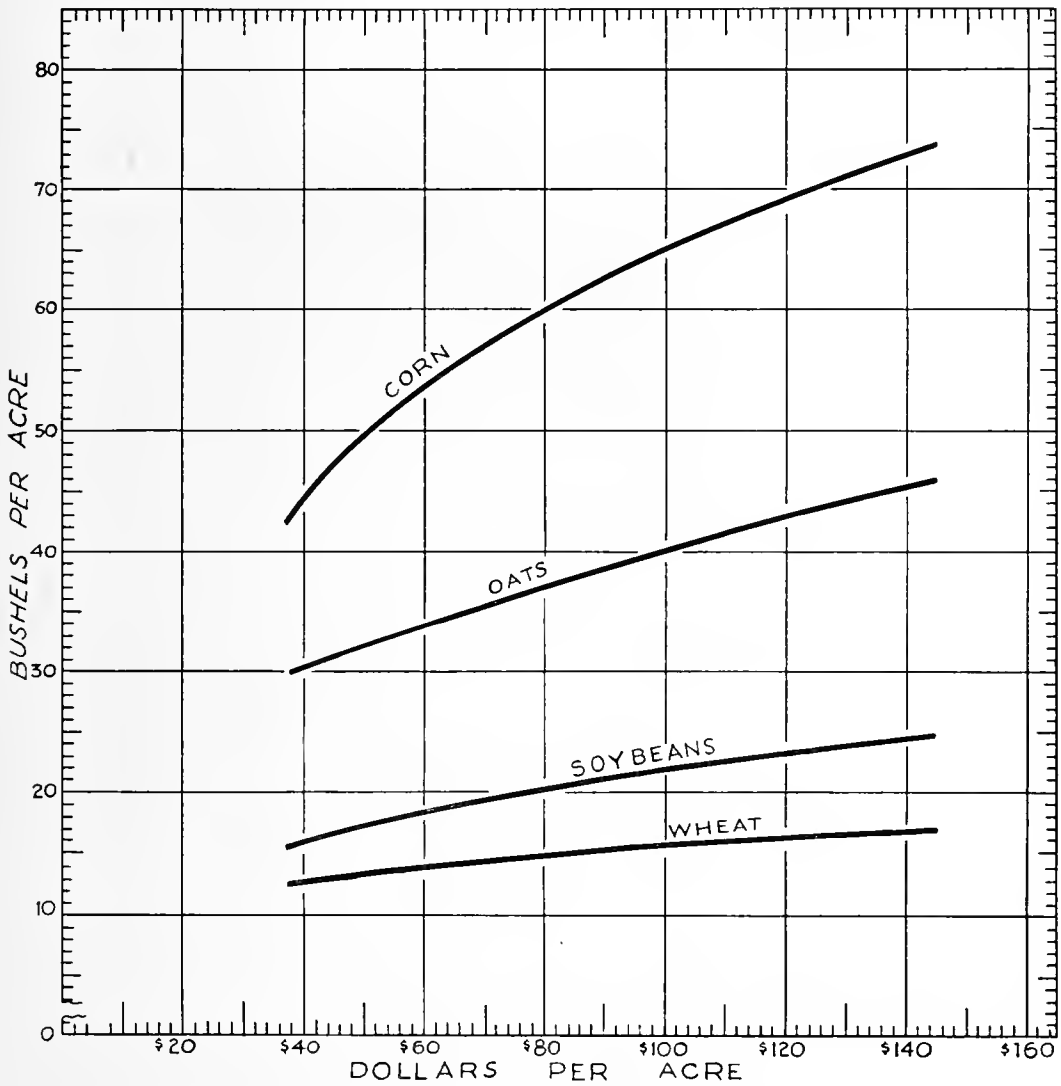


FIG. 4.—AVERAGE YIELDS OF CORN, OATS, WHEAT, AND SOYBEANS WITH VARYING VALUES OF IMPROVED LAND, FARMING-TYPE AREAS, 3, 4, AND 5, 1942

Each farmer, however, should use caution in interpreting the data in Table 9. For example, the fact that hog farms showed the largest rate earned on the investment for 1942 and that dairy farms showed the smallest does not mean such a relationship will prevail over a long period of years. The relative profitableness of these enterprises in 1942 was influenced by conditions affecting price and production.

In 1940, the rate earned on investment was largest for cattle farms and smallest for hog farms, as indicated by the following: grain farms, 7.6 percent; dairy farms, 6.8 percent; hog farms, 6.4 percent; cattle farms, 8.2 percent; general farms with more than 60 percent of the income from livestock, 7.1 percent; general farms with less than 60 percent of the income from livestock, 7.0 percent. The change in the relative earnings

TABLE 9.—SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS FOR 2,079 ACCOUNTING FARMS IN FARMING-TYPE AREAS 2, 3, 4, AND 5, 1942

Item	Source of income					
	Grain 40% +	Dairy sales 40% +	Hogs 40% +	Cattle 40% +	General farms	
					L.S. 60% -	L.S. 60% +
Number of farms	436	66	971	124	115	367
Percent of income from prod. l.s.	34.8	85.7	90.2	93.6	54.5	83.2
Percent of income from crops	56.4	5.5	2.1	.....	34.7	8.2
Investments						
Total per farm	\$43 760	\$27 916	\$36 533	\$65 156	\$38 951	\$37 194
Total per acre	161	156	155	189	155	158
Land per acre	108	81	89	101	97	91
Land improvements per acre	2	2	3	4	3	3
Buildings per acre	14	25	17	20	15	18
Machinery per acre ^a	11	13	11	11	11	11
Earnings						
Per farm						
Gross earnings	\$10 289	\$ 7 162	\$10 469	\$16 968	\$ 9 644	\$ 9 690
Gross expenses ^b	3 715	3 979	3 889	7 312	3 709	3 833
Net earnings	\$ 6 574	\$ 3 183	\$ 6 580	\$ 9 656	\$ 5 935	\$ 5 857
Per acre						
Gross earnings	\$ 37.91	\$ 39.32	\$ 44.54	\$ 49.10	\$ 38.51	\$ 40.96
Gross expenses ^b	13.68	21.48	16.55	21.01	14.89	16.27
Net earnings	\$ 24.23	\$ 17.84	\$ 27.99	\$ 28.09	\$ 23.62	\$ 24.69
Rate earned on investment (percent)	15.1	11.3	18.1	14.9	15.2	15.6
Labor and management earnings	\$ 5 158	\$ 2 580	\$ 5 530	\$ 7 158	\$ 4 789	\$ 4 765
Size and Intensity						
Acres per farm	272	184	237	350	249	236
Percent of land area tillable	89.8	82.3	82.4	84.0	85.7	83.8
Percent tillable land in grain	77.5	58.2	66.6	65.5	71.9	66.5
Percent in hay and pasture	20.6	37.7	31.0	30.2	25.4	30.1
Feed fed per acre to prod. l.s.	\$ 7.74	\$ 18.67	\$ 22.49	\$ 31.73	\$ 11.71	\$ 19.74
Months of labor per 100 crop A.	9.9	21.3	14.9	12.3	12.2	14.7
Total months of labor	20.9	24.4	22.8	28.3	21.7	23.2
Crop Yields per Acre						
Corn, bu.	66.3	55.9	66.2	72.5	65.5	64.6
Livestock Returns						
Per \$100 feed fed	\$182	\$187	\$184	\$147	\$188	\$179
Hog returns per litter	193	200	215	196	215	203
Dairy returns per cow	111	194	114	97	127	138
Expense Factors						
Labor cost per crop acre ^b	\$ 6.93	\$ 14.56	\$ 10.63	\$ 9.38	\$ 8.61	\$ 10.59
Horse and machinery cost per crop acre	6.44	10.16	8.19	8.20	7.35	8.16
Land improvements cost per acre . . . . .	.56	.68	.68	.82	.53	.67
Buildings cost per acre	1.04	1.54	1.36	1.52	1.29	1.40
Land tax per acre	1.36	1.10	1.22	1.25	1.24	1.21

^aMachinery includes farm share of automobile.

^bExpenses include operator's and family's labor.

of hog farms from 1940 to 1942 clearly reflects the increase in the average price of hogs from \$5.54 to \$13.37.

The following data indicate the average rate earned on investment for the 10-year period, 1926-1935, for farms from the same area grouped ac-

ording to source of income: farms with over 60 percent of their incomes from grain, 4.0 percent; farms with 40-59 percent of their incomes from grain, 3.6 percent; hog farms, 2.8 percent; cattle farms, 3.5 percent; dairy farms, 2.8 percent; and mixed-income farms, 3.1 percent. On the basis of earnings on accounting farms for the past 15 years, the grain farms in Areas 2, 3, 4, and 5 have shown higher current returns than have livestock farms. In these records, no charge was made for fertility losses, and no inference is intended concerning the results if these systems are followed for another 15-year period. The mechanization of farms in this area in recent years has reduced the cost of producing grains more than the cost of producing livestock and livestock products.

When comparing the returns on the various groups of farms per \$100 worth of feed fed, one should consider the fact that the necessary returns per \$100 worth of feed fed to pay for feed (including pasture), labor, equipment, buildings, and other costs vary widely. According to 5-year averages of complete cost studies (1933-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

Furthermore, when comparing crop yields for the various types of farming, one should note the following items which indicate that the grain farms were located on the better land: (1) high value of land per acre; (2) larger percent of land area tillable; (3) large percent of land in grain; and (4) high land tax per acre.

Differences in expenses are highly significant for the 6 groups of farms. Labor input per 100 crop acres was highest on the dairy farms, where 21.3 months of labor were used, and lowest on the grain farms, where 9.9 months of labor were used. The dairy farmers evidently utilized a large amount of labor to increase the size of their businesses without increasing the size of their farms.

The labor cost per crop acre ranged from \$14.56 on the dairy farms to \$6.93 on the grain farms; the horse and machinery cost per crop acre was highest on the dairy farms, where it averaged \$10.16, and lowest on the grain farms, where it averaged \$6.44; the building cost per acre averaged \$1.54 on the dairy farms and \$1.04 on the grain farms.

Labor, horse and machinery, and improvement costs were higher for all sources of income groups in 1942 than in 1941; labor cost per crop acre, for example, was 21 percent higher on the grain farms in 1942 than in 1941.

Size of farm. When the farm records in Farming-Type Areas 2, 3, 4, and 5 are sorted according to the total acres in the farm, they indicate that the operators on the largest farms took in more money during the year than did those on the smallest ones; and after deductions were made for farm business expenditures and interest on the investment, the 141

TABLE 10.—SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS FOR 2,079 ACCOUNTING FARMS IN FARMING-TYPE AREAS 2, 3, 4, AND 5, 1942

Item	Total acres in farm					
	Less than 121	121 to 200	201 to 280	281 to 360	361 to 440	441 or more
Number of farms.....	233	749	533	294	129	141
Acres per farm.....	103	166	242	322	397	577
Investments						
Total per farm.....	\$17 621	\$27 721	\$38 771	\$50 815	\$61 443	\$84 630
Total per acre.....	171	167	160	158	155	147
Land per acre.....	96	97	97	97	95	88
Land improvements per acre..	4	3	3	3	3	3
Buildings per acre.....	22	19	17	16	15	14
Machinery per acre ^a	14	13	11	10	10	9
Earnings						
Per farm						
Gross earnings.....	\$ 5 035	\$ 7 497	\$10 225	\$12 734	\$15 457	\$20 891
Gross expenses ^b	2 299	3 009	3 745	4 585	5 365	7 176
Net earnings.....	\$ 2 736	\$ 4 488	\$ 6 480	\$ 8 149	\$10 092	\$13 715
Per acre						
Gross earnings.....	\$ 48.92	\$ 45.14	\$ 42.25	\$ 39.56	\$ 38.87	\$ 36.30
Gross expenses.....	22.31	18.12	15.48	14.24	13.50	12.49
Net earnings.....	\$ 26.61	\$ 27.02	\$ 26.77	\$ 25.32	\$ 25.37	\$ 23.81
Rate earned on investment (percent).....	15.6	16.2	16.8	16.0	16.4	16.3
Labor and management earnings.....	\$ 2 613	\$ 3 877	\$ 5 323	\$ 6 386	\$ 7 800	\$10 277
Size and Intensity						
Percent of land area tillable...	88.2	87.1	85.6	83.9	81.1	80.7
Percent tillable land in grain..	65.8	68.3	70.1	70.0	71.0	68.9
Percent in hay and pasture....	31.0	29.3	27.5	27.3	25.8	27.5
Feed fed per acre to prod. l.s....	\$ 22.56	\$ 19.74	\$ 17.58	\$ 16.88	\$ 16.34	\$ 16.51
Percent of income from prod. l.s.	82.6	77.2	73.4	72.0	71.9	74.2
Percent of income from crops..	7.2	13.6	18.4	20.0	20.8	18.4
Months of labor per 100 crop A.	21.6	16.2	13.4	11.9	11.3	10.0
Total months of labor.....	15.6	18.9	22.4	26.4	29.6	37.0
Number of work horses.....	2.1	2.6	2.9	3.1	3.5	4.1
Crop Yields per Acre						
Corn, bu.....	66.9	65.9	65.6	65.9	66.8	65.9
Livestock Returns						
Per \$100 feed fed.....	\$190	\$187	\$184	\$177	\$174	\$166
Hog returns per litter.....	195	207	213	212	210	214
Dairy returns per cow.....	125	130	127	124	128	117
Expense Factors						
Labor cost per crop acre.....	\$ 14 83	\$ 11.34	\$ 9.50	\$ 8.45	\$ 8.42	\$ 7.44
Horse and machinery cost per crop acre.....	9.40	8.31	7.66	7.36	7.09	6.87
Land improvements cost per acre.....	.83	.69	.62	.65	.61	.62
Buildings cost per acre.....	1.71	1.41	1.29	1.17	1.17	1.14
Land tax per acre.....	1.33	1.31	1.27	1.24	1.24	1.17

^aMachinery includes farm share of automobile.

^bExpenses include operator's and family's labor.

largest farms had labor and management earnings which averaged \$10,277, contrasted with \$2,613 for the 233 smallest farms. The latter had higher investments an acre for improvements, machinery, and total investment, indicating a higher capital input. The rate earned on investment was practically the same for all size groups, but there was a slight increase from the smallest farms up to the size ranging from 121 to 200 acres.

For the 10-year period, 1926-1935, the average rate earned on investment (value of farm products used in the household excluded) for accounting farms by size groups in Areas 3, 4, and 5 was as follows: 0-99 acres, .8 percent; 100-139 acres, 2.0 percent; 140-179 acres, 2.6 percent; 180-219 acres, 2.8 percent; 220-259 acres, 3.0 percent; 260-299 acres, 3.5 percent; 300-339 acres, 3.4 percent; and 340 acres and over, 3.3 percent. In recent years, the rate earned on investment increased as the size of farm increased to about 300 acres, declined slightly for farms ranging from 300 to 400 acres, and increased again for farms ranging from 400 to 600 acres. Those farms that are too large for one tractor but not large enough for two seem to be an awkward size.

In 1942, the smallest farms were operated more intensively than were the largest ones. This variation was indicated by the higher gross earnings an acre, by the larger labor and capital input an acre, and by the larger value of feed fed an acre to productive livestock.

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their businesses by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and horse and machinery expenses. The effect of the amount of feed fed an acre to productive livestock on labor and horse and machinery cost per crop acre is shown graphically in Figures 5 and 6.

Four significant things are apparent in these charts: (1) The costs per crop acre increased as the size of the farms decreased; (2) the costs increased as the amount of feed fed per acre increased; (3) the costs decreased much more rapidly when the size of farms increased from 120 acres or less to 201-360 acres than when they increased from 201-360 to 360 acres, or more (this situation is explained in part by the fact that dairy cattle and poultry predominate on the smaller farms and that beef cattle predominate on the larger farms); (4) the costs increased rapidly as the feed fed an acre increased from \$5 to about \$15 an acre; and (5) the costs increased at a less rapid rate but more uniformly from \$15 to \$35 an acre, especially for farms in the larger size groups.

Farmers who know what their cost for labor and for horse and machinery expense per crop acre was in 1942 will find that these data contain a basis for comparing their expenses with averages for other farms of the same size and with the same intensity of livestock.¹

¹Data for other areas of Illinois are available in the area reports for 1942.

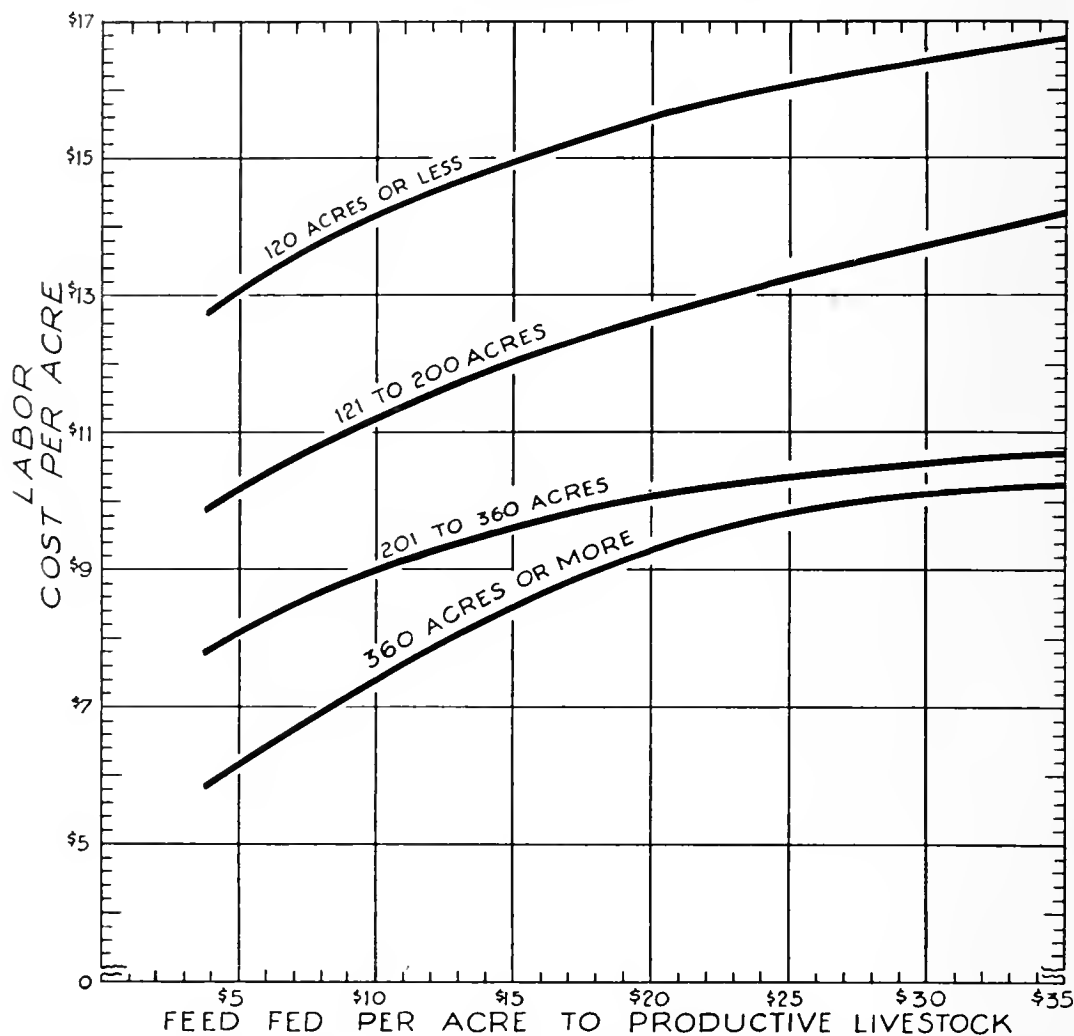


FIG. 5.—LABOR COST PER CROP ACRE FOR FARMS OF VARYING SIZE AND WITH VARYING AMOUNTS OF FEED FED TO PRODUCTIVE LIVESTOCK, FARMING-TYPE AREAS 2, 3, 4, AND 5, 1942

Variations by Farming-Type Areas

The data in Tables 11 and 12 indicate a wide range of farming conditions in Illinois and afford ample evidence of the need for grouping counties by farming-type areas. They show a range in size from 193 acres in Area 1 to 257 acres in Area 4 and an average investment per farm varying from \$12,253 in Area 9 to \$46,695 in Area 4.

Crop yields varied from area to area with the productivity of the soil and with the weather conditions. The relative proportion of income from grain, hogs, cattle, dairy, and poultry varied according to feeds available, markets, labor, and other factors. Expenses per crop acre for labor and for horses and machinery varied with the size of farm, the amount and kind of livestock, the wages for labor, and the type of equipment.

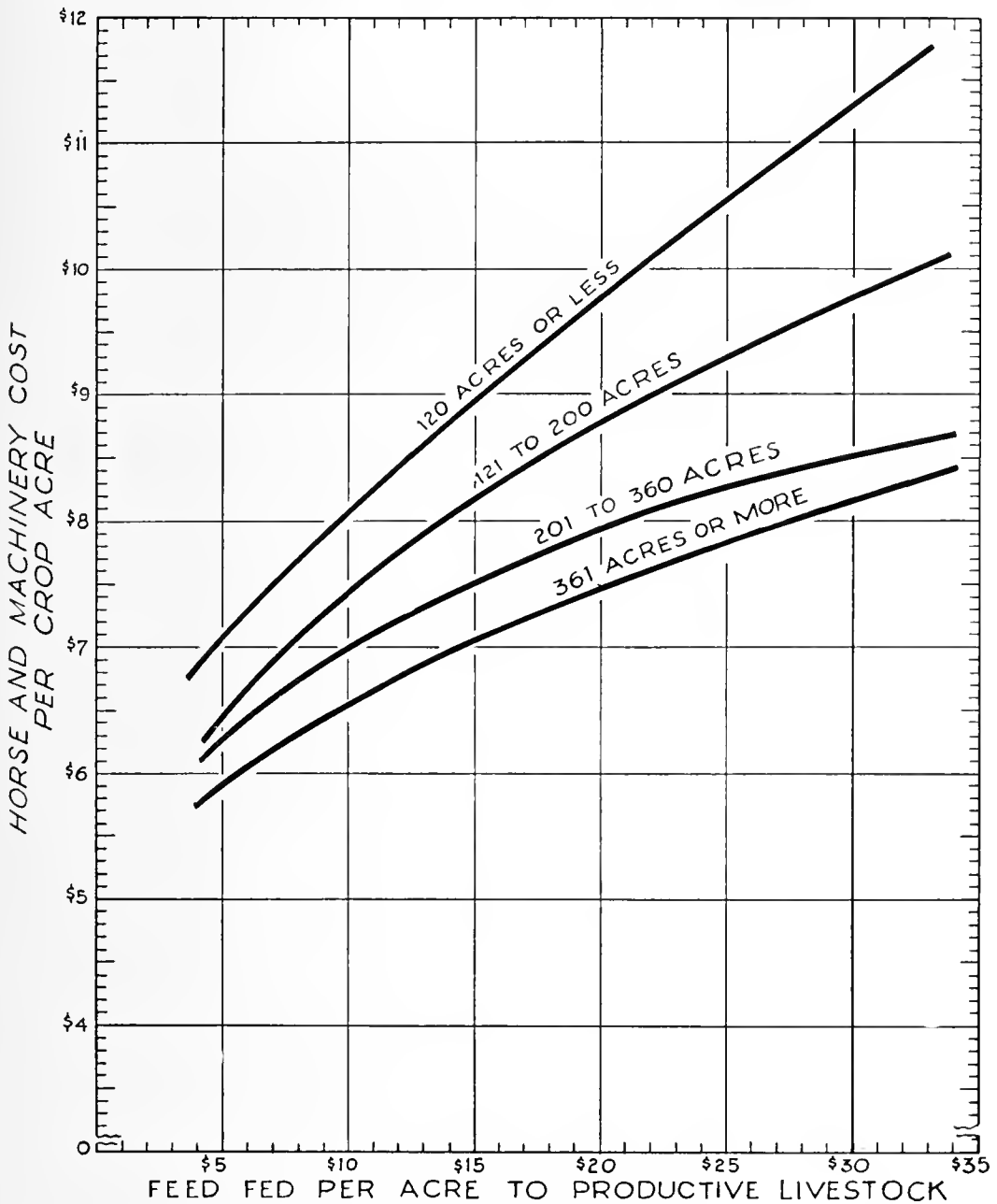


FIG. 6.—HORSE AND MACHINERY COST PER CROP ACRE FOR FARMS OF VARYING SIZE AND WITH VARYING AMOUNTS OF FEED FED TO PRODUCTIVE LIVESTOCK, FARMING-TYPE AREAS 2, 3, 4, AND 5, 1942

Data for Counties and Groups of Counties

Averages were calculated for each county with 30 or more records and for groups of counties with less than 30 records. These averages are arranged in Table 13 according to farming-type areas. The averages for Area 1 are given at the front of the list, and those for Area 9 at the end of it.

TABLE 11.—INVESTMENTS, CASH RECEIPTS, CASH EXPENSES, AND INVENTORY CHANGES
AVERAGES PER FARM BY FARMING-TYPE AREAS, 1942

Item	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
Capital Investment, Total.....	\$38 020	\$35 432	\$41 697	\$46 695	\$30 352	\$19 334	\$15 522	\$17 104	\$12 253
Land.....	17 505	18 418	24 045	29 673	17 319	9 899	8 091	9 384	5 777
Land improvements.....	666	743	890	804	670	472	592	502	629
Farm buildings.....	7 199	5 231	4 339	4 510	3 066	2 539	1 711	1 744	1 522
Machinery and equipment.....	2 940	2 586	2 806	2 941	2 353	2 135	1 640	1 629	1 470
Feed and grain.....	3 457	3 300	4 222	4 954	3 062	1 915	1 386	1 794	1 223
Livestock, total.....	6 253	5 154	5 395	3 813	3 882	2 374	2 102	2 051	1 632
Cash Receipts, Total.....	\$13 308	\$12 085	\$14 876	\$13 260	\$11 356	\$ 6 204	\$ 5 152	\$ 6 061	\$ 4 277
Feed and grain.....	1 096	1 212	2 345	4 693	2 332	1 166	840	1 430	790
AAA payments.....	324	326	582	592	331	235	188	307	202
Labor and miscellaneous.....	339	248	339	339	344	250	201	273	221
Livestock, total.....	11 549	10 299	11 610	7 636	8 349	4 553	3 923	4 051	3 064
Horses.....	41	29	36	45	48	46	38	46	53
Cattle.....	4 968	4 167	4 158	2 719	2 941	964	1 081	1 080	486
Hogs.....	2 110	3 948	6 075	3 289	3 994	1 369	1 739	2 005	1 203
Sheep.....	110	214	388	270	185	80	161	102	27
Poultry and eggs.....	453	517	423	563	388	614	523	577	522
Dairy sales.....	3 867	1 424	530	750	793	1 480	381	241	773
Cash Expenses, Total.....	\$ 9 329	\$ 7 538	\$ 8 943	\$ 7 060	\$ 6 944	\$ 3 799	\$ 3 445	\$ 3 611	\$ 2 691
Land improvements.....	290	182	212	233	208	170	256	238	159
Farm buildings.....	825	387	367	325	258	195	131	153	175
Livestock purchases.....	3 333	2 775	2 698	1 890	2 042	562	699	822	384
Feed and grain.....	1 500	1 622	2 518	1 386	1 833	965	766	686	568
Machinery and equipment.....	1 605	1 372	1 675	1 753	1 397	1 129	954	980	708
Hired labor.....	986	549	697	640	529	348	276	333	296
Crop expense.....	271	219	232	274	234	149	120	136	160
Taxes.....	297	280	366	405	316	186	168	201	167
Livestock and miscellaneous.....	222	152	178	154	127	95	75	62	74
Cash Balance.....	\$ 3 979	\$ 4 547	\$ 5 933	\$ 6 200	\$ 4 412	\$ 2 405	\$ 1 707	\$ 2 450	\$ 1 586
Increase in inventory.....	1 688	2 359	2 565	1 705	1 224	629	884	1 106	743
Total unpaid labor.....	950	1 074	1 039	1 005	1 093	1 174	853	815	778
Net Farm Income.....	\$ 4 717	\$ 5 832	\$ 7 459	\$ 6 900	\$ 4 543	\$ 1 860	\$ 1 738	\$ 2 741	\$ 1 551

TABLE 12.—FACTORS HELPING TO ANALYZE THE FARM BUSINESS BY FARMING-TYPE AREAS, 1942

Item	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
Size of farm, acres.....	193	206	249	257	251	216	251	218	214
Tillable land (percent).....	82	82	80	90	79	81	84	83	72
Inventory Basis									
Gross receipts per acre ^a	\$48.94	\$45.73	\$46.29	\$42.42	\$31.73	\$22.15	\$16.32	\$23.41	\$17.48
Total expense per acre.....	24.47	17.47	16.37	15.53	13.65	13.55	9.41	10.82	10.24
Net receipts per acre.....	\$24.47	\$28.26	\$29.92	\$26.89	\$18.08	\$ 8.60	\$6.91	\$12.59	\$ 7.24
Cash Basis									
Gross receipts per acre.....	\$69.02	\$58.55	\$59.67	\$51.68	\$45.19	\$28.68	\$20.49	\$27.85	\$19.97
Total cash expense per acre ^b	53.31	41.72	40.04	31.43	31.98	22.99	17.09	20.34	16.20
Net cash income per acre.....	\$15.71	\$16.83	\$19.63	\$20.25	\$13.21	\$ 5.69	\$ 3.40	\$ 7.51	\$ 3.77
Acres in:									
Corn.....	54	57	73	80	55	29	41	44	24
Oats.....	31	35	33	37	22	20	14	10	10
Wheat.....	1	2	4	7	9	28	16	24	18
Soybeans.....	9	11	28	47	37	11	14	21	10
Bushels per acre:									
Corn.....	71	77	72	68	55	43	38	51	42
Oats.....	61	51	42	44	34	30	22	29	22
Wheat.....	24	26	18	15	12	14	13	16	14
Soybeans.....	13	18	23	22	21	16	14	16	13
Value of feed fed to livestock.....	\$5 348	\$5 164	\$5 975	\$3 876	\$4 067	\$2 399	\$2 045	\$2 145	\$1 568
Returns per \$100 feed fed.....	174	178	181	180	182	191	193	187	217
Feed fed per acre to livestock.....	\$27.74	\$25.02	\$23.97	\$15.11	\$16.18	\$11.09	\$ 8.13	\$ 9.86	\$ 7.32
Returns per acre from livestock.....	48.31	44.65	43.34	27.26	29.52	21.24	15.70	18.46	15.91
Horse and machinery cost per crop acre.....	\$11.19	\$ 8.51	\$ 8.52	\$ 7.26	\$ 7.52	\$ 7.72	\$ 5.80	\$ 5.85	\$ 7.77
Labor cost per crop acre.....	14.15	11.62	10.32	8.21	10.57	11.85	8.07	8.48	10.59
Value of land and improvements per acre.....	\$ 91	\$ 89	\$ 96	\$ 116	\$ 69	\$ 46	\$ 32	\$ 43	\$ 27
Value of buildings per acre.....	3	4	4	3	3	2	2	2	3
Total investment per acre.....	37	25	17	18	12	12	7	8	7
Number of farms included.....	197	172	167	182	121	89	62	79	57
Number of farms included.....	155	484	580	1 034	352	320	147	92	28

^aFarm products used in household excluded.

^bIncludes charge for unpaid labor.

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942

Accounting Item	McHenry	Boone	Kane	Lake, Cook, DuPage
Capital investment, total..... 1	\$33 197	\$35 040	\$50 613	\$33 865
Land..... 2	14 515	17 116	22 271	16 563
Land improvements..... 3	511	676	900	607
Farm buildings..... 4	7 142	5 597	9 369	6 492
Horses..... 5	334	327	348	305
Cattle..... 6	4 352	4 082	7 918	3 512
Hogs..... 7	499	932	1 101	647
Sheep..... 8	19	192	46	53
Poultry..... 9	173	126	110	150
Feed and grain..... 10	2 846	3 161	4 996	2 923
Machinery and equipment..... 11	2 806	2 831	3 554	2 613
Income, net increases, total..... 12	\$ 9 434	\$ 9 304	\$12 904	\$ 8 036
Cattle..... 13	950	1 737	5 738	1 268
Dairy sales..... 14	5 670	3 619	2 717	3 258
Hogs..... 15	1 536	2 551	3 362	2 032
Sheep..... 16	16	160	47	24
Poultry and eggs..... 17	515	376	374	487
Farm products used in household..... 18	338	310	326	346
Feed and grain..... 19	.....	152	.....	255
AAA payment..... 20	372	352	283	294
Labor and miscellaneous..... 21	37	47	57	72
Expenses, net decreases, total..... 22	\$ 3 697	\$ 2 906	\$ 5 366	\$ 3 424
Land improvements..... 23	177	195	266	189
Farm buildings..... 24	516	471	779	532
Feed and grain..... 25	165	.....	987	.....
Machinery and equipment..... 26	1 249	1 123	1 588	1 147
Hired labor..... 27	1 029	677	1 147	1 024
Taxes..... 28	280	266	346	294
Livestock and miscellaneous..... 29	281	174	253	238
Receipts less expenses..... 30	\$ 5 737	\$ 6 398	\$ 7 538	\$ 4 612
Unpaid labor..... 31	985	1 059	896	882
Net farm earnings..... 32	\$ 4 752	\$ 5 339	\$ 6 642	\$ 3 730
Rate earned on investment, percent..... 33	14.3	15.2	13.1	11.0
Labor and management earnings..... 34	\$ 3 768	\$ 4 395	\$ 4 835	\$ 2 693
Excess of sales over expenses..... 35	3 616	4 312	5 652	2 625
Increase in inventory..... 36	1 783	1 776	1 560	1 641
Number of farms included..... 37	43	31	38	43
Size of farm, acres..... 38	190	206	213	168
Gross earnings per acre..... 39	\$ 49.60	\$ 45.23	\$ 60.47	\$ 47.92
Total expenses per acre..... 40	24.62	19.27	29.34	25.68
Net earnings per acre..... 41	\$ 24.98	\$ 25.96	\$ 31.13	\$ 22.24
Value of land per acre..... 42	\$ 76	\$ 83	\$104	\$ 99
Value of improved land per acre..... 43	84	88	109	104
Value of buildings per acre..... 44	38	27	44	39
Total investment per acre..... 45	175	170	237	202
Percent of land area tillable..... 46	76.4	82.6	86.0	82.5
Percent of tillable land in—				
Corn..... 47	31.9	34.2	38.4	32.5
Oats..... 48	17.4	20.4	20.7	20.6
Wheat..... 49	.4	.8	.5	.8
Soybeans for grain..... 50	2.1	3.5	7.0	9.0
Other cultivated crops..... 51	7.1	8.3	6.7	5.4
Legume hay and pasture..... 52	27.0	21.7	17.9	19.9
Nonlegume hay and pasture..... 53	14.1	11.1	8.8	11.8
Bushels per acre: Corn..... 54	64.0	70.5	81.8	63.4
Oats..... 55	60.8	56.5	63.9	59.9
Wheat..... 56	26.7	22.9	27.0	21.8
Barley..... 57	38.1	26.8	37.3	40.3
Soybeans..... 58	8.1	8.3	15.3	14.3
Feed fed per acre..... 59	\$ 23.58	\$ 24.31	\$ 37.74	\$ 24.26
Returns for \$100 feed fed..... 60	200	174	155	180
Poultry returns per hen..... 61	4.01	5.44	4.26	4.14
Number of litters farrowed..... 62	8.6	15.8	18.7	13.9
Returns per litter..... 63	\$209	\$184	\$206	\$193
Dairy returns per cow..... 64	203	177	185	197
Horse and machinery cost per crop acre..... 65	\$ 12.63	\$ 9.34	\$ 11.18	\$ 11.36
Labor cost per crop acre..... 66	16.77	12.36	12.21	15.34
Land improvements cost per acre..... 67	.93	.95	1.25	1.13
Farm buildings cost per acre..... 68	2.71	2.29	3.65	3.17
Taxes per acre..... 69	1.47	1.29	1.62	1.75

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

	De Kalb	Stephenson	Lee	Ogle	Rock Island	Winnebago	Whiteside	Jo Daviess
1	\$46 613	\$26 570	\$49 642	\$31 237	\$27 140	\$32 298	\$30 454	\$25 681
2	25 532	12 113	28 985	16 183	14 512	13 676	14 662	12 293
3	861	513	920	765	673	856	564	745
4	6 386	4 811	5 736	4 766	3 770	6 335	4 704	4 271
5	250	244	211	248	215	292	223	323
6	4 550	2 861	3 677	2 997	1 765	3 244	3 229	2 736
7	1 402	993	1 557	1 302	1 256	1 278	1 375	1 082
8	131	38	310	78	85	217	87	102
9	142	147	114	109	144	137	138	129
10	4 343	2 426	5 032	2 656	2 487	3 397	2 946	1 935
11	3 016	2 424	3 100	2 133	2 233	2 866	2 526	2 065
12	\$11 706	\$ 8 633	\$13 293	\$ 8 954	\$ 8 283	\$ 9 328	\$ 9 668	\$ 8 373
13	4 109	1 414	2 849	2 624	1 334	2 057	2 411	1 667
14	1 177	2 365	942	1 127	790	2 417	1 522	1 641
15	4 705	3 837	5 457	4 028	4 586	3 704	4 346	3 886
16	125	40	240	43	61	165	69	96
17	511	507	478	444	511	496	486	478
18	308	311	346	296	392	314	364	356
19	261	.....	2 306	140	335	.....	.....	.....
20	476	135	610	232	235	143	423	207
21	34	24	65	20	39	32	47	42
22	\$ 3 227	\$ 2 728	\$ 3 238	\$ 2 221	\$ 1 967	\$ 2 436	\$ 2 784	\$ 2 930
23	204	105	230	146	118	194	120	137
24	478	278	432	287	267	372	321	283
25	.....	624	.....	.....	.....	65	401	832
26	1 266	861	1 307	834	886	959	1 015	787
27	747	489	755	501	276	442	498	527
28	328	213	344	297	290	270	249	220
29	204	158	170	156	130	134	180	144
30	\$ 8 479	\$ 5 905	\$10 055	\$ 6 733	\$ 6 316	\$ 6 892	\$ 6 884	\$ 5 443
31	1 022	1 132	990	1 057	1 120	1 150	1 070	1 126
32	\$ 7 457	\$ 4 773	\$ 9 065	\$ 5 676	\$ 5 196	\$ 5 742	\$ 5 814	\$ 4 317
33	16.0	18.0	18.3	18.2	19.1	17.8	19.1	16.8
34	\$ 5 922	\$ 4 258	\$ 7 375	\$ 4 895	\$ 4 647	\$ 4 950	\$ 5 083	\$ 3 817
35	4 765	3 942	7 262	3 748	3 865	5 060	4 301	3 721
36	3 406	1 652	2 447	2 689	2 059	1 518	2 219	1 366
37	130	77	49	42	55	33	30	40
38	211	171	259	195	188	235	193	237
39	\$ 55.58	\$ 50.48	\$ 51.26	\$ 45.99	\$ 43.99	\$ 39.74	\$ 50.09	\$ 35.31
40	20.17	22.57	16.30	16.84	16.40	15.28	19.97	17.10
41	\$ 35.41	\$ 27.91	\$ 34.96	\$ 29.15	\$ 27.59	\$ 24.46	\$ 30.12	\$ 18.21
42	\$121	\$ 71	\$112	\$ 83	\$ 77	\$ 58	\$ 76	\$ 52
43	124	73	116	90	86	64	80	62
44	30	28	22	24	20	27	24	18
45	221	155	191	160	144	138	158	108
46	91.8	82.2	88.2	78.7	75.9	76.2	86.1	58.3
47	36.9	27.7	35.9	34.3	37.4	30.1	32.1	26.3
48	21.1	21.5	22.4	24.9	16.0	19.7	18.5	19.2
49	.8	.3	.7	.1	1.9	1.0	4.2	.8
50	8.5	2.6	9.9	4.8	7.1	5.4	7.8	.4
51	5.7	5.1	2.5	3.1	1.9	6.4	3.2	5.6
52	16.3	30.4	21.7	23.0	26.9	25.9	20.2	28.0
53	10.7	12.4	6.9	9.8	8.8	11.5	14.0	19.7
54	79.4	72.4	80.3	76.7	73.4	70.0	78.9	70.7
55	56.0	46.8	56.5	52.7	40.1	46.0	46.9	41.4
56	26.2	25.0	28.8	20.0	18.5	21.2	31.6	17.3
57	32.6	23.1	12.5	29.2	15.7	34.6	31.2	30.0
58	16.8	16.7	22.9	18.2	18.7	9.6	16.3	13.3
59	\$ 31.05	\$ 25.93	\$ 21.61	\$ 24.69	\$ 21.04	\$ 21.32	\$ 27.31	\$ 16.31
60	166	189	182	176	191	181	173	208
61	4.80	4.01	4.22	4.51	4.32	4.31	4.24	3.95
62	24.0	18.3	22.8	18.8	21.6	19.1	20.3	18.0
63	\$221	\$222	\$257	\$230	\$210	\$225	\$226	\$224
64	154	147	138	131	110	161	146	121
65	\$ 8.58	\$ 9.16	\$ 7.61	\$ 7.95	\$ 9.11	\$ 7.71	\$ 8.92	\$ 9.77
66	10.48	14.66	8.96	12.19	12.20	11.01	11.76	16.42
67	.97	.61	.89	.75	.63	.83	.62	.58
68	2.27	1.63	1.67	1.47	1.42	1.58	1.66	1.19
69	1.56	1.25	1.33	1.53	1.54	1.15	1.29	.93

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

Accounting Item	Carroll	Henry	McDon- ough	Knox
Capital investment, total..... 1	\$28 564	\$44 922	\$38 704	\$43 099
Land..... 2	13 631	24 787	22 945	24 343
Land improvements..... 3	684	926	1 061	1 018
Farm buildings..... 4	4 332	5 281	3 895	4 658
Horses..... 5	299	219	184	209
Cattle..... 6	3 390	4 081	2 191	3 118
Hogs..... 7	1 117	2 222	1 828	1 713
Sheep..... 8	352	141	67	174
Poultry..... 9	164	141	113	95
Feed and grain..... 10	2 602	4 082	3 777	4 730
Machinery and equipment..... 11	1 993	3 042	2 643	3 041
Income, net increases, total..... 12	\$ 8 703	\$13 464	\$11 707	\$12 761
Cattle..... 13	2 375	3 921	2 558	2 606
Dairy sales..... 14	926	498	364	678
Hogs..... 15	4 124	7 350	7 187	6 367
Sheep..... 16	141	159	52	148
Poultry and eggs..... 17	540	490	464	348
Farm products used in household..... 18	319	382	400	400
Feed and grain..... 19	.....	.....	265	1 501
AAA payment..... 20	263	633	385	659
Labor and miscellaneous..... 21	15	31	32	54
Expenses, net decreases, total..... 22	\$ 2 607	\$ 4 452	\$ 2 801	\$ 3 163
Land improvements..... 23	123	171	173	187
Farm buildings..... 24	333	389	324	380
Feed and grain..... 25	797	1 214	.....	.....
Machinery and equipment..... 26	747	1 267	1 219	1 268
Hired labor..... 27	250	803	595	730
Taxes..... 28	223	409	310	415
Livestock and miscellaneous..... 29	134	199	180	183
Receipts less expenses..... 30	\$ 6 096	\$ 9 012	\$ 8 906	\$ 9 598
Unpaid labor..... 31	1 082	1 083	1 051	985
Net farm earnings..... 32	\$ 5 014	\$ 7 929	\$ 7 855	\$ 8 613
Rate earned on investment, percent..... 33	17.6	17.6	20.3	20.0
Labor and management earnings..... 34	\$ 4 371	\$ 6 452	\$ 6 684	\$ 7 231
Excess of sales over expenses..... 35	3 838	5 865	5 851	6 081
Increase in inventory..... 36	1 939	2 765	2 655	3 117
Number of farms included..... 37	28	82	66	53
Size of farm, acres..... 38	183	238	219	271
Gross earnings per acre..... 39	\$ 47.63	\$ 56.57	\$ 53.41	\$ 47.07
Total expenses per acre..... 40	20.19	23.25	17.57	15.30
Net earnings per acre..... 41	\$ 27.44	\$ 33.32	\$ 35.84	\$ 31.77
Value of land per acre..... 42	\$ 75	\$104	\$105	\$ 90
Value of improved land per acre..... 43	81	111	114	103
Value of buildings per acre..... 44	24	22	18	17
Total investment per acre..... 45	156	189	177	159
Percent of land area tillable..... 46	80.0	82.9	84.6	78.3
Percent of tillable land in—				
Corn..... 47	32.8	38.4	35.3	34.6
Oats..... 48	21.6	17.3	14.3	15.1
Wheat..... 49	.1	.9	4.0	1.2
Soybeans for grain..... 50	3.2	8.9	18.9	17.5
Other cultivated crops..... 51	4.1	2.4	1.9	2.2
Legume hay and pasture..... 52	28.2	22.2	19.4	21.2
Nonlegume hay and pasture..... 53	10.0	9.9	6.2	8.2
Bushels per acre: Corn..... 54	73.1	73.0	75.2	71.1
Oats..... 55	49.6	44.9	44.2	38.4
Wheat..... 56	25.0	22.9	13.4	19.2
Barley..... 57	25.6	.....	.....	.....
Soybeans..... 58	18.1	16.8	25.3	24.0
Feed fed per acre..... 59	\$ 26.52	\$ 30.65	\$ 27.60	\$ 20.34
Returns for \$100 feed fed..... 60	172	174	181	190
Poultry returns per hen..... 61	3.90	3.99	4.86	4.08
Number of litters farrowed..... 62	18.9	35.9	32.7	31.1
Returns per litter..... 63	\$233	\$217	\$211	\$216
Dairy returns per cow..... 64	119	111	100	112
Horse and machinery cost per crop acre..... 65	\$ 7.95	\$ 9.24	\$ 8.70	\$ 7.94
Labor cost per crop acre..... 66	11.66	12.01	10.47	9.48
Land improvements cost per acre..... 67	.67	.72	.79	.69
Farm buildings cost per acre..... 68	1.82	1.63	1.48	1.40
Taxes per acre..... 69	1.22	1.72	1.41	1.53

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

	Bureau	Marshall-Putnam	Peoria	Fulton	Hancock	Mercer	Warren	Stark
1	\$43 987	\$52 014	\$39 269	\$32 933	\$33 156	\$45 634	\$43 617	\$39 970
2	25 008	31 559	23 238	19 607	19 518	24 366	25 807	23 492
3	1 002	889	815	764	631	932	1 043	624
4	4 895	4 874	4 465	3 225	3 014	4 532	4 705	4 064
5	193	166	237	182	272	311	315	165
6	3 064	3 183	2 231	2 041	2 698	4 318	2 482	1 732
7	1 858	2 184	1 516	1 566	1 311	1 947	2 072	1 770
8	297	626	192	165	126	148	138	854
9	172	111	134	95	77	174	110	110
10	4 628	5 396	3 837	2 829	3 311	6 002	4 213	4 378
11	2 870	3 026	2 604	2 459	2 198	2 904	2 732	2 781
12	\$12 145	\$14 979	\$11 360	\$ 9 132	\$ 8 786	\$13 367	\$13 288	\$10 574
13	2 637	3 141	1 925	1 465	1 791	3 810	2 883	925
14	813	647	519	536	710	528	429	502
15	6 488	8 265	6 139	5 407	4 731	6 772	8 018	5 271
16	178	369	137	160	146	76	216	364
17	586	362	437	411	290	420	323	386
18	377	336	369	368	312	402	360	312
19	412	1 050	1 187	492	534	487	250	2 110
20	594	754	578	247	223	766	773	612
21	60	55	69	46	49	106	36	92
22	\$ 2 816	\$ 3 458	\$ 2 707	\$ 2 799	\$ 2 401	\$ 3 465	\$ 3 186	\$ 2 832
23	230	243	167	137	148	169	224	128
24	365	410	342	296	248	388	379	391
25	.....	.....	.....	.....	.....	.....	.....	.....
26	1 116	1 415	1 095	1 189	1 025	1 379	1 336	1 243
27	603	753	618	631	569	824	724	579
28	304	405	319	391	281	474	329	336
29	198	232	166	155	130	231	194	155
30	\$ 9 329	\$11 521	\$ 8 653	\$ 6 333	\$ 6 385	\$ 9 902	\$10 102	\$ 7 742
31	1 024	1 051	1 004	1 078	1 078	1 080	976	996
32	\$ 8 305	\$10 470	\$ 7 649	\$ 5 255	\$ 5 307	\$ 8 822	\$ 9 126	\$ 6 746
33	18.9	20.1	19.5	16.0	16.0	19.3	20.9	16.9
34	\$ 6 853	\$ 8 648	\$ 6 413	\$ 4 391	\$ 4 395	\$ 7 315	\$ 7 718	\$ 5 531
35	6 260	8 129	5 712	4 655	4 879	7 353	6 074	5 950
36	2 692	3 056	2 572	1 310	1 194	2 147	3 668	1 480
37	52	44	47	53	30	29	35	41
38	228	284	228	250	229	295	259	223
39	\$ 53.31	\$ 52.72	\$ 49.84	\$ 36.51	\$ 38.35	\$ 45.37	\$ 51.25	\$ 47.37
40	16.85	15.87	16.28	15.50	15.19	15.43	16.05	17.15
41	\$ 36.46	\$ 36.85	\$ 33.56	\$ 21.01	\$ 23.16	\$ 29.94	\$ 35.20	\$ 30.22
42	\$110	\$111	\$102	\$ 78	\$ 85	\$ 83	\$100	\$105
43	115	126	113	93	95	96	110	111
44	21	17	20	13	13	15	18	18
45	193	183	172	132	145	155	168	179
46	86.8	80.0	81.4	72.6	81.4	74.8	79.8	85.9
47	38.4	36.9	35.2	30.9	26.6	38.3	40.2	39.6
48	19.9	19.4	17.3	13.4	13.3	13.8	17.8	19.8
49	1.6	2.4	1.5	6.7	5.4	1.2	.8	.1
50	7.3	13.9	14.3	18.7	18.8	10.7	10.1	14.9
51	2.1	2.4	2.7	1.8	4.0	3.2	1.6	1.0
52	21.0	20.0	22.1	23.1	19.9	21.8	21.3	16.9
53	9.7	5.0	6.9	5.4	12.0	11.0	8.2	7.7
54	77.1	78.3	70.3	65.2	67.8	72.1	71.9	71.1
55	46.3	46.7	41.4	40.1	39.7	39.3	40.7	40.4
56	25.2	20.4	22.1	15.6	19.8	19.6	25.3	10.0
57	15.7	16.7	.....	.....	.....	15.0	.....	.....
58	20.3	22.8	20.5	21.3	36.8	23.7	20.4	20.9
59	\$ 26.93	\$ 23.31	\$ 21.60	\$ 18.73	\$ 21.18	\$ 22.22	\$ 24.52	\$ 18.86
60	179	197	192	177	163	182	191	183
61	4.20	4.21	4.68	5.42	4.22	4.35	4.07	4.28
62	29.3	38.8	27.8	32.0	23.4	33.8	36.8	24.3
63	\$239	\$234	\$220	\$186	\$206	\$196	\$231	\$215
64	116	131	115	105	116	133	122	105
65	\$ 7.77	\$ 8.03	\$ 8.07	\$ 8.64	\$ 8.19	\$ 8.98	\$ 9.04	\$ 8.37
66	9.91	9.17	10.03	11.06	10.79	10.50	9.95	9.37
67	1.01	.86	.73	.55	.65	.57	.86	.57
68	1.60	1.44	1.50	1.18	1.08	1.32	1.46	1.75
69	1.33	1.43	1.40	1.56	1.23	1.61	1.27	1.51

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

Accounting Item	Hender-son	McLean	Tazewell	Ford
Capital investment, total..... 1	\$41 904	\$53 683	\$48 951	\$48 432
Land..... 2	23 544	33 256	30 244	31 305
Land improvements..... 3	790	825	952	781
Farm buildings..... 4	3 686	5 517	4 742	3 960
Horses..... 5	334	223	232	255
Cattle..... 6	3 784	3 332	2 590	2 453
Hogs..... 7	2 026	1 403	1 135	691
Sheep..... 8	287	200	296	268
Poultry..... 9	94	115	150	128
Feed and grain..... 10	4 279	5 833	5 526	5 780
Machinery and equipment..... 11	3 080	2 979	3 084	2 811
Income, net increases, total..... 12	\$13 370	\$13 345	\$12 975	\$10 462
Cattle..... 13	4 419	2 728	1 978	2 055
Dairy sales..... 14	224	707	1 081	430
Hogs..... 15	6 994	5 071	4 315	2 515
Sheep..... 16	213	156	382	140
Poultry and eggs..... 17	320	413	509	499
Farm products used in household..... 18	328	340	415	325
Feed and grain..... 19	.....	3 169	3 518	3 838
AAA payment..... 20	828	720	732	630
Labor and miscellaneous..... 21	44	41	45	30
Expenses, net decreases, total..... 22	\$ 4 585	\$ 3 460	\$ 3 184	\$ 2 715
Land improvements..... 23	176	162	170	130
Farm buildings..... 24	389	374	346	300
Feed and grain..... 25	1 004	.....	.....	.....
Machinery and equipment..... 26	1 496	1 395	1 286	1 271
Hired labor..... 27	906	860	754	512
Taxes..... 28	407	467	444	371
Livestock and miscellaneous..... 29	207	202	184	131
Receipts less expenses..... 30	\$ 8 785	\$ 9 885	\$ 9 791	\$ 7 747
Unpaid labor..... 31	1 042	915	1 003	997
Net farm earnings..... 32	\$ 7 743	\$ 8 970	\$ 8 788	\$ 6 750
Rate earned on investment, percent..... 33	18.5	16.7	18.0	13.9
Labor and management earnings..... 34	\$ 6 444	\$ 7 010	\$ 7 129	\$ 5 121
Excess of sales over expenses..... 35	4 942	8 058	7 451	6 342
Increase in inventory..... 36	3 515	1 487	1 925	1 080
Number of farms included..... 37	48	95	64	54
Size of farm, acres..... 38	298	269	253	259
Gross earnings per acre..... 39	\$ 44.93	\$ 49.59	\$ 51.22	\$ 40.33
Total expenses per acre..... 40	18.91	16.26	16.53	14.31
Net earnings per acre..... 41	\$ 26.02	\$ 33.33	\$ 34.69	\$ 26.02
Value of land per acre..... 42	\$ 79	\$124	\$119	\$121
Value of improved land per acre..... 43	92	125	125	121
Value of buildings per acre..... 44	12	20	19	15
Total investment per acre..... 45	141	199	193	187
Percent of land area tillable..... 46	77.6	92.2	87.0	95.0
Percent of tillable land in—				
Corn..... 47	36.2	39.4	33.9	38.8
Oats..... 48	15.3	17.8	13.2	21.3
Wheat..... 49	1.4	1.0	6.4	.3
Soybeans for grain..... 50	13.9	16.6	17.8	14.1
Other cultivated crops..... 51	4.2	1.6	4.3	1.9
Legume hay and pasture..... 52	19.0	16.4	17.6	17.0
Nonlegume hay and pasture..... 53	10.0	7.2	6.8	6.6
Bushels per acre: Corn..... 54	62.2	68.5	76.5	60.0
Oats..... 55	37.5	44.3	40.1	42.9
Wheat..... 56	17.5	16.2	17.1	20.0
Barley..... 57	.....	.....	.....	10.0
Soybeans..... 58	18.2	24.4	21.9	22.3
Feed fed per acre..... 59	\$ 24.88	\$ 19.50	\$ 17.26	\$ 13.54
Returns for \$100 feed fed..... 60	168	178	196	168
Poultry returns per hen..... 61	4.61	4.43	4.73	4.26
Number of litters farrowed..... 62	33.0	24.4	20.5	13.2
Returns per litter..... 63	\$211	\$218	\$215	\$198
Dairy returns per cow..... 64	91	131	160	108
Horse and machinery cost per crop acre..... 65	\$ 8.99	\$ 7.35	\$ 7.76	\$ 6.81
Labor cost per crop acre..... 66	10.36	8.27	9.28	7.27
Land improvements cost per acre..... 67	.59	.60	.67	.50
Farm buildings cost per acre..... 68	1.31	1.39	1.37	1.16
Taxes per acre..... 69	1.37	1.74	1.75	1.43

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

	Livingston	Woodford	La Salle	Champaign	Iroquois	Vermilion	Macon	Sangamon
1	\$49 524	\$49 606	\$57 606	\$46 266	\$39 162	\$40 844	\$54 127	\$44 741
2	31 104	30 998	33 871	33 074	24 129	26 397	37 643	29 278
3	1 086	887	1 047	396	1 139	971	579	843
4	4 839	4 766	6 848	3 527	4 206	3 915	4 218	3 590
5	249	251	161	157	255	217	273	250
6	1 932	2 952	3 441	1 179	1 455	1 667	1 942	3 249
7	907	1 204	1 425	592	550	849	763	1 226
8	315	362	242	84	359	73	97	101
9	240	210	161	108	150	107	132	92
10	5 799	5 199	6 936	4 362	4 468	3 742	5 423	3 540
11	3 053	2 777	3 474	2 787	2 451	2 906	3 057	2 572
12	\$10 982	\$11 507	\$14 213	\$10 231	\$ 9 504	\$10 765	\$11 918	\$11 571
13	1 286	2 021	2 792	863	1 105	1 016	1 817	3 581
14	640	614	1 111	571	489	716	502	576
15	2 820	4 527	5 358	2 121	2 505	3 536	2 663	4 782
16	101	269	170	45	302	65	65	105
17	1 084	688	552	398	548	433	422	308
18	388	398	375	310	297	345	340	390
19	3 939	2 298	3 031	5 475	3 778	4 113	5 374	1 078
20	683	663	756	413	426	496	698	671
21	41	29	68	35	54	45	37	80
22	\$ 2 862	\$ 3 026	\$ 3 727	\$ 2 429	\$ 2 502	\$ 3 144	\$ 3 165	\$ 3 055
23	185	136	243	98	272	207	117	140
24	323	325	464	262	287	260	328	357
25	.....	.....	.....	.....	.....	.....	.....	.....
26	1 258	1 243	1 539	1 162	995	1 419	1 484	1 275
27	563	675	859	369	474	676	583	734
28	354	452	391	437	359	449	518	388
29	179	195	231	101	115	133	135	161
30	\$ 8 120	\$ 8 481	\$10 486	\$ 7 802	\$ 7 002	\$ 7 621	\$ 8 753	\$ 8 516
31	934	983	1 015	979	1 032	994	1 052	1 045
32	\$ 7 186	\$ 7 498	\$ 9 471	\$ 6 823	\$ 5 970	\$ 6 627	\$ 7 701	\$ 7 471
33	14.5	15.1	16.4	14.7	15.2	16.2	14.2	16.7
34	\$ 5 471	\$ 5 747	\$ 7 347	\$ 5 282	\$ 4 822	\$ 5 349	\$ 5 804	\$ 6 017
35	6 207	7 063	7 487	6 332	5 090	4 719	6 685	4 782
36	1 525	1 020	2 624	1 160	1 615	2 557	1 728	3 344
37	58	74	60	61	45	46	32	38
38	232	237	260	246	235	260	284	264
39	\$ 47.42	\$ 48.47	\$ 54.71	\$ 41.61	\$ 40.48	\$ 41.37	\$ 42.00	\$ 43.76
40	16.39	16.89	18.25	13.86	15.05	15.90	14.86	15.50
41	\$ 31.03	\$ 31.58	\$ 36.46	\$ 27.75	\$ 25.43	\$ 25.47	\$ 27.14	\$ 28.26
42	\$134	\$131	\$130	\$134	\$103	\$101	\$133	\$111
43	136	138	136	137	106	104	135	115
44	21	20	26	14	18	15	15	14
45	214	209	222	188	167	157	191	169
46	92.4	88.8	89.2	93.1	89.9	91.1	93.2	86.5
47	40.0	36.5	39.5	33.2	34.3	32.5	32.0	31.2
48	22.3	20.4	20.6	13.0	18.5	11.3	9.9	11.1
49	1.1	1.6	1.0	.9	1.0	4.1	3.5	5.4
50	14.4	10.9	11.4	32.4	18.3	25.3	30.9	23.1
51	2.3	6.3	1.6	1.4	4.2	3.5	.3	1.4
52	15.9	17.0	20.0	10.5	17.1	14.8	14.6	17.6
53	4.0	7.3	5.9	8.6	6.6	8.5	8.8	10.2
54	69.2	72.0	79.3	67.4	62.1	63.7	65.8	65.4
55	49.5	47.4	49.7	39.4	44.2	37.2	36.7	41.4
56	24.8	14.5	25.0	14.5	24.8	17.3	10.8	12.7
57	10.0	.....	17.1	20.0	15.0	.....	.....	5.0
58	19.2	19.0	20.8	25.4	21.5	22.6	23.6	23.5
59	\$ 14.43	\$ 19.91	\$ 21.69	\$ 8.95	\$ 11.42	\$ 12.74	\$ 11.01	\$ 21.41
60	186	178	182	193	193	182	184	171
61	5.27	4.51	4.54	4.40	4.53	4.85	4.20	4.15
62	13.6	23.6	26.2	11.8	11.7	14.6	13.7	27.3
63	\$222	\$214	\$223	\$207	\$236	\$243	\$213	\$184
64	125	129	140	114	118	111	119	110
65	\$ 7.60	\$ 7.86	\$ 8.42	\$ 6.28	\$ 6.38	\$ 7.56	\$ 7.22	\$ 7.50
66	7.96	9.21	9.28	6.72	8.30	8.04	7.13	9.13
67	.80	.57	.94	.40	1.16	.80	.41	.53
68	1.39	1.37	1.79	1.07	1.22	1.00	1.16	1.35
69	1.53	1.90	1.50	1.78	1.53	1.73	1.83	1.47

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

Accounting Item	Kankakee	Menard	Will	De Witt, Piatt
Capital investment, total..... 1	\$42 292	\$37 453	\$40 674	\$52 990
Land..... 2	25 662	23 660	22 574	35 395
Land improvements..... 3	823	429	962	676
Farm buildings..... 4	4 690	3 808	5 649	4 324
Horses..... 5	162	251	186	242
Cattle..... 6	2 220	1 511	3 259	2 183
Hogs..... 7	521	1 344	564	941
Sheep..... 8	19	82	25	328
Poultry..... 9	176	154	166	105
Feed and grain..... 10	4 758	3 753	4 137	5 385
Machinery and equipment..... 11	3 261	2 461	3 152	3 411
Income, net increases, total..... 12	\$ 9 866	\$ 9 824	\$ 9 460	\$12 607
Cattle..... 13	1 174	1 565	2 250	1 608
Dairy sales..... 14	1 502	270	1 517	645
Hogs..... 15	2 162	5 089	1 685	3 296
Sheep..... 16	27	86	18	114
Poultry and eggs..... 17	555	497	764	409
Farm products used in household..... 18	291	344	288	383
Feed and grain..... 19	3 464	1 459	2 489	5 347
AAA payment..... 20	637	486	397	731
Labor and miscellaneous..... 21	54	28	52	74
Expenses, net decreases, total..... 22	\$ 2 982	\$ 2 728	\$ 3 093	\$ 3 118
Land improvements..... 23	254	93	159	137
Farm buildings..... 24	322	312	387	307
Feed and grain..... 25	.....	.....	.....	.....
Machinery and equipment..... 26	1 378	1 207	1 337	1 351
Hired labor..... 27	557	561	786	692
Taxes..... 28	312	392	275	488
Livestock and miscellaneous..... 29	159	163	149	143
Receipts less expenses..... 30	\$ 6 884	\$ 7 096	\$ 6 367	\$ 9 489
Unpaid labor..... 31	1 005	941	989	1 109
Net farm earnings..... 32	\$ 5 879	\$ 6 155	\$ 5 378	\$ 8 380
Rate earned on investment, percent..... 33	13.9	16.4	13.2	15.8
Labor and management earnings..... 34	\$ 4 515	\$ 5 038	\$ 4 080	\$ 6 515
Excess of sales over expenses..... 35	4 860	5 421	3 625	7 314
Increase in inventory..... 36	1 733	1 331	2 454	1 792
Number of farms included..... 37	52	27	53	34
Size of farm, acres..... 38	253	248	220	308
Gross earnings per acre..... 39	\$ 38.98	\$ 39.66	\$ 42.98	\$ 40.93
Total expenses per acre..... 40	15.75	14.81	18.55	13.72
Net earnings per acre..... 41	\$ 23.23	\$ 24.85	\$ 24.43	\$ 27.21
Value of land per acre..... 42	\$101	\$ 96	\$103	\$115
Value of improved land per acre..... 43	103	98	105	121
Value of buildings per acre..... 44	19	15	26	14
Total investment per acre..... 45	167	151	185	172
Percent of land area tillable..... 46	90.6	86.6	90.1	88.0
Percent of tillable land in—				
Corn..... 47	33.7	30.4	35.0	31.8
Oats..... 48	16.5	11.8	20.2	14.7
Wheat..... 49	1.8	9.9	2.4	3.5
Soybeans for grain..... 50	23.7	20.2	17.9	25.4
Other cultivated crops..... 51	2.9	1.0	3.8	1.0
Legume hay and pasture..... 52	15.4	15.5	12.9	15.0
Nonlegume hay and pasture..... 53	6.0	11.2	7.8	8.6
Bushels per acre: Corn..... 54	62.9	65.6	66.8	67.1
Oats..... 55	43.1	38.0	52.7	37.5
Wheat..... 56	20.5	11.3	23.8	17.8
Barley..... 57	.....	.....	30.0	.....
Soybeans..... 58	16.3	23.5	18.7	27.0
Feed fed per acre..... 59	\$ 12.50	\$ 17.54	\$ 17.77	\$ 11.54
Returns for \$100 feed fed..... 60	179	179	165	180
Poultry returns per hen..... 61	4.75	4.17	4.85	4.94
Number of litters farrowed..... 62	13.0	28.8	8.2	17.5
Returns per litter..... 63	\$215	\$186	\$233	\$202
Dairy returns per cow..... 64	179	84	186	108
Horse and machinery cost per crop acre..... 65	\$ 7.39	\$ 7.83	\$ 8.34	\$ 6.23
Labor cost per crop acre..... 66	7.52	8.66	9.73	7.62
Land improvements cost per acre..... 67	1.00	.38	.72	.44
Farm buildings cost per acre..... 68	1.27	1.26	1.76	1.00
Taxes per acre..... 69	1.23	1.58	1.25	1.58

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

	Kendall	Coles, Edgar, Douglas	Moultrie	Logan	Mason	Cass	Grundy
1	\$43 583	\$49 678	\$46 269	\$43 498	\$27 931	\$36 344	\$48 773
2	24 861	33 128	32 733	28 885	18 206	23 703	29 969
3	954	783	498	526	387	489	1 046
4	6 141	3 829	3 369	3 738	2 409	2 304	5 400
5	229	221	192	246	218	300	278
6	2 717	1 996	1 641	1 932	613	1 696	1 506
7	1 510	1 098	490	1 014	416	1 161	763
8	143	119	72	67	8	105	14
9	183	117	114	154	207	117	183
10	4 235	5 144	4 402	3 863	2 994	3 997	6 494
11	2 610	3 243	2 758	3 073	2 473	2 472	3 120
12	\$11 324	\$11 681	\$10 311	\$10 483	\$ 7 027	\$ 9 497	\$12 760
13	1 995	1 802	986	1 513	447	1 625	908
14	1 174	468	789	355	320	277	1 268
15	5 129	4 043	1 676	3 577	1 666	3 979	2 705
16	76	79	65	50	17	69	16
17	728	446	352	492	667	494	630
18	291	338	322	328	284	373	321
19	1 353	4 014	5 628	3 794	3 102	2 021	6 074
20	531	439	463	348	489	652	804
21	47	52	30	26	35	7	34
22	\$ 2 802	\$ 3 228	\$ 2 890	\$ 2 757	\$ 1 882	\$ 2 490	\$ 2 904
23	183	169	108	103	95	109	226
24	433	286	253	284	148	200	353
25	.....	.....	.....	.....	.....	.....	.....
26	1 093	1 419	1 314	1 316	879	1 065	1 315
27	565	748	620	520	329	580	518
28	323	456	477	416	324	370	313
29	205	150	118	118	107	166	179
30	\$ 8 522	\$ 8 453	\$ 7 421	\$ 7 726	\$ 5 145	\$ 7 007	\$ 9 856
31	967	1 048	1 053	1 064	978	1 198	1 112
32	\$ 7 555	\$ 7 405	\$ 6 368	\$ 6 662	\$ 4 167	\$ 5 809	\$ 8 744
33	17.3	14.9	13.8	15.3	14.9	16.0	17.9
34	\$ 6 142	\$ 5 654	\$ 4 816	\$ 5 282	\$ 3 550	\$ 4 764	\$ 7 078
35	5 241	6 465	6 682	5 865	3 854	5 083	8 514
36	2 990	1 650	417	1 533	1 007	1 551	1 021
37	34	58	37	33	31	26	20
38	209	279	291	250	289	282	264
39	\$ 54.18	\$ 41.88	\$ 35.45	\$ 41.97	\$ 24.33	\$ 33.74	\$ 48.41
40	18.03	15.33	13.56	15.30	9.90	13.10	15.24
41	\$ 36.15	\$ 26.55	\$ 21.89	\$ 26.67	\$ 14.43	\$ 20.64	\$ 33.17
42	\$119	\$119	\$113	\$116	\$ 63	\$ 84	\$114
43	123	122	119	119	67	96	119
44	29	14	12	15	8	8	20
45	209	178	159	174	97	129	185
46	88.9	91.0	88.9	91.7	88.8	77.0	88.5
47	35.7	32.1	31.1	31.8	27.7	29.2	40.1
48	25.0	10.2	10.5	14.6	10.2	11.9	19.9
49	.4	2.9	2.2	4.6	18.2	8.5	.7
50	13.7	30.0	32.9	22.7	11.5	21.0	20.9
51	2.9	1.6	1.9	1.0	10.9	6.7	1.1
52	14.9	16.3	15.2	16.9	17.8	16.2	15.0
53	7.4	6.9	6.2	8.4	3.7	6.5	2.3
54	76.5	65.0	59.4	70.4	51.8	67.6	74.8
55	59.2	35.6	35.6	42.2	30.6	34.8	50.0
56	28.6	19.6	12.6	10.4	8.7	15.1	31.9
57	.....	20.0	.....	.....	.....	5.0	.....
58	16.7	23.3	24.2	26.6	18.0	20.3	20.8
59	\$ 23.45	\$ 14.72	\$ 7.95	\$ 13.85	\$ 6.56	\$ 13.29	\$ 10.65
60	190	173	178	181	177	181	206
61	5.38	4.96	3.79	3.91	5.07	4.31	4.60
62	25.7	19.8	12.4	17.7	10.0	20.7	14.4
63	\$215	\$208	\$183	\$199	\$217	\$191	\$212
64	166	106	125	87	107	90	151
65	\$ 7.51	\$ 7.23	\$ 6.30	\$ 7.62	\$ 5.00	\$ 7.24	\$ 6.99
66	9.10	8.14	7.33	8.30	6.17	10.03	7.64
67	.88	.61	.37	.41	.33	.39	.86
68	2.07	1.03	.87	1.14	.51	.71	1.34
69	1.55	1.63	1.64	1.67	1.12	1.31	1.19

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

Accounting Item		Morgan	Macoupin	Shelby	Christian
Capital investment, total	1	\$38 200	\$31 246	\$27 317	\$38 158
Land	2	24 910	15 428	16 738	24 414
Land improvements	3	544	827	440	606
Farm buildings	4	2 895	3 971	2 533	3 084
Horses	5	281	258	176	168
Cattle	6	2 363	3 672	1 481	2 585
Hogs	7	1 188	849	437	871
Sheep	8	89	122	72	67
Poultry	9	103	129	125	124
Feed and grain	10	3 243	3 195	2 874	3 535
Machinery and equipment	11	2 584	2 795	2 441	2 704
Income, net increases, total	12	\$10 594	\$ 8 723	\$ 6 671	\$ 9 736
Cattle	13	1 980	2 376	739	2 195
Dairy sales	14	607	1 458	1 025	629
Hogs	15	4 977	3 498	1 747	3 486
Sheep	16	98	136	82	84
Poultry and eggs	17	373	561	436	386
Farm products used in household	18	382	306	331	319
Feed and grain	19	1 739	.....	1 969	2 077
AAA payment	20	378	332	309	512
Labor and miscellaneous	21	60	56	33	48
Expenses, net decreases, total	22	\$ 2 393	\$ 3 020	\$ 2 211	\$ 2 755
Land improvements	23	115	175	127	187
Farm buildings	24	260	274	206	277
Feed and grain	25	.....	524	.....	.....
Machinery and equipment	26	1 016	1 055	1 055	1 209
Hired labor	27	516	581	412	558
Taxes	28	352	274	304	382
Livestock and miscellaneous	29	134	137	107	142
Receipts less expenses	30	\$ 8 201	\$ 5 703	\$ 4 460	\$ 6 981
Unpaid labor	31	1 081	1 271	1 106	1 003
Net farm earnings	32	\$ 7 120	\$ 4 432	\$ 3 354	\$ 5 978
Rate earned on investment, percent	33	18.6	14.2	12.3	15.7
Labor and management earnings	34	\$ 6 011	\$ 3 663	\$ 2 789	\$ 4 824
Excess of sales over expenses	35	5 636	5 228	3 337	5 118
Increase in inventory	36	2 183	169	792	1 544
Number of farms included	37	37	31	43	40
Size of farm, acres	38	248	258	246	247
Gross earnings per acre	39	\$ 42.70	\$ 33.84	\$ 27.12	\$ 39.43
Total expenses per acre	40	14.00	16.65	13.48	15.22
Net earnings per acre	41	\$ 28.70	\$ 17.19	\$ 13.64	\$ 24.21
Value of land per acre	42	\$100	\$ 60	\$ 68	\$ 99
Value of improved land per acre	43	107	66	73	100
Value of buildings per acre	44	12	15	10	12
Total investment per acre	45	154	121	111	155
Percent of land area tillable	46	85.1	79.1	82.7	92.6
Percent of tillable land in—					
Corn	47	30.9	22.2	28.4	26.8
Oats	48	10.9	8.7	9.8	7.3
Wheat	49	9.1	5.3	1.3	4.3
Soybeans for grain	50	21.8	16.5	22.4	36.6
Other cultivated crops	51	1.2	9.8	7.2	2.4
Legume hay and pasture	52	15.0	21.9	18.4	13.4
Nonlegume hay and pasture	53	11.1	15.6	12.5	9.2
Bushels per acre: Corn	54	69.5	49.4	46.0	62.0
Oats	55	38.7	31.1	26.9	36.4
Wheat	56	11.8	13.1	13.7	13.2
Barley	57	.....	14.0	.....	12.0
Soybeans	58	25.0	23.4	17.4	19.9
Feed fed per acre	59	\$ 18.40	\$ 17.90	\$ 9.39	\$ 16.83
Returns for \$100 feed fed	60	183	179	186	169
Poultry returns per hen	61	4.31	4.81	3.79	3.64
Number of litters farrowed	62	26.7	17.6	11.6	15.8
Returns per litter	63	\$198	\$219	\$190	\$217
Dairy returns per cow	64	119	155	132	110
Horse and machinery cost per crop acre	65	\$ 6.84	\$ 8.14	\$ 7.27	\$ 6.90
Labor cost per crop acre	66	9.07	11.92	9.24	7.81
Land improvements cost per acre	67	.46	.68	.52	.76
Farm buildings cost per acre	68	1.05	1.06	.84	1.12
Taxes per acre	69	1.42	1.06	1.24	1.55

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

	Montgomery	Adams	Schuyler, Scott, Brown	Jersey	Greene	Pike	Madison	Randolph
1	\$23 073	\$27 160	\$27 650	\$27 656	\$33 495	\$30 191	\$19 915	\$16 842
2	12 765	14 102	15 638	14 432	18 031	15 349	9 866	8 281
3	479	723	724	664	963	928	388	495
4	2 655	3 243	2 737	3 217	3 586	3 183	2 651	2 407
5	284	277	282	244	339	328	290	326
6	1 691	2 154	1 760	2 174	3 280	3 081	1 752	1 319
7	707	1 185	1 218	926	993	2 251	407	331
8	271	207	169	78	140	172	18	50
9	107	97	72	121	96	76	133	148
10	2 317	2 991	3 003	3 128	3 660	2 822	2 193	1 635
11	1 797	2 181	2 047	2 672	2 407	2 001	2 217	1 850
12	\$ 6 880	\$ 7 938	\$ 8 008	\$ 7 172	\$ 8 880	\$12 628	\$ 5 360	\$ 4 885
13	1 609	1 714	1 475	963	2 550	2 675	747	951
14	596	499	257	1 698	1 143	375	2 154	963
15	3 425	4 495	4 525	3 396	3 937	8 466	1 331	1 352
16	143	124	95	54	103	194	18	80
17	399	383	259	447	309	260	515	548
18	326	354	328	362	366	360	309	347
19	104	.....	729	.....	.....	.....	.....	386
20	256	324	313	200	388	249	235	217
21	22	45	27	52	84	49	51	41
22	\$ 1 823	\$ 2 416	\$ 2 340	\$ 2 922	\$ 2 958	\$ 4 310	\$ 1 863	\$ 1 543
23	127	178	124	158	154	185	124	111
24	206	241	244	276	218	258	217	162
25	.....	335	.....	291	435	1 972	10	.....
26	805	861	872	1 010	959	803	844	736
27	332	411	597	705	676	648	366	286
28	240	260	392	286	377	286	182	171
29	113	130	111	196	139	158	120	77
30	\$ 5 057	\$ 5 522	\$ 5 668	\$ 4 250	\$ 5 922	\$ 8 318	\$ 3 497	\$ 3 342
31	1 081	1 087	1 013	1 175	1 120	1 048	1 256	1 158
32	\$ 3 976	\$ 4 435	\$ 4 655	\$ 3 075	\$ 4 802	\$ 7 270	\$ 2 241	\$ 2 184
33	17.2	16.3	16.8	11.1	14.3	24.1	11.3	13.0
34	\$ 3 601	\$ 3 842	\$ 4 052	\$ 2 478	\$ 3 908	\$ 6 550	\$ 1 955	\$ 2 060
35	3 337	3 824	4 036	3 844	4 802	5 517	2 799	1 965
36	1 394	1 344	1 304	44	754	2 441	389	1 030
37	39	39	39	27	29	28	73	55
38	201	241	273	239	284	295	177	227
39	\$ 34.21	\$ 32.90	\$ 29.38	\$ 30.00	\$ 31.31	\$ 42.85	\$ 30.28	\$ 21.48
40	14.44	14.52	12.30	17.14	14.38	18.18	17.62	11.88
41	\$ 19.77	\$ 18.38	\$ 17.08	\$ 12.86	\$ 16.93	\$ 24.67	\$ 12.66	\$ 9.60
42	\$ 63	\$ 58	\$ 57	\$ 60	\$ 64	\$ 52	\$ 56	\$ 36
43	68	66	72	68	73	61	58	40
44	13	13	10	13	13	11	15	11
45	115	113	101	116	118	102	113	74
46	85.7	75.2	66.8	83.1	71.4	70.9	80.3	82.0
47	23.8	21.6	29.4	29.2	32.3	32.0	21.3	12.6
48	11.5	15.5	14.2	9.9	8.9	12.9	9.4	11.3
49	3.5	5.1	5.8	6.8	2.8	1.8	17.0	20.8
50	23.9	16.7	14.5	6.7	11.2	3.3	4.3	4.1
51	5.9	3.2	4.2	9.8	8.4	4.9	9.9	12.0
52	17.9	24.2	21.3	24.8	27.8	27.5	27.6	32.0
53	13.5	13.7	10.6	12.8	8.6	17.6	10.5	7.2
54	54.5	58.8	61.4	40.8	46.3	56.9	46.8	47.6
55	32.8	36.5	41.9	27.1	26.8	32.4	31.9	28.3
56	8.2	12.5	11.7	14.6	10.7	10.5	14.3	14.4
57	.....	.....	.....	8.4	.....	10.0	13.5	17.7
58	21.4	21.0	18.4	19.0	20.3	17.4	19.5	18.3
59	\$ 18.18	\$ 16.58	\$ 13.14	\$ 15.87	\$ 16.20	\$ 21.85	\$ 14.84	\$ 9.86
60	176	187	192	181	181	190	191	185
61	3.66	4.73	3.97	4.21	4.05	3.70	4.03	3.96
62	16.1	21.7	22.8	22.0	23.8	43.4	9.1	8.7
63	\$210	\$217	\$196	\$181	\$173	\$200	\$182	\$213
64	108	98	77	159	139	95	184	114
65	\$ 7.42	\$ 7.92	\$ 7.53	\$ 8.67	\$ 8.09	\$ 7.48	\$ 9.39	\$ 6.89
66	10.51	11.35	11.63	13.30	12.26	12.63	14.48	11.03
67	.63	.74	.45	.66	.54	.63	.70	.49
68	1.02	1.00	.90	1.15	.77	.88	1.23	.71
69	1.19	1.08	1.44	1.20	1.33	.97	1.03	.75

(Continued)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—Continued

Accounting Item	St. Clair	Monroe	Bond	Clinton	
Capital investment, total	1	\$24 312	\$21 843	\$21 070	\$20 837
Land	2	13 036	12 642	10 305	10 551
Land improvements	3	377	335	861	382
Farm buildings	4	3 456	2 637	2 852	2 552
Horses	5	445	354	220	341
Cattle	6	1 372	922	1 878	1 683
Hogs	7	514	461	554	499
Sheep	8	24	58	118	25
Poultry	9	186	199	109	241
Feed and grain	10	2 377	2 097	1 934	1 975
Machinery and equipment	11	2 525	2 138	2 239	2 588
Income, net increases, total	12	\$ 5 654	\$ 5 485	\$ 6 667	\$ 5 834
Cattle	13	742	366	906	664
Dairy sales	14	1 337	878	1 889	2 197
Hogs	15	2 057	1 477	2 771	1 518
Sheep	16	34	77	149	27
Poultry and eggs	17	721	778	386	779
Farm products used in household	18	434	417	286	439
Feed and grain	19	113	1 124	.....	.....
AAA payment	20	189	348	233	174
Labor and miscellaneous	21	27	20	47	36
Expenses, net decreases, total	22	\$ 2 094	\$ 1 980	\$ 2 753	\$ 1 895
Land improvements	23	118	73	173	96
Farm buildings	24	289	269	224	187
Feed and grain	25	.....	.....	666	145
Machinery and equipment	26	936	817	915	834
Hired labor	27	397	468	447	343
Taxes	28	236	226	219	180
Livestock and miscellaneous	29	118	127	109	110
Receipts less expenses	30	\$ 3 560	\$ 3 505	\$ 3 914	\$ 3 939
Unpaid labor	31	1 295	1 217	974	1 174
Net farm earnings	32	\$ 2 265	\$ 2 288	\$ 2 940	\$ 2 765
Rate earned on investment, percent	33	9.3	10.5	14.0	13.3
Labor and management earnings	34	\$ 1 787	\$ 1 961	\$ 2 570	\$ 2 455
Excess of sales over expenses	35	2 479	2 601	2 761	2 968
Increase in inventory	36	647	487	867	532
Number of farms included	37	31	22	28	30
Size of farm, acres	38	214	226	282	176
Gross earnings per acre	39	\$ 26.45	\$ 24.32	\$ 23.65	\$ 33.17
Total expenses per acre	40	15.85	14.17	13.22	17.45
Net earnings per acre	41	\$ 10.60	\$ 10.15	\$ 10.43	\$ 15.72
Value of land per acre	42	\$ 61	\$ 56	\$ 37	\$ 60
Value of improved land per acre	43	66	65	40	65
Value of buildings per acre	44	16	12	10	15
Total investment per acre	45	114	97	75	118
Percent of land area tillable	46	82.1	77.9	74.2	83.6
Percent of tillable land in—					
Corn	47	18.9	18.0	15.6	17.9
Oats	48	12.3	8.8	12.1	18.2
Wheat	49	18.1	26.9	6.7	15.7
Soybeans for grain	50	7.2	3.7	7.6	6.9
Other cultivated crops	51	11.7	13.9	15.3	10.0
Legume hay and pasture	52	23.6	23.1	29.1	21.4
Nonlegume hay and pasture	53	8.2	5.6	13.6	9.9
Bushels per acre: Corn	54	47.8	41.7	36.6	45.9
Oats	55	28.4	28.2	27.0	37.2
Wheat	56	14.9	15.0	12.3	12.3
Barley	57	11.5	22.8	20.0	12.0
Soybeans	58	16.3	12.7	19.2	17.5
Feed fed per acre	59	\$ 11.96	\$ 8.76	\$ 11.89	\$ 17.04
Returns for \$100 feed fed	60	205	196	189	185
Poultry returns per hen	61	4.34	3.83	3.40	3.28
Number of litters farrowed	62	12.8	11.1	14.9	10.1
Returns per litter	63	\$201	\$157	\$234	\$192
Dairy returns per cow	64	149	131	159	179
Horse and machinery cost per crop acre	65	\$ 9.20	\$ 7.86	\$ 7.52	\$ 8.79
Labor cost per crop acre	66	12.90	12.28	10.23	12.35
Land improvements cost per acre	67	.55	.32	.61	.55
Farm buildings cost per acre	68	1.35	1.19	.79	1.06
Taxes per acre	69	1.10	1.00	.78	1.02

(Concluded)

TABLE 13.—SUMMARY OF BUSINESS RECORDS FROM 3,192 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1942—*Concluded*

	Washington	Effingham, Fayette	Franklin, Hamilton, Jefferson, Williamson	Clark, Crawford, Jasper	Clay, Richland, Wayne, Marion	Edwards	Wabash, Lawrence, White, Gallatin	Union, Jackson, Perry, Massac, Pulaski, Alexander
1	\$17 012	\$16 595	\$13 984	\$18 824	\$13 715	\$15 073	\$19 316	\$12 253
2	9 507	8 174	7 076	9 943	7 176	8 202	10 672	5 777
3	331	620	667	517	608	496	509	629
4	2 110	1 991	1 661	2 030	1 471	1 407	2 111	1 522
5	301	239	245	192	205	270	209	300
6	1 009	1 314	1 051	1 376	1 094	934	1 176	852
7	182	309	348	718	308	516	530	314
8	78	139	91	28	183	101	69	39
9	161	202	139	168	139	175	127	127
10	1 486	1 671	1 120	2 034	1 009	1 571	2 035	1 223
11	1 847	1 936	1 586	1 818	1 522	1 401	1 878	1 470
12	\$ 4 052	\$ 4 552	\$ 4 430	\$ 5 652	\$ 3 420	\$ 5 128	\$ 5 730	\$ 4 088
13	447	711	827	1 147	673	724	867	473
14	1 051	1 024	242	423	436	135	357	773
15	574	1 123	1 789	2 730	1 010	2 140	2 034	1 354
16	44	167	121	28	218	97	82	28
17	594	608	398	610	496	679	429	511
18	300	336	353	344	312	308	326	345
19	747	311	526	96	62	706	1 296	376
20	272	247	131	241	181	304	311	202
21	23	25	43	33	32	35	28	26
22	\$ 1 428	\$ 1 610	\$ 1 539	\$ 1 653	\$ 1 385	\$ 1 387	\$ 1 713	\$ 1 414
23	145	161	238	138	156	200	145	128
24	129	158	158	133	129	104	162	125
25	.....	.....	.....	.....	.....	.....	.....	.....
26	687	703	699	743	625	543	740	613
27	237	328	238	339	247	299	371	296
28	151	167	149	190	162	184	221	167
29	79	93	57	110	66	57	74	85
30	\$ 2 624	\$ 2 942	\$ 2 891	\$ 3 999	\$ 2 035	\$ 3 741	\$ 4 017	\$ 2 674
31	1 257	1 029	830	890	836	804	828	778
32	\$ 1 367	\$ 1 913	\$ 2 061	\$ 3 109	\$ 1 199	\$ 2 937	\$ 3 189	\$ 1 896
33	8.0	11.5	14.7	16.5	8.7	19.5	16.5	15.5
34	\$ 1 252	\$ 1 758	\$ 1 932	\$ 2 779	\$ 1 107	\$ 2 778	\$ 2 804	\$ 1 853
35	1 741	2 062	1 561	2 894	794	2 201	2 723	1 586
36	583	544	977	761	929	1 232	968	743
37	32	49	38	50	59	48	44	28
38	223	243	268	241	250	207	229	214
39	\$ 18.15	\$ 18.76	\$ 16.55	\$ 23.47	\$ 13.68	\$ 24.77	\$ 25.01	\$ 19.09
40	12.03	10.88	8.85	10.56	8.88	10.58	11.09	10.24
41	\$ 6.12	\$ 7.88	\$ 7.70	\$ 12.91	\$ 4.80	\$ 14.19	\$ 13.92	\$ 8.85
42	\$ 43	\$ 34	\$ 26	\$ 41	\$ 29	\$ 40	\$ 47	\$ 27
43	45	37	27	45	30	42	50	31
44	9	8	6	8	6	7	9	7
45	76	68	52	78	55	73	84	57
46	84.7	79.8	86.4	81.8	83.6	82.1	83.9	72.0
47	11.3	18.7	17.0	24.1	17.7	22.9	25.2	15.8
48	13.6	10.9	6.4	7.2	6.6	9.8	3.7	6.3
49	25.1	3.5	9.2	7.7	6.0	11.8	15.3	11.6
50	4.2	12.7	5.1	11.3	4.1	10.7	12.3	6.7
51	12.7	12.4	13.7	12.6	15.2	10.1	11.0	18.6
52	23.7	19.6	25.5	22.4	16.4	22.3	21.6	31.4
53	9.4	22.2	23.1	14.7	34.0	12.4	10.9	9.6
54	36.9	36.6	36.0	45.4	29.3	52.8	49.4	42.4
55	32.7	26.9	21.5	25.8	20.2	28.9	27.6	22.0
56	14.3	8.4	15.8	10.1	12.6	17.9	13.9	14.0
57	11.3	3.3	10.6	13.8	9.7	17.3	12.6	14.2
58	12.8	13.0	15.1	14.4	11.2	16.2	16.7	13.4
59	\$ 6.67	\$ 8.28	\$ 6.60	\$ 11.85	\$ 6.16	\$ 9.93	\$ 9.79	\$ 7.32
60	197	193	207	182	199	195	180	217
61	3.65	3.41	4.06	4.00	3.62	3.82	3.52	4.24
62	5.3	7.7	9.9	13.6	6.1	10.5	12.2	6.9
63	\$181	\$204	\$215	\$210	\$168	\$205	\$183	\$186
64	134	139	78	118	95	86	108	107
65	\$ 5.77	\$ 6.44	\$ 5.51	\$ 6.08	\$ 5.74	\$ 5.38	\$ 6.31	\$ 7.77
66	10.35	10.31	7.29	8.55	8.19	8.53	8.44	10.59
67	.65	.66	.89	.57	.62	.97	.63	.60
68	.58	.65	.59	.55	.52	.50	.71	.58
69	.68	.69	.56	.79	.65	.89	.96	.78



Director, Extension Service in
Agriculture and Home Economics

FREE—Cooperative Agricultural Extension
Work. Acts of May 8 and June 30, 1914

TABLE A.—INDEXES OF UNITED STATES AGRICULTURAL AND BUSINESS CONDITIONS

Year and month	Commodity prices				Income from farm marketings			Non-agricultural employee's compensation ⁸	Weekly wages, all manufacturing industries, unadjusted ⁹	Industrial production ¹⁰
	Wholesale prices		Illinois farm prices ³	Prices paid by farmers ⁴	U. S. in money ⁵	Illinois				
	All commodities ¹	Farm products ²				In money ⁶	In purchasing power ⁷			
	1926	1926	1935-39	1935-39	1935-39	1935-39	1935-39	1939	1935-39	
Base period...	95	105	130	129	136	108	84	121	120	110
1929.....	86	88	112	124	114	92	74	110	98	91
1930.....	73	65	77	109	84	61	56	93	74	75
1931.....	65	48	52	95	60	45	48	72	51	58
1932.....	66	51	56	91	62	54	59	68	54	69
1933.....	75	65	76	99	73	58	58	79	70	75
1934.....	80	79	103	101	90	68	68	86	80	87
1935.....	81	81	107	99	104	86	87	98	93	103
1936.....	86	86	120	104	108	92	88	107	111	113
1937.....	79	69	87	98	99	85	87	101	85	89
1938.....	77	65	81	97	99	85	87	108	100	108
1939.....	78	68	86	98	107	94	96	118	114	123
1940.....	87	82	109	104	142	122	117	144	168	156
1941.....	99	105	140	118	197	166	141	187	242	181
1942 June...	99	104	138	118	192	156	132	187	234	176
July....	99	105	139	118	192	131	111	188	243	178
Aug....	99	106	143	119	204	134	113	193	255	183
Sept....	100	108	143	119	208	144	121	198	262	187
Oct....	100	109	145	120	211	271	226	205	271	191
Nov....	100	110	144	121	224	200	165	209	280	194
Dec....	101	114	148	122	226	191	157	215	288	197
1943 Jan....	102	117	156	124	224	176	142	215	291	199
Feb....	102	119	160	124	240	185	149	219	297	202
Mar....	103	123	164	125	260	212	170	224	304	203
Apr....	104	124	165	126	261	187	148	227	309	203
May....	104 ¹¹	126	165	126	257 ¹¹	...	...	...	...	203
June...	104 ¹¹	126	165	127	...	...	...	...	...	201 ¹¹

TABLE B.—PRICES OF ILLINOIS FARM PRODUCTS¹²

Product	Calendar year average			July 1942	Current months		
	1924-29	1941	1942		May	June	July
Corn, bu.....	\$.81	\$.63	\$.77	\$.81	\$.99	\$1.00	\$1.02
Oats, bu.....	.42	.36	.48	.42	.61	.66	.67
Wheat, bu.....	1.30	.93	1.13	1.06	1.36	1.38	1.44
Barley, bu.....	.66	.55	.74	.65	.88	.91	1.01
Soybeans, bu.....	1.94	1.24	1.65	1.60	1.65	1.66	1.65
Hogs, cwt.....	9.97	9.37	13.37	14.00	14.00	13.80	13.50
Beef cattle, cwt.....	8.57	10.07	11.93	11.80	14.00	14.10	13.80
Lambs, cwt.....	12.22	9.85	12.28	12.90	14.20	14.20	13.60
Milk cows, head.....	78.00	80.00	102.00	99.00	135.00	136.00	130.00
Veal calves, cwt.....	11.27	11.19	13.63	13.30	14.60	14.50	14.50
Sheep, cwt.....	6.52	4.43	5.50	5.20	7.30	7.10	6.90
Butterfat, lb.....	.42	.33	.39	.36	.49	.48	.47
Milk, cwt.....	2.32	2.05	2.40	2.20	2.85	2.85 ¹¹	2.90 ¹¹
Eggs, doz.....	.30	.22	.29	.28	.33	.34	.34
Chickens, lb.....	.21	.15	.19	.19	.24	.25	.26
Wool, lb.....	.36	.37	.40	.39	.43	.45	.43
Apples, bu.....	1.59	1.07	1.53	1.40	2.75	2.75	2.50
Hay, ton.....	13.88	8.49	11.33	9.00	14.70	14.10	14.10
Potatoes, bu.....	1.39	.82	1.32	1.55	2.55	2.60	2.25

¹⁻¹²For sources of data in tables see May-June issue.

FARM BUSINESS REPORT . . . 1942



Beef cattle are adapted to the available land, labor, and equipment found on many farms.
This is especially true when maximum use is made of roughages.

FARMING-TYPE AREA ONE Chicago Dairy Area

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

Annual Farm Business Report


ON ONE HUNDRED FIFTY-FIVE FARMS IN FARMING-TYPE AREA 1, 1942

By P. E. Johnston, J. B. Cunningham, and F. J. Reiss^{1/}

War adjustments. Farm account cooperators in Farming-Type Area 1 responded to the war demand for increased production in 1942 over that in 1941 by increasing grain acreage and numbers of livestock.

Item	1941	1942	Change
Acres per farm	181	193	12 acres (6.6%) increase
Acres of grain crops	82	90	8 acres (9.7%) increase
Number of dairy cows	19.5	20.5	1 cow (5.1%) increase
Number of pigs weaned	64	87	23 pigs (36.0%) increase
Number of hens	119	122	3 hens (2.5%) increase
Total months of labor	24.4	24.8	0.4 months (1.6%) increase
Value of machinery (beginning of year)	\$2 170	\$2 675	\$505 (23.3%) increase
Tons of grain produced	113	124	11 tons (9.7%) increase
Measure of volume of production for livestock and livestock products ^{2/}	\$6 462	\$7 247	\$785 (12.1%) increase



 Farming-Type Area 1
Dairy and Truck

The cooperators used only .4 of one month more labor per farm, but they used considerably more machinery than in the previous year.

Total grain produced per farm increased from 113 to 124 tons--an increase of 9.7 percent. This was due to the combined effects of larger acreages and higher yields in 1942 than in 1941. Livestock production, as measured by receipts and net increases for livestock and livestock products, which are valued at the same price for 1942 as for 1941, increased about 12.1 percent.

^{1/} W. N. Thompson supervised the closing of the farm accounts, and J. A. Snyder supervised the preparation of the tables used in this report. The project was conducted in cooperation with the county farm bureau and was supervised by the following farm advisers: J. H. Brock, McHenry; A. C.

Johnson, Kane; D. M. Chalcraft, Boone; H. S. Wright, DuPage; Ray T. Nicholas, Lake; and C. A. Hughes, Cook.

^{2/} For 1941 actual receipts and net increases were used; for 1942 receipts and net increases were adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm price for each class of livestock or livestock product, except dairy products, for which Chicago milk prices were used.

TABLE 1.--INVENTORY CHANGES, CASH INCOME, AND CASH EXPENSES
Accounting Farms in Farming-Type Area 1, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Inventory Changes					
Land improvements - - - - -	\$	\$ 83	\$) 204	\$ 81	\$ -4
Farm buildings- - - - -		232)		
Horses- - - - -		-22	-30	-28	-9
Productive livestock- - - - -		849	875	424	439
Feed, grain, and seeds- - - - -		489	962	352	374
Machinery and equipment - - - - -		58	363	42	79
Automobile (farm share) - - - - -		-1	39	1	8
Total - - - - -	\$	\$ 1688	\$ 2413	\$ 872	\$ 887
Cash Receipts					
Land improvements - - - - -	\$	\$ 1	\$) 6	\$ 14	\$ 2
Farm buildings- - - - -		17)		
Horses- - - - -		41	41	53	35
Productive livestock: Cattle- - - - -		4968	2969	2079	1085
Dairy sales - - - - -		3867	3285	2586	2130
Hogs- - - - -		2110	1120	698	492
Sheep - - - - -		110	99	31	86
Poultry - - - - -		112	91	94	91
Egg sales - - - - -		341	271	205	195
Total productive livestock- - - - -	(	(11508)	(7835)	(5693)	(4079)
Feed, grain, and seeds- - - - -		1096	666	532	414
Machinery and equipment - - - - -		260	224	181	153
Automobile (farm share) - - - - -		10	35	28	23
AAA receipts- - - - -		324	275	282	311
Labor off farm- - - - -		40	30	62	38
Miscellaneous - - - - -		11	23	7	9
Total - - - - -	\$	\$13308	\$ 9135	\$ 6852	\$ 5064
Cash Expenses					
Land improvements - - - - -	\$	\$ 290	\$) 626	\$ 421	\$ 289
Farm buildings- - - - -		825)		
Horses- - - - -		36	26	52	40
Productive livestock: Cattle- - - - -		2989	2030	1255	747
Hogs- - - - -		192	115	46	86
Sheep - - - - -		67	58	34	61
Poultry - - - - -		49	45	37	37
Total productive livestock- - - - -	(	(3297)	(2248)	(1372)	(931)
Feed and grain purchases- - - - -		1498	935	677	517
Crop and sealing expense- - - - -		273	203	190	178
Machinery and equipment - - - - -		1445	1375	810	721
Automobile (farm share) - - - - -		160	181	123	110
Livestock expense - - - - -		148	103	79	80
Hired labor - - - - -		986	706	523	490
Taxes - - - - -		297	270	276	244
Miscellaneous - - - - -		74	34	28	34
Total - - - - -	\$	\$ 9329	\$ 6707	\$ 4551	\$ 3634
Summary					
Total inventory change- - - - -	\$	\$ 1688	\$ 2413	\$ 872	\$ 887
Cash balance- - - - -		3979	2428	2301	1430
Farm products used in household - - - - -		332	279	253	241
Receipts less expenses- - - - -	\$	\$ 5999	\$ 5120	\$ 3426	\$ 2558
Total unpaid labor- - - - -		950	787	743	740
Net earnings per farm - - - - -	\$	\$ 5049	\$ 4333	\$ 2683	\$ 1818
Net earnings per acre - - - - -	\$-	\$26.19	\$ 23.89	\$ 14.91	\$10.64

Net earnings. The net earnings per farm on an inventory basis were higher in 1942 than in 1941; the average was \$5,049 in 1942 compared with \$4,333 in 1941 (Table 1). The figure representing net earnings per farm is the sum remaining as compensation for the use of the capital invested in the business and for the managerial ability of the operator. It is calculated by adding to the cash balance the value of farm products used in the household and the inventory increases and by subtracting from the resulting total the value of unpaid labor. Therefore this figure indicates the earning power of the business and determines the real value of the farm and its equipment. The average net earnings per acre were \$26.19 in 1942, \$23.89 in 1941, \$14.91 in 1940, and \$10.64 in 1939.

Inventory changes. The year 1942 was the tenth consecutive year in which inventories were increased. The largest increase for the past four years was \$2,413 in 1941 and the smallest was \$872 in 1940. In 1942 the largest increases were for livestock and feed, grain, and seeds. The average amounts of grain on hand in Area 1 at the two inventory periods were:

<u>Crop</u>	<u>Beginning of year (bushels)</u>	<u>End of year (bushels)</u>
Corn	2156	2230
Oats	1011	1150
Wheat	29	33
Soybeans	88	110

Cash receipts and cash expenses. In 1942 cash receipts exceeded cash expenses by \$3,979, the largest margin for any year in the past four. The cash balance--the difference between cash receipts and expenses--is the amount of money which was available for family living expenses, interest, debt payments, and savings.

Unpaid family labor. Although there was no appreciable change in the amount of family labor available, the total valuation of unpaid labor was higher for 1942 than for any other year in the past four. This increase resulted from the fact that the physical labor of the operator and other members of the family was valued at \$70 per month in 1942, at \$55 per month in 1941, and at \$50 per month in 1940 and 1939.

Variation in farm earnings. A wide variation was found in earnings on the farms in Area 1. For example, 36 farms earned less than 9 percent on their investment, with an average of 6.4 percent; but 14 farms earned 21 percent or more with an average of 22.6 percent. After deducting all farm expenses and a charge of 5 percent for the use of the capital invested in the business, the former group of operators had \$1,100 for labor and management earnings contrasted with \$6,755 for the latter group. The variation in earnings for all the records in the area was as follows:

<u>Rate earned on investment (percent)</u>	<u>Number of farms</u>	<u>Average rate earned (percent)</u>	<u>Acres per farm</u>	<u>Capital invested per farm</u>	<u>Gross earnings per farm</u>	<u>Net earnings per farm</u>	<u>Labor and management earnings</u>
Less than 9.00	36	6.4	179	\$39 188	\$8 867	\$2 515	\$1 100
9.00 to 12.99	37	11.2	204	38 919	9 541	4 342	3 155
13.00 to 16.99	40	15.0	191	37 009	10 863	5 535	4 442
17.00 to 20.99	28	18.6	195	38 715	12 853	7 212	6 043
21.00 or more	14	22.6	201	34 145	11 621	7 720	6 755

TABLE 2.--FACTORS HELPING TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 1, 1942

Item	Your farm	Standards for your farm	Average of all farms
Rate earned on investment- - - - -	_____ %	13.3%	13.3%
Number of farms- - - - -	--	155	155
Acres in farm- - - - -	_____	193	193
Acres tillable - - - - -	_____	158	158
Acres in crops - - - - -	_____	134	134
Gross earnings per acre- - - - -	\$ _____	\$ _____ ^{a/}	\$ 50.66
Gross expenses per acre- - - - -	_____	_____	24.47
Net earnings per acre- - - - -	_____	_____	\$ 26.19
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 91	\$ 91
Value of improved land per acre- - - - -	_____	_____ ^{a/}	97
Value of buildings per acre- - - - -	_____	_____ ^{e/}	37.34
Total investment per acre- - - - -	_____	197	197
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	_____ ^{a/}	81.8
Percent of tillable land in:			
Corn - - - - -	_____	_____	34.4
Oats - - - - -	_____	_____	19.7
Barley - - - - -	_____	_____	4.0
Soybeans - - - - -	_____	_____	5.5
Other crops- - - - -	_____	_____	3.4
Legume hay and pasture - - - - -	_____	_____	21.5
Nonlegume hay and pasture- - - - -	_____	_____	11.5
<u>Crop Yields</u>			
Corn - - - - -	_____	_____ ^{b/}	71.3
Oats - - - - -	_____	_____	60.6
Barley - - - - -	_____	_____	34.8
Soybeans - - - - -	_____	13.2	13.2
<u>Livestock Factors</u>			
Value of feed fed to prod. l.s.- - - - -	\$ _____	\$ 5 348	\$5 348
Feed fed per acre to prod. l.s.- - - - -	_____	_____ ^{c/}	27.74
Returns per \$100 worth of feed fed - - - - -	_____	_____	174
Poultry returns per hen- - - - -	_____	4.30	4.30
Number of litters farrowed - - - - -	_____	14.1	14.1
Number of pigs weaned per litter - - - - -	_____	6.2	6.2
Returns per litter farrowed- - - - -	\$ _____	\$ 199	\$ 199
Average number of cows milked- - - - -	_____	20.5	20.5
Number of cows milked per 100 acres- - - - -	_____	10.6	10.6
Dairy returns per cow milked - - - - -	\$ _____	\$ _____ ^{c/}	\$ 193
<u>Expense Factors</u>			
Horse and machinery cost per crop acre - - - - -	\$ _____	\$ _____ ^{d/}	\$ 11.19
Labor cost per crop acre - - - - -	_____	_____	14.15
Total months of labor- - - - -	_____	_____ ^{e/}	24.8
Number of work horses- - - - -	_____	_____	3.1
Land improvements cost per acre- - - - -	\$ _____	\$ 1.07	\$ 1.07
Buildings cost per acre- - - - -	_____	_____ ^{c/}	2.99
Land tax per acre- - - - -	_____	_____ ^{a/}	1.34

Source of Standards:

a/ Table 3, value of improved land.
b/ Fig. 1, value of improved land.
c/ Table 4, source of income.

d/ Table 6, size of farm and number of milk cows per 100 acres.
e/ Table 5, size of farm.

CHART FOR STUDYING THE EFFICIENCY OF VARIOUS PARTS OF YOUR BUSINESS

Accounting Farms in Farming-Type Area 1, 1942

The numbers above the double lines across the middle of the page are the averages for the farms similar in organization to your farm. By drawing a line across each column at the place which measures the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Factors that affect the gross earnings									Factors that affect expenses				
			Percent of tillable land in legume hay and pasture	Crop yields			Feed fed per acre to productive l.s.	Returns per \$100 feed fed	Poultry returns per hen	Hog returns per litter farrowed	Dairy returns per cow milked	Gross expenses per acre	Horse and machinery cost per crop acre	Labor cost per crop acre	Buildings cost per acre	
				Corn, bu.	Oats, bu.	Barley, bu.										
23.3	393									6.80	274					
21.3	353									6.30	259					
19.3	313									5.80	244					
17.3	273									5.30	229					
15.3	233									4.80	214					
13.3	193									4.30	199					
11.3	153									3.80	184					
9.3	113									3.30	169					
7.3	73									2.80	154					
5.3	--									2.30	139					
3.3	--									1.80	124					
* 2%	40	\$4	2%	4	4	3	\$4	\$15	\$.50	\$15	\$15	\$2	\$1	\$1	\$.50	

*Each space between the horizontal lines represents the value indicated at bottom of each column.

TABLE 3.--USE OF TILLABLE LAND AND OTHER FACTORS
RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 1, 1942

Item	Value of improved land					
	Less than \$66	\$66 to \$79	\$80 to \$93	\$94 to \$107	\$108 to \$121	122 or more
Average value of improved land-	\$59	\$75	\$86	\$100	\$115	\$129
Number of farms - - - - -	13	17	38	51	20	16
Acres per farm - - - - -	175	177	201	194	174	222
Percent of land area tillable -	71.8	76.8	80.3	82.5	88.3	87.3
Percent of tillable land in:						
Corn- - - - -	29.9	31.2	33.6	33.4	37.6	40.4
Oats- - - - -	18.3	21.0	19.8	20.3	16.9	20.8
Barley- - - - -	6.6	3.2	3.8	2.9	6.5	3.7
Soybeans- - - - -	4.0	3.6	4.6	5.7	7.7	6.5
Other crops - - - - -	3.9	1.8	4.8	3.2	2.9	3.2
Legume hay and pasture- - - -	26.7	23.5	21.5	22.7	18.3	20.2
Nonlegume hay and pasture - -	10.6	15.7	11.9	11.8	10.1	5.2
Gross earnings per acre - - - -	\$42.41	\$47.03	\$45.91	\$50.31	\$67.21	\$60.77
Gross expenses per acre - - - -	<u>24.48</u>	<u>23.26</u>	<u>22.03</u>	<u>23.45</u>	<u>34.18</u>	<u>30.77</u>
Net earnings per acre - - - - -	\$17.93	\$23.77	\$23.88	\$26.86	\$33.03	\$30.00
Land tax per acre - - - - -	\$ 1.15	\$ 1.28	\$ 1.24	\$ 1.32	\$ 1.58	\$ 1.55

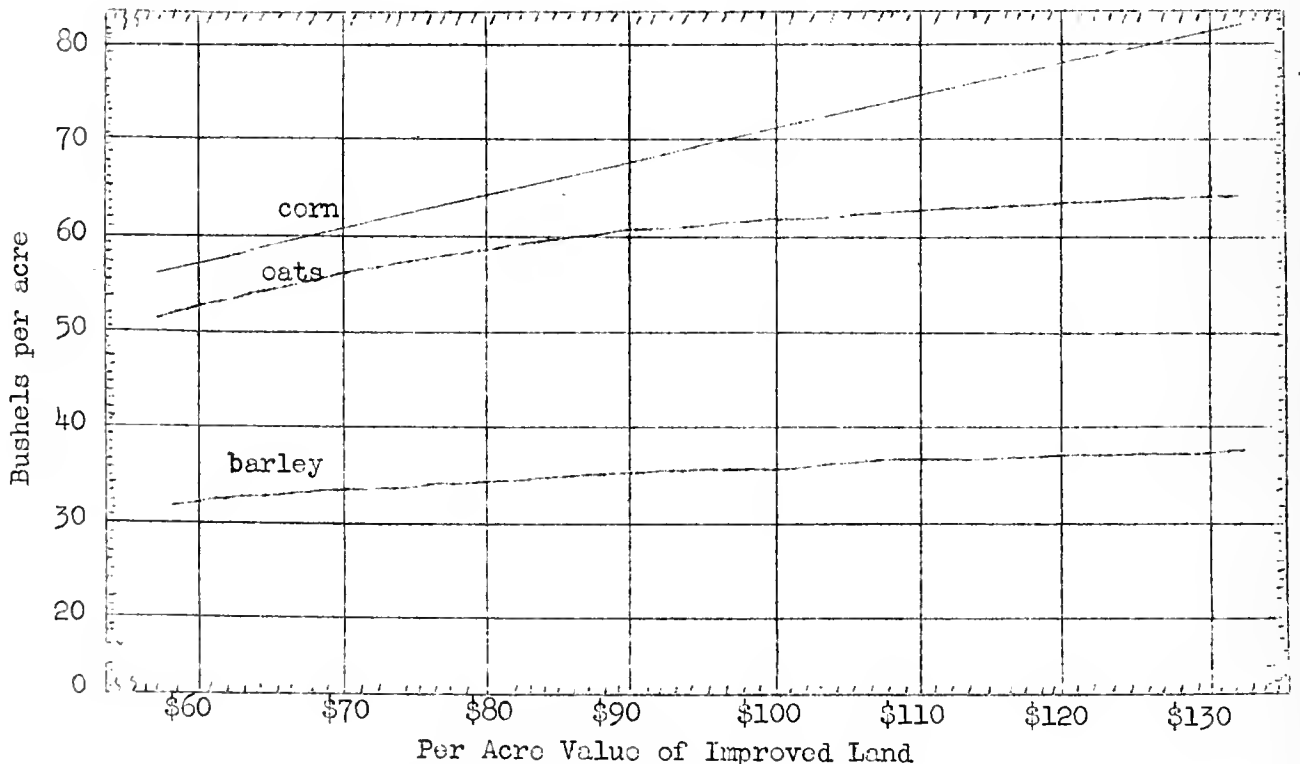


Fig. 1.--Average yields of corn, oats, and barley with varying values of improved land.

Explanation of Tables

Variable standards are used in analyzing the farm business (Table 2). They make allowances for the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the amount of feed fed and the returns per \$100 worth of feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of the products produced affect the relative profitableness of various types of farming for any particular year.

The "standards for your farm" (Table 2) are taken from Tables 3 to 6 and from Figure 1 as follows:

- Table 3 - Value of improved land.
Gross earnings, gross expenses, and net earnings per acre.
Value of improved land per acre.
All items in the land-use section.
Land tax per acre.
- Figure 1 - Value of improved land.
Yields for corn, oats, and barley.
- Table 4 - Source of income.
Feed fed per acre to productive livestock.
Returns per \$100 worth of feed fed.
Dairy returns per cow.
- Table 5 - Size of farm.
Value of buildings per acre.
Total months of labor.
Number of work horses.
Buildings cost per acre.
- Table 6 - Size of farm and number of milk cows per 100 acres.
Horse and machinery cost per crop acre.
Labor cost per crop acre.

The terms used in the tables are the same as the terms used in the Illinois farm account book. For example, "improved land" is classified on Page 1 of the farm account book. It means crop land, tillable pasture, and land occupied by farmstead, roads, and lanes. Likewise, "crop acres" are listed on Page 20 of the farm account book. They include all the tillable land on which a large amount of work has been done in preparing a seedbed or in cultivating or harvesting a crop.

Land use and crop yields. The percent of tillable land in grain crops increased as the value per acre for improved land increased (Table 3). Likewise the percent of land area tillable, the net earnings per acre, and the land tax per acre increased as the value of improved land increased. On the other hand, the percent of tillable land in legume and nonlegume hay and pasture decreased as the value of the land increased.

Yields per acre for corn, oats, and barley increased as the land value increased (Fig. 1). By using Table 3 and Figure 1, the account keeper may find out whether his acreage in various crops, his crop yields, and his net earnings per acre were high or low for 1942 in comparison with the average of other farms in his area having about the same value for improved land.

TABLE 4.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 1, 1942

Item	Source of income			
	Dairy sales 40% +	Hogs 40% +	Cattle 40% +	General farms L.S. 60% +
Number of farms - - - - -	94	17	17	27
Percent of income from prod. l.s.	90.7	85.5	96.2	92.5
Percent of income from crops - - -	1.3	6.7	--	--
<u>Investments</u>				
Total per farm- - - - -	\$33 093	\$37 940	\$59 256	\$41 856
Total per acre- - - - -	183	195	259	199
Land per acre - - - - -	84	94	107	97
Land improvements per acre- - -	3.14	3.95	3.31	4.20
Buildings per acre- - - - -	36.42	40.25	42.46	34.94
Machinery per acre- - - - -	15.18	14.81	16.53	14.86
<u>Earnings</u>				
Per farm				
Gross earnings- - - - -	\$ 8 808	\$ 9 647	\$15 597	\$10 319
Gross expenses- - - - -	4 383	4 386	8 316	4 635
Net earnings- - - - -	\$ 4 425	\$ 5 261	\$ 7 218	\$ 5 684
Per acre				
Gross earnings- - - - -	\$ 48.69	\$ 49.60	\$ 68.28	\$ 49.02
Gross expenses- - - - -	24.23	22.55	36.40	22.02
Net earnings- - - - -	\$ 24.46	\$ 27.05	\$ 31.88	\$ 27.00
Rate earned on investment - - -	13.4%	13.9%	12.3%	13.6%
Labor and management earnings -	\$ 3 479	\$ 3 988	\$ 5 023	\$ 4 356
<u>Size and Intensity</u>				
Acres per farm- - - - -	181	194	228	210
Percent of land area tillable -	79.9	80.7	90.5	82.3
Percent tillable land in grain-	58.3	68.7	78.4	69.3
Percent in hay and pasture- - -	38.8	29.7	18.4	28.6
Feed fed per acre to prod. l.s.	\$ 23.02	\$ 25.20	\$ 48.53	\$ 29.15
Months of labor per 100 crop A.	21.6	15.6	13.3	15.9
Total months of labor - - - - -	25.6	21.5	25.6	23.7
<u>Crop Yields per Acre</u>				
Corn, bu. - - - - -	66.0	71.7	78.4	75.4
Oats, bu. - - - - -	60.0	56.7	62.9	62.6
<u>Livestock Returns</u>				
Per \$100 feed fed - - - - -	\$ 198	\$ 174	\$ 138	\$ 160
Hog returns per litter- - - - -	191	224	180	194
Dairy returns per cow - - - - -	200	168	129	173
<u>Expense Factors</u>				
Labor cost per crop acre- - - -	\$ 16.24	\$ 12.41	\$ 10.75	\$ 12.09
Horse and machinery cost per crop acre - - - - -	12.06	10.42	9.51	10.64
Land improvements cost per acre	1.03	1.20	.98	1.17
Buildings cost per acre - - - -	2.77	3.27	4.07	2.74
Land tax per acre - - - - -	1.32	1.34	1.36	1.40

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

Each farmer should, however, use caution in interpreting the data in Table 4. For example, the fact that hog farms earned the largest rate on the investment for 1942 and that cattle farms earned the smallest does not mean that such a relationship will prevail over a long period of years. The relative profitability of these enterprises in 1942 was due largely to conditions affecting price and production.

In comparing the returns on the various groups of farms per \$100 worth of feed fed, one should consider the fact that there is a wide variation in the needed returns per \$100 worth of feed fed to pay for feed (including pasture), labor, equipment, buildings, and other costs. According to 5-year averages of complete cost studies (1933-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

Differences in expenses are highly significant for the four groups of farms. Labor input per 100 crop acres was highest on the dairy farms, where 21.6 months of labor were used, and lowest on the cattle farms, where 13.3 months of labor were used. The dairy farmers evidently utilized a large amount of available labor to increase the size of their businesses without increasing the size of their farms.

The labor cost per crop acre ranged from \$10.75 on the cattle farms to \$16.24 on the dairy farms; the horse and machinery cost per crop acre was highest on the dairy farms where it averaged \$12.06 and lowest on the cattle farms, where it averaged \$9.51; and the buildings cost per acre was highest on the cattle farms but lowest on the general farms.

Size of farm. When the farm records in Farming-Type Area 1 are sorted according to the total acres in the farm, they indicate that the larger farms had a greater total investment than did the smaller ones. The value of land per acre was about the same for the various size groups but the value of buildings and machinery per acre declined as the size of farm increased.

Gross earnings and expenses per farm increased as the size of farm increased but earnings and expenses per acre decreased as farms became larger. These figures and the value of feed fed per acre to productive livestock indicate that the small farms were operated more intensively than were the larger ones. The rate earned on investment was largest for the two size groups over 180 acres in size.

TABLE 5.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 1, 1942

Item	Total acres in farm			
	Less than 121	121 to 180	181 to 240	241 or more
Number of farms - - - - -	28	46	57	24
Acres per farm- - - - -	101	154	211	331
<u>Investments</u>				
Total per farm- - - - -	\$21 003	\$30 892	\$40 649	\$65 297
Total per acre- - - - -	207	200	193	198
Land per acre - - - - -	90	89	89	95
Land improvements per acre- - - -	3.38	3.78	3.32	3.40
Buildings per acre- - - - -	43.08	40.76	35.21	35.48
Machinery per acre- - - - -	18.09	16.89	15.05	13.09
<u>Earnings</u>				
Per farm				
Gross earnings- - - - -	\$ 6 085	\$ 8 044	\$10 660	\$15 970
Gross expenses- - - - -	3 403	4 207	5 227	6 744
Net earnings- - - - -	\$ 2 682	\$ 3 837	\$ 5 433	\$ 9 226
Per acre				
Gross earnings- - - - -	\$ 60.06	\$ 52.14	\$ 50.60	\$ 48.31
Gross expenses- - - - -	33.59	27.27	24.81	20.40
Net earnings- - - - -	\$ 26.47	\$ 24.87	\$ 25.79	\$ 27.91
Rate earned on investment - - - -	12.8%	12.4%	13.4%	14.1%
Labor and management earnings - -	\$ 2 304	\$ 3 046	\$ 4 117	\$ 6 606
<u>Size and Intensity</u>				
Percent of land area tillable - - -	82.5	82.4	81.2	81.9
Percent tillable land in grain- - -	63.7	61.7	65.0	66.5
Percent in hay and pasture- - - -	34.9	36.2	32.6	29.8
Feed fed per acre to prod. l.s. - -	\$ 32.19	\$ 26.99	\$ 28.00	\$ 26.44
Percent of income from prod. l.s. -	91.8	92.0	93.0	89.2
Percent of income from crops- - -	--	--	--	4.5
Months of labor per 100 crop A. - -	25.0	21.3	18.2	14.2
Total months of labor - - - - -	18.1	23.0	26.3	32.6
Number of work horses - - - - -	2.6	2.7	3.5	3.5
<u>Crop Yields per Acre</u>				
Corn, bu. - - - - -	66.3	69.8	70.7	74.4
Oats, bu. - - - - -	61.7	58.6	59.0	64.2
<u>Livestock Returns</u>				
Per \$100 feed fed - - - - -	\$ 178	\$ 183	\$ 173	\$ 166
Hog returns per litter- - - - -	217	199	191	202
Dairy returns per cow - - - - -	191	200	190	192
<u>Expense Factors</u>				
Labor cost per crop acre- - - - -	\$ 18.34	\$ 15.41	\$ 13.99	\$ 11.68
Horse and machinery cost per crop acre - - - - -	13.51	12.43	10.83	9.78
Land improvements cost per acre -	.97	1.18	1.12	.93
Buildings cost per acre - - - - -	3.20	3.20	2.88	2.88
Land tax per acre - - - - -	1.52	1.44	1.31	1.24

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their business by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and horse and machinery expenses. Labor and horse and machinery expenses per crop acre increase as the amount of livestock per acre increases, but decrease as the size of farm increases. Therefore the efficiency of a farm in using labor and machinery should be determined by comparing the expenses on the individual farm with those of farms of the same size having similar amounts of livestock per acre. The average labor cost per crop acre and the average horse and machinery cost per crop acre are shown for farms grouped according to acres per farm and the number of milk cows per 100 acres (Table 6).

TABLE 6.--LABOR COST PER CROP ACRE AND HORSE AND MACHINERY COST PER CROP ACRE FOR VARIATIONS IN SIZE OF FARM AND NUMBER OF MILK COWS PER 100 ACRES
Accounting Farms in Farming-Type Area 1, 1942

Acres per farm	Milk cows per 100 acres			Milk cows per 100 acres		
	Less than 11	11 to 15.9	16 or more	Less than 11	11 to 15.9	16 or more
	(labor cost per crop acre)			(horse and machinery cost per crop acre)		
Less than 121	\$15.32	\$17.57	\$22.21	\$11.19	\$11.93	\$14.09
121 to 180	12.40	15.20	18.92	10.78	10.94	13.87
181 to 240	11.55	14.13	17.11	10.38	10.73	12.16
241 or more	10.25	12.88	16.37	8.96	10.70	12.07

Producing for War Needs

In any given period gross receipts for cattle, dairy sales, hogs, eggs, and grain are relative measures of production (Table 7). Therefore the account keeper should use these standards to compare his own production with that of other account keepers. He should then adopt on his farm the kind of farm plan and the management practices that will make the best possible use of land, buildings, livestock, labor, machinery, and other resources for the duration of the war. Thus he will have more products to put on the nation's markets and will be making the greatest possible contribution to the war effort.

TABLE 7.--INVESTMENTS, RECEIPTS, EXPENSES, AND EARNINGS
Accounting Farms in Farming-Type Area 1, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Number of farms	--	155	85	81	87
<u>Capital Investments</u>					
Land- - - - -	\$	\$17 505	\$14 073	\$14 034	\$13 252
Land improvements - - - - -		666	) 6 897	6 350	5 873
Farm buildings- - - - -		7 199			
Horses- - - - -		328	337	394	391
Productive livestock: Cattle- - -		4 939	3 893	3 428	2 601
Hogs- - - - -		774	432	379	274
Sheep - - - - -		70	73	41	24
Poultry - - - - -		142	121	131	119
<u>Total productive livestock- - -</u>	()	(5 925)	(4 519)	(3 979)	(3 018)
Feed, grain, and seeds- - - - -		3 457	2 454	2 260	1 830
Machinery and equipment - - - -		2 675	2 170	2 085	1 929
Automobile (farm share) - - - -		265	171	156	129
<u>Total - - - - -</u>	\$	\$38 020	\$30 621	\$29 258	\$26 422
<u>Receipts and Net Increases</u>					
Horses- - - - -	\$	\$ --	\$ --	\$ --	\$ --
Productive livestock: Cattle- - -		2 369	1 499	1 200	730
Dairy sales		3 867	3 285	2 586	2 130
Hogs- - - - -		2 324	1 278	668	430
Sheep - - - - -		55	58	26	42
Poultry - - - - -		104	71	60	60
Egg sales - - - - -		341	271	205	195
<u>Total productive livestock- - -</u>	()	(9 060)	(6 462)	(4 745)	(3 587)
Farm products used in household -		332	279	253	241
Feed, grain, and seeds- - - - -		--	490	17	93
AAA receipts- - - - -		324	275	282	311
Labor off farm- - - - -		40	30	62	38
Miscellaneous - - - - -		11	23	7	9
<u>Total - - - - -</u>	\$	\$ 9 767	\$ 7 559	\$ 5 366	\$ 4 279
<u>Expenses and Net Decreases</u>					
Land improvements - - - - -	\$	\$ 206	\$) 416	\$ 326	\$ 291
Farm buildings- - - - -		576)		
Horses- - - - -		17	15	27	14
Productive livestock- - - - -		--	--	--	--
Feed, grain, and seeds- - - - -		186	--	--	--
Machinery and equipment - - - -		1 127	788	587	489
Automobile (farm share) - - - -		151	107	94	79
Livestock expense - - - - -		148	103	79	80
Hired labor - - - - -		986	706	523	490
Taxes - - - - -		297	270	276	244
Miscellaneous - - - - -		74	34	28	34
<u>Total - - - - -</u>	\$	\$ 3 768	\$ 2 439	\$ 1 940	\$ 1 721
Receipts less expenses- - - - -	\$	\$ 5 999	\$ 5 120	\$ 3 426	\$ 2 558
Family labor- - - - -		241	189	199	224
Returns for labor, capital, mgt.	\$	\$ 5 758	\$ 4 931	\$ 3 227	\$ 2 334
Operator's labor- - - - -		709	598	544	516
Net earnings per farm - - - - -	\$	\$ 5 049	\$ 4 333	\$ 2 683	\$ 1 818
<u>Rate Earned on Investment</u> - - - -	%	13.3%	14.2%	9.2%	6.9%
Interest on investment- - - - -	\$	\$ 1 901	\$ 1 531	\$ 1 463	\$ 1 321
Labor and Management Earnings - - -		3 857	3 400	1 764	1 013

FARM BUSINESS REPORT . . . 1942



Beef cattle are adapted to the available land, labor, and equipment found on many farms.
This is especially true when maximum use is made of roughages.

FARMING-TYPE AREA TWO Northwestern Mixed Livestock Area

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

Annual Farm Business Report


ON FIVE HUNDRED SIXTEEN FARMS IN FARMING-TYPE AREA 2, 1942

By P. E. Johnston, J. B. Cunningham, and E. L. Sauer^{1/}

War adjustments. Farm account cooperators in Farming-Type Area 2 responded to the war demand for increased production in 1942 over that in 1941 by increasing grain acreage and numbers of livestock.

Item	1941	1942	Change
Acres per farm	208	206	2 acres decrease
Acres of grain crops	98	104	6 acres increase
Number of dairy cows	10	11	1 cow increase
Number of pigs weaned	125	133	8 pigs increase
Number of hens	117	125	8 hens increase
Total months of labor	21	22	1 month increase
Value of machinery (beginning of year)	\$2 103	\$2 276	\$173 increase
Tons of grain produced	137	153	16 tons (11.7%) increase
Measure of volume of production for livestock and livestock products ^{2/}	\$6 627	\$6 853	\$226 (3.4%) increase



 Farming-Type Area 2
Mixed Livestock

The cooperators used one month more labor per farm and used more machinery than in the previous year.

Total grain produced per farm increased from 137 to 153 tons--an increase of 12 percent. This was due to the combined effects of larger acreages and higher yields in 1942 than in 1941. Livestock production, as measured by receipts and net increases for livestock and livestock products, which are valued at the same price for 1942 as for 1941, increased about 3 percent.

^{1/} W. N. Thompson supervised the closing of the farm accounts and the preparation of the tables used in this report. The project was conducted in cooperation with the county farm bureaus and was supervised by the following farm advisers:

D. G. McAllister, DeKalb; V. J. Banter, Stephenson; C. E. Yale, Lee; D. E. Warren, Ogle; R. C. Smith, Rock Island; H. E. Kearnaghan, Jo Daviess; F. H. Shuman, Whiteside; M. P. Roske, Carroll; and H. R. Brunnemeyer, Winnebago.

^{2/} For 1941 actual receipts and net increases were used; for 1942 receipts and net increases were adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm price for each class of livestock or livestock product.

TABLE 1.--INVENTORY CHANGES, CASH INCOME, AND CASH EXPENSES
Accounting Farms in Farming-Type Area 2, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Inventory Changes					
Land improvements - - - - -	\$ _____	\$ 22	\$) 95	\$ 74	\$ 104
Farm buildings- - - - -	_____	22)		
Horses- - - - -	_____	-13	-24	-34	-33
Productive livestock- - - - -	_____	1442	1067	552	516
Feed, grain, and seeds- - - - -	_____	739	882	112	521
Machinery and equipment - - - - -	_____	168	210	63	86
Automobile (farm share) - - - - -	_____	-21	44	4	-3
Total - - - - -	\$ _____	\$ 2359	\$ 2274	\$ 771	\$ 1191
Cash Receipts					
Land improvements - - - - -	\$ _____	\$ 1	\$) 9	\$ 13	\$ 32
Farm buildings- - - - -	_____	5)		
Horses- - - - -	_____	29	25	29	44
Productive livestock: Cattle- - -	_____	4167	3493	3464	2656
Dairy sales	_____	1424	1202	822	669
Hogs- - - - -	_____	3948	2377	1459	1392
Sheep - - - - -	_____	214	216	195	205
Poultry - - - - -	_____	154	124	93	87
Egg sales - - - - -	_____	363	255	171	151
Total productive livestock- - - - -	(_____)	(10270)	(7667)	(6204)	(5160)
Feed, grain, and seeds- - - - -	_____	1212	901	927	842
Machinery and equipment - - - - -	_____	188	214	199	188
Automobile (farm share) - - - - -	_____	19	60	39	32
AAA receipts- - - - -	_____	326	391	399	576
Labor off farm- - - - -	_____	27	31	38	38
Miscellaneous - - - - -	_____	8	12	9	11
Total - - - - -	\$ _____	\$12085	\$ 9310	\$ 7857	\$ 6923
Cash Expenses					
Land improvements - - - - -	\$ _____	\$ 182	\$) 476	\$ 390	\$ 426
Farm buildings- - - - -	_____	387)		
Horses- - - - -	_____	30	21	22	28
Productive livestock: Cattle- - -	_____	2388	1815	1938	1740
Hogs- - - - -	_____	215	123	96	119
Sheep - - - - -	_____	92	130	107	137
Poultry- - - - -	_____	50	39	31	32
Total productive livestock- - - - -	(_____)	(2745)	(2107)	(2172)	(2028)
Feed and grain purchases- - - - -	_____	1620	1117	827	695
Crop and sealing expense- - - - -	_____	221	163	180	175
Machinery and equipment - - - - -	_____	1223	1059	798	778
Automobile (farm share) - - - - -	_____	149	222	146	130
Livestock expense - - - - -	_____	108	78	63	66
Hired labor - - - - -	_____	549	417	367	362
Taxes - - - - -	_____	280	281	277	266
Miscellaneous - - - - -	_____	44	39	35	33
Total - - - - -	\$ _____	\$ 7538	\$ 5980	\$ 5277	\$ 4987
Summary					
Total inventory change- - - - -	\$ _____	\$ 2359	\$ 2274	\$ 771	\$ 1191
Cash balance- - - - -	_____	4547	3330	2580	1936
Farm products used in household -	_____	330	276	247	250
Receipts less expenses- - - - -	\$ _____	\$ 7236	\$ 5880	\$ 3598	\$ 3377
Total unpaid labor- - - - -	_____	1074	810	736	732
Net earnings per farm - - - - -	\$ _____	\$ 6162	\$ 5070	\$ 2862	\$ 2645
Net earnings per acre - - - - -	\$ _____	\$29.86	\$24.35	\$13.51	\$12.65

Net earnings. The net earnings per farm on an inventory basis were higher in 1942 than in 1941; the average was \$6,162 in 1942 compared with \$5,070 in 1941 (Table 1). The figure representing net earnings per farm is the sum remaining as compensation for the use of the capital invested in the business and for the managerial ability of the operator. It is calculated by adding to the cash balance the value of farm products used in the household and the inventory increases and by subtracting from the resulting total the value of unpaid labor. Therefore this figure indicates the earning power of the business and determines the real value of the farm and its equipment. The average net earnings per acre were \$29.86 in 1942, \$24.35 in 1941, \$13.51 in 1940, and \$12.65 in 1939.

Inventory changes. The year 1942 was the tenth consecutive year in which inventories were increased. The largest increase for the past four years was \$2,359 in 1942 and the smallest was \$771 in 1940. In 1942 the largest increases were for livestock and feed, grain, and seeds. The average amounts of grain on hand in Area 2 at the two inventory periods were:

<u>Crop</u>	<u>Beginning of year (bushels)</u>	<u>End of year (bushels)</u>
Corn	2776	3154
Oats	987	1047
Wheat	25	36
Soybeans	69	124

Cash receipts and cash expenses. In 1942 cash receipts exceeded cash expenses by \$4,547, the largest margin for any year in the past four. The cash balance--the difference between cash receipts and expenses--is the amount of money which was available for family living expenses, interest, debt payments, and savings.

Unpaid family labor. Although there was no appreciable change in the amount of family labor available, the total valuation of unpaid labor was higher for 1942 than for any other year in the past four. This increase resulted from the fact that the physical labor of the operator and other members of the family was valued at \$70 per month in 1942, at \$55 per month in 1941, and at \$50 per month in 1940 and 1939.

Variation in farm earnings. A wide variation was found in earnings on the farms in Area 2. For example, 52 farms earned less than 10 percent on their investment, with an average of 6.5 percent; but 71 farms earned 25 percent or more with an average of 29.5 percent. After deducting all farm expenses and a charge of 5 percent for the use of the capital invested in the business, the former group of operators had \$1,312 for labor and management earnings contrasted with \$7,903 for the latter group. The variation in earnings for all the records in the area was as follows:

<u>Rate earned on investment (percent)</u>	<u>Number of farms</u>	<u>Average rate earned (percent)</u>	<u>Acres per farm</u>	<u>Capital invested per farm</u>	<u>Gross earnings per farm</u>	<u>Net earnings per farm</u>	<u>Labor and management earnings</u>
Less than 10.00	52	6.5	225	\$35 670	\$7 155	\$2 309	\$1 312
10.00 to 14.99	113	12.9	219	40 230	9 999	5 209	3 976
15.00 to 19.99	141	17.4	208	36 827	10 752	6 397	5 354
20.00 to 24.99	107	21.9	195	32 706	10 995	7 161	6 334
25.00 or more	71	29.5	186	28 959	13 055	8 531	7 903

TABLE 2.--FACTORS HELPING TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 2, 1942

Item	Your farm	Standards for your farm	Average of all farms
Rate earned on investment- - - - -	_____ %	17.4%	17.4%
Number of farms- - - - -	--	--	484
Acres in farm- - - - -	_____	206	206
Acres tillable - - - - -	_____	169	169
Acres in crops - - - - -	_____	137	137
Gross earnings per acre- - - - -	\$ _____	\$ _____ a/	\$ 47.33
Gross expenses per acre- - - - -	_____	_____	17.47
Net earnings per acre- - - - -	_____	_____	29.86
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 89	\$ 89
Value of improved land per acre- - - - -	_____	_____ a/	96
Value of buildings per acre- - - - -	_____	_____ e/	25
Total investment per acre- - - - -	_____	172	172
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	_____ a/	82.0
Percent of tillable land in:			
Corn - - - - -	_____	_____	33.7
Oats - - - - -	_____	_____	20.8
Wheat- - - - -	_____	_____	.9
Soybeans - - - - -	_____	_____	6.4
Other crops- - - - -	_____	_____	4.5
Legume hay and pasture - - - - -	_____	_____	22.7
Nonlegume hay and pasture- - - - -	_____	_____	11.0
<u>Crop Yields</u>			
Corn - - - - -	_____	_____ b/	76.6
Oats - - - - -	_____	_____	51.2
Wheat- - - - -	_____	26.2	26.2
Soybeans - - - - -	_____	_____ b/	18.0
<u>Livestock Factors</u>			
Value of feed fed to prod. l.s.- - - - -	\$ _____	\$5 164	\$5 164
Feed fed per acre to prod. l.s.- - - - -	_____	_____ c/	25.02
Returns per \$100 worth of feed fed - - - - -	_____	_____	178
Poultry returns per hen- - - - -	_____	4.46	4.46
Number of litters farrowed - - - - -	_____	20.8	20.8
Number of pigs weaned per litter - - - - -	_____	6.4	6.4
Returns per litter farrowed- - - - -	\$ _____	\$ 226	\$ 226
Average number of cows milked- - - - -	_____	10.8	10.8
Dairy returns per cow milked - - - - -	\$ _____	\$ _____ c/	\$ 140
<u>Expense Factors</u>			
Horse and machinery cost per crop acre - - - - -	\$ _____	\$ _____ d/	\$ 8.51
Labor cost per crop acre - - - - -	_____	_____ e/	11.62
Total months of labor- - - - -	_____	_____	22.0
Number of work horses- - - - -	_____	_____	2.9
Land improvements cost per acre- - - - -	\$ _____	\$.77	\$.77
Buildings cost per acre- - - - -	_____	_____ e/	1.74
Land tax per acre- - - - -	_____	_____ a/	1.17

Source of Standards:

- a/ Table 3, value of improved land.
- b/ Fig. 1, value of improved land.
- c/ Table 4, source of income.

- d/ Table 6, size of farm and value of feed fed per acre.
- e/ Table 5, size of farm.

CHART FOR STUDYING THE EFFICIENCY OF VARIOUS PARTS OF YOUR BUSINESS

Accounting Farms in Farming-Type Area 2, 1942

The numbers above the double lines across the middle of the page are the averages for the farms similar in organization to your farm. By drawing a line across each column at the place which measures the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Factors that affect the gross earnings								Factors that affect expenses			
			Percent of tillable land in legume hay and pasture	Crop yields		Feed fed per acre to prod. l.s.	Returns per \$100 feed fed	Poultry returns per hen	Hog returns per litter farrowed	Dairy returns per cow milked	Gross expenses per acre	Horse and machinery cost per crop acre	Labor cost per crop acre	Buildings cost per acre
				Corn, bu.	Oats, bu.									
32.4	456							6.96	301					
29.4	406							6.46	286					
26.4	356							5.96	271					
23.4	306							5.46	256					
20.4	256							4.96	241					
17.4	206							4.46	226					
14.4	156							3.96	211					
11.4	106							3.46	196					
8.4	56							2.96	181					
5.4	--							2.46	166					
2.4	--							1.96	151					
3%	50	\$4	2%	5	5	\$4	\$15	\$0.50	\$15	\$10	\$2	\$0.50	\$1	\$0.30

*Each space between lines represents the values indicated at bottom of each column.

TABLE 3.--USE OF TILLABLE LAND AND OTHER FACTORS
RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 2, 1942

Item	Value of improved land					
	Less than \$53	\$53 to \$72	\$73 to \$92	\$93 to \$112	\$113 to \$132	\$133 or more
Average value of improved land-	\$43	\$64	\$83	\$103	\$123	\$143
Number of farms - - - - -	54	92	121	72	80	65
Acres per farm- - - - -	202	206	206	191	223	214
Percent of land area tillable -	65.2	75.3	80.9	86.8	88.8	92.7
Percent of tillable land in:						
Corn- - - - -	27.3	29.6	33.2	34.8	37.0	37.3
Oats- - - - -	19.3	21.4	20.5	20.5	20.9	21.5
Wheat - - - - -	1.4	.6	1.2	1.1	.9	.7
Soybeans- - - - -	2.3	4.4	5.4	6.7	9.8	8.2
Other crops - - - - -	6.5	4.6	4.2	3.6	4.6	3.9
Legume hay and pasture- - - -	27.2	27.3	24.7	21.8	18.2	19.9
Nonlegume hay and pasture - -	16.0	12.1	10.8	11.5	8.6	8.5
Gross earnings per acre - - - -	\$34.38	\$41.59	\$46.03	\$ 49.48	\$ 53.84	\$ 60.67
Gross expenses per acre - - - -	<u>15.67</u>	<u>17.67</u>	<u>17.15</u>	<u>18.58</u>	<u>18.64</u>	<u>20.31</u>
Net earnings per acre - - - - -	\$18.71	\$23.92	\$28.88	\$ 30.90	\$ 35.20	\$ 40.36
Land tax per acre - - - - -	\$.86	\$.98	\$ 1.14	\$ 1.36	\$ 1.30	\$ 1.40

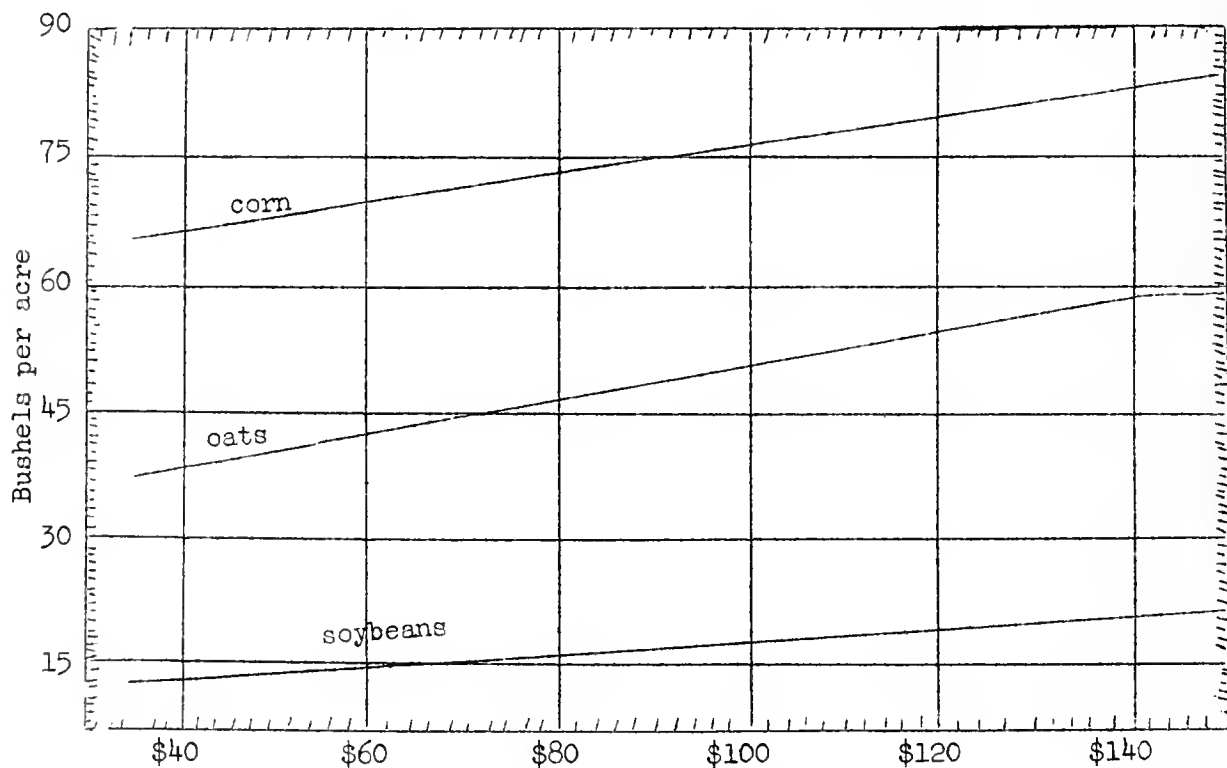


Fig. 1.--Average yields of corn, oats, and soybeans with varying values of improved land.

Explanation of Tables

Variable standards are used in analyzing the farm business (Table 2). They make allowances for the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the amount of feed fed and the returns per \$100 worth of feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of the products produced affect the relative profitableness of various types of farming for any particular year.

The "standards for your farm" (Table 2) are taken from Tables 3 to 6 and from Figure 1 as follows:

- Table 3 - Value of improved land.
Gross earnings, gross expenses, and net earnings per acre.
Value of improved land per acre.
All items in the land-use section.
Land tax per acre.
- Figure 1 - Value of improved land.
Yields for corn, oats, and soybeans.
- Table 4 - Source of income.
Feed fed per acre to productive livestock.
Returns per \$100 worth of feed fed.
Dairy returns per cow.
- Table 5 - Size of farm.
Value of buildings per acre.
Total months of labor.
Number of work horses.
Buildings cost per acre.
- Table 6 - Size of farm and amount of feed fed per acre.
Horse and machinery cost per crop acre.
Labor cost per crop acre.

The terms used in the tables are the same as the terms used in the Illinois farm account book. For example, "improved land" is classified on Page 1 of the farm account book. It means crop land, tillable pasture, and land occupied by farmstead, roads, and lanes. Likewise, "crop acres" are listed on Page 20 of the farm account book. They include all the tillable land on which a large amount of work has been done in preparing a seedbed or in cultivating or harvesting a crop.

Land use and crop yields. The percent of tillable land in grain crops increased as the value per acre for improved land increased (Table 3). Likewise the percent of land area tillable, the net earnings per acre, and the land tax per acre increased as the value of improved land increased. On the other hand, the percent of tillable land in hay and pasture decreased as the value of the land increased.

Yields per acre for corn, oats, and soybeans increased as the land value increased (Fig. 1). By using Table 3 and Figure 1, the account keeper may find out whether his acreage in various crops, his crop yields, and his net earnings per acre were high or low for 1942 in comparison with the average of other farms in his area having about the same value for improved land.

TABLE 4.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 2, 1942

Item	Source of income					
	Grain 40%+	Dairy sales 40%+	Hogs 40%+	Cattle 40%+	General farms	
					L.S. 60%-	L.S. 60%+
Number of farms - - - - -	18	24	239	57	16	130
Percent of income from prod. l.s.	35.5	94.3	93.5	93.8	55.4	89.5
Percent of income from crops - - -	56.8	--	--	--	34.6	2.8
<u>Investments</u>						
Total per farm- - - - -	\$46 184	\$32 421	\$31 598	\$52 260	\$40 575	\$33 536
Total per acre- - - - -	174	163	164	211	167	166
Land per acre - - - - -	107	77	85	105	98	87
Land improvements per acre- - -	2.91	3.11	3.65	4.80	4.11	3.01
Buildings per acre- - - - -	20.89	35.15	24.35	28.19	21.27	25.16
Machinery per acre- - - - -	11.09	13.73	12.48	14.25	11.85	11.83
<u>Earnings</u>						
Per farm						
Gross earnings- - - - -	\$10 078	\$ 8 544	\$ 9 838	\$14 011	\$10 008	\$ 8 994
Gross expenses- - - - -	3 640	4 198	3 719	5 732	3 805	3 389
Net earnings- - - - -	\$ 6 438	\$ 4 346	\$ 6 119	\$ 8 279	\$ 6 203	\$ 5 605
Per acre						
Gross earnings- - - - -	\$ 37.94	\$ 43.06	\$ 51.04	\$ 56.47	\$ 41.30	\$ 44.48
Gross expenses- - - - -	13.70	21.16	19.29	23.10	15.70	16.76
Net earnings- - - - -	\$ 24.24	\$ 21.90	\$ 31.75	\$ 33.37	\$ 25.60	\$ 27.72
Rate earned on investment - - -	13.9%	13.4%	19.4%	15.8%	15.3%	16.7%
Labor and management earnings -	\$ 4 887	\$ 3 542	\$ 5 342	\$ 6 442	\$ 4 957	\$ 4 732
<u>Size and Intensity</u>						
Acres per farm- - - - -	266	198	193	248	242	202
Percent of land area tillable -	87.8	80.7	80.6	88.2	84.2	80.1
Percent tillable land in grain-	74.5	55.1	63.4	65.9	68.8	61.5
Percent in hay and pasture- - -	24.4	41.6	34.4	30.6	27.7	35.7
Feed fed per acre to prod. l.s.	\$ 7.81	\$ 23.30	\$ 26.25	\$ 34.82	\$ 13.02	\$ 22.77
Months of labor per 100 crop A.	9.4	20.1	17.1	14.0	12.9	16.4
Total months of labor - - - - -	18.8	25.0	21.5	25.8	21.4	21.1
<u>Crop Yields per Acre</u>						
Corn, bu. - - - - -	76.2	73.1	76.1	80.2	72.8	76.4
Oats, bu. - - - - -	47.4	49.4	49.7	52.7	53.0	53.9
<u>Livestock Returns</u>						
Per \$100 feed fed - - - - -	\$ 181	\$ 180	\$ 187	\$ 155	\$ 184	\$ 180
Hog returns per litter- - - - -	215	187	233	213	232	218
Dairy returns per cow - - - - -	111	193	132	124	130	142
<u>Expense Factors</u>						
Labor cost per crop acre- - -	\$ 6.63	\$ 15.78	\$ 12.27	\$ 10.44	\$ 9.19	\$ 11.88
Horse and machinery cost per crop acre - - - - -	6.73	9.60	8.79	8.20	8.13	8.47
Land improvements cost per acre	.62	.65	.77	1.13	.79	.64
Buildings cost per acre - - - -	1.50	1.73	1.69	1.97	1.70	1.75
Land tax per acre - - - - -	1.14	1.08	1.19	1.25	1.16	1.14

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

Each farmer should, however, use caution in interpreting the data in Table 4. For example, the fact that hog farms earned the largest rate on the investment for 1942 and that dairy farms earned the smallest does not mean that such a relationship will prevail over a long period of years. The relative profitability of these enterprises in 1942 was due largely to conditions affecting price and production.

In comparing the returns on the various groups of farms per \$100 worth of feed fed, one should consider the fact that there is a wide variation in the needed returns per \$100 worth of feed fed to pay for feed (including pasture), labor, equipment, buildings, and other costs. According to 5-year averages of complete cost studies (1933-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

Furthermore, in a comparison of crop yields for the various types of farming, the following items, which indicate that the grain and cattle farms were located on the better land, should be noted: (1) high value of land per acre; (2) large percent of land area tillable; and (3) large percent of land in grain.

Differences in expenses are highly significant for the six groups of farms. Labor input per 100 crop acres was highest on the dairy farms, where 20.1 months of labor were used, and lowest on the grain farms, where 9.4 months of labor were used. The dairy farmers evidently utilized a large amount of available labor to increase the size of their businesses without increasing the size of their farms.

The labor cost per crop acre ranged from \$6.63 on the grain farms to \$15.78 on the dairy farms; the horse and machinery cost per crop acre was highest on the dairy farms where it averaged \$9.60 and lowest on the grain farms, where it averaged \$6.73; and the buildings cost per acre was highest on the cattle farms but lowest on the grain farms.

Size of farm. When the farm records in Farming-Type Area 2 are sorted according to the total acres in the farm, they indicate that the larger farms had a greater total investment than did the smaller ones. The value of land per acre was about the same for the various size groups but the value of buildings and machinery per acre declined on the size of farm increased.

Gross earnings and expenses per farm increased as the size of farm increased but earnings and expenses per acre decreased as farms became larger. These figures and the value of feed fed per acre to productive livestock indicate that the small farms were operated more intensively than were the larger ones. The rate earned on investment was largest for the two size groups under 200 acres in size.

TABLE 5.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 2, 1942

Item	Total acres in farm					
	Less than 121	121 to 200	201 to 280	281 to 360	361 to 440	441 or more
Number of farms - - - - -	87	211	107	45	18	16
Acres per farm- - - - -	106	167	528	317	393	528
<u>Investments</u>						
Total per farm- - - - -	\$19 166	\$29 567	\$41 388	\$51 019	\$65 801	\$83 389
Total per acre- - - - -	181	177	173	161	167	158
Land per acre - - - - -	88	90	90	88	89	88
Land improvements per acre- - - - -	3.91	3.71	3.39	3.92	3.79	2.73
Buildings per acre- - - - -	29.94	26.69	26.14	19.97	24.53	21.94
Machinery per acre- - - - -	16.17	13.69	12.65	9.90	10.65	9.35
<u>Earnings</u>						
Per farm						
Gross earnings- - - - -	\$ 6 252	\$ 8 884	\$11 125	\$12 716	\$16 476	\$20 222
Gross expenses- - - - -	2 814	3 377	4 045	4 532	5 788	7 529
Net earnings- - - - -	\$ 3 438	\$ 5 507	\$ 7 080	\$ 8 184	\$10 688	\$12 693
Per acre						
Gross earnings- - - - -	\$ 58.96	\$ 53.20	\$ 46.39	\$ 40.90	\$ 41.90	\$ 38.28
Gross expenses- - - - -	26.54	20.22	16.87	14.29	14.72	14.25
Net earnings- - - - -	\$ 32.42	\$ 32.98	\$ 29.52	\$ 25.80	\$ 27.18	\$ 24.03
Rate earned on investment - - - - -	17.9%	18.6%	17.1%	16.0%	16.2%	15.2%
Labor and management earnings - - - - -	\$ 3 271	\$ 4 822	\$ 5 822	\$ 6 422	\$ 8 203	\$ 9 355
<u>Size and Intensity</u>						
Percent of land area tillable - - - - -	86.3	83.7	82.0	78.6	76.7	80.4
Percent tillable land in grain- - - - -	60.6	62.2	66.1	63.0	65.4	66.2
Percent in hay and pasture- - - - -	37.5	35.5	31.1	34.3	31.0	30.8
Feed fed per acre to prod. l.s. - - - - -	\$ 30.13	\$ 27.64	\$ 23.68	\$ 22.97	\$ 21.73	\$ 18.75
Percent of income from prod. l.s. - - - - -	92.6	92.8	88.6	93.0	84.8	79.7
Percent of income from crops- - - - -	--	--	4.8	--	8.2	13.8
Months of labor per 100 crop A. - - - - -	22.1	18.4	14.6	12.9	12.2	11.1
Total months of labor - - - - -	16.0	20.8	23.7	26.0	30.3	38.2
Number of work horses - - - - -	2.3	2.9	2.8	3.2	3.2	4.5
<u>Crop Yields per Acre</u>						
Corn, bu. - - - - -	75.5	77.2	77.0	73.9	80.7	75.1
Oats, bu. - - - - -	51.0	53.2	51.7	48.0	50.3	47.4
<u>Livestock Returns</u>						
Per \$100 feed fed - - - - -	\$ 188	\$ 184	\$ 178	\$ 166	\$ 167	\$ 166
Hog returns per litter- - - - -	230	223	228	227	239	224
Dairy returns per cow - - - - -	135	138	142	133	184	154
<u>Expense Factors</u>						
Labor cost per crop acre- - - - -	\$ 15.42	\$ 13.14	\$ 10.59	\$ 9.55	\$ 9.95	\$ 8.57
Horse and machinery cost per crop acre - - - - -	10.71	8.97	8.27	7.72	6.80	7.49
Land improvements cost per acre - - - - -	.85	.79	.76	.81	.67	.71
Buildings cost per acre - - - - -	2.34	1.72	1.82	1.21	1.77	1.79
Land tax per acre - - - - -	1.29	1.24	1.16	1.09	1.16	.99

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their business by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and horse and machinery expenses. Labor and horse and machinery expenses per crop acre increase as the amount of livestock per acre increases, but decrease as the size of farm increases. Therefore the efficiency of a farm in using labor and machinery should be determined by comparing the expenses on the individual farm with those of farms of the same size having similar amounts of livestock per acre. The average labor cost per crop acre and the average horse and machinery cost per crop acre are shown for farms grouped according to acres per farm and value of feed fed per acre to productive livestock (Table 6).

TABLE 6.--LABOR COST PER CROP ACRE AND HORSE AND MACHINERY COST PER CROP ACRE FOR VARIATIONS IN SIZE OF FARM AND AMOUNT OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 2, 1942

Acres per farm	Feed fed per acre				Feed fed per acre			
	Less than \$12.00	\$12.00 to \$19.99	\$20.00 to \$27.99	\$28.00 or more	Less than \$12.00	\$12.00 to \$19.99	\$20.00 to \$27.99	\$28.00 or more
	(labor cost per crop acre)				(horse and machinery cost per crop acre)			
Less than 121	\$13.10	\$13.65	\$15.49	\$16.34	\$9.50	\$9.65	\$10.01	\$11.56
121 to 200	11.96	12.90	13.53	16.05	8.20	8.80	9.15	9.48
201 to 280	9.20	10.26	10.69	11.52	7.35	8.10	8.21	9.28
281 to 360	9.09	9.48	9.80	10.20	7.10	7.86	7.92	8.21
361 to 440	8.00	9.30	9.80	10.00	6.55	6.70	7.14	7.56
441 or more	7.00	8.50	8.85	9.20	6.19	7.29	7.74	7.80

Producing for War Needs

In any given period gross receipts for cattle, dairy sales, hogs, eggs, and grain are relative measures of production (Table 7). Therefore the account keeper should use these standards to compare his own production with that of other account keepers. He should then adopt on his farm the kind of farm plan and the management practices that will make the best possible use of land, buildings, livestock, labor, machinery, and other resources for the duration of the war. Thus he will have more products to put on the nation's markets and will be making the greatest possible contribution to the war effort.

TABLE 7.--INVESTMENTS, RECEIPTS, EXPENSES, AND EARNINGS
Accounting Farms in Farming-Type Area 2, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Number of farms - - - - -	--	484	516	456	454
<u>Capital Investments</u>					
Land- - - - -	\$ _____	\$18 418	\$18 461	\$19 572	\$19 274
Land improvements - - - - -	_____	743)		
Farm buildings- - - - -	_____	5 231	)5 939	5 829	5 673
Horses- - - - -	_____	251	288	334	380
Productive livestock: Cattle- - - - -	_____	3 354	3 091	2 847	2 295
Hogs- - - - -	_____	1 274	781	721	825
Sheep - - - - -	_____	138	162	150	121
Poultry - - - - -	_____	137	107	100	107
<u>Total productive livestock- - - - -</u>	(_____)	(4 903)	(4 141)	(3 818)	(3 348)
Feed, grain, and seeds- - - - -	_____	3 300	2 583	2 738	2 295
Machinery and equipment - - - - -	_____	2 276	2 103	2 099	2 033
Automobile (farm share) - - - - -	_____	310	209	185	186
<u>Total - - - - -</u>	\$ _____	\$35 432	\$33 724	\$34 575	\$33 189
<u>Receipts and Net Increases</u>					
Horses- - - - -	\$ _____	\$ --	\$ --	\$ --	\$ --
Productive livestock: Cattle- - - - -	_____	2 561	2 144	1 993	1 485
Dairy sales - - - - -	_____	1 424	1 202	822	669
Hogs- - - - -	_____	4 379	2 802	1 444	1 202
Sheep - - - - -	_____	106	108	86	85
Poultry - - - - -	_____	134	116	68	56
Egg sales - - - - -	_____	363	255	171	151
<u>Total productive livestock- - - - -</u>	(_____)	(8 967)	(6 627)	(4 584)	(3 648)
Farm products used in household - - - - -	_____	330	276	247	250
Feed, grain, and seeds- - - - -	_____	110	503	32	493
AAA receipts- - - - -	_____	326	391	399	576
Labor off farm- - - - -	_____	27	31	38	38
Miscellaneous - - - - -	_____	8	12	9	11
<u>Total - - - - -</u>	\$ _____	\$ 9 768	\$ 7 840	\$ 5 309	\$ 5 016
<u>Expenses and Net Decreases</u>					
Land improvements - - - - -	\$ _____	\$ 159	\$) 372	\$ 303	\$ 290
Farm buildings- - - - -	_____	360)		
Horses- - - - -	_____	14	20	27	17
Productive livestock- - - - -	_____	--	--	--	--
Feed, grain, and seeds- - - - -	_____	--	--	--	--
Machinery and equipment - - - - -	_____	867	635	536	504
Automobile (farm share) - - - - -	_____	151	118	103	101
Livestock expense - - - - -	_____	108	78	63	66
Hired labor - - - - -	_____	549	417	367	362
Taxes - - - - -	_____	280	281	277	266
Miscellaneous - - - - -	_____	44	39	35	33
<u>Total - - - - -</u>	\$ _____	\$ 2 532	\$ 1 960	\$ 1 711	\$ 1 639
Receipts less expenses- - - - -	\$ _____	\$ 7 236	\$ 5 880	\$ 3 598	\$ 3 377
Family labor- - - - -	_____	276	195	176	178
Returns for labor, capital, mgt. - - - - -	\$ _____	\$ 6 960	\$ 5 685	\$ 3 422	\$ 3 199
Operator's labor- - - - -	_____	798	615	560	554
Net earnings per farm - - - - -	\$ _____	\$ 6 162	\$ 5 070	\$ 2 862	\$ 2 645
<u>Rate Earned on Investment - - - - -</u>	%	17.4%	15.0%	8.3%	8.0%
Interest on investment- - - - -	\$ _____	\$ 1 772	\$ 1 686	\$ 1 789	\$ 1 660
Labor and Management Earnings - - - - -	_____	5 188	3 999	1 693	1 539

FARM BUSINESS REPORT . . . 1942



Beef cattle are adapted to the available land, labor, and equipment found on many farms.
This is especially true when maximum use is made of roughages.

FARMING-TYPE AREA THREE Western Livestock and Grain Area

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

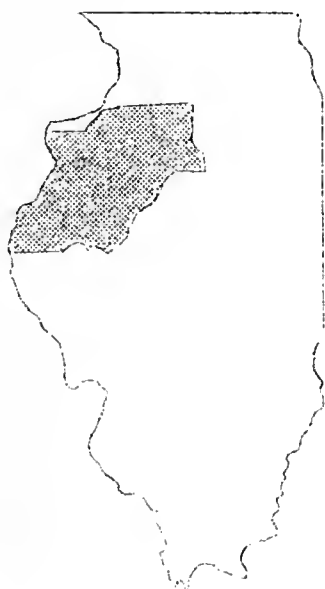
Annual Farm Business Report

ON FIVE HUNDRED EIGHTY FARMS IN FARMING-TYPE AREA 3, 1942

By P. E. Johnston, J. B. Cunningham, and E. L. Sauer^{1/}

War adjustments. Farm account cooperators in Farming-Type Area 3 responded to the war demand for increased production in 1942 over that in 1941 by increasing grain acreage and numbers of livestock.

Item	1941	1942	Change
Acres per farm	241	249	8 acres increase (3%)
Acres of grain crops	124	137	13 acres (10%) increase
Number of dairy cows	6	6	None
Number of pigs weaned	178	201	23 pigs (13%) increase
Number of hens	91	107	16 hens (17%) increase
Total months of labor	22	23	1 month (4%) increase
Value of machinery (beginning of year)	\$2 157	\$2 500	\$343 (16%) increase
Tons of grain produced	165	187	22 tons (13%) increase
Measure of volume of production for livestock and livestock products ^{2/}	\$6 898	\$7 811	\$913 (13%) increase



Farming-Type Area 3
Livestock and Grain

The cooperators used one month more labor per farm and used more machinery than in the previous year.

Total grain produced per farm increased from 165 to 187 tons--an increase of 13 percent. This was due to the combined effects of larger acreages and higher yields in 1942 than in 1941. Livestock production, as measured by receipts and net increases for livestock and livestock products, which are valued at the same price for 1942 as for 1941, increased about 13 percent.

^{1/} W. N. Thompson supervised the closing of the farm accounts and the preparation of the tables used in this report. The project was conducted in cooperation with the county farm bureaus and was supervised by the following farm advisers: H. K. Danforth, Henry; R. G. Benbow, McDonough; A. R. Kemp, Knox; Paul V. Dean, Bureau; J. E. Watt, Fulton; L. J. Hager, Marshall-Putnam; I. F. Green, Peoria; Wayne A. Gilbert, Stark; L. L. Norton, Hancock; E. H. Walworth, Warren; A. J. Rehling, Henderson; E. M. Edwards, Mercer.

^{2/} For 1941 actual receipts and net increases were used; for 1942 receipts and net increases were adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm price for each class of livestock or livestock product.

TABLE 1.--INVENTORY CHANGES, CASH INCOME, AND CASH EXPENSES
Accounting Farms in Farming-Type Area 3, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Inventory Changes					
Land improvements - - - - -	\$ _____	\$ 28	\$) 51	\$ 88	\$ 187
Farm buildings- - - - -	_____	-19)		
Horses- - - - -	_____	-10	-38	-36	-33
Productive livestock- - - - -	_____	1610	1376	632	282
Feed, grain, and seeds- - - - -	_____	792	1023	-82	960
Machinery and equipment - - - - -	_____	187	257	59	122
Automobile (farm share) - - - - -	_____	-23	29	-1	22
Total - - - - -	\$ _____	\$ 2565	\$ 2698	\$ 660	\$ 1540
Cash Receipts					
Land improvements - - - - -	\$ _____	\$ 4	\$) 5	\$ 18	\$ 10
Farm buildings- - - - -	_____	26)		
Horses- - - - -	_____	36	32	36	55
Productive livestock: Cattle- - -	_____	4158	2806	2643	2433
Dairy sales	_____	530	475	365	313
Hogs- - - - -	_____	6075	3485	2020	2144
Sheep - - - - -	_____	388	266	264	257
Poultry - - - - -	_____	156	121	94	84
Egg sales - - - - -	_____	267	173	115	109
Total productive livestock- - - - -	()	(11574)	(7326)	(5501)	(5340)
Feed, grain, and seeds- - - - -	_____	2345	1853	1600	1378
Machinery and equipment - - - - -	_____	238	292	244	253
Automobile (farm share) - - - - -	_____	20	63	51	55
AAA receipts- - - - -	_____	582	518	546	782
Labor off farm- - - - -	_____	37	40	58	44
Miscellaneous - - - - -	_____	14	22	18	17
Total - - - - -	\$ _____	\$ 14876	\$ 10151	\$ 8072	\$ 7934
Cash Expenses					
Land improvements - - - - -	\$ _____	\$ 212	\$) 417	\$ 429	\$ 479
Farm buildings- - - - -	_____	367)		
Horses- - - - -	_____	34	18	24	36
Productive livestock: Cattle- - -	_____	2141	1348	1404	1369
Hogs- - - - -	_____	300	190	138	146
Sheep - - - - -	_____	183	236	172	174
Poultry - - - - -	_____	40	30	23	24
Total productive livestock- - - - -	()	(2664)	(1804)	(1737)	(1713)
Feed and grain purchases- - - - -	_____	2515	1495	986	1036
Crop and sealing expense- - - - -	_____	235	159	174	170
Machinery and equipment - - - - -	_____	1516	1281	956	990
Automobile (farm share) - - - - -	_____	159	221	167	179
Livestock expense - - - - -	_____	123	84	71	77
Hired labor - - - - -	_____	697	515	466	510
Taxes - - - - -	_____	366	343	336	321
Miscellaneous - - - - -	_____	55	42	40	41
Total - - - - -	\$ _____	\$ 8943	\$ 6379	\$ 5386	\$ 5552
Summary					
Total inventory change- - - - -	\$ _____	\$ 2565	\$ 2698	\$ 660	\$ 1540
Cash balance- - - - -	_____	5933	3772	2686	2382
Farm products used in household -	_____	366	293	252	260
Receipts less expenses- - - - -	\$ _____	\$ 8864	\$ 6763	\$ 3598	\$ 4182
Total unpaid labor- - - - -	_____	1039	764	695	681
Net earnings per farm - - - - -	\$ _____	\$ 7825	\$ 5999	\$ 2903	\$ 3501
Net earnings per acre - - - - -	\$ _____	\$ 31.39	\$ 24.91	\$ 11.67	\$ 14.06

Net earnings. The net earnings per farm on an inventory basis were higher in 1942 than in 1941; the average was \$7,825 in 1942 compared with \$5,999 in 1941 (Table 1). The figure representing net earnings per farm is the sum remaining as compensation for the use of the capital invested in the business and for the managerial ability of the operator. It is calculated by adding to the cash balance the value of farm products used in the household and the inventory increases and by subtracting from the resulting total the value of unpaid labor. Therefore this figure indicates the earning power of the business and determines the real value of the farm and its equipment. The average net earnings per acre were \$31.39 in 1942, \$24.91 in 1941, \$11.67 in 1940, and \$14.06 in 1939.

Inventory changes. The year 1942 was the tenth consecutive year in which inventories were increased. The largest increase for the past four years was \$2,698 in 1941 and the smallest was \$660 in 1940. In 1942 the largest increases were for livestock and feed, grain, and seeds. The average amounts of grain on hand in Area 3 at the two inventory periods were:

<u>Crop</u>	<u>Beginning of year (bushels)</u>	<u>End of year (bushels)</u>
Corn	3988	4262
Oats	844	823
Wheat	50	36
Soybeans	202	304

Cash receipts and cash expenses. In 1942 cash receipts exceeded cash expenses by \$5,933, the largest margin for any year in the past four. The cash balance--the difference between cash receipts and expenses--is the amount of money which was available for family living expenses, interest, debt payments, and savings.

Unpaid family labor. Although there was no appreciable change in the amount of family labor available, the total valuation of unpaid labor was higher for 1942 than for any other year in the past four. This increase resulted from the fact that the physical labor of the operator and other members of the family was valued at \$70 per month in 1942, at \$55 per month in 1941, and at \$50 per month in 1940 and 1939.

Variation in farm earnings. A wide variation was found in earnings on the farms in Area 3. For example, 83 farms earned less than 12 percent on their investment, with an average of 9.1 percent; but 68 farms earned 27 percent or more, with an average of 30.5 percent. After deducting all farm expenses and a charge of 5 percent for the use of the capital invested in the business, the former group of operators had \$2,461 for labor and management earnings contrasted with \$9,712 for the latter group. The variation in earnings for all the records in the area was as follows:

<u>Rate earned on investment (percent)</u>	<u>Number of farms</u>	<u>Average rate earned (percent)</u>	<u>Acres per farm</u>	<u>Capital invested per farm</u>	<u>Gross earnings per farm</u>	<u>Net earnings per farm</u>	<u>Labor and management earnings</u>
Less than 12.00	83	9.1	252	\$40 913	\$9 463	\$3 734	\$2 461
12.00 to 16.99	148	14.7	251	42 060	10 840	6 188	4 846
17.00 to 21.99	170	19.4	259	44 175	14 025	8 580	7 142
22.00 to 26.99	111	24.1	257	42 098	15 103	10 162	8 815
27.00 or more	68	30.5	207	35 014	16 228	10 674	9 712

TABLE 2.--FACTORS HELPING TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 3, 1942

	Your farm	Standards for your farm	Average of all farms
Rate earned on investment- - - - -	_____ %	18.8%	18.8%
Number of farms- - - - -	---	580	580
Acres in farm- - - - -	_____	249	249
Acres tillable - - - - -	_____	201	201
Acres in crops - - - - -	_____	165	165
Gross earnings per acre- - - - -	\$ _____	\$ _____ a/	\$ 47.76
Gross expenses per acre- - - - -	_____	_____	16.37
Net earnings per acre- - - - -	_____	_____	\$ 31.39
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 96	\$ 96
Value of improved land per acre- - - - -	_____	_____ a/	108
Value of buildings per acre- - - - -	_____	_____ e/	17.40
Total investment per acre- - - - -	_____	167	167
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	_____ a/	80.5
Percent of tillable land in:			
Corn - - - - -	_____	_____	36.2
Oats - - - - -	_____	_____	16.5
Wheat- - - - -	_____	_____	2.2
Soybeans - - - - -	_____	_____	13.8
Other crops- - - - -	_____	_____	2.3
Legume hay and pasture - - - - -	_____	_____	20.8
Nonlegume hay and pasture- - - - -	_____	_____	8.2
<u>Crop Yields</u>			
Corn - - - - -	_____	_____ b/	71.7
Oats - - - - -	_____	_____	42.2
Wheat- - - - -	_____	_____	18.2
Soybeans - - - - -	_____	_____	22.6
<u>Livestock Factors</u>			
Value of feed fed to prod. l.s.- - - - -	\$ _____	\$ 5 975	\$ 5 975
Feed fed per acre to prod. l.s.- - - - -	_____	_____ c/	23.97
Returns per \$100 worth of feed fed - - - - -	_____	_____	181
Poultry returns per hen- - - - -	_____	4.55	4.55
Number of litters farrowed - - - - -	_____	31.9	31.9
Number of pigs weaned per litter - - - - -	_____	6.3	6.3
Returns per litter farrowed- - - - -	\$ _____	\$ 216	\$ 216
Average number of cows milked- - - - -	_____	5.7	5.7
Dairy returns per cow milked - - - - -	\$ _____	\$ _____ c/	\$ 111
<u>Expense Factors</u>			
Horse and machinery cost per crop acre - - - - -	\$ _____	\$ _____ d/	\$ 8.52
Labor cost per crop acre - - - - -	_____	_____ e/	10.32
Total months of labor- - - - -	_____	_____	23.3
Number of work horses- - - - -	_____	_____	2.8
Land improvements cost per acre- - - - -	\$ _____	\$.72	\$.72
Buildings cost per acre- - - - -	_____	_____ e/	1.44
Land tax per acre- - - - -	_____	_____ a/	1.27

Source of Standards:

- a/ Table 3, value of improved land.
- b/ Fig. 1, value of improved land.
- c/ Table 4, source of income.

- d/ Table 6, size of farm and value of feed fed.
- e/ Table 5, size of farm.

CHART FOR STUDYING THE EFFICIENCY OF VARIOUS PARTS OF YOUR BUSINESS

Accounting Farms in Farming-Type Area 3, 1942

The numbers above the double lines across the middle of the page are the averages for the farms similar in organization to your farm. By drawing a line across each column at the place which measures the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Factors that affect the gross earnings									Factors that affect expenses			
			Percent of tillable land in legume hay and pasture	Crop yields			Feed fed per acre to prod. l.s.	Returns per \$100 feed fed	Poultry returns per hen	Hog returns per litter farrowed	Dairy returns per cow milked	Gross expense per acre	Horse and machinery cost per crop acre	Labor cost per crop acre	Buildings cost per acre
				Corn, bu.	Oats, bu.	Soybeans, bu.									
33.8	499							7.05	291						
30.8	449							6.55	276						
27.8	399							6.05	261						
24.8	349							5.55	246						
21.8	299							5.05	231						
18.8	249							4.55	216						
15.8	199							4.05	201						
12.8	149							3.55	186						
9.8	99							3.05	171						
6.8	49							2.55	156						
3.8	--							2.05	141						
3%	50	\$4	2%	5	5	3	\$4	\$15	\$50	\$15	\$10	\$2	\$50	\$1	\$.30

*Each space between the horizontal lines represents the values indicated at bottom of each column.

TABLE 3.--USE OF TILLABLE LAND AND OTHER FACTORS
RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 3, 1942

Item	Value of improved land					
	Less than \$53	\$53 to \$72	\$73 to \$92	\$93 to \$112	\$113 to \$132	\$133 or more
Average value of improved land-	\$44	\$67	\$85	\$104	\$123	\$144
Number of farms - - - - -	31	51	112	140	153	93
Acres per farm- - - - -	201	247	289	239	247	238
Percent of land area tillable -	58.0	70.0	74.0	82.7	86.2	90.0
Percent of tillable land in:						
Corn- - - - -	29.1	34.1	34.0	36.3	37.5	38.4
Oats- - - - -	14.5	13.7	15.4	16.6	17.6	17.4
Wheat- - - - -	2.6	3.5	3.0	1.9	2.0	1.2
Soybeans- - - - -	14.5	12.2	12.8	15.1	13.6	14.2
Other crops - - - - -	3.7	3.0	3.0	2.3	1.9	1.9
Legume hay and pasture- - - -	20.0	20.0	22.4	20.5	20.1	21.0
Nonlegume hay and pasture - -	15.6	13.5	9.4	7.3	7.3	5.9
Gross earnings per acre - - - -	\$28.12	\$36.01	\$40.92	\$48.18	\$53.69	\$61.22
Gross expenses per acre - - - -	<u>14.30</u>	<u>14.41</u>	<u>15.19</u>	<u>16.65</u>	<u>17.53</u>	<u>19.42</u>
Net earnings per acre - - - - -	\$13.82	\$21.60	\$25.73	\$31.53	\$36.16	\$41.80
Land tax per acre - - - - -	\$.79	\$ 1.15	\$ 1.11	\$ 1.29	\$ 1.40	\$ 1.45

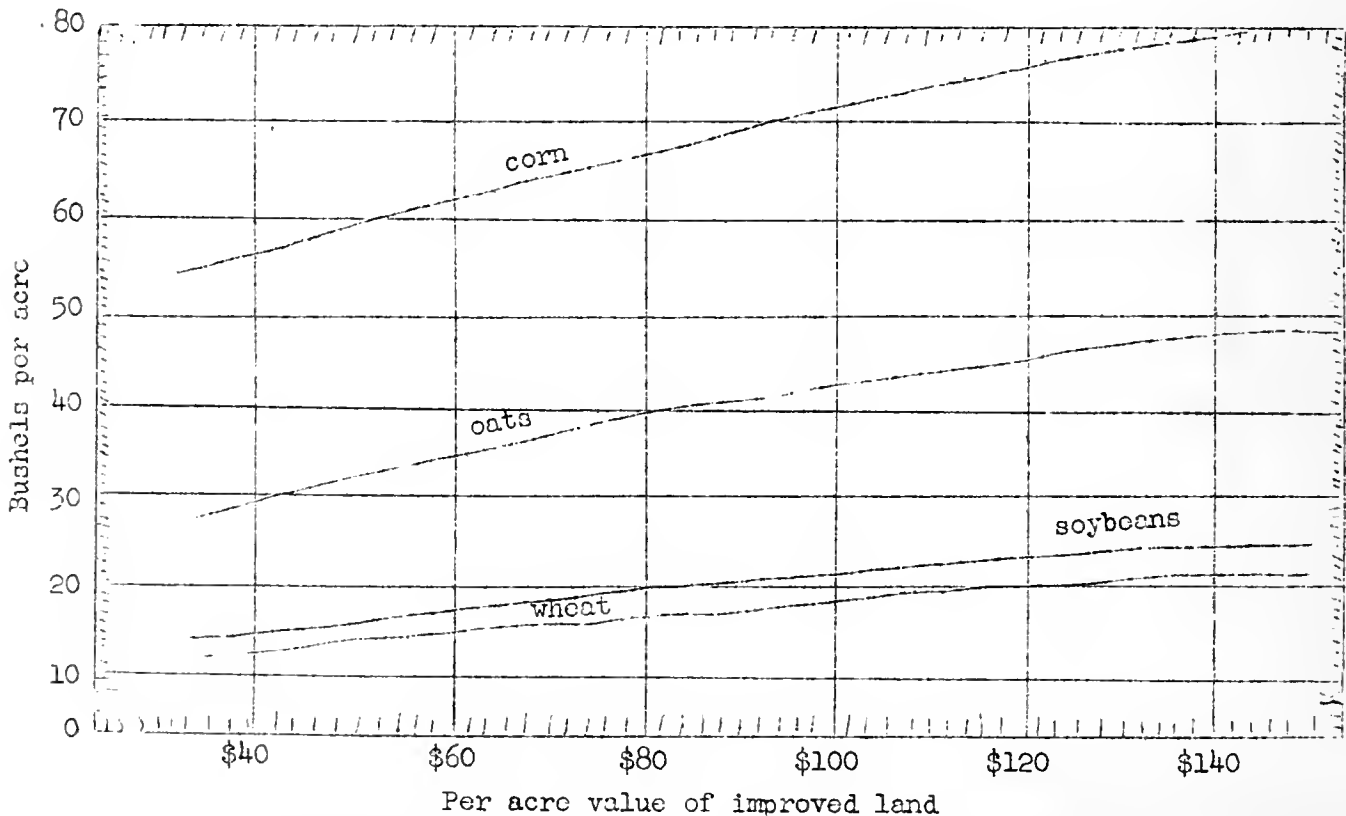


Fig. 1.--Average yields of corn, oats, wheat, and soybeans with varying values of improved land.

Explanation of Tables

Variable standards are used in analyzing the farm business (Table 2). They make allowances for the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the amount of feed fed and the returns per \$100 worth of feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of the products produced affect the relative profitableness of various types of farming for any particular year.

The "standards for your farm" (Table 2) are taken from Tables 3 to 6 and from Figure 1 as follows:

- Table 3 - Value of improved land.
Gross earnings, gross expenses, and net earnings per acre.
Value of improved land per acre.
All items in the land-use section.
Land tax per acre.
- Figure 1 - Value of improved land.
Yields for corn, oats, wheat, and soybeans.
- Table 4 - Source of income.
Feed fed per acre to productive livestock.
Returns per \$100 worth of feed fed.
Dairy returns per cow.
- Table 5 - Size of farm.
Value of buildings per acre.
Total months of labor.
Number of work horses.
Buildings cost per acre.
- Table 6 - Size of farm and amount of feed fed per acre.
Horse and machinery cost per crop acre.
Labor cost per crop acre.

The terms used in the tables are the same as the terms used in the Illinois farm account book. For example, "improved land" is classified on Page 1 of the farm account book. It means crop land, tillable pasture, and land occupied by farmstead, roads, and lanes. Likewise, "crop acres" are listed on Page 20 of the farm account book. They include all the tillable land on which a large amount of work has been done in preparing a seedbed or in cultivating or harvesting a crop.

Land use and crop yields. The percent of tillable land in grain crops increased as the value per acre for improved land increased (Table 3). Likewise the percent of land area tillable, the net earnings per acre, and the land tax per acre increased as the value of improved land increased. On the other hand, the percent of tillable land in nonlegume hay and pasture decreased as the value of the land increased.

Yields per acre for corn, oats, wheat, and soybeans increased as the land value increased (Fig. 1). By using Table 3 and Figure 1, the account keeper may find out whether his acreage in various crops, his crop yields, and his net earnings per acre were high or low for 1942 in comparison with the average of other farms in his area having about the same value for improved land.

TABLE 4.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 3, 1942

Item	Source of income				
	Grain 40%+	Hogs 40%+	Cattle 40%+	General farms	
				L.S. 60%-	L.S. 60%+
Number of farms - - - - -	54	398	32	22	74
Percent of income from prod. l.s.	39.3	92.0	92.8	53.6	91.5
Percent of income from crops - - -	51.5	--	--	35.2	--
<u>Investments</u>					
Total per farm - - - - -	\$43 373	\$58 563	\$62 153	\$44 711	\$47 586
Total per acre - - - - -	164	167	176	162	167
Land per acre - - - - -	108	95	91	99	95
Land improvements per acre - - -	2.38	3.80	4.74	2.79	2.95
Buildings per acre - - - - -	14.92	18.00	19.56	15.14	16.01
Machinery per acre - - - - -	11.41	11.20	10.24	10.64	12.15
<u>Earnings</u>					
Per farm					
Gross earnings - - - - -	\$11 073	\$11 704	\$18 394	\$11 397	\$13 274
Gross expenses - - - - -	3 778	4 115	7 992	4 048	4 773
Net earnings - - - - -	\$ 7 295	\$ 7 589	\$10 402	\$ 7 349	\$ 8 501
Per acre					
Gross earnings - - - - -	\$ 41.86	\$ 50.70	\$ 52.18	\$ 41.17	\$ 46.63
Gross expenses - - - - -	14.28	17.82	22.67	14.62	16.77
Net earnings - - - - -	\$ 27.58	\$ 32.88	\$ 29.51	\$ 26.55	\$ 29.86
Rate earned on investment - - -	16.8%	19.7%	16.7%	16.4%	17.9%
Labor and management earnings -	\$ 5 911	\$ 6 427	\$ 8 056	\$ 5 925	\$ 6 883
<u>Size and Intensity</u>					
Acres per farm - - - - -	265	231	352	277	285
Percent of land area tillable -	88.0	80.3	75.3	83.0	78.9
Percent tillable land in grain -	78.9	67.6	62.2	73.3	68.7
Percent in hay and pasture - - -	19.0	30.5	33.5	24.7	28.5
Feed fed per acre to prod. l.s.	\$ 9.41	\$ 25.94	\$ 31.07	\$ 11.90	\$ 24.92
Months of labor per 100 crop A.	10.3	15.1	13.5	11.1	14.4
Total months of labor - - - - -	21.2	22.6	28.0	21.4	26.9
<u>Crop Yields per Acre</u>					
Corn, bu. - - - - -	71.2	71.3	77.5	70.5	71.2
Oats, bu. - - - - -	41.8	41.6	49.5	42.2	42.1
<u>Livestock Returns</u>					
Per \$100 feed fed - - - - -	\$ 185	\$ 185	\$ 159	\$ 195	\$ 175
Hog returns per litter - - - - -	177	220	202	204	209
Dairy returns per cow - - - - -	110	108	115	101	130
<u>Expense Factors</u>					
Labor cost per crop acre - - - -	\$ 7.37	\$ 10.92	\$ 10.67	\$ 7.80	\$ 10.77
Horse and machinery cost					
per crop acre - - - - -	6.30	8.77	9.70	7.32	9.01
Land improvements cost per acre	.58	.76	.81	.45	.69
Buildings cost per acre - - - -	1.15	1.48	1.64	1.53	1.34
Land tax per acre - - - - -	1.43	1.25	1.24	1.24	1.25

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

Each farmer should, however, use caution in interpreting the data in Table 4. For example, the fact that hog farms earned the largest rate on the investment for 1942 and that general farms with the least livestock earned the smallest does not mean that such a relationship will prevail over a long period of years. The relative profitableness of these enterprises in 1942 was due largely to conditions affecting price and production.

In comparing the returns on the various groups of farms per \$100 worth of feed fed, one should consider the fact that there is a wide variation in the needed returns per \$100 worth of feed fed to pay for feed (including pasture), labor, equipment, buildings, and other costs. According to 5-year averages of complete cost studies (1933-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

A comparison of crop yields for the various types of farming shows that the cattle farms produced the highest average yields of corn and oats in spite of the fact that they reported having the lowest average value of land. Factors contributing to the higher yields on the cattle farms are the amount of manure produced and the lower intensity of land use as indicated by the value of feed fed per acre to productive livestock and the percent of tillable land in hay and pasture.

Differences in expenses are highly significant for the five groups of farms. Labor input per 100 crop acres was highest on the hog farms, where 15.1 months of labor were used, and lowest on the grain farms, where 10.5 months of labor were used. The hog farmers evidently utilized a large amount of available labor to increase the size of their businesses without increasing the size of their farms.

The labor cost per crop acre ranged from \$7.37 on the grain farms to \$10.92 on the hog farms; the horse and machinery cost per crop acre was highest on the cattle farms where it averaged \$9.70 and lowest on the grain farms, where it averaged \$6.30; and the buildings cost per acre was highest on the cattle farms but lowest on the grain farms.

Size of farm. When the farm records in Farming-Type Area 3 are sorted according to the total acres in the farm, they indicate that the larger farms had a greater total investment than did the smaller ones. Except for the largest size group the value of land per acre was about the same for the various size groups but the value of buildings and machinery per acre declined as the size of farm increased.

Gross earnings and expenses per farm increased as the size of farm increased but earnings and expenses per acre decreased as farms became larger. These figures and the value of feed fed per acre to productive livestock indicate that the small farms were operated more intensively than were the larger ones. The rate earned on investment was largest for the size group 201 to 280 acres.

TABLE 5.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 3, 1942

Item	Total acres in farm					
	Less than 121	121 to 200	201 to 280	281 to 360	361 to 440	441 or more
Number of farms - - - - -	56	209	145	80	46	44
Acres per farm- - - - -	99	165	243	325	403	565
<u>Investments</u>						
Total per farm- - - - -	\$16 726	\$29 774	\$39 642	\$58 114	\$63 107	\$84 651
Total per acre- - - - -	169	180	163	179	157	150
Land per acre - - - - -	94	101	96	105	92	85
Land improvements per acre- - -	4.73	4.02	3.52	3.50	3.52	2.85
Buildings per acre- - - - -	20.41	19.62	16.62	19.19	16.13	13.86
Machinery per acre- - - - -	14.37	13.52	10.99	11.11	9.54	9.23
<u>Earnings</u>						
Per farm						
Gross earnings- - - - -	\$ 5 556	\$ 9 092	\$11 493	\$15 571	\$17 829	\$22 976
Gross expenses- - - - -	2 349	3 351	3 802	5 268	5 741	7 899
Net earnings- - - - -	\$ 3 207	\$ 5 741	\$ 7 691	\$10 303	\$12 088	\$15 077
Per acre						
Gross earnings- - - - -	\$ 56.30	\$ 55.12	\$ 47.31	\$ 47.94	\$ 44.23	\$ 40.69
Gross expenses- - - - -	23.80	20.32	15.65	16.22	14.24	13.99
Net earnings- - - - -	\$ 32.50	\$ 34.80	\$ 31.66	\$ 31.72	\$ 29.99	\$ 26.70
Rate earned on investment - - -	19.2%	19.3%	19.4%	17.7%	19.2%	17.8%
Labor and management earnings -	\$ 3 151	\$ 5 010	\$ 6 463	\$ 8 168	\$ 9 730	\$11 657
<u>Size and Intensity</u>						
Percent of land area tillable -	83.2	84.1	79.9	82.7	77.8	75.9
Percent tillable land in grain-	65.9	66.8	69.1	69.2	70.8	70.2
Percent in hay and pasture- - -	33.2	31.7	29.5	28.0	27.6	25.0
Feed fed per acre to prod. l.s.	\$ 27.11	\$ 28.21	\$ 23.33	\$ 23.20	\$ 20.60	\$ 21.59
Percent of income from prod.l.s.	90.6	91.6	87.8	83.3	81.0	90.3
Percent of income from crops- -	--	--	3.7	8.3	10.9	2.0
Months of labor per 100 crop A.	23.6	17.3	14.2	12.5	12.0	10.5
Total months of labor - - - - -	15.4	19.4	22.7	27.7	30.8	37.3
Number of work horses - - - - -	1.9	2.6	2.8	3.0	3.5	3.5
<u>Crop Yields per Acre</u>						
Corn, bu. - - - - -	72.6	73.5	70.9	73.9	69.8	68.2
Oats, bu. - - - - -	42.5	42.7	40.8	43.1	42.9	42.2
<u>Livestock Returns</u>						
Per \$100 feed fed - - - - -	\$ 198	\$ 185	\$ 183	\$ 176	\$ 177	\$ 173
Hog returns per litter- - - - -	195	220	216	221	204	217
Dairy returns per cow - - - - -	96	113	107	122	122	112
<u>Expense Factors</u>						
Labor cost per crop acre- - - -	\$ 16.40	\$ 12.25	\$ 10.17	\$ 9.20	\$ 9.08	\$ 8.47
Horse and machinery cost per crop acre - - - - -	10.76	9.36	8.13	8.32	7.77	8.10
Land improvements cost per acre	.90	.80	.68	.70	.74	.64
Buildings cost per acre - - - -	1.61	1.70	1.26	1.63	1.28	1.25
Land tax per acre - - - - -	1.28	1.30	1.25	1.28	1.23	1.25

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their business by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and horse and machinery expenses. Labor and horse and machinery expenses per crop acre increase as the amount of livestock per acre increases, but decrease as the size of farm increases. Therefore the efficiency of a farm in using labor and machinery should be determined by comparing the expenses on the individual farm with those of farms of the same size having similar amounts of livestock per acre. The average labor cost per crop acre and the average horse and machinery cost per crop acre are shown for farms grouped according to acres per farm and value of feed fed per acre to productive livestock (Table 6).

TABLE 6.--LABOR COST PER CROP ACRE AND HORSE AND MACHINERY COST PER CROP ACRE FOR VARIATIONS IN SIZE OF FARM AND AMOUNT OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 3, 1942

Acres per farm	Feed fed per acre				Feed fed per acre			
	Less than \$14.00	\$14.00 to \$21.99	\$22.00 to \$29.99	\$30.00 or more	Less than \$14.00	\$14.00 to \$21.99	\$22.00 to \$29.99	\$30.00 or more
	(labor cost per crop acre)				(horse and machinery cost per crop acre)			
Less than 121	\$13.38	\$15.11	\$16.46	\$17.37	\$8.26	\$9.30	\$11.13	\$13.04
121 to 200	9.51	11.97	12.23	13.95	7.16	8.13	9.39	11.14
201 to 280	8.94	9.25	11.14	11.69	7.01	7.99	8.78	9.64
281 to 360	8.45	9.07	9.73	10.43	6.96	7.81	8.57	9.48
361 to 440	7.35	8.36	9.32	10.34	6.30	7.68	8.50	9.21
441 or more	6.32	8.33	9.26	10.23	6.30	7.47	8.62	9.27

Producing for War Needs

In any given period gross receipts for cattle, dairy sales, hogs, eggs, and grain are relative measures of production (Table 7). Therefore the account keeper should use these standards to compare his own production with that of other account keepers. He should then adopt on his farm the kind of farm plan and the management practices that will make the best possible use of land, buildings, livestock, labor, machinery, and other resources for the duration of the war. Thus he will have more products to put on the nation's markets and will be making the greatest possible contribution to the war effort.

TABLE 7.--INVESTMENTS, RECEIPTS, EXPENSES, AND EARNINGS
Accounting Farms in Farming-Type Area 3, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Number of farms - - - - -	--	580	594	536	511
<u>Capital Investments</u>					
Land- - - - -	\$	\$24 045	\$23 338	\$23 757	\$23 904
Land improvements - - - - -		890	) 4 903	5 023	4 943
Farm buildings- - - - -		4 339			
Horses- - - - -		225	261	312	367
Productive livestock: Cattle- - -		2 935	2 390	2 244	2 000
Hogs- - - - -		1 860	1 012	969	1 120
Sheep - - - - -		255	159	144	132
Poultry - - - - -		120	85	83	89
<u>Total productive livestock- - - -</u>	()	(5 170)	(3 646)	(3 440)	(3 341)
Feed, grain, and seeds- - - - -		4 222	3 108	3 555	2 859
Machinery and equipment - - - - -		2 500	2 157	2 198	2 167
Automobile (farm share) - - - - -		306	217	208	188
<u>Total - - - - -</u>	\$	\$41 697	\$37 630	\$38 493	\$37 769
<u>Receipts and Net Increases</u>					
Horses- - - - -	\$	\$ --	\$ --	\$ --	\$ --
Productive livestock: Cattle- - -		2 737	1 896	1 728	1 437
Dairy sales - - - - -		530	475	365	313
Hogs- - - - -		6 658	4 092	1 986	1 898
Sheep - - - - -		179	142	127	95
Poultry - - - - -		149	120	75	57
Egg sales - - - - -		267	173	115	109
<u>Total productive livestock- - - -</u>	()	(10 520)	(6 898)	(4 396)	(3 909)
Farm products used in household -		366	293	252	260
Feed, grain, and seeds- - - - -		387	1 222	358	1 132
AAA receipts- - - - -		582	518	546	782
Labor off farm- - - - -		37	40	58	44
Miscellaneous - - - - -		14	22	18	17
<u>Total - - - - -</u>	\$	\$11 906	\$ 8 993	\$ 5 628	\$ 6 144
<u>Expenses and Net Decreases</u>					
Land improvements - - - - -	\$	\$ 180	\$) 361	\$ 323	\$ 282
Farm buildings- - - - -		360)		
Horses- - - - -		8	24	24	14
Productive livestock- - - - -		--	--	--	--
Feed, grain, and seeds- - - - -		--	--	--	--
Machinery and equipment - - - - -		1 091	732	653	615
Automobile (farm share) - - - - -		162	129	117	102
Livestock expense - - - - -		123	84	71	77
Hired labor - - - - -		697	515	466	510
Taxes - - - - -		366	343	336	321
Miscellaneous - - - - -		55	42	40	41
<u>Total - - - - -</u>	\$	\$ 3 042	\$ 2 230	\$ 2 030	\$ 1 962
Receipts less expenses- - - - -	\$	\$ 8 864	\$ 6 763	\$ 3 598	\$ 4 182
Family labor- - - - -		271	168	168	162
Returns for labor, capital, mgt. \$		\$ 8 593	\$ 6 595	\$ 3 430	\$ 4 020
Operator's labor- - - - -		768	596	527	519
Net earnings per farm - - - - -	\$	\$ 7 825	\$ 5 999	\$ 2 903	\$ 3 501
<u>Rate Earned on Investment - - - - -</u>	%	18.8%	15.9%	7.5%	9.3%
Interest on investment- - - - -	\$	\$ 2 085	\$ 1 881	\$ 1 924	\$ 1 889
Labor and Management Earnings - - -		6 508	4 714	1 506	2 131

FARM BUSINESS REPORT . . . 1942



Beef cattle are adapted to the available land, labor, and equipment found on many farms.
This is especially true when maximum use is made of roughages.

FARMING-TYPE AREA FOUR East Central Cash Grain Area

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

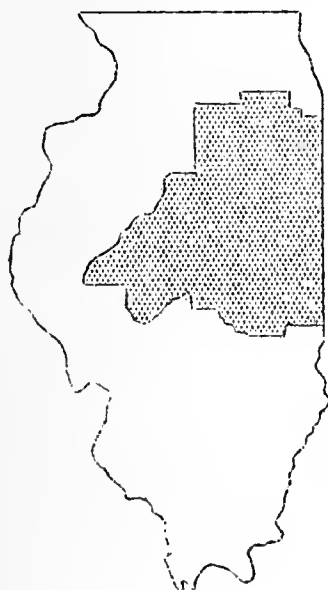
Annual Farm Business Report

ON SIX HUNDRED SIXTY-THREE FARMS IN FARMING-TYPE AREA 4, 1942

By P. E. Johnston, J. B. Cunningham, and W. N. Thompson^{1/}

War adjustments. Farm account cooperators in Farming-Type Area 4 responded to the war demand for increased production in 1942 over that of 1941 by increasing grain acreage and numbers of hens.

Item	1941	1942	Change
Acres per farm	265	259	6 acres decrease
Acres of grain crops	168	173	5 acres (3%) increase
Number of dairy cows	6	6	None
Number of pigs weaned	102	102	None
Number of hens	110	124	14 hens (13%) increase
Total months of labor	22	22	None
Value of machinery (beginning of year)	\$2 327	\$2 576	\$249 increase
Tons of grain produced	206	200	6 tons (3%) decrease
Measure of volume of production for livestock and livestock products ^{2/}	\$4 227	\$4 476	\$249 (6%) increase



Farming-Type Area 4
Cash grain

The cooperators kept the same number of cows, weaned the same number of pigs, and used the same amount of labor in 1942 as in 1941, but they increased their machinery investments.

The amount of grain produced per farm decreased from 206 tons in 1941 to 200 tons in 1942, a drop of only 6 tons or about 3 percent. This decrease was due to a reduction in production of wheat and oats which more than offset increases in the production of other grains.

Livestock production, as measured by receipts and net increases of livestock and livestock products valued at the same price in 1942 as in 1941, increased about 6 percent.

^{1/} W. N. Thompson also supervised the closing of the farm accounts and the preparation of the tables used in this report. The farm account project was conducted in cooperation with the county farm bureaus and was supervised by the

following farm advisers: J. E. Harris, Champaign; H. D. Triplett, Ford; H. D. VanMatre, Iroquois; Edwin Bay, Sangamon; I. E. Parett, Vermilion; G. T. Swain, Kankakee; L. W. Braham, Will; Paul M. Krows, Moultrie; J. R. Gilkey, Macon; R. V. Watson, Mason; N. H. Anderson, Logan; H. N. Myers, DeWitt; W. P. Miller, Kendall; L. W. Chalcraft, Menard; G. H. Husted, Cass; L. E. McKinzie, Edgar; J. Q. Scott, Douglas; E. O. Johnston, Piatt; and W. S. Myers, Coles.

^{2/} Receipts and net increases in 1942 were adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm price for each class of livestock or livestock product.

TABLE 1.--INVENTORY CHANGES, CASH INCOME, AND CASH EXPENSES
Accounting Farms in Farming-Type Area 4, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Inventory Changes					
Land improvements - - - - -	\$ _____	\$ 63	\$) 76	\$) 83	\$) 155
Farm buildings- - - - -	_____	8	)	)	) 155
Horses- - - - -	_____	-15	-38	-54	-48
Productive livestock- - - - -	_____	1067	835	324	207
Feed, grain, and seeds- - - - -	_____	458	1416	-104	994
Machinery and equipment - - - - -	_____	190	261	104	99
Automobile (farm share) - - - - -	_____	-27	29	15	10
Total - - - - -	\$ _____	\$ 1744	\$ 2579	\$ 368	\$ 1417
Cash Receipts					
Land improvements - - - - -	\$ _____	\$ 1	\$) 9	\$) 17	\$) 13
Farm buildings- - - - -	_____	15	)	)	) 13
Horses- - - - -	_____	47	40	47	62
Productive livestock: Cattle- - - - -	_____	2258	1762	1624	1382
Dairy sales - - - - -	_____	700	553	418	367
Hogs- - - - -	_____	2826	1701	1012	945
Sheep - - - - -	_____	159	128	88	118
Poultry - - - - -	_____	194	149	111	102
Egg sales - - - - -	_____	331	225	156	130
Total productive livestock- - - - -	()	(6468)	(4518)	(3409)	(3044)
Feed, grain, and seeds- - - - -	_____	4622	3571	2801	2466
Machinery and equipment - - - - -	_____	285	311	291	280
Automobile (farm share) - - - - -	_____	17	61	52	38
AAA receipts- - - - -	_____	523	525	577	679
Labor off farm- - - - -	_____	35	39	40	50
Miscellaneous - - - - -	_____	6	10	9	11
Total - - - - -	\$ _____	\$ 12019	\$ 9084	\$ 7243	\$ 6643
Cash Expenses					
Land improvements - - - - -	\$ _____	\$ 218	\$) 398	\$) 383	\$) 421
Farm buildings- - - - -	_____	321	)	)	) 421
Horses- - - - -	_____	34	22	22	33
Productive livestock: Cattle- - - - -	_____	1297	890	873	782
Hogs- - - - -	_____	223	129	87	115
Sheep - - - - -	_____	59	68	56	64
Poultry - - - - -	_____	53	39	30	30
Total productive livestock- - - - -	()	(1632)	(1126)	(1046)	(991)
Feed and grain purchases- - - - -	_____	1173	804	530	535
Crop and sealing expense- - - - -	_____	272	175	172	153
Machinery and equipment - - - - -	_____	1574	1402	1122	1042
Automobile (farm share) - - - - -	_____	151	227	189	164
Livestock expense - - - - -	_____	91	65	52	56
Hired labor - - - - -	_____	584	486	436	432
Taxes - - - - -	_____	395	398	397	373
Miscellaneous - - - - -	_____	43	34	30	29
Total - - - - -	\$ _____	\$ 6483	\$ 5137	\$ 4379	\$ 4229
Summary					
Total inventory change- - - - -	\$ _____	\$ 1744	\$ 2579	\$ 368	\$ 1417
Cash balance- - - - -	_____	5531	3947	2864	2414
Farm products used in household - - - - -	_____	325	273	225	235
Receipts less expenses- - - - -	\$ _____	\$ 7600	\$ 6799	\$ 3457	\$ 4066
Total unpaid labor- - - - -	_____	1023	785	696	695
Net earnings per farm - - - - -	\$ _____	\$ 6577	\$ 6014	\$ 2761	\$ 3371
Net earnings per acre - - - - -	\$ _____	\$ 25.39	\$ 22.69	\$ 10.19	\$ 12.60

Net earnings. The net earnings per farm on an inventory basis were higher in 1942 than in 1941; the average was \$6,577 in 1942 compared with \$6,014 in 1941. The figure representing net earnings per farm is the sum remaining as compensation for the use of the capital invested in the business and for the managerial ability of the operator. It is calculated by adding to the cash balance the value of farm products used in the household and the inventory increases and by subtracting from the resulting total the value of unpaid labor. Therefore this figure indicates the earning power of the business and determines the real value of the farm and its equipment. The average net earnings per acre were \$25.39 in 1942, \$22.69 in 1941, \$10.19 in 1940, and \$12.60 in 1939.

Inventory changes. The year 1942 was the tenth consecutive year in which inventories increased. The largest increase during the past four years was \$2,579 in 1941, and the smallest was \$368 in 1940 (Table 1). In 1941 the largest increases were for livestock and feed, grain, and seeds. The average amounts of grain on hand in Area 4 at the two inventory periods were:

<u>Crop</u>	<u>Beginning of year (bushels)</u>	<u>End of year (bushels)</u>
Corn	4078	4104
Oats	982	878
Wheat	164	67
Soybeans	337	356

Cash receipts and cash expenses. In 1942 cash receipts exceeded cash expenses by \$5,531, the largest margin for any year during the past four. The cash balance--the difference between cash receipts and expenses--is the amount of money which was available for family living expenses, interest, debt payments, and savings.

Unpaid family labor. Although there was no appreciable change in the amount of family labor available, the total valuation of unpaid labor was higher for 1942 than for any other year in the past four. This increase resulted from the fact that the physical labor of the operator and other members of the family was valued at \$70 per month in 1942, at \$55 per month in 1941, and at \$50 per month in each of the two previous years.

Variation in farm earnings. A wide variation was found in earnings on the farms in Area 4. For example, 114 farms earned less than 10 percent on their investment, with an average rate earned of 7.6 percent; but 65 farms earned 22 percent or more, with an average rate earned of 24.6 percent. After deducting all farm expenses and a charge of 5 percent for the use of the capital invested in the business, the former group of operators had \$1,777 for labor and management earnings contrasted with \$8,604 for the latter group. The variation in earnings and in size of farm for all the records in the area was as follows:

<u>Rate earned on investment (percent)</u>	<u>Number of farms</u>	<u>Average rate earned (percent)</u>	<u>Acres per farm</u>	<u>Capital invested per farm</u>	<u>Gross earnings per farm</u>	<u>Net earnings per farm</u>	<u>Labor and management earnings</u>
Less than 10.00	114	7.6	232	\$40 035	\$ 7 023	\$3 025	\$1 777
10.00 to 13.99	191	12.3	247	42 413	9 289	5 220	3 855
14.00 to 17.99	176	15.8	288	49 409	12 147	7 800	6 117
18.00 to 21.99	117	19.7	261	43 860	12 777	8 633	7 206
22.00 or more	65	24.6	258	39 733	14 169	9 785	8 604

TABLE 2.--FACTORS HELPING TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 4, 1942

Item	Your farm	Standards for your farm	Average of all farms
Rate earned on investment- - - - -	_____ %	15.0%	15.0%
Number of farms- - - - -	--	--	663
Acres in farm- - - - -	_____	259	259
Acres tillable - - - - -	_____	233	233
Acres in crops - - - - -	_____	198	198
Gross earnings per acre- - - - -	\$ _____	\$ _____ a/	\$ 40.26
Gross expenses per acre- - - - -	_____	_____	14.87
Net earnings per acre- - - - -			25.39
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 110	\$ 110
Value of improved land per acre- - - - -	_____	_____ a/	114
Value of buildings per acre- - - - -	_____	_____ e/	16
Total investment per acre- - - - -		169	169
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	_____ a/	90.0
Percent of tillable land in:			
Corn - - - - -	_____	_____	32.9
Oats - - - - -	_____	_____	14.4
Wheat- - - - -	_____	_____	3.8
Soybeans - - - - -	_____	_____	23.3
Other crops- - - - -	_____	_____	2.7
Legume hay and pasture - - - - -	_____	_____	15.3
Nonlegume hay and pasture- - - - -	_____	_____	7.6
<u>Crop Yields</u>			
Corn, bu.- - - - -	_____	_____ b/	64.5
Oats, bu.- - - - -	_____	_____	42.2
Wheat, bu. - - - - -	_____	15.8	15.8
Soybeans, bu.- - - - -	_____	_____ b/	22.7
<u>Livestock Factors</u>			
Value of feed fed to prod. l.s.- - - - -	\$ _____	\$3 456	\$3 456
Feed fed per acre to prod. l.s.- - - - -	_____	_____ c/	13.34
Returns per \$100 worth of feed fed - - - - -	_____	_____	178
Poultry returns per hen- - - - -	_____	4.57	4.57
Number of litters farrowed - - - - -	_____	16.4	16.4
Number of pigs weaned per litter - - - - -	_____	6.2	6.2
Returns per litter farrowed- - - - -	\$ _____	\$ 206	\$ 206
Average number of cows milked- - - - -	_____	6.1	6.1
Dairy returns per cow milked - - - - -	\$ _____	\$ _____ c/	\$ 130
<u>Expense Factors</u>			
Horse and machinery cost per crop acre -	\$ _____	\$ _____ d/	\$ 7.01
Labor cost per crop acre - - - - -	_____	_____ e/	7.96
Total months of labor- - - - -	_____	_____	22.3
Number of work horses- - - - -	_____	_____	2.7
Land improvements cost per acre- - - - -	\$ _____	\$.59	.59
Buildings cost per acre- - - - -	_____	_____ e/	1.15
Land tax per acre- - - - -	_____	_____ a/	1.37

Source of Standards:

- a/ Table 3, value of improved land.
- b/ Fig. 1, value of improved land.
- c/ Table 4, source of income.

- d/ Table 6, size of farm and value of feed fed per acre.
- e/ Table 5, size of farm.

CHART FOR STUDYING THE EFFICIENCY OF VARIOUS PARTS OF YOUR BUSINESS

Accounting Farms in Farming-Type Area 4, 1942

The numbers above the double lines are the averages for the farms similar in organization to your farm. By drawing a line across each column at the place which measures the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Factors that affect the gross earnings										Factors that affect expenses			
			Percent of tillable land in legume hay and pasture	Crop yields			Feed fed per acre to prod. l.s.	Returns per \$100 feed fed	Poultry returns per hen	Hog returns per litter farrowed	Dairy returns per cow milked	Gross expenses per acre	Horse and machinery cost per crop acre	Labor cost per crop acre	Buildings cost per acre	
				Corn, bu.	Oats, bu.	Soybeans, bu.										
25.0	509								7.07	281						
23.0	459								6.57	266						
21.0	409								6.07	251						
19.0	359								5.57	236						
17.0	309								5.07	221						
15.0	259								4.57	206						
13.0	209								4.07	191						
11.0	159								3.57	176						
9.0	109								3.07	161						
7.0	59								2.57	146						
5.0	--								2.07	131						
2%	50	\$4	2%	5	5	3	\$2	\$15	\$50	\$15	\$10	\$2	\$1	\$1	\$1	\$.30

* Each space between lines represents the values indicated at bottom of each column.

TABLE 3.--USE OF TILLABLE LAND AND OTHER FACTORS
RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 4, 1942

Item	Value of Improved Land					
	Less than \$53	\$53 to \$72	\$73 to \$92	\$93 to \$112	\$113 to \$132	More than \$132
Average value of improved land- - -	\$41	\$66	\$83	\$102	\$123	\$147
Number of farms - - - - -	25	42	71	159	203	163
Acres per farm- - - - -	290	275	269	250	256	258
Percent of land area tillable - - -	79.6	79.5	84.9	89.0	92.6	94.5
Percent of tillable land in:						
Corn- - - - -	27.4	29.1	32.2	33.6	34.1	33.1
Oats- - - - -	9.2	15.4	14.9	15.6	14.8	13.4
Wheat - - - - -	12.7	7.4	4.8	3.1	3.1	2.6
Soybeans- - - - -	9.8	15.8	19.0	22.8	23.2	29.4
Other crops - - - - -	15.0	5.7	2.2	2.4	1.4	1.8
Legume hay and pasture- - - - -	17.2	18.0	17.0	15.1	15.9	13.4
Nonlegume hay and pasture - - - -	8.7	8.6	9.9	7.4	7.5	6.3
Gross earnings per acre - - - - -	\$19.57	\$30.25	\$34.77	\$38.95	\$45.01	\$44.46
Gross expenses per acre - - - - -	9.07	12.98	14.40	14.74	15.97	15.37
Net earnings per acre - - - - -	\$10.50	\$17.27	\$20.37	\$24.21	\$29.04	\$29.09
Land tax per acre - - - - -	\$.89	\$.96	\$ 1.21	\$ 1.32	\$ 1.46	\$ 1.57

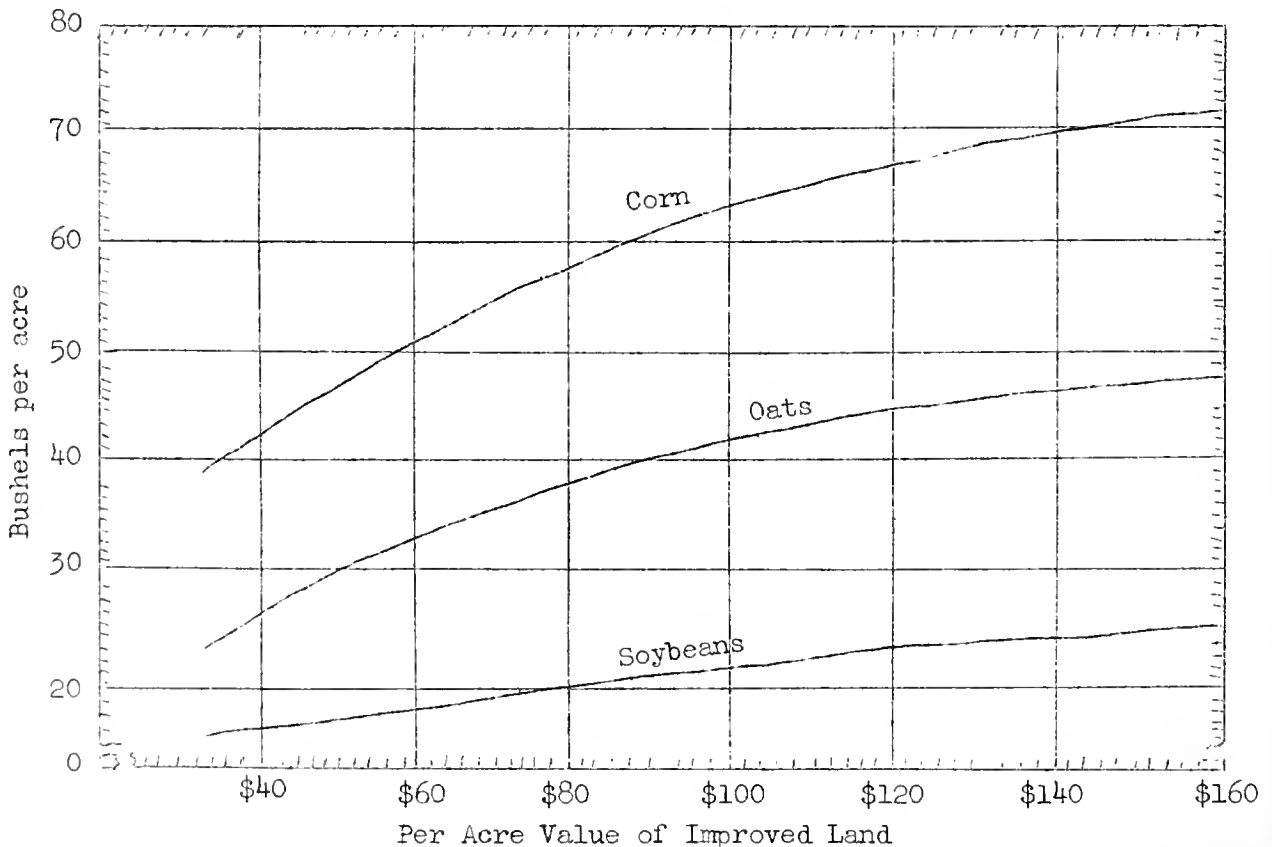


Fig. 1.--Average yields of corn, oats, and soybeans with varying values of improved land.

Explanation of Tables

Variable standards are used in the analysis of the farm business (Table 2). They make allowances for the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the amount of feed fed and the returns per \$100 worth of feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of the products produced affect the relative profitableness of various types of farming for any particular year.

The "standards for your farms" (Table 2) are taken from Tables 3 to 6 and from Figure 1 as follows:

- Table 3 - Value of improved land.
 - Gross earnings, gross expenses, and net earnings per acre.
 - Value of improved land per acre.
 - All items in the land-use section.
 - Land tax per acre.
- Figure 1 - Value of improved land.
 - Yields for corn, oats, and soybeans.
- Table 4 - Source of income.
 - Feed fed per acre to productive livestock.
 - Returns per \$100 worth of feed fed.
 - Dairy returns per cow.
- Table 5 - Size of farm.
 - Value of improvements per acre.
 - Total months of labor.
 - Number of work horses.
 - Buildings cost per acre.
- Table 6 - Size of farm and amount of feed fed per acre.
 - Horse and machinery cost per crop acre.
 - Labor cost per crop acre.

The terms used in the tables are the same as the terms used in the Illinois farm account book. For example, "improved land" is classified on Page 1 of the farm account book. It means cropland, tillable pasture, and land occupied by farmstead, roads, and lanes. Likewise, "crop acres" are listed on Page 20 of the farm account book. They include all the tillable land on which a large amount of work has been done in preparing a seedbed or in cultivating or harvesting a crop.

Land use and crop yields. The percent of tillable land in grain crops increased as the value per acre of improved land increased from an average of \$41 to \$147 (Table 3). Likewise the percent of land area tillable, the net earnings per acre, and the land tax per acre increased as the value of improved land increased. On the other hand, the percent of tillable land in legume and nonlegume hay and pasture was higher on farms with low valued land than on farms with high valued land.

Yields per acre for corn, oats, and soybeans increased as the land value increased (Fig. 1). By using Table 3 and Figure 1, the account keeper may find out whether his acreage in various crops, his crop yields, and his net earnings per acre were high or low for 1942 in comparison with the average of other farms in his area having about the same value of improved land.

TABLE 4.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 4, 1942

Item	Source of income					
	Grain 40% +	Dairy sales 40% +	Hogs 40% +	Cattle 40% +	General farms	
					L.S. 60% -	L.S. 60% +
Number of farms - - - - -	322	22	151	20	62	86
Percent of income from prod. l.s. -	32.4	79.2	87.2	93.6	54.2	75.3
Percent of income from crops- - -	59.0	10.3	5.0	--	34.9	16.1
<u>Investments</u>						
Total per farm- - - - -	\$46 177	\$28 696	\$41 490	\$73 917	\$41 261	\$38 060
Total per acre- - - - -	169	179	165	207	164	170
Land per acre - - - - -	116	98	99	116	107	104
Land improvements per acre- - -	2.47	2.51	3.46	3.53	2.40	3.09
Buildings per acre- - - - -	13.65	27.45	16.70	19.62	14.77	19.65
Machinery per acre- - - - -	10.82	14.31	10.97	11.69	11.34	11.66
<u>Earnings</u>						
Per farm						
Gross earnings- - - - -	\$10 511	\$ 6 618	\$11 043	\$17 255	\$ 9 664	\$ 9 279
Gross expenses- - - - -	3 745	3 350	4 037	6 888	3 636	3 799
Net earnings- - - - -	\$ 6 766	\$ 3 268	\$ 7 006	\$10 367	\$ 6 028	\$ 5 480
Per acre						
Gross earnings- - - - -	\$ 38.38	\$ 41.36	\$ 43.81	\$ 48.39	\$ 38.44	\$ 41.50
Gross expenses- - - - -	13.68	20.93	16.01	19.32	14.46	16.99
Net earnings- - - - -	\$ 24.70	\$ 20.43	\$ 27.80	\$ 29.07	\$ 23.98	\$ 24.51
Rate earned on investment - - -	14.7%	11.4%	16.9%	14.0%	14.6%	14.4%
Labor and management earnings - -	\$ 5 226	\$ 2 626	\$ 5 699	\$ 7 412	\$ 4 774	\$ 4 332
<u>Size and Intensity</u>						
Acres per farm- - - - -	274	160	252	357	251	224
Percent of land area tillable - -	91.8	88.8	87.1	88.9	88.2	89.0
Percent tillable land in grain- -	79.2	64.6	70.2	69.2	71.8	70.3
Percent in hay and pasture- - -	18.7	32.3	27.8	27.5	26.2	27.1
Feed fed per acre to prod. l.s. - \$	7.15	\$ 18.28	\$ 21.83	\$ 33.04	\$ 11.66	\$ 18.12
Months of labor per 100 crop A. -	9.6	19.4	13.3	11.3	11.7	13.9
Total months of labor - - - - -	21.2	22.4	23.6	29.2	21.5	22.7
<u>Crop Yields Per Acre</u>						
Corn, bu. - - - - -	64.3	57.4	64.9	72.9	62.9	64.2
Soybeans, bu. - - - - -	23.7	16.9	21.3	19.2	24.4	19.1
<u>Livestock Returns</u>						
Per \$100 feed fed - - - - -	\$ 187	\$ 186	\$ 180	\$ 139	\$ 188	\$ 178
Hog returns per litter- - - - -	198	224	210	173	213	205
Dairy returns per cow - - - - -	109	203	121	78	136	144
<u>Expense Factors</u>						
Labor cost per crop acre- - - - -	\$ 6.74	\$ 12.57	\$ 9.49	\$ 8.70	\$ 8.20	\$ 9.91
Horse and machinery cost per crop acre - - - - -	6.31	10.60	7.99	7.85	6.90	7.85
Land improvements cost per acre -	.55	.77	.65	.71	.55	.66
Buildings cost per acre - - - - -	.95	1.59	1.36	1.52	1.24	1.54
Land tax per acre - - - - -	1.44	1.21	1.29	1.28	1.34	1.30

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

Each farmer should, however, use caution in interpreting the data in Table 4. For example, the fact that hog farms showed the largest rate earned on the investment for 1942 and that dairy farms showed the smallest does not mean that such a relationship will prevail over a long period of years. The relative profitability of these enterprises in 1942 was due largely to conditions affecting price and production.

In comparing the returns on the various groups of farms per \$100 worth of feed fed, one should consider the fact that there is a wide variation in the necessary returns per \$100 worth of feed fed which is necessary to pay for feed (including pasture), labor, equipment, buildings, and other costs. According to 5-year averages of complete cost studies (1933-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

Furthermore, in a comparison of crop yields for the various types of farming, the following items, which indicate that the grain farms were located on the better land, should be noted: (1) high value of land per acre; (2) large percent of land area tillable; (3) large percent of land in grain; and (4) high land tax per acre.

Differences in expenses are highly significant for the six groups of farms. Labor input per 100 crop acres was highest on the dairy farms, where 19.4 months of labor were used, and lowest on the grain farms, where 9.6 months of labor were used. The dairy farmers evidently utilized a large amount of available labor to increase the size of their businesses without increasing the size of their farms.

The labor cost per crop acre ranged from \$6.74 on the grain farms to \$12.57 on the dairy farms; the horse and machinery cost per crop acre was highest on the dairy farms where it averaged \$10.60 and lowest on the grain farms, where it averaged \$6.31; and the buildings cost per acre averaged \$1.59 on the dairy farms and \$.95 on the grain farms.

Size of farm. When the farm records in Farming-Type Area 4 are sorted according to the total acres in the farm, they indicate that the larger farms had a greater total investment than did the smaller ones. The operators on the larger farms took in more money during the year than did those on the smaller ones; and, after deductions were made for farm business expenditures and interest on the investment, the 53 largest farms had labor and management earnings which averaged \$10,650 contrasted with \$2,387 for the 59 smallest farms. The rate earned on investment was smallest on the two groups of farms under 200 acres in size, and did not differ significantly for the other size groups.

The smaller farms were operated more intensively than were the larger ones. This variation was indicated by the higher gross earnings per acre, by the larger labor and capital input per acre, and by the higher value of feed fed per acre to productive livestock.

TABLE 5.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 4, 1942

Item	Total acres in farm					
	Less than 121	121 to 200	201 to 280	281 to 360	361 to 440	441 or more
Number of farms - - - - -	59	204	185	120	42	53
Acres per farm- - - - -	104	167	243	320	398	595
<u>Investments</u>						
Total per farm- - - - -	\$19 316	\$29 977	\$42 451	\$51 988	\$66 798	\$92 881
Total per acre- - - - -	186	180	175	163	168	156
Land per acre - - - - -	110	113	114	108	112	102
Land improvements per acre- - -	3.98	3.18	2.85	2.33	2.56	2.77
Buildings per acre- - - - -	22.49	19.03	16.68	14.18	12.28	12.67
Machinery per acre- - - - -	14.60	12.94	11.91	10.14	10.36	8.86
<u>Earnings</u>						
Per farm						
Gross earnings- - - - -	\$ 4 843	\$ 7 119	\$10 305	\$12 185	\$15 752	\$21 638
Gross expenses- - - - -	2 236	2 931	3 777	4 320	5 433	7 154
Net earnings- - - - -	\$ 2 607	\$ 4 188	\$ 6 528	\$ 7 865	\$10 319	\$14 484
Per acre						
Gross earnings- - - - -	\$ 46.69	\$ 42.64	\$ 42.47	\$ 38.10	\$ 39.57	\$ 36.35
Gross expenses- - - - -	21.55	17.55	15.57	13.51	13.65	12.02
Net earnings- - - - -	\$ 25.14	\$ 25.09	\$ 26.90	\$ 24.59	\$ 25.92	\$ 24.33
Rate earned on investment - - -	13.5%	14.0%	15.4%	15.1%	15.4%	15.6%
Labor and management earnings	\$ 2 387	\$ 3 464	\$ 5 176	\$ 6 019	\$ 7 766	\$10 650
<u>Size and Intensity</u>						
Percent of land area tillable -	92.1	91.7	92.0	88.5	89.1	86.9
Percent tillable land in grain-	69.6	74.2	76.3	74.7	77.1	73.6
Percent in hay and pasture- - -	27.1	24.0	21.6	23.1	19.5	24.2
Feed fed per acre to prod. 1.s.	\$ 19.82	\$ 14.33	\$ 13.52	\$ 12.00	\$ 13.11	\$ 12.53
Percent of income from prod.1.s	74.6	59.2	55.3	53.9	54.4	55.6
Percent of income from crops- -	14.3	31.2	36.0	38.1	37.9	36.9
Months of labor per 100 crop A.	19.9	13.9	11.2	10.2	9.8	8.7
Total months of labor - - - - -	15.6	18.0	21.5	24.7	30.1	37.2
Number of work horses - - - - -	2.0	2.2	2.7	2.9	3.4	3.9
<u>Crop Yields per Acre</u>						
Corn, bu. - - - - -	66.7	65.0	64.5	64.0	64.4	64.3
Soybeans, bu. - - - - -	18.8	21.8	23.4	22.9	23.9	22.3
<u>Livestock Returns</u>						
Per \$100 feed fed - - - - -	\$ 186	\$ 186	\$ 182	\$ 179	\$ 170	\$ 166
Hog returns per litter - - - - -	187	201	211	205	209	212
Dairy returns per cow - - - - -	133	140	132	119	117	105
<u>Expense Factors</u>						
Labor cost per crop acre- - - -	\$ 13.65	\$ 9.62	\$ 7.93	\$ 7.12	\$ 7.30	\$ 6.32
Horse and machinery cost per crop acre - - - - -	8.92	7.89	7.27	6.54	6.54	6.06
Land improvements cost per acre	.76	.63	.56	.64	.51	.58
Buildings cost per acre - - - -	1.70	1.38	1.21	1.04	1.00	1.03
Land tax per acre - - - - -	1.44	1.41	1.41	1.36	1.33	1.28

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their business by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and horse and machinery expenses. Labor and horse and machinery expenses per crop acre increase as the amount of livestock per acre increases, but decrease as the size of farm increases. Therefore the efficiency of a farm in the use of labor and machinery should be determined by comparing the expenses on the individual farm with those of farms of the same size having similar amounts of livestock per acre. The average labor cost per crop acre and the average horse and machinery cost per crop acre are shown for farms grouped according to acres per farm and value of feed fed per acre to productive livestock (Table 6).

TABLE 6.--LABOR COST PER CROP ACRE AND HORSE AND MACHINERY COST PER CROP ACRE FOR VARIATIONS IN SIZE OF FARM AND AMOUNT OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 4, 1942

Acres per farm	Feed fed per acre				Feed fed per acre			
	Less than \$6.00	\$6.00 to \$11.99	\$12.00 to \$17.99	\$18.00 or more	Less than \$6.00	\$6.00 to \$11.99	\$12.00 to \$17.99	\$18.00 or more
	(labor cost per crop acre)				(horse and machinery cost per crop acre)			
Less than 121	\$11.40	\$13.63	\$14.46	\$16.19	\$7.00	\$7.90	\$9.13	\$9.50
121 to 200	7.78	8.76	9.87	12.07	6.18	6.73	8.40	9.30
201 to 280	6.15	7.19	8.98	10.23	5.80	6.56	8.05	9.14
281 to 360	6.00	6.61	8.08	8.27	5.60	6.30	6.79	7.64
361 to 440	5.50	6.51	8.10	8.40	5.50	6.00	6.70	7.07
441 or more	4.60	5.84	7.30	8.00	5.19	5.59	6.61	6.80

Producing for War Needs

In any given period gross receipts for hogs, cattle, dairy sales, eggs, and grain are relative measures of production (Table 7). Therefore the account keeper should use these standards to compare his own production with that of other account keepers. He should then adopt on his farm the kind of farm plan and the management practices that will make the best possible use of land, buildings, livestock, labor, machinery, and other resources for the duration of the war. Thus he will have more products to put on the nation's markets and so will be making the greatest possible contribution to the war effort.

TABLE 7.--INVESTMENTS, RECEIPTS, EXPENSES, AND EARNINGS
Accounting Farms in Farming-Type Area 4, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Number of farms	--	663	703	582	559
<u>Capital Investments</u>					
Land- - - - -	\$ _____	\$28 442	\$28 998	\$29 028	\$28 902
Land improvements - - - - -	_____	725	) 4 334	4 353	4 122
Farm buildings- - - - -	_____	4 048)		
Horses- - - - -	_____	222	268	345	413
Productive livestock: Cattle- - -	_____	2 012	1 704	1 561	1 323
Hogs- - - -	_____	823	478	463	469
Sheep - - -	_____	123	92	77	104
Poultry - - -	_____	137	104	99	101
<u>Total productive livestock- - -</u>	()	(3 095)	(2 378)	(2 200)	(1 997)
Feed, grain, and seeds- - - - -	_____	4 446	3 334	3 776	2 963
Machinery and equipment - - - -	_____	2 576	2 327	2 249	2 172
Automobile (farm share) - - - -	_____	300	226	205	194
<u>Total - - - - -</u>	\$ _____	\$43 854	\$41 865	\$42 156	\$40 763
<u>Receipts and Net Increases</u>					
Horses- - - - -	\$ _____	\$ --	\$ --	\$ --	\$ --
Productive livestock: Cattle- - -	_____	1 583	1 263	1 019	840
Dairy sales	_____	700	553	418	367
Hogs- - - -	_____	3 036	1 961	948	807
Sheep - - -	_____	83	87	61	48
Poultry - - -	_____	170	138	85	68
Egg sales -	_____	331	225	156	130
<u>Total productive livestock- - -</u>	()	(5 903)	(4 227)	(2 687)	(2 260)
Farm products used in household -	_____	325	273	225	235
Feed, grain, and seeds- - - - -	_____	3 635	4 008	1 995	2 772
AAA receipts- - - - -	_____	523	525	577	679
Labor off farm- - - - -	_____	35	39	40	50
Miscellaneous - - - - -	_____	6	10	9	11
<u>Total - - - - -</u>	\$ _____	\$10 427	\$ 9 082	\$ 5 533	\$ 6 007
<u>Expenses and Net Decreases</u>					
Land improvements - - - - -	\$ _____	\$ 154	) 313	\$ 283	\$ 253
Farm buildings- - - - -	_____	298)		
Horses- - - - -	_____	2	20	29	19
Productive livestock- - - - -	_____	--	--	--	--
Feed, grain, and seeds- - - - -	_____	--	--	--	--
Machinery and equipment - - - -	_____	1 099	830	727	663
Automobile (farm share) - - - -	_____	161	137	122	116
Livestock expense - - - - -	_____	91	65	52	56
Hired labor - - - - -	_____	584	486	436	432
Taxes - - - - -	_____	395	398	397	373
Miscellaneous - - - - -	_____	43	34	30	29
<u>Total - - - - -</u>	\$ _____	\$ 2 827	\$ 2 283	\$ 2 076	\$ 1 941
Receipts less expenses- - - - -	\$ _____	\$ 7 600	\$ 6 799	\$ 3 457	\$ 4 066
Family labor- - - - -	_____	252	189	153	164
Returns for labor, capital, mgt.	\$ _____	\$ 7 348	\$ 6 610	\$ 3 304	\$ 3 902
Operator's labor- - - - -	_____	771	596	543	531
Net earnings per farm - - - - -	\$ _____	\$ 6 577	\$ 6 014	\$ 2 761	\$ 3 371
<u>Rate Earned on Investment - - - -</u>	%	15.0%	14.4%	6.5%	8.3%
Interest on investment- - - - -	\$ _____	\$ 2 193	\$ 2 093	\$ 2 108	\$ 2 039
Labor and Management Earnings - - -	_____	5 155	4 517	1 196	1 863

FARM BUSINESS REPORT . . . 1942



Beef cattle are adapted to the available land, labor, and equipment found on many farms.
This is especially true when maximum use is made of roughages.

FARMING-TYPE AREA FIVE West Central General Farming Area

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

Annual Farm Business Report

ON THREE HUNDRED FIFTY-TWO FARMS IN FARMING-TYPE AREA 5, 1942

By P. E. Johnston, J. B. Cunningham, and F. J. Reiss^{1/}

War adjustments. Farm account cooperators in Farming-Type Area 5 responded to the war demand for increased production in 1942 over that in 1941 by increasing grain acreage, number of pigs weaned, and number of hens.

Item	1941	1942	Change
Acres per farm	250	251	1 acre increase
Acres of grain crops	120	123	3 acres increase
Number of dairy cows	7	7	None
Number of pigs weaned	125	137	12 pigs increase
Number of hens	101	112	11 hens increase
Total months of labor	23	23	None
Value of machinery (beginning of year)	\$1 812	\$2 068	\$256 increase
Tons of grain produced	136	120	16 tons decrease
Measure of volume of production for livestock and livestock products ^{2/}	\$5 256	\$5 372	\$116 increase



Farming-Type Area 5
General Farming

The cooperators kept the same number of dairy cows in 1942 as in 1941, used the same amount of labor, but increased machinery investments.

Total grain produced per farm decreased from 136 tons in 1941 to 120 tons in 1942. This decrease was due in part to a reduction in acreage and yield of wheat. Livestock production, as measured by receipts and net increases for livestock and livestock products, which are valued at the same price for 1942 as for 1941, failed to keep pace with increases in numbers of pigs and hens.

^{1/} W. N. Thompson supervised the closing of the farm accounts and the preparation of the tables used in this report. The project was conducted in cooperation with

the county farm bureaus and was supervised by the following farm advisers: W. S. Batson, Shelby; G. B. Whitman, Adams; C. S. Love, Christian; A. E. Snyder, Montgomery; W. F. Coolidge, Morgan; O. O. Mowery, Macoupin; W. B. Bunn, Pike; C. T. Kibler, Jersey; Ray H. Roll, Greene; E. H. Garlich, Brown; G. H. Reid, Scott; and R. K. Wise, Schuyler.

^{2/} For 1941 actual receipts and net increases were used; for 1942 receipts and net increases were adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm price for each class of livestock or livestock product.

TABLE 1.--INVENTORY CHANGES, CASH INCOME, AND CASH EXPENSES
Accounting Farms in Farming-Type Area 5, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Inventory Changes					
Land improvements - - - - -	\$ _____	\$ 52	\$) 75	\$ 118	\$ 99
Farm buildings- - - - -	_____	7	)	118	99
Horses- - - - -	_____	-4	-36	-38	-33
Productive livestock- - - - -	_____	844	966	381	331
Feed, grain, and seeds- - - - -	_____	188	940	301	590
Machinery and equipment - - - - -	_____	159	261	87	110
Automobile (farm share) - - - - -	_____	-22	35	21	11
Total - - - - -	\$ _____	\$ 1 224	\$ 2 241	\$ 870	\$ 1 108
Cash Receipts					
Land improvements - - - - -	\$ _____	\$ 4	\$) 6	\$ 10	\$ 12
Farm buildings- - - - -	_____	6	)	10	12
Horses- - - - -	_____	48	40	43	53
Productive livestock: Cattle- - -	_____	2 941	2 225	1 782	1 668
Dairy sales	_____	793	689	522	432
Hogs- - - - -	_____	3 994	2 448	1 455	1 482
Sheep - - - - -	_____	185	190	124	115
Poultry - - - - -	_____	129	110	81	95
Egg sales - - - - -	_____	259	178	116	115
Total productive livestock- - - - -	()	(8 301)	(5 840)	(4 080)	(3 907)
Feed, grain, and seeds- - - - -	_____	2 332	1 766	1 264	1 387
Machinery and equipment - - - - -	_____	270	281	249	265
Automobile (farm share) - - - - -	_____	23	61	48	46
AAA receipts- - - - -	_____	331	333	426	454
Labor off farm- - - - -	_____	35	39	43	52
Miscellaneous - - - - -	_____	6	10	13	18
Total - - - - -	\$ _____	\$11 356	\$ 8 376	\$ 6 176	\$ 6 194
Cash Expenses					
Land improvements - - - - -	\$ _____	\$ 208	\$) 367	\$ 368	\$ 320
Farm buildings- - - - -	_____	258	)	368	320
Horses- - - - -	_____	45	27	23	30
Productive livestock: Cattle- - -	_____	1 523	1 202	978	976
Hogs- - - - -	_____	373	233	149	213
Sheep - - - - -	_____	65	88	56	57
Poultry - - - - -	_____	36	27	20	24
Total productive livestock- - - - -	()	(1 997)	(1 550)	(1 203)	(1 270)
Feed and grain purchases- - - - -	_____	1 831	1 174	726	688
Crop and sealing expense- - - - -	_____	236	142	124	133
Machinery and equipment - - - - -	_____	1 255	1 158	857	872
Automobile (farm share) - - - - -	_____	142	209	167	161
Livestock expense - - - - -	_____	92	70	54	61
Hired labor - - - - -	_____	529	421	370	379
Taxes - - - - -	_____	316	296	294	289
Miscellaneous - - - - -	_____	35	34	25	33
Total - - - - -	\$ _____	\$ 6 944	\$ 5 448	\$ 4 211	\$ 4 236
Summary					
Total inventory change- - - - -	\$ _____	\$ 1 224	\$ 2 241	\$ 870	\$ 1 108
Cash balance- - - - -	_____	4 412	2 928	1 965	1 958
Farm products used in household -	_____	342	283	244	256
Receipts less expenses- - - - -	\$ _____	\$ 5 978	\$ 5 452	\$ 3 079	\$ 3 322
Total unpaid labor- - - - -	_____	1 093	850	770	769
Net earnings per farm - - - - -	\$ _____	\$ 4 885	\$ 4 602	\$ 2 309	\$ 2 553
Net earnings per acre - - - - -	\$ _____	\$ 19.44	\$ 18.39	\$ 9.04	\$ 9.77

Net earnings. The net earnings per farm on an inventory basis were higher in 1942 than in 1941; the average was \$4,885 in 1942 compared with \$4,602 in 1941. The figure representing net earnings per farm is the sum remaining as compensation for the use of the capital invested in the business and for the managerial ability of the operator. It is calculated by adding to the cash balance the value of farm products used in the household and the inventory increases and by subtracting from the resulting total the value of unpaid labor. Therefore this figure indicates the earning power of the business and determines the real value of the farm and its equipment. The average net earnings per acre were \$19.44 in 1942, \$18.39 in 1941, \$9.04 in 1940, and \$9.77 in 1939.

Inventory changes. The year 1942 was the tenth consecutive year in which inventories were increased. The largest increase for the past four years was \$2,241 in 1941 and the smallest was \$870 in 1940 (Table 1). In 1942 the largest increases were for livestock and feed and grain. The average amounts of grain on hand in Area 5 at the two inventory periods were:

<u>Crop</u>	<u>Beginning of year (bushels)</u>	<u>End of year (bushels)</u>
Corn	2 505	2 506
Oats	498	434
Wheat	223	56
Soybeans	203	225

Cash receipts and cash expenses. In 1942 cash receipts exceeded cash expenses by \$4,412, the largest margin for any year in the past four. The cash balance--the difference between cash receipts and expenses--is the amount of money which was available for family living expenses, interest, debt payments, and savings.

Unpaid family labor. Although there was no appreciable change in the amount of family labor available, the total valuation of unpaid labor was higher for 1942 than for any other year in the past four. This increase resulted from the fact that the physical labor of the operator and other members of the family was valued at \$70 per month in 1942, at \$55 per month in 1941, and at \$50 per month in 1939 and 1940.

Variation in farm earnings. A wide variation was found in earnings on the farms in Area 5. For example, 65 farms earned less than 9 percent on their investment, with an average of 5.2 percent; but 47 farms earned 24 percent or more, with an average of 30.3 percent. After deducting all farm expenses and a charge of 5 percent for the use of the capital invested in the business, the former group of operators had \$798 for labor and management earnings contrasted with \$7,874 for the latter group. The variation in earnings for all the records in the area was as follows:

<u>Rate earned on investment (percent)</u>	<u>Number of farms</u>	<u>Average rate earned (percent)</u>	<u>Acres per farm</u>	<u>Capital invested per farm</u>	<u>Gross earnings per farm</u>	<u>Net earnings per farm</u>	<u>Labor and management earnings</u>
Less than 9.00	65	5.2	201	\$22 740	\$ 5 220	\$1 186	\$ 798
9.00 to 13.99	89	11.6	278	34 465	8 768	3 996	3 032
14.00 to 18.99	91	16.6	259	31 594	9 076	5 258	4 467
19.00 to 23.99	60	21.1	259	32 557	11 384	6 867	6 042
24.00 or more	47	30.3	247	27 869	13 144	8 433	7 874

TABLE 2.--FACTORS HELPING TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 5, 1942

Item	Your farm	Standards for your farm	Average of all farms
Rate earned on investment- - - - -	_____ %	16.1%	16.1%
Number of farms- - - - -	__	--	352
Acres in farm- - - - -	_____	251	251
Acres tillable - - - - -	_____	199	199
Acres in crops - - - - -	_____	150	150
Gross earnings per acre- - - - -	\$ _____	\$ _____ ^{a/}	\$ 33.09
Gross expenses per acre- - - - -	_____	_____	13.65
Net earnings per acre- - - - -	_____	_____	19.44
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 69	\$ 69
Value of improved land per acre- - - - -	_____	_____ ^{a/}	77
Value of buildings per acre- - - - -	_____	_____ ^{e/}	12
Total investment per acre- - - - -	_____	121	121
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	_____ ^{a/}	79.1
Percent of tillable land in:			
Corn - - - - -	_____	_____	27.6
Oats - - - - -	_____	_____	10.9
Wheat- - - - -	_____	_____	4.5
Soybeans - - - - -	_____	_____	18.7
Other crops- - - - -	_____	_____	5.4
Legume hay and pasture - - - - -	_____	_____	20.5
Nonlegume hay and pasture- - - - -	_____	_____	12.4
<u>Crop Yields</u>			
Corn - - - - -	_____	_____ ^{b/}	55.4
Oats - - - - -	_____	_____	33.9
Wheat- - - - -	_____	12.2	12.2
Soybeans - - - - -	_____	_____ ^{b/}	20.6
<u>Livestock Factors</u>			
Value of feed fed to prod. l.s.- - - - -	\$ _____	\$4 067	\$4 067
Feed fed per acre to prod. l.s.- - - - -	_____	_____ ^{c/}	16.18
Returns per \$100 worth of feed fed - - - - -	_____	_____	182
Poultry returns per hen- - - - -	_____	4.04	4.04
Number of litters farrowed - - - - -	_____	21.5	21.5
Number of pigs weaned per litter - - - - -	_____	6.4	6.4
Returns per litter farrowed- - - - -	\$ _____	\$ 201	\$ 201
Average number of cows milked- - - - -	_____	7.1	7.1
Dairy returns per cow milked - - - - -	\$ _____	\$ _____ ^{c/}	\$ 125
<u>Expense Factors</u>			
Horse and machinery cost per crop acre - - - - -	\$ _____	\$ _____ ^{d/}	\$ 7.52
Labor cost per crop acre - - - - -	_____	_____ ^{e/}	10.57
Total months of labor- - - - -	_____	_____	22.9
Number of work horses- - - - -	_____	_____	3.4
Land improvements cost per acre- - - - -	\$ _____	\$.60	\$.60
Buildings cost per acre- - - - -	_____	_____ ^{e/}	.97
Land tax per acre- - - - -	_____	_____ ^{a/}	1.11

Source of Standards:

- a/ Table 3, value of improved land.
- b/ Fig. 1, value of improved land.
- c/ Table 4, source of income.

- d/ Table 6, size of farm and value of feed fed.
- e/ Table 5, size of farm.

CHART FOR STUDYING THE EFFICIENCY OF VARIOUS PARTS OF YOUR BUSINESS

Accounting Farms in Farming-Type Area 5, 1942

The numbers above the double line are the averages for the farms similar in organization to your farm. By drawing a line across each column at the place which measures the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Factors that affect the gross earnings									Factors that affect expenses				
			Percent of tillable land in legume hay and pasture	Crop yields			Feed fed per acre to prod. l.s.	Returns per \$100 feed fed	Poultry returns per hen	Hog returns per litter farrowed	Dairy returns per cow milked	Total expense per acre	Horse and machinery cost per crop acre	Labor cost per crop acre	Buildings cost per acre	
				Corn, bu.	Oats, bu.	Soybeans, bu.										
36.1	501									6.04	276					
32.1	451									5.64	261					
28.1	401									5.24	246					
24.1	351									4.84	231					
20.1	301									4.44	216					
16.1	251									4.04	201					
12.1	201									3.64	186					
8.1	151									3.24	171					
4.1	101									2.84	156					
.1	51									2.44	141					
--	--									2.04	126					
4%	50	\$3	3%	4	4	2	\$2	\$20	\$.40	\$15	\$10	\$1	\$.50	\$1	\$.20	

*Each space between lines represents the values indicated at bottom of each column.

TABLE 3.--USE OF TILLABLE LAND AND OTHER FACTORS
RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 5, 1942

Item	Value of improved land					
	Less than \$43	\$45 to \$52	\$63 to \$82	\$83 to \$102	\$103 to \$122	More than \$122
Average value of improved land - - -	\$35	\$54	\$74	\$96	\$112	\$133
Number of farms - - - - -	51	89	93	79	11	29
Acres per farm- - - - -	258	230	254	267	238	257
Percent of land area tillable - - -	65.1	76.0	79.7	85.2	86.7	91.3
Percent of tillable land in:						
Corn- - - - -	24.9	25.8	26.8	29.7	28.2	32.4
Oats- - - - -	11.7	12.9	10.6	9.9	10.2	8.8
Wheat - - - - -	3.6	4.7	3.8	5.1	2.9	6.7
Soybeans- - - - -	11.3	11.0	18.1	22.7	31.1	32.3
Other crops - - - - -	8.1	6.9	6.0	4.2	1.3	1.0
Legume hay and pasture- - - - -	23.4	25.0	21.3	18.2	16.2	11.7
Nonlegume hay and pasture - - - -	17.0	13.7	13.4	10.2	10.1	7.1
Gross earnings per acre - - - - -	\$22.82	\$29.96	\$33.79	\$38.95	\$39.71	\$47.41
Gross expenses per acre - - - - -	11.56	14.69	14.53	15.14	15.68	15.45
Net earnings per acre - - - - -	\$11.26	\$15.27	\$19.26	\$23.81	\$24.03	\$31.96
Land tax per acre - - - - -	\$.68	\$.95	\$ 1.08	\$ 1.32	\$ 1.51	\$ 1.44

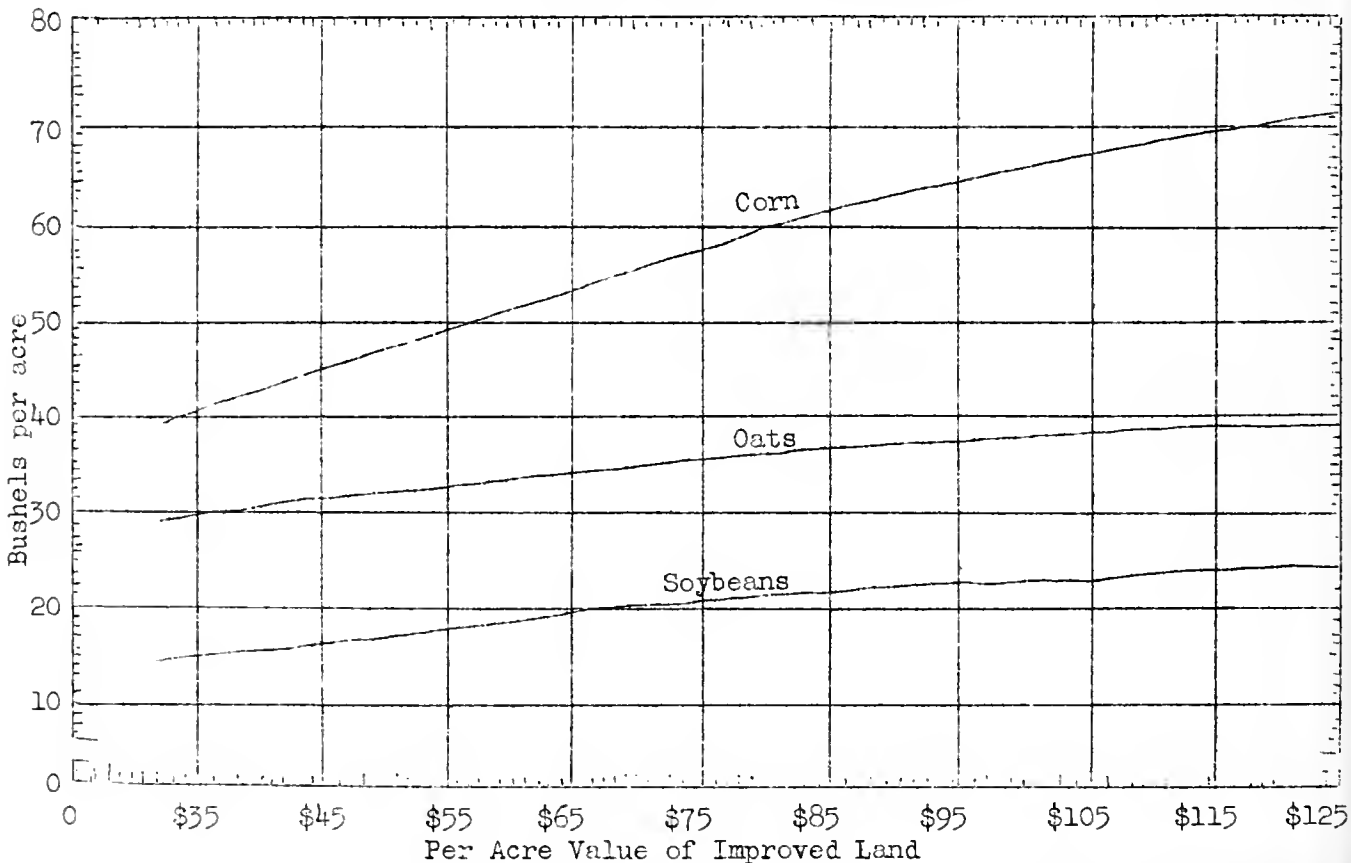


Fig. 1.--Average yields of corn, oats, and soybeans with varying values of improved land.

Explanation of Tables

Variable standards are used in analyzing the farm business (Table 2). They make allowances for the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the amount of feed fed and the returns per \$100 worth of feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of the products produced affect the relative profitableness of various types of farming for any particular year.

The "standards for your farm" (Table 2) are taken from Tables 3 to 6 and from Figure 1 as follows:

- Table 3 - Value of improved land.
Gross earnings, gross expenses, and net earnings per acre.
Value of improved land per acre.
All items in the land-use section.
Land tax per acre.
- Figure 1 - Value of improved land.
Yields for corn, oats, and soybeans.
- Table 4 - Source of income.
Feed fed per acre to productive livestock.
Returns per \$100 worth of feed fed.
Dairy returns per cow.
- Table 5 - Size of farm.
Value of buildings per acre.
Total months of labor.
Number of work horses.
Buildings cost per acre.
- Table 6 - Size of farm and amount of feed fed per acre.
Horse and machinery cost per crop acre.
Labor cost per crop acre.

The terms used in the tables are the same as the terms used in the Illinois farm account book. For example, "improved land" is classified on Page 1 of the farm account book. It means crop land, tillable pasture, and land occupied by farmstead, roads, and lanes. Likewise, "crop acres" are listed on Page 20 of the farm account book. They include all the tillable land on which a large amount of work has been done in preparing a seedbed or in cultivating or harvesting a crop.

Land use and crop yields. The percent of tillable land in grain crops increased as the value per acre for improved land increased (Table 3). Likewise the percent of land area tillable, the net earnings per acre, and the land tax per acre increased as the value of improved land increased. On the other hand, the percent of tillable land in legume and nonlegume hay and pasture decreased as the value of the land increased.

Yields per acre for corn, oats, and soybeans increased as the land value increased (Fig. 1). By using Table 3 and Figure 1, the account keeper may find out whether his acreage in various crops, his crop yields, and his net earnings per acre were high or low for 1942 in comparison with the average of other farms in his area having about the same value for improved land.

TABLE 4.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 5, 1942

Item	Source of income					
	Grain 40% +	Dairy sales 40% +	Hogs 40% +	Cattle 40% +	General farms	
					L.S. 60% -	L.S. 60% +
Number of farms - - - - -	42	20	183	15	15	77
Percent of income from prod. l.s.	34.8	92.4	92.2	94.1	55.1	86.1
Percent of income from crops - - -	55.9	--	--	--	33.8	4.5
<u>Investments</u>						
Total per farm - - - - -	\$37 573	\$23 077	\$28 304	\$60 149	\$27 508	\$27 918
Total per acre - - - - -	135	104	116	148	123	118
Land per acre - - - - -	91	52	65	77	74	65
Land improvements per acre - - -	2.04	1.90	2.73	4.46	2.57	2.52
Buildings per acre - - - - -	9.74	14.22	12.18	15.94	10.81	12.35
Machinery per acre - - - - -	10.80	9.90	8.70	8.55	11.66	9.79
<u>Earnings</u>						
Per farm						
Gross earnings - - - - -	\$ 9 231	\$ 7 233	\$ 8 576	\$17 154	\$ 7 610	\$ 7 485
Gross expenses - - - - -	3 649	5 069	3 498	8 636	3 448	3 298
Net earnings - - - - -	\$ 5 582	\$ 2 164	\$ 5 078	\$ 8 518	\$ 4 162	\$ 4 187
Per acre						
Gross earnings - - - - -	\$ 33.08	\$ 32.53	\$ 35.17	\$ 42.09	\$ 33.97	\$ 31.71
Gross expenses - - - - -	13.08	22.80	14.35	21.19	15.39	13.97
Net earnings - - - - -	\$ 20.00	\$ 9.73	\$ 20.82	\$ 20.90	\$ 18.58	\$ 17.74
Rate earned on investment - - -	14.9%	9.4%	17.9%	14.2%	15.1%	15.0%
Labor and management earnings -	\$ 4 482	\$ 1 784	\$ 4 451	\$ 6 294	\$ 3 578	\$ 3 563
<u>Size and Intensity</u>						
Acres per farm - - - - -	279	222	244	408	224	236
Percent of land area tillable -	89.2	70.6	76.3	79.7	84.5	80.8
Percent tillable land in grain -	75.1	47.7	60.7	61.2	73.0	60.4
Percent in hay and pasture - - -	23.1	45.6	35.3	32.2	22.9	33.5
Feed fed per acre to prod. l.s.	\$ 7.23	\$ 16.07	\$ 17.64	\$ 27.54	\$ 10.67	\$ 15.63
Months of labor per 100 crop A.	10.3	25.9	16.5	11.9	13.7	15.5
Total months of labor - - - - -	21.4	27.8	22.5	28.8	22.4	22.3
<u>Crop Yields per Acre</u>						
Corn, bu. - - - - -	58.2	40.3	56.4	61.2	60.3	50.5
Wheat, bu. - - - - -	13.0	14.8	12.0	11.3	15.1	10.4
<u>Livestock Returns</u>						
Per \$100 feed fed - - - - -	\$ 172	\$ 194	\$ 190	\$ 146	\$ 186	\$ 182
Hog returns per litter - - - - -	181	163	206	224	217	181
Dairy returns per cow - - - - -	114	176	95	99	133	133
<u>Expense Factors</u>						
Labor cost per crop acre - - - -	\$ 7.08	\$ 17.60	\$ 11.42	\$ 8.69	\$ 9.80	\$ 10.84
Horse and machinery cost per crop acre - - - - -	6.63	9.70	7.58	7.44	7.68	7.69
Land improvements cost per acre	.52	.54	.60	.80	.40	.68
Buildings cost per acre - - - -	.79	1.29	1.01	1.07	.83	.93
Land tax per acre - - - - -	1.28	.86	1.07	1.19	1.12	1.04

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

Each farmer should, however, use caution in interpreting the data in Table 4. For example, the fact that hog farms earned the largest rate on the investment for 1942 and that dairy farms earned the smallest does not mean that such a relationship will prevail over a long period of years. The relative profitability of these enterprises in 1942 was due largely to conditions affecting price and production.

In comparing the returns on the various groups of farms per \$100 worth of feed fed, one should consider the fact that there is a wide variation in the needed returns per \$100 worth of feed fed to pay for feed (including pasture), labor, equipment, buildings, and other costs. According to 5-year averages of complete cost studies (1933-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

Furthermore, in a comparison of crop yields for the various types of farming, the following items, which indicate that the grain farms were located on the better land, should be noted: (1) high value of land per acre; (2) large percent of land area tillable; (3) large percent of land in grain; (4) high yield of corn per acre; and (5) high land tax per acre.

Differences in expenses are highly significant for the six groups of farms. Labor input per 100 crop acres was highest on the dairy farms, where 25.9 months of labor were used, and lowest on the grain farms, where 10.3 months of labor were used. The dairy farmers evidently utilized a large amount of available labor to increase the size of their businesses without increasing the size of their farms.

The labor cost per crop acre ranged from \$7.08 on the grain farms to \$17.60 on the dairy farms; the horse and machinery cost per crop acre was highest on the dairy farms where it averaged \$9.70 and lowest on the grain farms, where it averaged \$6.63; and the buildings cost per acre averaged \$1.29 on the dairy farms and \$.79 on the grain farms.

Size of farm. When the farm records in Farming-Type Area 5 are sorted according to the total acres in the farm, they indicate that the larger farms had a greater total investment than did the smaller ones. The operators on the larger farms took in more money during the year than did those on the smaller ones. After deductions were made for farm business expenditures and interest on the investment, labor and management earnings on the 28 largest farms averaged \$8,851 contrasted with \$2,053 on the 31 smallest farms. The rate earned on investment did not differ significantly for the various size groups.

TABLE 5 --SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 5, 1942

Item	Total acres in farm					
	Less than 121	121 to 200	201 to 280	281 to 360	361 to 440	441 or more
Number of farms - - - - -	31	125	96	49	23	28
Acres per farm- - - - -	104	165	241	327	393	586
<u>Investments</u>						
Total per farm- - - - -	\$14 010	\$19 875	\$28 698	\$41 151	\$45 993	\$69 142
Total per acre- - - - -	135	121	119	126	117	118
Land per acre - - - - -	74	68	68	74	70	65
Land improvements per acre- - -	3.66	2.71	2.78	1.98	2.37	3.09
Buildings per acre- - - - -	15.74	12.65	12.09	12.49	10.93	11.52
Machinery per acre- - - - -	11.71	9.89	9.44	10.12	8.21	8.06
<u>Earnings</u>						
Per farm						
Gross earnings- - - - -	\$ 4 012	\$ 5 663	\$ 8 163	\$11 045	\$11 792	\$17 846
Gross expenses- - - - -	1 997	2 560	3 408	4 480	4 552	6 252
Net earnings- - - - -	\$ 2 015	\$ 3 103	\$ 4 755	\$ 6 565	\$ 7 240	\$11 594
Per acre						
Gross earnings- - - - -	\$ 38.74	\$ 34.38	\$ 33.81	\$ 33.80	\$ 30.00	\$ 30.44
Gross expenses- - - - -	19.28	15.54	14.12	13.71	11.58	10.66
Net earnings- - - - -	\$ 19.46	\$ 18.84	\$ 19.69	\$ 20.09	\$ 18.42	\$ 19.78
Rate earned on investment - - -	14.4%	15.6%	16.6%	16.0%	15.7%	16.8%
Labor and management earnings -	\$ 2 053	\$ 2 891	\$ 4 127	\$ 5 332	\$ 5 675	\$ 8 851
<u>Size and Intensity</u>						
Percent of land area tillable -	86.7	83.3	81.0	79.9	71.6	73.3
Percent tillable land in grain-	61.9	62.4	61.9	66.8	63.1	60.3
Percent in hay and pasture- - -	31.8	32.7	34.5	29.7	32.6	34.2
Feed fed per acre to prod. l.s.	\$ 17.97	\$ 16.36	\$ 15.50	\$ 15.90	\$ 14.61	\$ 17.75
Percent of income from prod.l.s.	83.2	87.4	84.1	81.4	88.1	91.1
Percent of income from crops- -	5.4	2.2	7.7	10.3	5.9	1.1
Months of labor per 100 crop A.	22.6	18.0	15.9	14.0	13.0	11.1
Total months of labor - - - - -	15.6	18.6	23.1	28.7	27.1	35.6
Number of work horses - - - - -	2.4	3.0	3.7	3.5	4.1	4.9
<u>Crop Yields per Acre</u>						
Corn, bu. - - - - -	55.6	51.9	54.4	55.9	58.6	60.0
Wheat, bu.- - - - -	12.1	10.7	12.3	14.5	12.8	11.3
<u>Livestock Returns</u>						
Per \$100 feed fed - - - - -	\$ 191	\$ 193	\$ 191	\$ 180	\$ 186	\$ 159
Hog returns per litter- - - - -	186	196	203	206	197	209
Dairy returns per cow - - - - -	130	120	128	128	113	121
<u>Expense Factors</u>						
Labor cost per crop acre- - - -	\$ 15.20	\$ 12.54	\$ 11.16	\$ 9.54	\$ 8.86	\$ 7.80
Horse and machinery cost per crop acre - - - - -	8.04	7.65	7.52	7.79	7.74	6.81
Land improvements cost per acre	.87	.61	.60	.51	.66	.62
Buildings cost per acre - - - -	1.37	.97	1.09	.94	.96	.77
Land tax per acre - - - - -	1.21	1.17	1.09	1.08	1.08	1.00

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their business by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and horse and machinery expenses. Labor and horse and machinery expenses per crop acre increase as the amount of livestock per acre increases, but decrease as the size of farm increases. Therefore the efficiency of a farm in using labor and machinery should be determined by comparing the expenses on the individual farm with those of farms of the same size having similar amounts of livestock per acre. The average labor cost per crop acre and the average horse and machinery cost per crop acre are shown for farms grouped according to acres per farm and value of feed fed per acre to productive livestock (Table 6).

TABLE 6.--LABOR COST PER CROP ACRE AND HORSE AND MACHINERY COST PER CROP ACRE FOR VARIATIONS IN SIZE OF FARM AND AMOUNT OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK

Accounting Farms in Farming-Type Area 5, 1942

Acres per farm	Feed fed per acre			Feed fed per acre		
	Less than \$8.00	\$8.00 to \$12.99	\$13.00 or more	Less than \$8.00	\$8.00 to \$12.99	\$13.00 or more
	(labor cost per crop acre)			(horse and machinery cost per crop acre)		
Less than 121	\$14.40	\$15.10	\$15.70	\$7.00	\$7.40	\$8.50
121 to 200	12.20	12.80	13.30	6.50	7.00	8.20
201 to 280	8.70	10.40	12.40	6.40	6.80	8.00
281 to 360	7.10	9.50	11.00	6.70	7.00	8.20
361 to 440	6.90	7.60	10.20	6.70	7.00	8.20
441 or more	6.60	7.00	8.70	6.40	6.70	7.20

Producing for War Needs

In any given period gross receipts for hogs, cattle, dairy sales, eggs, and grain are relative measures of production (Table 7). Therefore the account keeper should use these standards to compare his own production with that of other account keepers. He should then adopt on his farm the kind of farm plan and the management practices that will make the best possible use of land, buildings, livestock, labor, machinery, and other resources for the duration of the war. Thus he will have more products to put on the nation's markets and will be making the greatest possible contribution to the war effort.

TABLE 7.--INVESTMENTS, RECEIPTS, EXPENSES, AND EARNINGS
Accounting Farms in Farming-Type Area 5, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Number of farms - - - - -	--	352	362	316	315
<u>Capital Investments</u>					
Land- - - - -	\$ _____	\$17 319	\$16 944	\$17 809	\$18 253
Land improvements - - - - -	_____	670	} 3 688	3 581	3 453
Farm buildings- - - - -	_____	3 066			
Horses- - - - -	_____	259	310	374	407
Productive livestock: Cattle- - -	_____	2 350	1 911	1 722	1 490
Hogs- - -	_____	1 029	616	612	629
Sheep - - -	_____	139	118	115	91
Poultry - -	_____	105	85	85	102
<u>Total productive livestock- - -</u>	()	(3 623)	(2 730)	(2 534)	(2 312)
Feed, grain, and seeds- - - - -	_____	3 062	2 349	2 384	1 998
Machinery and equipment - - - -	_____	2 068	1 812	1 831	1 775
Automobile (farm share) - - - -	_____	285	204	168	173
<u>Total - - - - -</u>	\$ _____	\$30 352	\$28 037	\$28 681	\$28 371
<u>Receipts and Net Increases</u>					
Horses- - - - -	\$ _____	\$ --	\$ --	\$ --	\$ --
Productive livestock: Cattle- - -	_____	1 786	1 507	1 128	1 021
Dairy sales	_____	793	689	522	432
Hogs- - - -	_____	4 078	2 655	1 335	1 260
Sheep - - -	_____	110	123	92	77
Poultry - -	_____	122	104	65	63
Egg sales -	_____	259	178	116	115
<u>Total productive livestock- - -</u>	()	(7 148)	(5 256)	(3 258)	(2 968)
Farm products used in household -	_____	342	283	244	256
Feed, grain, and seeds- - - - -	_____	453	1 390	715	1 156
AAA receipts- - - - -	_____	331	333	426	454
Labor off farm- - - - -	_____	35	39	43	52
Miscellaneous - - - - -	_____	6	10	13	18
<u>Total - - - - -</u>	\$ _____	\$ 8 315	\$ 7 311	\$ 4 699	\$ 4 904
<u>Expenses and Net Decreases</u>					
Land improvements - - - - -	\$ _____	\$ 152	\$) 286	\$ 240	\$ 209
Farm buildings- - - - -	_____	245)		
Horses- - - - -	_____	1	23	18	10
Productive livestock- - - - -	_____	--	--	--	--
Feed, grain, and seeds- - - - -	_____	--	--	--	--
Machinery and equipment - - - -	_____	826	616	521	497
Automobile (farm share) - - - -	_____	141	113	98	104
Livestock expense - - - - -	_____	92	70	54	61
Hired labor - - - - -	_____	529	421	370	379
Taxes - - - - -	_____	316	296	294	289
Miscellaneous - - - - -	_____	35	34	25	33
<u>Total</u>	\$ _____	\$ 2 337	\$ 1 859	\$ 1 620	\$ 1 582
Receipts less expenses- - - - -	\$ _____	\$ 5 978	\$ 5 452	\$ 3 079	\$ 3 322
Family labor- - - - -	_____	310	248	234	245
Returns for labor, capital, mgt.	\$ _____	\$ 5 668	\$ 5 204	\$ 2 845	\$ 3 077
Operator's labor- - - - -	_____	783	602	536	524
Net earnings per farm - - - - -	\$ _____	\$ 4 885	\$ 4 602	\$ 2 309	\$ 2 553
<u>Rate Earned on Investment</u> - - - -	%	16.1%	16.4%	8.1%	9.0%
Interest on investment- - - - -	\$ _____	\$ 1 518	\$ 1 402	\$ 1 434	\$ 1 418
Labor and Management Earnings - - -	_____	4 150	3 802	1 411	1 659

FARM BUSINESS REPORT . . . 1942



Beef cattle are adapted to the available land, labor, and equipment found on many farms.
This is especially true when maximum use is made of roughages.

FARMING-TYPE AREA SIX St. Louis Dairy and Wheat Area

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

Annual Farm Business Report

ON THREE HUNDRED TWENTY FARMS IN FARMING-TYPE AREA 6, 1942

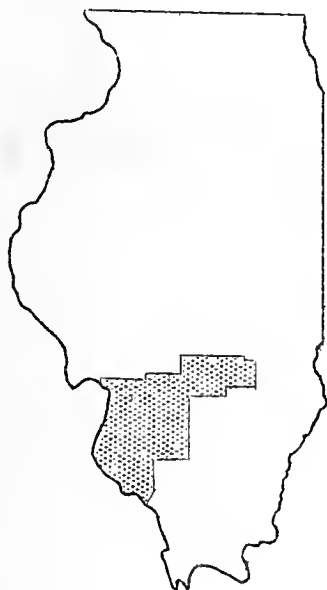
By P. E. Johnston, J. B. Cunningham, and E. L. Sauer^{1/}

War adjustments. Farm account cooperators in Farming-Type Area 6 responded to the war demand for increased production in 1942 over that of 1941 by increasing grain acreage and numbers of livestock.

Item	1941	1942	Change
Acres per farm	213	216	3 acres increase
Acres of grain crops	91	93	2 acres increase
Number of dairy cows	9	10	1 cow increase
Number of pigs weaned	55	63	8 pigs increase
Number of hens	156	179	23 hens increase
Total months of labor	23	23	None
Value of machinery (beginning of year)	\$1 686	\$1 893	\$207 increase
Tons of grain produced	69	61	8 tons decrease
Receipts and net increases for livestock and livestock products	\$3 361	\$3 349 ^{2/}	\$ 12 decrease

The cooperators used the same amount of labor in 1942 as in 1941 but increased machinery investments.

Total grain produced per farm decreased from 69 tons in 1941 to 61 tons in 1942 because of a small wheat crop. Livestock production, as measured by receipts and net increases for livestock and livestock products valued at the same prices for 1942 as for 1941, showed a small decrease. This decrease may be explained by one or more of the following factors: decreased efficiency accompanying increased intensity, loss of pigs after weaning, and low quality of hay and other feeds. Time of marketing and conservative values for breeding and milk stock might have affected receipts and net increases.



Farming-Type Area 6
Wheat, Dairy, and Poultry

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^{2/} Receipts and net increases in 1942 were adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm price for each class of livestock or livestock product, except dairy products, for which St. Louis milk prices were used.

TABLE 1.--INVENTORY CHANGES, CASH INCOME, AND CASH EXPENSES
Accounting Farms in Farming-Type Area 6, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Inventory Changes					
Land improvements - - - - -	\$ _____	\$ 40	\$) 66	\$ 65	\$ 54
Farm buildings- - - - -	_____	-14)		
Horses- - - - -	_____	-20	-53	-39	-21
Productive livestock- - - - -	_____	349	386	143	163
Feed, grain, and seeds- - - - -	_____	150	275	217	332
Machinery and equipment - - - - -	_____	150	179	119	56
Automobile (farm share) - - - - -	_____	-26	26	9	13
Total - - - - -	\$ _____	\$ 629	\$ 879	\$ 514	\$ 597
Cash Receipts					
Land improvements - - - - -	\$ _____	\$ 3	\$) 5	\$ 5	\$ 8
Farm buildings- - - - -	_____	11)		
Horses- - - - -	_____	46	48	39	45
Productive livestock: Cattle- - -	_____	964	773	603	449
Dairy sales	_____	1480	1233	915	841
Hogs- - - - -	_____	1369	886	531	584
Sheep - - - - -	_____	80	68	49	38
Poultry - - - - -	_____	143	112	102	115
Egg sales - - - - -	_____	471	317	236	225
Total productive livestock- - - - -	()	(4507)	(3389)	(2436)	(2252)
Feed, grain, and seeds- - - - -	_____	1166	987	853	852
Machinery and equipment - - - - -	_____	188	203	208	170
Automobile (farm share) - - - - -	_____	17	37	28	28
AAA receipts- - - - -	_____	235	131	314	229
Labor off farm- - - - -	_____	23	32	38	50
Miscellaneous - - - - -	_____	8	15	26	15
Total - - - - -	\$ _____	\$ 6204	\$ 4847	\$ 3947	\$ 3649
Cash Expenses					
Land improvements - - - - -	\$ _____	\$ 170	\$) 273	\$ 251	\$ 219
Farm buildings- - - - -	_____	195)		
Horses- - - - -	_____	29	23	24	28
Productive livestock: Cattle- - -	_____	376	308	261	248
Hogs- - - - -	_____	96	67	40	51
Sheep - - - - -	_____	15	7	7	5
Poultry - - - - -	_____	46	32	27	28
Total productive livestock- - - - -	()	(533)	(414)	(335)	(332)
Feed and grain purchases- - - - -	_____	962	616	399	412
Crop and sealing expense- - - - -	_____	152	118	85	84
Machinery and equipment - - - - -	_____	1020	886	715	570
Automobile (farm share) - - - - -	_____	109	160	116	114
Livestock expense - - - - -	_____	64	45	39	42
Hired labor - - - - -	_____	348	275	236	229
Taxes - - - - -	_____	186	181	167	163
Miscellaneous - - - - -	_____	31	26	23	23
Total - - - - -	\$ _____	\$ 3799	\$ 3017	\$ 2390	\$ 2216
Summary					
Total inventory change- - - - -	\$ _____	\$ 629	\$ 879	\$ 514	\$ 597
Cash balance- - - - -	_____	2405	1830	1557	1433
Farm products used in household -	_____	349	282	250	264
Receipts less expenses- - - - -	\$ _____	\$ 3383	\$ 2991	\$ 2321	\$ 2294
Total unpaid labor- - - - -	_____	1174	804	689	688
Net earnings per farm - - - - -	\$ _____	\$ 2209	\$ 2187	\$ 1632	\$ 1606
Net earnings per acre - - - - -	\$ _____	\$ 10.21	\$ 10.27	\$ 8.15	\$ 7.96

Net earnings. The net earnings per farm on an inventory basis were about the same in 1942 as in 1941; the average was \$2,209 in 1942 compared with \$2,187 in 1941. The figure representing net earnings per farm is the sum remaining as compensation for the use of the capital invested in the business and for the managerial ability of the operator. The average net earnings per acre were \$10.21 in 1942, \$10.27 in 1941, \$8.15 in 1940, and \$7.96 in 1939.

Inventory changes. The year 1942 was the seventh consecutive year in which inventories were increased. The largest increase for the past four years was \$879 in 1941 and the smallest, \$514 in 1940 (Table 1). In 1942 the largest increases were for livestock, feed and grain, and machinery. The average amounts of grain on hand in Area 6 at the two inventory periods were:

<u>Crop</u>	<u>Beginning of year (bushels)</u>	<u>End of year (bushels)</u>
Corn	913	975
Oats	356	374
Wheat	409	190
Soybeans	43	86

Cash receipts and cash expenses. In 1942 cash receipts exceeded cash expenses by \$2,405, the largest margin for any year in the past four. The cash balance--the difference between cash receipts and expenses--is the amount of money which was available for family living expenses, interest, debt payments, and savings.

Unpaid family labor. Although there was no appreciable change in the amount of family labor available, the total valuation of unpaid labor was higher for 1942 than for any other year in the past four. This increase resulted from the fact that the physical labor of the operator and other members of the family was valued at \$65 per month in 1942, at \$45 per month in 1941, and at \$40 per month in 1940 and 1939.

Variation in farm earnings. A wide variation was found in earnings on the farms in Area 6. For example, 63 farms earned less than 5 percent on their investment, with an average of 2.1 percent; but 39 farms earned 20 percent or more, with an average of 24.0 percent. After deducting all farm expenses and a charge of 5 percent for the use of the capital invested in the business, the former group of operators had \$150 for labor and management earnings contrasted with \$4,423 for the latter group.

<u>Rate earned on investment (percent)</u>	<u>Number of farms</u>	<u>Average rate earned (percent)</u>	<u>Acres per farm</u>	<u>Capital invested per farm</u>	<u>Gross earnings per farm</u>	<u>Net earnings per farm</u>	<u>Labor and management earnings</u>
Less than 5.00	63	2.1	228	\$18 991	\$4 100	\$ 391	\$ 150
5.00 to 9.99	79	7.5	221	19 789	4 681	1 484	1 195
10.00 to 14.99	83	12.5	209	19 715	5 767	2 460	2 190
15.00 to 19.99	56	17.3	204	18 380	6 288	3 188	3 007
20.00 or more	39	24.0	220	19 525	8 387	4 677	4 423

TABLE 2.--FACTORS HELPING TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 6, 1942

Item	Your farm	Standards for your farm	Average of all farms
Rate earned on investment- - - - -	_____ %	11.4%	11.4%
Number of farms- - - - -	--	--	320
Acres in farm- - - - -	_____	216	216
Acres tillable - - - - -	_____	174	174
Acres in crops - - - - -	_____	126	126
Gross earnings per acre- - - - -	\$ _____	\$ _____ ^{a/}	\$ 23.76
Gross expenses per acre- - - - -	_____	_____	13.55
Net earnings per acre- - - - -			10.21
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 46	\$ 46
Value of improved land per acre- - - - -	_____	_____ ^{a/}	50
Value of buildings per acre- - - - -	_____	_____ ^{e/}	12
Total investment per acre- - - - -		89	89
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	_____ ^{a/}	80.6
Percent of tillable land in:			
Corn - - - - -	_____	_____	16.9
Oats - - - - -	_____	_____	11.6
Wheat- - - - -	_____	_____	15.9
Soybeans - - - - -	_____	_____	6.5
Other crops- - - - -	_____	_____	12.0
Legume hay and pasture - - - - -	_____	_____	25.6
Nonlegume hay and pasture- - - - -	_____	_____	11.5
<u>Crop Yields</u>			
Corn - - - - -	_____	_____ ^{b/}	42.9
Oats - - - - -	_____	_____	30.2
Wheat- - - - -	_____	_____	14.0
Soybeans - - - - -	_____	15.9	15.9
<u>Livestock Factors</u>			
Value of feed fed to prod. l.s.- - - - -	\$ _____	\$ 2 399	\$ 2 399
Feed fed per acre to prod. l.s.- - - - -	_____	_____ ^{c/}	11.09
Returns per \$100 worth of feed fed - - - - -	_____	_____	191
Poultry returns per hen- - - - -	_____	3.74	3.74
Number of litters farrowed - - - - -	_____	9.8	9.8
Number of pigs weaned per litter - - - - -	_____	6.4	6.4
Returns per litter farrowed- - - - -	\$ _____	\$ 199	\$ 199
Average number of cows milked- - - - -	_____	10.1	10.1
Dairy returns per cow milked - - - - -	\$ _____	\$ _____ ^{c/}	\$ 154
<u>Expense Factors</u>			
Horse and machinery cost per crop acre - - - - -	\$ _____	\$ _____ ^{d/}	\$ 7.72
Labor cost per crop acre - - - - -	_____	_____ ^{e/}	11.85
Total months of labor- - - - -	_____	_____	23.3
Number of work horses- - - - -	_____	_____	3.6
Land improvements cost per acre- - - - -	\$ _____	\$.58	\$.58
Buildings cost per acre- - - - -	_____	_____ ^{e/}	.91
Land tax per acre- - - - -	_____	_____ ^{a/}	.73

Source of Standards:

^{a/} Table 3, value of improved land.

^{b/} Fig. 1, value of improved land.

^{c/} Table 4, source of income.

^{d/} Table 6, size of farm and value of feed fed.

^{e/} Table 5, size of farm.

CHART FOR STUDYING THE EFFICIENCY OF VARIOUS PARTS OF YOUR BUSINESS

Accounting Farms in Farming-Type Area 6, 1942

The numbers above the double line are the averages for the farms similar in organization to your farm. By drawing a line across each column at the place which measures the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Factors that affect the gross earnings									Factors that affect expenses				
			Percent of tillable land in legume hay and pasture	Crop yields			Feed fed per acre to prod. l.s.	Returns per \$100 feed fed	Poultry returns per hen	Hog returns per litter farrowed	Dairy returns per cow milked	Total expense per acre	Horse and machinery cost per crop acre	Labor cost per crop acre	Buildings cost per acre	
				Corn, bu.	Oats, bu.	Wheat, bu.										
26.4	366							5.24	249							
23.4	336							4.94	239							
20.4	306							4.64	229							
17.4	276							4.34	219							
14.4	246							4.04	209							
11.4	216							3.74	199							
8.4	186							3.44	189							
5.4	156							3.14	179							
2.4	126							2.84	169							
--	96							2.54	159							
--	66							2.24	149							
3%	30	\$3	3%	4bu.	4bu.	2bu.	\$2	\$20	\$30	\$10	\$10	\$1	\$1	\$1	\$1	\$.20

* Each space between lines represents the values indicated at bottom of each column.

TABLE 3.--USE OF TILLABLE LAND AND OTHER FACTORS
RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 6, 1942

Item	Value of improved land				
	Less than \$38	\$38 to \$52	\$53 to \$67	\$68 to \$82	More than \$82
Average value of improved land- - -	\$30	\$45	\$59	\$75	\$90
Number of farms - - - - -	79	116	57	49	19
Acres per farm- - - - -	244	215	223	174	202
Percent of land area tillable - - -	79.3	80.4	79.8	82.9	84.0
Percent of tillable land in:					
Corn- - - - -	14.9	16.1	17.2	21.4	21.9
Oats- - - - -	11.7	12.0	11.9	12.1	7.8
Wheat - - - - -	12.0	15.8	16.2	20.3	25.0
Soybeans- - - - -	7.1	6.7	6.3	4.8	6.0
Other crops - - - - -	13.7	11.4	12.1	9.8	12.9
Legume hay and pasture- - - - -	26.2	25.8	26.9	22.5	20.5
Nonlegume hay and pasture - - - -	14.4	12.2	9.4	9.1	5.9
Gross earnings per acre - - - - -	\$18.69	\$22.58	\$26.36	\$30.38	\$34.94
Gross expenses per acre - - - - -	<u>11.44</u>	<u>13.17</u>	<u>14.01</u>	<u>17.32</u>	<u>17.97</u>
Net earnings per acre - - - - -	\$ 7.25	\$ 9.41	\$12.35	\$13.06	\$16.97
Land tax per acre - - - - -	\$.59	\$.66	\$.81	\$ 1.02	\$.99

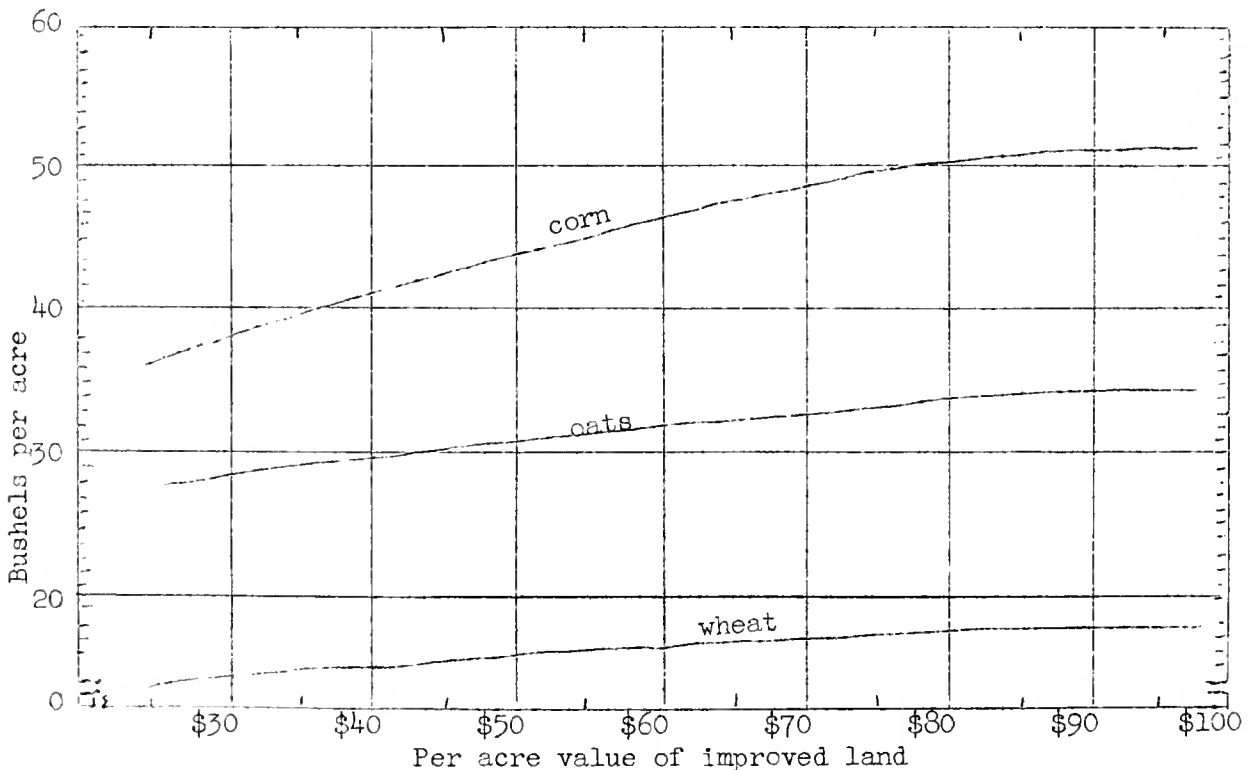


Fig. 1.--Average yields of corn, oats, and wheat with varying values of improved land.

Explanation of Tables

Variable standards are used in analyzing the farm business (Table 2). They make allowances for the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the amount of feed fed and the returns per \$100 worth of feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of the products produced affect the relative profitableness of various types of farming for any particular year.

The "standards for your farm" (Table 2) are taken from Tables 3 to 6 and from Figure 1 as follows:

- Table 3 - Value of improved land.
Gross earnings, gross expenses, and net earnings per acre.
Value of improved land per acre.
All items in the land-use section.
Land tax per acre.
- Figure 1 - Value of improved land.
Yields for corn, oats, and wheat.
- Table 4 - Source of income.
Feed fed per acre to productive livestock.
Returns per \$100 worth of feed fed.
Dairy returns per cow.
- Table 5 - Size of farm.
Value of buildings per acre.
Total months of labor.
Number of work horses.
Buildings cost per acre.
- Table 6 - Size of farm and amount of feed fed per acre.
Horse and machinery cost per crop acre.
Labor cost per crop acre.

The terms used in the tables are the same as the terms used in the Illinois farm account book. For example, "improved land" is classified on page 1 of the farm account book. It means crop land, tillable pasture, and land occupied by farmstead, roads, and lanes. Likewise, "crop acres" are listed on page 20 of the farm account book. They include all the tillable land on which a considerable amount of work has been done in preparing a seedbed or in cultivating or harvesting a crop.

Land use and crop yields. The percent of tillable land in grain crops and "other crops" increased as the value per acre for improved land increased (Table 3). Likewise the percent of land area tillable, the earnings per acre, and the land tax per acre increased as the value of improved land increased. On the other hand, the percent of tillable land in legume and nonlegume hay and pasture decreased as the value of the land increased.

Yields per acre for corn, oats, and wheat increased as the value of improved land increased (Fig. 1). By using Table 3 and Figure 1, the account keeper may find out whether his acreage in various crops, his crop yields, and his net earnings per acre were high or low for 1942 in comparison with the average of other farms in his area having about the same value for improved land.

TABLE 4.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 6, 1942

Item	Source of income					
	Grain 40%+	Dairy sales 40%+	Hogs 40%+	Cattle 40%+	General farms L.S. 60%-	General farms L.S. 60%+
Number of farms - - - - -	19	94	46	6	36	119
Percent of income from prod. l.s.	42.4	88.7	92.0	90.4	54.3	81.0
Percent of income from crops - - -	47.0	--	--	--	32.2	5.8
<u>Investments</u>						
Total per farm - - - - -	\$22 738	\$19 073	\$21 080	\$25 216	\$18 660	\$18 229
Total per acre - - - - -	85	97	89	109	86	85
Land per acre - - - - -	49	47	44	42	46	45
Land improvements per acre - - -	1.35	2.19	2.23	4.48	1.89	2.16
Buildings per acre - - - - -	8.80	14.07	12.12	13.59	10.57	10.72
Machinery per acre - - - - -	9.58	11.41	9.22	13.65	9.60	8.97
<u>Earnings</u>						
Per farm						
Gross earnings - - - - -	\$ 5 149	\$ 5 205	\$ 7 021	\$ 9 506	\$ 5 137	\$ 4 761
Gross expenses - - - - -	2 875	3 318	3 994	6 041	2 568	2 795
Net earnings - - - - -	\$ 2 274	\$ 1 887	\$ 3 027	\$ 3 465	\$ 2 569	\$ 1 966
Per acre						
Gross earnings - - - - -	\$ 19.29	\$ 26.40	\$ 29.58	\$ 41.21	\$ 23.63	\$ 22.23
Gross expenses - - - - -	10.77	16.83	16.83	26.19	11.81	13.05
Net earnings - - - - -	\$ 8.52	\$ 9.57	\$ 12.75	\$ 15.02	\$ 11.82	\$ 9.18
Rate earned on investment - - -	10.0%	9.9%	14.4%	13.7%	13.8%	10.8%
Labor and management earnings -	\$ 1 887	\$ 1 658	\$ 2 663	\$ 2 968	\$ 2 366	\$ 1 758
<u>Size and Intensity</u>						
Acres per farm - - - - -	267	197	237	231	217	214
Percent of land area tillable -	81.8	80.8	76.2	83.6	84.1	80.8
Percent tillable land in grain-	62.8	49.8	56.5	57.8	60.3	55.1
Percent in hay and pasture - - -	27.4	41.7	36.2	40.4	32.9	37.2
Feed fed per acre to prod. l.s.	\$ 4.99	\$ 12.32	\$ 15.88	\$ 22.98	\$ 7.38	\$ 9.85
Months of labor per 100 crop A.	12.2	21.4	17.2	18.8	15.0	19.3
Total months of labor - - - - -	20.6	24.3	22.2	30.1	20.5	24.0
<u>Crop Yields per Acre</u>						
Corn, bu. - - - - -	45.0	41.5	44.7	46.4	50.9	40.0
Wheat, bu. - - - - -	15.7	12.9	15.3	13.1	16.5	12.8
<u>Livestock Returns</u>						
Per \$100 feed fed - - - - -	\$ 181	\$ 201	\$ 178	\$ 170	\$ 190	\$ 197
Hog returns per litter - - - - -	173	184	221	282	187	181
Dairy returns per cow - - - - -	88	183	134	156	115	135
<u>Expense Factors</u>						
Labor cost per crop acre - - - -	\$ 8.16	\$ 14.26	\$ 11.00	\$ 11.65	\$ 9.34	\$ 12.08
Horse and machinery cost per crop acre - - - - -	6.52	8.98	8.44	8.75	6.45	7.13
Land improvements cost per acre	.43	.65	.61	.97	.55	.56
Buildings cost per acre - - - -	.61	1.07	1.13	1.28	.62	.84
Land tax per acre - - - - -	.76	.74	.66	.75	.77	.73

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

Each farmer should, however, use caution in interpreting the data in Table 4. For example, the fact that hog farms earned 14.4 percent on the investment for 1942 and that dairy farms earned 9.9 percent does not mean that such a relationship will prevail over a long period of years. The relative profitability of these enterprises in 1942 was due largely to conditions affecting price and production.

In comparing the returns on the various groups of farms per \$100 worth of feed fed, one should consider the fact that there is a wide variation in the needed returns per \$100 worth of feed fed to pay for feed (including pasture), labor, equipment, buildings, and other costs. According to 5-year averages of complete cost studies (1933-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

The labor cost per crop acre ranged from \$14.26 on the dairy farms to \$8.16 on the grain farms. The horse and machinery cost per crop acre was highest on the dairy farms, where it averaged \$8.98 and lowest on the general farms with the least livestock, where it averaged \$6.45. The land improvement cost per acre and the building cost per acre was lowest on the grain farms, where it averaged \$.43 and \$.61 respectively. Labor input per 100 crop acres was high on the dairy farms, where 21.4 months of labor were used, and low on the grain farms, where 12.2 months of labor were used.

Size of farm. When the farm records in Farming-Type Area 6 are sorted according to the total acres in the farm, they indicate that the larger farms had a greater total investment than did the smaller ones. The operators on the larger farms took in more money during the year than did those on the smaller ones. After deductions were made for farm business expenditures and interest on the investment, labor and management earnings on the 21 largest farms averaged \$2,424 contrasted with \$1,394 on the 30 smallest farms. The smaller farms had higher investments per acre for land, land improvements, buildings, machinery, and total investment. The rate earned on investment did not differ significantly for the various size groups.

The smaller farms were operated more intensively than were the larger ones. This variation was indicated by the higher gross and net earnings per acre, by the larger proportion of total land tillable, by the higher land values, by the larger amount of feed fed per acre to productive livestock, and by higher corn yields.

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their business by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

TABLE 5.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 6, 1942

Item	Total acres in farm				
	Less than 121	121 to 200	201 to 280	281 to 360	361 or more
Number of farms - - - - -	30	145	86	38	21
Acres per farm- - - - -	102	166	236	319	464
<u>Investments</u>					
Total per farm- - - - -	\$12 207	\$16 852	\$20 720	\$24 848	\$31 007
Total per acre- - - - -	119	102	88	78	67
Land per acre - - - - -	56	51	45	42	38
Land improvements per acre- - - - -	2.82	2.33	2.11	1.78	1.95
Buildings per acre- - - - -	17.60	13.77	11.48	9.98	7.61
Machinery per acre- - - - -	14.87	11.59	9.96	8.06	6.12
<u>Earnings</u>					
Per farm					
Gross earnings- - - - -	\$ 3 351	\$ 4 671	\$ 5 684	\$ 5 899	\$ 7 405
Gross expenses- - - - -	<u>2 055</u>	<u>2 640</u>	<u>3 187</u>	<u>3 540</u>	<u>4 109</u>
Net earnings- - - - -	\$ 1 296	\$ 2 031	\$ 2 497	\$ 2 359	\$ 3 296
Per acre					
Gross earnings- - - - -	\$ 32.78	\$ 28.20	\$ 24.14	\$ 18.48	\$ 15.95
Gross expenses- - - - -	<u>20.10</u>	<u>15.94</u>	<u>13.54</u>	<u>11.09</u>	<u>8.85</u>
Net earnings- - - - -	\$ 12.68	\$ 12.26	\$ 10.60	\$ 7.39	\$ 7.10
Rate earned on investment - - - - -	10.6%	12.1%	12.0%	9.5%	10.6%
Labor and management earnings - - - - -	\$ 1 394	\$ 1 916	\$ 2 173	\$ 1 816	\$ 2 424
<u>Size and Intensity</u>					
Percent of land area tillable - - - - -	85.0	83.8	83.0	76.7	70.9
Percent tillable land in grain- - - - -	56.2	57.6	55.7	55.4	45.6
Percent in hay and pasture- - - - -	39.5	37.1	37.2	34.4	39.4
Feed fed per acre to prod. l.s. - - - - -	\$ 15.65	\$ 12.96	\$ 11.08	\$ 9.15	\$ 7.49
Percent of income from prod. l.s. - - - - -	87.4	84.7	81.3	86.9	83.4
Percent of income from crops- - - - -	--	3.0	6.9	.9	6.5
Months of labor per 100 crop A. - - - - -	25.7	20.3	17.5	15.7	15.4
Total months of labor - - - - -	17.7	21.5	24.6	27.1	32.0
Number of work horses - - - - -	2.8	3.5	3.6	4.2	4.6
<u>Crop Yields per Acre</u>					
Corn, bu. - - - - -	47.7	45.4	43.3	34.5	44.5
Wheat, bu.- - - - -	14.2	14.1	14.4	13.9	11.8
<u>Livestock Returns</u>					
Per \$100 feed fed - - - - -	\$ 197	\$ 196	\$ 188	\$ 186	\$ 186
Hog returns per litter- - - - -	169	204	190	191	228
Dairy returns per cow - - - - -	168	157	152	148	145
<u>Expense Factors</u>					
Labor cost per crop acre- - - - -	\$ 16.47	\$ 13.00	\$ 11.39	\$ 10.10	\$ 9.45
Horse and machinery cost per crop acre - - - - -	9.45	8.02	7.47	7.36	7.09
Land improvements cost per acre - - - - -	.55	.68	.61	.53	.39
Buildings cost per acre - - - - -	1.15	1.11	.95	.64	.63
Land tax per acre - - - - -	.96	.81	.74	.65	.56

Labor and horse and machinery expenses. Labor and horse and machinery expenses per crop acre increase as the amount of livestock per acre increases, but decrease as the size of farm increases. Therefore the efficiency of a farm in using labor and machinery should be determined by comparing the expenses on the individual farm with those of farms of the same size having similar amounts of livestock per acre. The average labor cost per crop acre and the average horse and machinery cost per crop acre are shown for farms grouped according to acres per farm and value of feed fed per acre to productive livestock (Table 6).

TABLE 6.--LABOR COST PER CROP ACRE AND HORSE AND MACHINERY COST PER CROP ACRE FOR VARIATIONS IN SIZE OF FARM AND AMOUNT OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 6, 1942

Acres per farm	Feed fed per acre			Feed fed per acre		
	Less than \$9.00	\$9.00 to \$15.99	\$16.00 or more	Less than \$9.00	\$9.00 to \$15.99	\$16.00 or more
	(labor cost per crop acre)			(horse and machinery cost per crop acre)		
Less than 121	\$14.90	\$16.50	\$17.50	\$8.00	\$9.50	\$11.00
121 to 200	11.20	13.30	15.10	6.50	8.00	10.00
201 to 280	10.00	11.50	13.40	6.10	7.50	9.50
281 to 360	9.70	10.20	12.00	5.90	7.30	9.20
361 or more	9.30	9.50	10.20	5.70	7.10	9.00

Producing for War Needs

In any given period gross receipts for hogs, cattle, dairy sales, eggs, and grains are relative measures of production (Table 7). Therefore the account keeper should use these standards to compare his own production with that of other account keepers. He should then adopt on his farm the kind of farm plan and the management practices that will make the best possible use of land, buildings, livestock, labor, machinery, and other resources for the duration of the war. Thus he will have more products to put on the nation's markets and so will be making the greatest possible contribution to the war effort.

TABLE 7.--INVESTMENTS, RECEIPTS, EXPENSES, AND EARNINGS
Accounting Farms in Farming-Type Area 6, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Number of farms - - - - -	--	320	307	255	271
<u>Capital Investments</u>					
Land- - - - -	\$ _____	\$ 9 899	\$ 9 811	\$ 9 614	\$ 9 851
Land improvements - - - - -	_____	472	) 2 830	2 725	2 690
Farm buildings- - - - -	_____	2 539)		
Horses- - - - -	_____	308	362	423	451
Productive livestock: Cattle- - -	_____	1 447	1 325	1 148	972
Hogs- - - -	_____	392	244	270	279
Sheep - - - -	_____	60	55	45	37
Poultry - - -	_____	167	133	133	155
<u>Total productive livestock- - - -</u>	()	(2 066)	(1 757)	(1 596)	(1 443)
Feed, grain, and seeds- - - - -	_____	1 915	1 742	1 594	1 302
Machinery and equipment - - - - -	_____	1 893	1 686	1 588	1 508
Automobile (farm share) - - - - -	_____	242	175	144	143
Total - - - - -	\$ _____	\$19 334	\$18 363	\$17 684	\$17 388
<u>Receipts and Net Increases</u>					
Horses- - - - -	\$ _____	\$ --	\$ --	\$ --	\$ --
Productive livestock: Cattle- - -	_____	726	644	487	389
Dairy sales	_____	1 480	1 233	915	841
Hogs- - - -	_____	1 451	993	473	524
Sheep - - - -	_____	72	68	49	31
Poultry - - -	_____	123	106	84	73
Egg sales -	_____	471	317	236	225
<u>Total productive livestock- - - -</u>	()	(4 323)	(3 361)	(2 244)	(2 083)
Farm products used in household -	_____	349	282	250	264
Feed, grain, and seeds- - - - -	_____	202	528	586	688
AAA receipts- - - - -	_____	235	131	314	229
Labor off farm- - - - -	_____	23	32	38	50
Miscellaneous - - - - -	_____	8	15	26	15
Total - - - - -	\$ _____	\$ 5 140	\$ 4 349	\$ 3 458	\$ 3 329
<u>Expenses and Net Decreases</u>					
Land improvements - - - - -	\$ _____	\$ 127	\$) 202	\$ 181	\$ 157
Farm buildings- - - - -	_____	198)		
Horses- - - - -	_____	3	28	24	4
Productive livestock- - - - -	_____	--	--	--	--
Feed, grain, and seeds- - - - -	_____	--	--	--	--
Machinery and equipment - - - - -	_____	682	504	388	344
Automobile (farm share) - - - - -	_____	118	97	79	73
Livestock expense - - - - -	_____	64	45	39	42
Hired labor - - - - -	_____	348	275	236	229
Taxes - - - - -	_____	186	181	167	163
Miscellaneous - - - - -	_____	31	26	23	23
Total - - - - -	\$ _____	\$ 1 757	\$ 1 358	\$ 1 137	\$ 1 035
Receipts less expenses- - - - -	\$ _____	\$ 3 383	\$ 2 991	\$ 2 321	\$ 2 294
Family labor- - - - -	_____	459	316	255	258
Returns for labor, capital, mgt.	\$ _____	\$ 2 924	\$ 2 675	\$ 2 066	\$ 2 036
Operator's labor- - - - -	_____	715	488	434	430
Net earnings per farm - - - - -	\$ _____	\$ 2 209	\$ 2 187	\$ 1 632	\$ 1 606
<u>Rate Earned on Investment</u> - - - -	% _____	11.4%	11.9%	9.2%	9.2%
Interest on investment- - - - -	\$ _____	\$ 967	\$ 918	\$ 824	\$ 869
Labor and Management Earnings - - -	_____	1 957	1 757	1 182	1 167

FARM BUSINESS REPORT . . . 1942



Beef cattle are adapted to the available land, labor, and equipment found on many farms.
This is especially true when maximum use is made of roughages.

FARMING-TYPE AREA SEVEN South Central Mixed Farming Area

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS



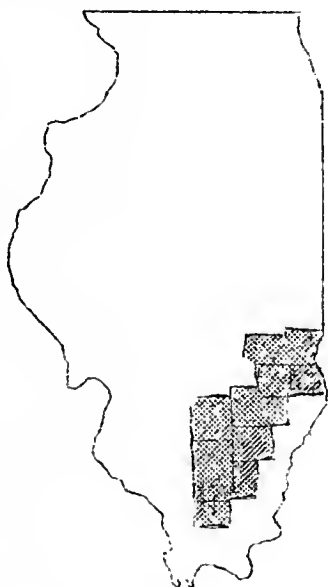
Annual Farm Business Report

ON ONE HUNDRED FORTY-SEVEN FARMS IN FARMING-TYPE AREA 7, 1942

By P. E. Johnston, J. B. Cunningham, and L. F. Stice^{1/}

War adjustments. Farm account cooperators in Farming-Type Area 7 responded to the war demand for increased production in 1942 over that of 1941 by increasing grain acreage and numbers of hens.

Item	1941	1942	Change
Acres per farm	247	251	4 acres increase
Acres of grain crops	82	90	8 acres increase
Number of dairy cows	5	5	None
Number of pigs weaned	67	64	3 pigs decrease
Number of hens	130	150	20 hens increase
Total months of labor	19	19	None
Value of machinery (beginning of year)	\$1 300	\$1 382	\$82 increase
Tons of grain produced	64	60	4 tons decrease
Measure of volume of production for livestock and livestock products ^{2/}	\$2 746	\$2 799	\$53 increase



Farming-Type Area 7
Mixed Farming

The cooperators kept the same number of dairy cows in 1942 as in 1941, weaned fewer pigs, used the same amount of labor, but increased machinery investments.

Grain produced per farm decreased from 64 tons in 1941 to 60 tons in 1942. This decrease was due to unfavorable weather which resulted in a reduction in yield per acre for corn, oats, and wheat. Livestock production, as measured by receipts and net increases for livestock and livestock products which were valued at the same price for 1942 as for 1941, showed an insignificant increase.

^{1/} W. N. Thompson supervised the closing of the farm accounts and the preparation of the tables used in this report. The project was conducted in cooperation with the county farm bureaus and was supervised by the following farm advisers:

D. O. Lee, Jefferson; T. E. Myers, Clark; F. J. Blackburn, Marion; W. C. Anderson, Franklin-Hamilton; R. E. Apple, Jasper; Halsey L. Miles, Crawford; E. J. Barnes, Richland; R. K. Wise, Clay; and L. B. Broom, Williamson.

^{2/} For 1941 actual receipts and net increases are used; for 1942 receipts and net increases are adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm price for each class of livestock and livestock product.

TABLE 1.--INVENTORY CHANGES, CASH INCOME, AND CASH EXPENSES
Accounting Farms in Farming-Type Area 7, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Inventory Changes					
Land improvements - - - - -	\$	\$ 84	\$) 61	\$ 151	\$ 56
Farm buildings- - - - -		-8)		
Horses- - - - -		-2	-60	-62	4
Productive livestock- - - - -		473	385	71	117
Feed, grain, and seeds- - - - -		240	353	137	138
Machinery and equipment - - - - -		117	99	72	72
Automobile (farm share) - - - - -		-20	27	15	20
Total - - - - -	\$	\$ 884	\$ 865	\$ 384	\$ 407
Cash Receipts					
Land improvements - - - - -	\$	\$ 1	\$) 2	\$ 14	\$ 2
Farm buildings- - - - -		1)		
Horses- - - - -		38	64	75	65
Productive livestock: Cattle- - -		1 081	729	594	632
Dairy sales		381	370	290	316
Hogs- - - - -		1 739	1 095	692	694
Sheep - - - - -		161	124	110	57
Poultry - - - - -		148	114	104	101
Egg sales - - - - -		375	262	230	207
Total productive livestock- - - - -	()	(3 885)	(2 694)	(2 020)	(2 007)
Feed, grain, and seeds- - - - -		840	763	530	495
Machinery and equipment - - - - -		149	162	127	109
Automobile (farm share) - - - - -		24	45	41	27
AAA receipts- - - - -		188	168	226	179
Labor off farm- - - - -		23	34	45	39
Miscellaneous - - - - -		3	20	14	17
Total - - - - -	\$	\$ 5 152	\$ 3 952	\$ 3 092	\$ 2 940
Cash Expenses					
Land improvements - - - - -	\$	\$ 256	\$) 258	\$ 311	\$ 215
Farm buildings- - - - -		131)		
Horses- - - - -		31	17	33	49
Productive livestock; Cattle- - -		411	217	178	255
Hogs- - - - -		141	64	39	58
Sheep - - - - -		72	21	14	16
Poultry - - - - -		44	31	24	24
Total productive livestock- - - - -	()	(668)	(333)	(255)	(353)
Feed and grain purchases- - - - -		766	487	352	335
Crop and sealing expense- - - - -		120	143	102	84
Machinery and equipment - - - - -		826	676	498	474
Automobile (farm share) - - - - -		128	170	125	123
Livestock expense - - - - -		49	27	24	28
Hired labor - - - - -		276	239	161	160
Taxes - - - - -		168	164	148	132
Miscellaneous - - - - -		26	22	16	18
Total - - - - -	\$	\$ 3 445	\$ 2 536	\$ 2 025	\$ 1 971
Summary					
Total inventory change- - - - -	\$	\$ 884	\$ 865	\$ 384	\$ 407
Cash balance- - - - -		1 707	1 416	1 067	969
Farm products used in household -		334	292	244	254
Receipts less expenses- - - - -	\$	\$ 2 925	\$ 2 573	\$ 1 695	\$ 1 630
Total unpaid labor- - - - -		853	678	618	654
Net earnings per farm - - - - -	\$	\$ 2 072	\$ 1 895	\$ 1 077	\$ 976
Net earnings per acre - - - - -	\$	\$ 8.24	\$ 7.68	\$ 4.35	\$ 4.30

Net earnings. The net earnings per farm on an inventory basis were higher in 1942 than in 1941; the average was \$2,072 in 1942 compared with \$1,895 in 1941. The figure representing net earnings per farm is the sum remaining as compensation for the use of the capital invested in the business and for the managerial ability of the operator. It is calculated by adding to the cash balance the value of farm products used in the household and the inventory increases and by subtracting from the resulting total the value of unpaid labor. Therefore this figure indicates the earning power of the business and determines the real value of the farm and its equipment. The net earnings per acre averaged \$8.24 in 1942, \$7.68 in 1941, \$4.35 in 1940, and \$4.30 in 1939.

Inventory changes. The year 1942 was the tenth consecutive year in which inventories were increased. The increases for the past four years ranged from \$884 in 1942 to \$384 in 1940 (Table 1). In 1942 the largest increases were for livestock and feed, grain, and seeds. The average amounts of grain on hand in Area 7 at the two inventory periods were:

<u>Crop</u>	<u>Beginning of year (bushels)</u>	<u>End of year (bushels)</u>
Corn	1,042	1,106
Oats	219	210
Wheat	67	57
Soybeans	58	87

Cash receipts and cash expenses. In 1942 cash receipts exceeded cash expenses by \$1,707, the largest margin for any year in the past four. The cash balance--the difference between cash receipts and expenses--is the amount of money which is available for family living expenses, interest, debt payments, and savings.

Unpaid family labor. Although there was no appreciable change in the amount of family labor available, the total valuation of unpaid labor was higher for 1942 than for any other year in the past four. This increase resulted from the fact that the physical labor of the operator and other members of the family was valued at \$55 per month in 1942, at \$45 per month in 1941, and at \$40 per month in 1940 and 1939.

Variation in farm earnings. A wide variation was found in earnings on the farms in Area 7. For example, 28 farms earned less than five percent on their investment; but 39 farms earned 20 percent or more. After deducting all farm expenses and a charge of 5 percent for the use of the capital invested in the business, the former group of operators had a deficit of \$49 in labor and management earnings contrasted with \$3,571 for labor and management for the latter group. The variation in earnings for all the records in the area was as follows:

<u>Rate earned on investment (percent)</u>	<u>Number of farms</u>	<u>Average rate earned (percent)</u>	<u>Acres per farm</u>	<u>Capital invested per farm</u>	<u>Gross earnings per farm</u>	<u>Net earnings per farm</u>	<u>Labor and management earnings</u>
Less than 5.00	28	.9	243	\$15 178	\$3 236	\$ 144	\$ -49
5.00 to 9.99	34	7.3	253	14 531	3 531	1 059	885
10.00 to 14.99	17	12.1	264	17 087	5 193	2 069	1 820
15.00 to 19.99	29	17.1	285	17 115	5 713	2 935	2 719
20.00 or more	39	25.0	225	14 768	6 345	3 699	3 571

TABLE 2.--FACTORS HELPING TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 7, 1942

Item	Your farm	Standards for your farm	Average of all farms
Rate earned on investment- - - - -	_____ %	13.3%	13.3%
Number of farms- - - - -	--	--	147
Acres in farm- - - - -	_____	251	251
Acres tillable - - - - -	_____	211	211
Acres in crops - - - - -	_____	137	137
Gross earnings per acre- - - - -	\$ _____	\$ _____ a/	\$ 17.65
Gross expenses per acre- - - - -	_____	_____	9.41
Net earnings per acre- - - - -	\$ _____	\$ _____	\$ 8.24
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 32	\$ 32
Value of improved land per acre- - - - -	_____	_____ a/	34
Value of buildings per acre- - - - -	_____	_____ e/	7
Total investment per acre- - - - -	_____	62	62
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	_____ a/	83.8
Percent of tillable land in:			
Corn - - - - -	_____	_____	19.5
Oats - - - - -	_____	_____	6.8
Wheat- - - - -	_____	_____	7.5
Soybeans - - - - -	_____	_____	6.6
Other crops- - - - -	_____	_____	13.9
Legume hay and pasture - - - - -	_____	_____	21.1
Nonlegume hay and pasture- - - - -	_____	_____	24.6
<u>Crop Yields</u>			
Corn - - - - -	_____	_____ b/	37.5
Oats - - - - -	_____	_____	22.4
Wheat- - - - -	_____	_____	12.9
Soybeans - - - - -	_____	13.8	13.8
<u>Livestock Factors</u>			
Value of feed fed to prod. l.s.- - - - -	\$ _____	\$ 2 045	\$ 2 045
Feed fed per acre to prod. l.s.- - - - -	_____	_____ c/	8.13
Returns per \$100 worth of feed fed - - - - -	_____	_____	193
Poultry returns per hen- - - - -	_____	3.89	3.89
Number of litters farrowed - - - - -	_____	9.7	9.7
Number of pigs weaned per litter - - - - -	_____	6.6	6.6
Returns per litter farrowed- - - - -	\$ _____	\$ 200	\$ 200
Average number of cows milked- - - - -	_____	5.0	5.0
Dairy returns per cow milked - - - - -	\$ _____	\$ _____ c/	\$ 97
<u>Expense Factors</u>			
Horse and machinery cost per crop acre -	\$ _____	\$ _____ d/	\$ 5.80
Labor cost per crop acre - - - - -	_____	_____	8.07
Total months of labor- - - - -	_____	_____ e/	19.4
Number of work horses- - - - -	_____	_____	2.7
Land improvements cost per acre- - - - -	\$ _____	\$.68	\$.68
Buildings cost per acre- - - - -	_____	_____ e/	.55
Land tax per acre- - - - -	_____	_____ a/	.57

Source of Standards:

a/ Table 3, value of improved land.

b/ Fig. 1, value of improved land.

c/ Table 4, source of income.

d/ Table 6, size of farm and value of feed fed per acre.

e/ Table 5, size of farm.

CHART FOR STUDYING THE EFFICIENCY OF VARIOUS PARTS OF YOUR BUSINESS

Accounting Farms in Farming-Type Area 7, 1942

The numbers above the double line are the averages for the farms similar in organization to your farm. By drawing a line across each column at the place which measures the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Factors that affect the gross earnings									Factors that affect expenses					
			Percent of tillable land in legume hay and pasture	Crop yields			Feed fed per acre to prod. l.s.	Returns per \$100 feed fed	Poultry returns per hen	Hog returns per litter farrowed	Dairy returns per cow milked	Gross expense per acre	Horse and machinery cost per crop acre	Labor cost per crop acre	Buildings cost per acre		
				Corn, bu.	Oats, bu.	Wheat, bu.											
28.3	501									5.39	250						
25.3	451									5.09	240						
22.3	401									4.79	230						
19.3	351									4.49	220						
16.3	301									4.19	210						
13.3	251									3.89	200						
10.3	201									3.59	190						
7.3	151									3.29	180						
4.3	101									2.99	170						
1.3	51									2.69	160						
--	--									2.39	150						
3%	50	\$3	3%	4	4	2	\$2	\$20	\$.30	\$10	\$10	\$1	\$.50	\$1	\$.20		

*Each space between lines represents the values indicated at bottom of each column.

TABLE 5.--USE OF TILLABLE LAND AND OTHER FACTORS
RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 7, 1942

Item	Value of improved land			
	Less than \$23	\$23 to \$32	\$33 to \$42	\$43 or more
Average value of improved land- - -	\$20	\$28	\$37	\$51
Number of farms - - - - -	21	52	44	30
Acres per farm- - - - -	263	275	216	254
Percent of land area tillable - - -	84.3	84.1	85.3	81.0
Percent of tillable land in:				
Corn- - - - -	17.5	17.3	20.9	25.8
Oats- - - - -	7.0	6.3	8.4	5.3
Wheat - - - - -	6.1	5.3	7.3	12.9
Soybeans- - - - -	5.2	4.1	8.8	9.9
Other crops - - - - -	14.1	17.6	11.7	9.9
Legume hay and pasture- - - - -	14.8	24.4	21.1	22.7
Nonlegume hay and pasture - - - -	35.3	25.0	21.8	15.5
Gross earnings per acre - - - - -	\$12.69	\$15.58	\$19.41	\$23.51
Gross expenses per acre - - - - -	<u>7.40</u>	<u>9.21</u>	<u>10.19</u>	<u>10.83</u>
Net earnings per acre - - - - -	\$ 5.29	\$ 6.37	\$ 9.22	\$12.68
Land tax per acre - - - - -	\$.51	\$.51	\$.60	\$.68

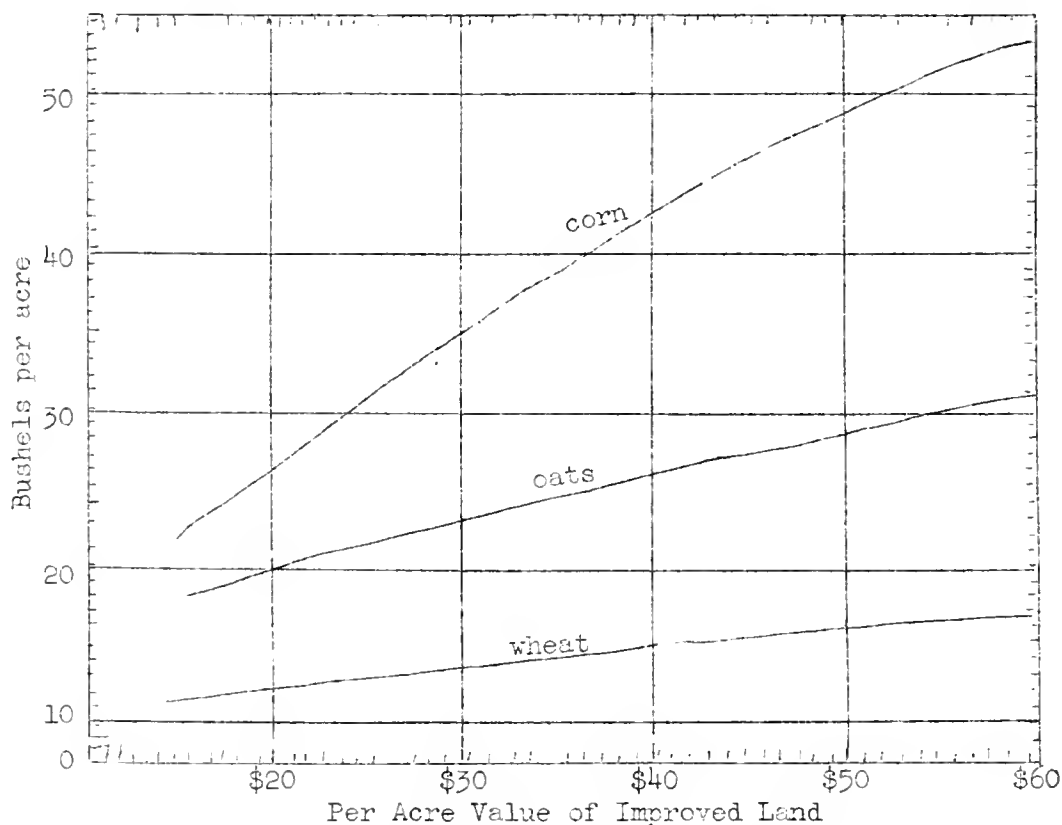


Fig. 1.--Average yields of corn, oats, and wheat with varying values of improved land.

Explanation of Tables

Variable standards are used in analyzing the farm business (Table 2). They make allowances for the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the amount of feed fed and the returns per \$100 worth of feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of the products produced affect the relative profitableness of various types of farming for any particular year.

The "standards for your farm" (Table 2) are taken from Tables 3 to 6 and from Figure 1 as follows:

- Table 3 - Value of improved land.
Gross earnings, gross expenses, and net earnings per acre.
Value of improved land per acre.
All items in the land-use section.
Land tax per acre.
- Figure 1 - Value of improved land.
Yields for corn, oats, and wheat.
- Table 4 - Source of income.
Feed fed per acre to productive livestock,
Returns per \$100 worth of feed fed.
Dairy returns per cow.
- Table 5 - Size of farm.
Value of buildings per acre.
Total months of labor.
Number of work horses.
Buildings cost per acre.
- Table 6 - Size of farm and amount of feed fed per acre.
Horse and machinery cost per crop acre.
Labor cost per crop acre.

The terms used in the tables are the same as the terms used in the Illinois farm account book. For example, "improved land" is classified on Page 1 of the farm account book. It means crop land, tillable pasture, and land occupied by farmstead, roads, and lanes. Likewise, "crop acres" are listed on page 20 of the farm account book. They include all the tillable land on which a large amount of work has been done in preparing a seedbed or in cultivating or harvesting a crop.

Land use and crop yields. The percent of tillable land in grain crops increased as the value per acre for improved land increased (Table 3). Likewise, the earnings per acre and the land tax per acre increased as the value of improved land increased. On the other hand, the percent of tillable land in legume and nonlegume hay and pasture decreased as the value of the land increased.

Yields per acre for corn, oats, and wheat increased as the land value increased (Fig. 1). By using Table 3 and Figure 1, the account keeper may find out whether his acreage in various crops, crop yields, and earnings per acre were high or low for 1942 in comparison with the average of other farms in his area having about the same value of improved land.

TABLE 4.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 7, 1942

Item	Source of income					
	Grain 40%+	Dairy sales 40%+	Hogs 40%+	Cattle 40%+	General farms	
					L.S. 60%-	L.S. 60%+
Number of farms - - - - -	6	6	50	5	16	64
Percent of income from prod. l.s.	35.4	89.0	90.0	86.8	52.9	82.6
Percent of income from crops - - -	57.2	--	--	--	30.3	3.2
<u>Investments</u>						
Total per farm - - - - -	\$19 755	\$12 940	\$16 492	\$21 674	\$11 377	\$15 166
Total per acre - - - - -	53	53	66	71	52	61
Land per acre - - - - -	34	24	34	33	29	32
Land improvements per acre - - -	.76	2.42	2.40	2.07	2.28	2.59
Buildings per acre - - - - -	3.62	6.80	7.40	9.87	5.61	6.75
Machinery per acre - - - - -	6.43	5.56	7.03	9.05	5.95	6.10
<u>Earnings</u>						
Per farm						
Gross earnings - - - - -	\$ 7 156	\$ 4 481	\$ 5 374	\$ 4 883	\$ 3 492	\$ 3 985
Gross expenses - - - - -	3 232	3 187	2 736	3 008	1 923	2 315
Net earnings - - - - -	\$ 3 924	\$ 1 294	\$ 2 638	\$ 1 875	\$ 1 569	\$ 1 670
Per acre						
Gross earnings - - - - -	\$ 19.14	\$ 18.27	\$ 21.59	\$ 15.94	\$ 16.04	\$ 16.16
Gross expenses - - - - -	8.64	12.99	10.99	9.82	8.83	9.39
Net earnings - - - - -	\$ 10.50	\$ 5.28	\$ 10.60	\$ 6.12	\$ 7.21	\$ 6.77
Rate earned on investment - - -	19.9%	10.0%	16.0%	8.6%	13.8%	11.0%
Labor and management earnings -	\$ 3 532	\$ 1 138	\$ 2 417	\$ 1 430	\$ 1 642	\$ 1 490
<u>Size and Intensity</u>						
Acres per farm - - - - -	374	245	249	306	218	247
Percent of land area tillable -	85.8	89.1	84.0	84.9	82.6	83.0
Percent tillable land in grain -	65.7	27.4	46.5	34.4	51.8	39.7
Percent in hay and pasture - - -	29.9	65.6	43.6	63.0	38.2	47.6
Feed fed per acre to prod. l.s.	\$ 4.02	\$ 7.70	\$ 11.02	\$ 7.35	\$ 4.66	\$ 7.33
Months of labor per 100 crop A.	9.9	18.9	14.0	18.1	12.4	14.9
Total months of labor - - - - -	25.2	23.3	18.7	22.4	17.2	19.4
<u>Crop Yields Per Acre</u>						
Corn, bu. - - - - -	48.2	21.3	42.3	36.3	33.8	33.2
Wheat, bu. - - - - -	15.3	17.3	10.6	9.2	13.7	13.8
<u>Livestock Returns</u>						
Per \$100 feed fed - - - - -	\$ 191	\$ 224	\$ 185	\$ 200	\$ 209	\$ 197
Hog returns per litter - - - - -	160	178	211	152	171	195
Dairy returns per cow - - - - -	62	162	85	80	74	96
<u>Expense Factors</u>						
Labor cost per crop acre - - - -	\$ 5.69	\$ 11.03	\$ 7.83	\$ 10.52	\$ 6.74	\$ 8.62
Horse and machinery cost per crop acre - - - - -	5.44	6.53	6.09	7.94	4.69	5.70
Land improvements cost per acre	.40	.41	.74	.68	.56	.72
Buildings cost per acre - - - -	.34	.60	.60	.63	.43	.56
Land tax per acre - - - - -	.45	.63	.59	.51	.58	.57

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

Each farmer, however, should use caution in interpreting the data in Table 4. For example, the fact that grain farms earned the largest rate on the investment for 1942 and that cattle farms earned the smallest does not mean that such a relationship will prevail over a long period of years. The relative profitability of these enterprises in 1942 was due in part to conditions affecting price and production.

In comparing the returns on the various groups of farms per \$100 worth of feed fed, the farmer should consider the fact that there is a wide variation in the necessary returns per \$100 worth of feed fed to pay for feed (including pasture), labor, equipment, buildings, and other costs. According to 5-year averages of complete cost studies (1935-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

Furthermore, in a comparison of crop yields for the various types of farming, the following items should be noted: (1) value of land per acre; (2) percent of land area tillable; (3) percent of land in grain; (4) feed fed per acre to productive livestock; and (5) land tax per acre.

Differences in expenses are significant for the six groups of farms. Labor input per 100 crop acres was highest on the dairy farms, where 18.9 months of labor were used, and lowest on the grain farms where 9.9 months of labor were used.

The labor cost per crop acre ranged from \$5.69 on the grain farms to \$11.03 on the dairy farms. The horse and machinery cost per crop acre was lowest on the grain farms and highest on the cattle farms. Land improvement and buildings cost per acre were also lowest on the grain farms.

Size of farm. When the farm records in Farming-Type Area 7 are sorted according to the total acres in the farm, they indicate that the larger farms had a greater total investment than did the smaller ones. The operators on the larger farms took in more money during the year than did those on the smaller ones. After deductions were made for farm business expenditures and interest on the investment, labor and management earnings on the 41 largest farms averaged \$2,238 contrasted with \$1,291 for the 47 smallest farms. The smaller farms had higher investments per acre for land improvements, buildings, machinery, and total investment, indicating a higher capital input. The average rate earned on investment was highest for the farms ranging in size from 181 to 300 acres (Table 5).

TABLE 5.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 7, 1942

Item	Total acres in farm		
	Less than 181	181 to 300	301 or more
Number of farms - - - - -	47	59	41
Acres per farm- - - - -	130	238	409
<u>Investments</u>			
Total per farm- - - - -	\$9 329	\$14 945	\$23 454
Total per acre- - - - -	71	63	57
Land per acre - - - - -	35	33	30
Land improvements per acre- - - - -	2.97	2.30	2.17
Buildings per acre- - - - -	8.54	6.71	6.24
Machinery per acre- - - - -	7.37	6.99	5.82
<u>Earnings</u>			
Per farm			
Gross earnings- - - - -	\$3 004	\$ 4 461	\$ 6 205
Gross expenses- - - - -	<u>1 781</u>	<u>2 208</u>	<u>3 422</u>
Net earnings- - - - -	\$1 223	\$ 2 253	\$ 2 783
Per acre			
Gross earnings- - - - -	\$23.02	\$ 18.71	\$ 15.18
Gross expenses- - - - -	<u>13.65</u>	<u>9.26</u>	<u>8.37</u>
Net earnings- - - - -	\$ 9.37	\$ 9.45	\$ 6.81
Rate earned on investment - - - - -	13.1%	15.1%	11.9%
Labor and management earnings - - - - -	\$1 291	\$ 2 124	\$ 2 238
<u>Size and Intensity</u>			
Percent of land area tillable - - - - -	84.4	84.1	83.2
Percent tillable land in grain- - - - -	45.7	44.9	42.6
Percent in hay and pasture- - - - -	47.2	44.5	46.1
Feed fed per acre to prod. l.s. - - - - -	\$10.43	\$ 8.30	\$ 7.16
Percent of income from prod. l.s. - - - - -	84.5	82.3	81.2
Percent of income from crops- - - - -	--	5.2	8.4
Months of labor per 100 crop A. - - - - -	19.6	14.1	12.1
Total months of labor - - - - -	14.4	18.9	25.9
Number of work horses - - - - -	2.2	2.9	3.2
<u>Crop Yields per Acre</u>			
Corn, bu. - - - - -	35.5	38.7	37.2
Wheat, bu.- - - - -	13.0	11.2	14.2
<u>Livestock Returns</u>			
Per \$100 feed fed - - - - -	\$ 203	\$ 199	\$ 182
Hog returns per litter- - - - -	189	199	214
Dairy returns per cow - - - - -	95	87	111
<u>Expense Factors</u>			
Labor cost per crop acre- - - - -	\$11.25	\$ 7.85	\$ 7.02
Horse and machinery cost per crop acre - - - - -	6.81	5.66	5.53
Land improvements cost per acre - - - - -	.75	.59	.73
Buildings cost per acre - - - - -	.77	.52	.49
Land tax per acre - - - - -	.63	.58	.54

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their business by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and horse and machinery expenses. Labor and horse and machinery expenses per crop acre increase as the amount of livestock per acre increases but decrease as the size of farm increases. Therefore, the efficiency of a farm in using labor and machinery should be determined by comparing the expenses on the individual farm with those of farms of the same size having similar amounts of livestock per acre. The average labor cost per crop acre and the average horse and machinery cost per crop acre are shown for farms grouped according to acres per farm and value of feed fed per acre to productive livestock (Table 6).

TABLE 6.--LABOR COST PER CROP ACRE AND HORSE AND MACHINERY COST PER CROP ACRE FOR VARIATIONS IN SIZE OF FARM AND AMOUNT OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 7, 1942

Acres per farm	Feed fed per acre			Feed fed per acre		
	Less than \$5.00	\$5.00 to \$8.99	\$9.00 or more	Less than \$5.00	\$5.00 to \$8.99	\$9.00 or more
	(labor cost per crop acre)			(horse and machinery cost per crop acre)		
Less than 181	\$10.70	\$11.20	\$11.70	\$6.00	\$6.40	\$7.70
181 to 300	7.00	8.20	8.40	5.00	5.90	6.10
301 or more	5.60	7.20	7.80	4.50	5.30	5.80

Producing for War Needs

In any given period gross receipts for hogs, cattle, dairy sales, eggs, and grains are relative measures of production (Table 7). Therefore the account keeper should use these standards to compare his own production with that of other account keepers. He should then adopt on his farm the kind of farm plan and the management practices that will make the best possible use of land, buildings, livestock, labor, machinery, and other resources for the duration of the war. Thus he will have more products to put on the nation's markets and will be making the greatest possible contribution to the war effort.

TABLE 7.--INVESTMENTS, RECEIPTS, EXPENSES, AND EARNINGS
Accounting Farms in Farming-Type Area 7, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Number of farms - - - - -	--	147	121	98	103
<u>Capital Investments</u>					
Land- - - - -	\$ _____	\$ 8 091	\$ 7 433	\$ 7 504	\$ 7 681
Land improvements - - - - -	_____	592	) 2 251	2 196	2 118
Farm buildings- - - - -	_____	1 711			
Horses- - - - -	_____	211	280	370	384
Productive livestock: Cattle- - - - -	_____	1 178	1 069	978	868
Hogs- - - - -	_____	458	287	304	319
Sheep - - - - -	_____	106	98	107	64
Poultry - - - - -	_____	149	117	129	127
Total productive livestock- - - - -	()	(1 891)	(1 571)	(1 518)	(1 378)
Feed, grain, and seeds- - - - -	_____	1 386	1 124	1 127	1 048
Machinery and equipment - - - - -	_____	1 382	1 300	1 193	1 081
Automobile (farm share) - - - - -	_____	258	170	127	116
Total - - - - -	\$ _____	\$15 522	\$ 14 129	\$ 14 035	\$13 806
<u>Receipts and Net Increases</u>					
Horses- - - - -	\$ _____	\$ 5	\$ --	\$ --	\$ 20
Productive livestock: Cattle- - - - -	_____	874	668	502	491
Dairy sales - - - - -	_____	381	370	290	316
Hogs- - - - -	_____	1 797	1 220	635	623
Sheep - - - - -	_____	129	111	98	53
Poultry - - - - -	_____	134	115	81	81
Egg sales - - - - -	_____	375	262	230	207
Total productive livestock- - - - -	()	(3 690)	(2 746)	(1 836)	(1 771)
Farm products used in household - - - - -	_____	334	292	244	254
Feed, grain, and seeds- - - - -	_____	194	486	213	214
AAA receipts- - - - -	_____	188	168	226	179
Labor off farm- - - - -	_____	23	34	45	39
Miscellaneous - - - - -	_____	3	20	14	17
Total - - - - -	\$ _____	\$ 4 437	\$ 3 746	\$ 2 578	\$ 2 494
<u>Expenses and Net Decreases</u>					
Land improvements - - - - -	\$ _____	\$ 171	\$) 195	\$ 146	\$ 157
Farm buildings- - - - -	_____	138)	--	--
Horses- - - - -	_____	--	13	20	--
Productive livestock- - - - -	_____	--	--	--	--
Feed, grain, and seeds- - - - -	_____	--	--	--	--
Machinery and equipment - - - - -	_____	560	415	299	293
Automobile (farm share) - - - - -	_____	124	98	69	76
Livestock expense - - - - -	_____	49	27	24	28
Hired labor - - - - -	_____	276	239	161	160
Taxes - - - - -	_____	168	164	148	132
Miscellaneous - - - - -	_____	26	22	16	18
Total - - - - -	\$ _____	\$ 1 512	\$ 1 173	\$ 883	\$ 864
Receipts less expenses- - - - -	\$ _____	\$ 2 925	\$ 2 573	\$ 1 695	\$ 1 630
Family labor- - - - -	_____	260	211	216	228
Returns for labor, capital, mgt.- - - - -	\$ _____	\$ 2 665	\$ 2 362	\$ 1 479	\$ 1 402
Operator's labor- - - - -	_____	593	467	402	426
Net earnings per farm - - - - -	\$ _____	\$ 2 072	\$ 1 895	\$ 1 077	\$ 976
Rate Earned on Investment - - - - -	% _____	13.3%	13.4%	7.7%	7.1%
Interest on investment- - - - -	\$ _____	\$ 776	\$ 706	\$ 702	\$ 691
Labor and Management Earnings - - - - -	_____	1 889	1 656	777	711

FARM BUSINESS REPORT . . . 1942



Beef cattle are adapted to the available land, labor, and equipment found on many farms.
This is especially true when maximum use is made of roughages.

FARMING-TYPE AREA EIGHT Wabash Valley Grain and Livestock Area

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

Annual Farm Business Report

ON NINETY-TWO FARMS IN FARMING-TYPE AREA 8, 1942

By P. E. Johnston, J. B. Cunningham, and J. E. Wills^{1/}

War adjustments. Farm account cooperators in Farming-Type Area 8 responded to the war demand for increased production in 1942 over that of 1941 by increasing grain acreage 10 percent; number of pigs weaned, 10 percent; and number of hens, 20 percent.


Item	1941	1942	Change
Acres per farm	221	218	3 acres decrease
Acres of grain crops	96	106	10 acres (10%) increase
Number of dairy cows	3	3	None
Number of pigs weaned	68	75	7 pigs (10%) increase
Number of hens	142	171	29 hens (20%) increase
Total months of labor	19	20	1 month increase
Value of machinery (beginning of year)	\$1 205	\$1 390	\$185 increase
Tons of grain produced	92	90	2 tons (2%) decrease
Measure of volume of production for livestock and livestock products ^{2/}	\$2 655	\$2 822	\$167 (6%) increase

The cooperators kept the same number of dairy cows in 1942 as in 1941, used more labor, and increased machinery investments.

Total grain production per farm decreased from 92 tons in 1941 to 90 tons in 1942, a decrease of 2 tons or about 2 percent. This decrease was due principally to lower wheat and oat yields in 1942.

Livestock production, as measured by receipts and net increases of livestock and livestock products valued at the same price for 1942 as for 1941, increased about 6 percent.



 Farming-Type Area 8
Grain and Livestock

^{1/} W. N. Thompson supervised the closing of the farm accounts and the preparation of the tables used in this report. The project was conducted in cooperation with the county farm bureaus and was supervised by the following farm advisers: W. D. Murphy, Edwards; Lucien Wise, Gallatin; H. C. Wheeler, Lawrence; Thurman Wright, White; and H. H. Lett, Wabash.

^{2/} The 1941 actual receipts and net increases were used, for 1942 receipts and net increases were adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm prices for each class of livestock or livestock product.

TABLE 1.--INVENTORY CHANGES, CASH INCOME, AND CASH EXPENSES
Accounting Farms in Farming-Type Area 8, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Inventory Changes					
Land improvements - - - - -	\$	\$ 64	\$) 69	\$ 15	\$ 47
Farm buildings- - - - -		8)		
Horses- - - - -		-12	-36	-42	-29
Productive livestock- - - - -		554	512	59	165
Feed, grain, and seeds- - - - -		379	496	360	-43
Machinery and equipment - - - - -		144	140	64	42
Automobile (farm share) - - - - -		-31	60	21	3
Total - - - - -	\$	\$1 106	\$1 241	\$ 477	\$ 185
Cash Receipts					
Land improvements - - - - -	\$	\$ 1	\$) 8	\$ 8	\$ 4
Farm buildings- - - - -		13)		
Horses- - - - -		46	33	39	50
Productive livestock: Cattle- - -		1 080	776	646	558
Dairy sales		241	245	161	149
Hogs- - - - -		2 005	1 164	686	681
Sheep - - - - -		102	87	67	65
Poultry - - - - -		110	92	74	83
Egg sales - - - - -		467	282	206	195
Total productive livestock- - - - -	()	(4 005)	(2 646)	(1 840)	(1 731)
Feed, grain, and seeds- - - - -		1 430	1 195	1 062	1 111
Machinery and equipment - - - - -		216	158	166	132
Automobile (farm share) - - - - -		14	76	21	34
AAA receipts- - - - -		307	184	339	338
Labor off farm- - - - -		27	29	31	31
Miscellaneous - - - - -		2	7	14	13
Total - - - - -	\$	\$6 061	\$4 336	\$3 520	\$3 444
Cash Expenses					
Land improvements - - - - -	\$	\$ 238	\$) 272	\$ 203	\$ 164
Farm buildings- - - - -		153)		
Horses- - - - -		35	18	17	27
Productive livestock: Cattle- - -		573	388	273	330
Hogs- - - - -		138	77	47	68
Sheep - - - - -		39	9	10	19
Poultry - - - - -		37	29	23	26
Total productive livestock- - - - -	()	(787)	(503)	(353)	(443)
Feed and grain purchases- - - - -		684	489	371	264
Crop and sealing expense- - - - -		138	139	116	96
Machinery and equipment - - - - -		883	702	625	466
Automobile (farm share) - - - - -		97	239	124	119
Livestock expense - - - - -		39	23	18	22
Hired labor - - - - -		333	237	187	172
Taxes - - - - -		201	205	204	181
Miscellaneous - - - - -		23	17	22	20
Total - - - - -	\$	\$3 611	\$2 844	\$2 240	\$1 974
Summary					
Total inventory change- - - - -	\$	\$1 106	\$1 241	\$ 477	\$ 185
Cash balance- - - - -		2 450	1 492	1 280	1 470
Farm products used in household -		317	267	211	239
Receipts less expenses- - - - -	\$	\$3 873	\$3 000	\$1 968	\$1 894
Total unpaid labor- - - - -		815	646	574	558
Net earnings per farm - - - - -	\$	\$3 058	\$2 354	\$1 394	\$1 336
Net earnings per acre - - - - -	\$	\$14.05	\$10.65	\$ 6.15	\$ 6.14

Net earnings. The net earnings per farm on an inventory basis were higher in 1942 than in 1941; the average was \$3,058 in 1942 compared with \$2,354 in 1941. The figure representing net earnings per farm is the sum remaining as compensation for the use of the capital invested in the business and for the managerial ability of the operator. It is calculated by adding to the cash balance the value of farm products used in the household and the inventory increases and by subtracting from the resulting total the value of unpaid labor. Therefore this figure indicates the earning power of the business and determines the real value of the farm and its equipment. The average net earnings per acre were \$14.05 in 1942, \$10.65 in 1941, \$6.15 in 1940, and \$6.14 in 1939.

Inventory changes. The year 1942 was the seventh consecutive year in which inventories increased. The largest increase for the past four years was \$1,241 in 1941 and the smallest was \$185 in 1939 (Table 1). In 1942 the largest increases were for livestock and feed, grain, and seeds. The average amounts of grain on hand in Area 8 at the two inventory periods were:

<u>Crop</u>	<u>Beginning of year</u> (bushels)	<u>End of year</u> (bushels)
Corn	1 436	1 714
Oats	277	240
Wheat	172	76
Soybeans	77	144

Cash receipts and cash expenses. In 1942 cash receipts exceeded cash expenses by \$2,450, the largest margin for any year during the past four. The cash balance--the difference between cash receipts and expenses--is the amount of money which is available for family living expenses, interest, debt payments, and savings.

Unpaid family labor. Although there was no appreciable change in the amount of family labor available, the total valuation of unpaid labor was higher for 1942 than for any other year in the past four. This increase resulted from the fact that the physical labor of the operator and other members of the family was valued at \$55 per month in 1942, at \$45 per month in 1941, and at \$40 per month in 1940 and 1939.

Variation in farm earnings. A wide variation was found in earnings on the farms in Area 8. For example, 24 farms earned less than twelve percent on their investment, with an average of 7.8 percent; but 31 farms earned 20 percent or more, with an average of 25.0 percent. After deducting all farm expenses and a charge of 5 percent for the use of the capital invested in the business, the former group of operators had \$936 for labor and management earnings contrasted with \$4,617 for the latter group. The variation in earnings for all the records in the area was as follows:

<u>Rate earned on investment</u> (percent)	<u>Number of farms</u>	<u>Average rate earned</u> (percent)	<u>Acres per farm</u>	<u>Capital invested per farm</u>	<u>Gross earnings per farm</u>	<u>Net earnings per farm</u>	<u>Labor and management earnings</u>
Less than 12.00	24	7.8	214	\$15 395	\$3 605	\$1 195	\$ 936
12.00 to 19.99	37	16.8	196	15 772	4 942	2 642	2 463
20.00 or more	31	25.0	246	20 016	7 738	4 995	4 617

TABLE 2.--FACTORS HELPING TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 8, 1942

Item	Your farm	Standards for your farm	Average of all farms
Rate earned on investment- - - - -	_____ %	17.9%	17.9%
Number of farms- - - - -	--	--	92
Acres in farm- - - - -	_____	218	218
Acres tillable - - - - -	_____	181	181
Acres in crops - - - - -	_____	132	132
Gross earnings per acre- - - - -	\$ _____	\$ _____ a/	\$ 24.87
Gross expenses per acre- - - - -	_____	_____	10.82
Net earnings per acre- - - - -	_____	_____	14.05
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 43	\$ 43
Value of improved land per acre- - - - -	_____	_____ a/	46
Value of buildings per acre- - - - -	_____	_____ e/	8
Total investment per acre- - - - -	_____	79	79
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	_____ a/	83.0
Percent of tillable land in:			
Corn - - - - -	_____	_____	24.2
Oats - - - - -	_____	_____	6.6
Wheat- - - - -	_____	_____	13.6
Soybeans - - - - -	_____	_____	11.5
Other crops- - - - -	_____	_____	10.5
Legume hay and pasture - - - - -	_____	_____	21.9
Nonlegume hay and pasture- - - - -	_____	_____	11.7
<u>Crop Yields</u>			
Corn, bu.- - - - -	_____	_____ b/	50.9
Oats, bu.- - - - -	_____	_____	28.7
Wheat, bu. - - - - -	_____	_____	15.6
Soybeans, bu.- - - - -	_____	16.4	16.4
<u>Livestock Factors</u>			
Value of feed fed to prod. l.s.- - - - -	\$ _____	\$2 145	\$ 2 145
Feed fed per acre to prod. l.s.- - - - -	_____	_____ c/	9.86
Returns per \$100 worth of feed fed - - - - -	_____	_____	187
Poultry returns per hen- - - - -	_____	3.70	3.70
Number of litters farrowed - - - - -	_____	11.0	11.0
Number of pigs weaned per litter - - - - -	_____	6.8	6.8
Returns per litter farrowed- - - - -	\$ _____	\$ 200	\$ 200
Average number of cows milked- - - - -	_____	3.3	3.3
Dairy returns per cow milked - - - - -	\$ _____	\$ _____ c/	\$ 99
<u>Expense Factors</u>			
Horse and machinery cost per crop acre -	\$ _____	\$ _____ d/	\$ 5.85
Labor cost per crop acre - - - - -	_____	_____ e/	8.48
Total months of labor- - - - -	_____	_____	20.2
Number of work horses- - - - -	_____	_____	3.0
Land improvements cost per acre- - - - -	\$ _____	\$.80	\$.80
Buildings cost per acre- - - - -	_____	_____ e/	.61
Land tax per acre- - - - -	_____	_____ a/	.79

Source of Standards:

- a/ Table 3, value of improved land.
- b/ Fig. 1, value of improved land.
- c/ Table 4, source of income.

- d/ Table 6, size of farm and value of feed fed per acre.
- e/ Table 5, size of farm.

CHART FOR STUDYING THE EFFICIENCY OF VARIOUS PARTS OF YOUR BUSINESS

Accounting Farms in Farming-Type Area 8, 1942

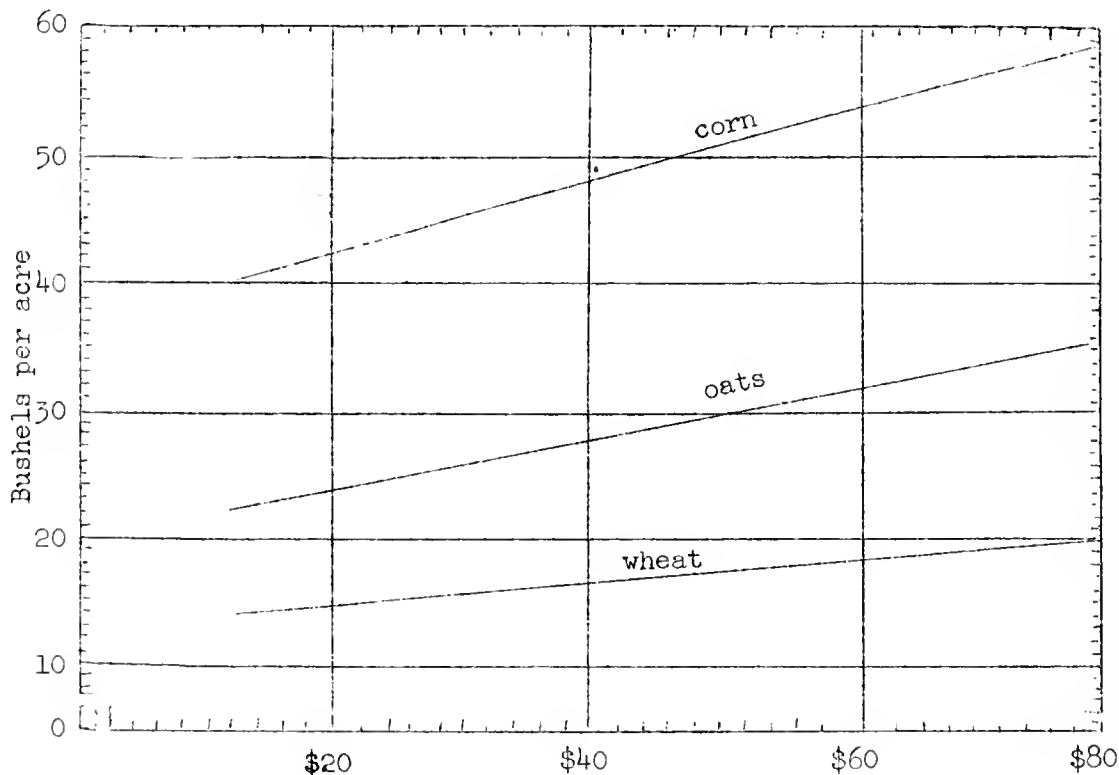
The numbers above the double lines of the page are the averages for the farms similar in organization to your farm. By drawing a line across each column at the place which measures the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Factors that affect the gross earnings										Factors that affect expenses			
			Percent of tillable land in legume hay and pasture	Crop yields			Feed fed per acre to prod. 1.s.	Returns per \$100 feed fed	Poultry returns per hen	Hog returns per litter farrowed	Dairy returns per cow milked	Gross expenses per acre	Horse and machinery cost per crop acre	Labor cost per crop acre	Buildings cost per acre	
				Corn, bu.	Oats, bu.	Wheat, bu.										
32.9	418								5.20	250						
29.9	378								4.90	240						
26.9	338								4.60	230						
23.9	298								4.30	220						
20.9	258								4.00	210						
17.9	218								3.70	200						
14.9	178								3.40	190						
11.9	138								3.10	180						
8.9	98								2.80	170						
5.9	58								2.50	160						
2.9	--								2.20	150						
3%	40	\$3	3%	4	4	2	\$2	\$15	\$.30	\$10	\$10	\$2	\$1	\$2	\$.30	

* Each space between lines represents the values indicated at bottom of each column.

TABLE 3.--USE OF TILLABLE LAND AND OTHER FACTORS
RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 8, 1942

Item	Value of improved land			
	Less than \$33	\$33 to \$47	\$48 to \$62	\$63 or more
Average value of improved land- - -	\$ 27	\$ 39	\$ 54	\$ 72
Number of farms - - - - -	24	34	17	17
Acres per farm- - - - -	196	213	263	212
Percent of land area tillable - - -	77.2	83.0	85.2	88.0
Percent of tillable land in:				
Corn- - - - -	20.7	22.4	27.9	26.8
Oats- - - - -	6.8	7.7	5.1	6.4
Wheat - - - - -	11.0	12.8	14.8	16.4
Soybeans- - - - -	7.6	9.4	18.3	12.0
Other crops - - - - -	10.8	10.3	7.4	14.4
Legume hay and pasture- - - - -	27.9	25.5	18.0	13.8
Nonlegume hay and pasture - - - -	15.2	11.9	8.5	10.2
Gross earnings per acre - - - - -	\$ 18.89	\$ 21.78	\$ 28.99	\$ 33.89
Gross expenses per acre - - - - -	<u>9.23</u>	<u>10.42</u>	<u>10.96</u>	<u>13.64</u>
Net earnings per acre - - - - -	\$ 9.66	\$ 11.36	\$ 18.03	\$ 20.25
Land tax per acre - - - - -	\$.56	\$.72	\$.90	\$ 1.11



Per Acre Value of Improved Land
Fig. 1.--Average yields of corn, oats, and wheat
with varying values of improved land.

Explanation of Tables

Variable standards are used in analyzing the farm business (Table 2). They make allowances for the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the amount of feed fed and the returns per \$100 worth of feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of the products produced affect the relative profitableness of various types of farming for any particular year.

The "standards for your farm" (Table 2) are taken from Tables 3 to 6 and from Figure 1 as follows:

- Table 3 - Value of improved land.
 - Gross earnings, gross expenses, and net earnings per acre.
 - Value of improved land per acre.
 - All items in the land-use section.
 - Land tax per acre.
- Figure 1 - Value of improved land.
 - Yields for corn, oats, and wheat.
- Table 4 - Source of income.
 - Feed fed per acre to productive livestock.
 - Returns per \$100 worth of feed fed.
 - Dairy returns per cow.
- Table 5 - Size of farm.
 - Value of buildings per acre.
 - Total months of labor.
 - Number of work horses.
 - Buildings cost per acre.
- Table 6 - Size of farm and value of feed fed per acre.
 - Horse and machinery cost per crop acre.
 - Labor cost per crop acre.

The terms used in the tables are the same as those in the Illinois farm account book. For example, "improved land" is classified on page 1 of the farm account book. It means crop land, tillable pasture, and land occupied by farmstead, roads, and lanes. Likewise, "crop acres" are listed on page 20 of the farm account book. They include all the tillable land on which a large amount of work has been done in preparing a seedbed or in cultivating or harvesting a crop.

Land use and crop yields. The percent of tillable land in grain crops increased as the value per acre of improved land increased (Table 3). Likewise, the percent of land area tillable, the net earnings per acre, and the land tax per acre increased as the value of improved land increased. On the other hand, the percent of tillable land in legume and nonlegume hay and pasture decreased as the value of the land increased.

Yields per acre for corn, oats, and wheat increased rapidly as the land value increased from \$15 per acre to approximately \$80 per acre (Fig. 1). By using Table 3 and Figure 1, the account keeper may find out whether his acreage in various crops, crop yields, and net earnings per acre were high or low for 1942 in comparison with the average of other farms in his area having about the same value of improved land.

TABLE 4.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 8, 1942

Item	Source of income			
	Grain 40% +	Hogs 40% +	General farms	
			L.S. 60% -	L.S. 60% +
Number of farms - - - - -	12	33	12	35
Percent of income from prod. l.s.	42.0	32.3	53.1	73.5
Percent of income from crops- - -	48.1	6.9	32.0	12.2
<u>Investments</u>				
Total per farm- - - - -	\$24 382	\$18 643	\$14 336	\$14 106
Total per acre- - - - -	87	81	86	70
Land per acre - - - - -	51	44	52	36
Land improvements per acre- - -	1.81	2.41	2.12	2.49
Buildings per acre- - - - -	9.13	7.34	7.31	8.40
Machinery per acre- - - - -	9.18	8.33	9.03	5.33
<u>Earnings</u>				
Per farm				
Gross earnings- - - - -	\$ 7 247	\$ 6 287	\$ 4 171	\$ 4 398
Gross expenses- - - - -	<u>2 826</u>	<u>2 566</u>	<u>2 158</u>	<u>2 076</u>
Net earnings- - - - -	\$ 4 421	\$ 3 721	\$ 2 013	\$ 2 322
Per acre				
Gross earnings- - - - -	\$ 25.90	\$ 27.30	\$ 25.04	\$ 21.78
Gross expenses- - - - -	<u>10.10</u>	<u>11.14</u>	<u>12.95</u>	<u>10.28</u>
Net earnings- - - - -	\$ 15.80	\$ 16.16	\$ 12.09	\$ 11.50
Rate earned on investment - - -	18.1%	20.0%	14.0%	16.5%
Labor and management earnings -	\$ 3 847	\$ 3 394	\$ 1 853	\$ 2 182
<u>Size and Intensity</u>				
Acres per farm- - - - -	280	230	167	202
Percent of land area tillable -	90.2	85.2	85.4	76.6
Percent tillable land in grain-	70.6	58.4	62.1	52.8
Percent in hay and pasture- - -	23.1	31.3	31.2	43.0
Feed fed per acre to prod. l.s.	\$ 6.10	\$ 12.91	\$ 8.39	\$ 8.77
Months of labor per 100 crop A.	10.4	15.5	16.4	18.1
Total months of labor - - - - -	22.0	22.0	17.2	19.0
<u>Crop Yields per Acre</u>				
Corn, bu. - - - - -	48.9	51.9	53.0	50.2
Wheat, bu.- - - - -	14.7	16.9	13.5	16.2
<u>Livestock Returns</u>				
Per \$100 feed fed - - - - -	\$ 193	\$ 183	\$ 177	\$ 196
Hog returns per litter- - - - -	171	206	179	184
Dairy returns per cow - - - - -	84	106	111	98
<u>Expense Factors</u>				
Labor cost per crop acre- - - -	\$ 5.68	\$ 8.66	\$ 9.38	\$ 9.90
Horse and machinery cost per crop acre - - - - -	4.90	6.02	6.96	5.90
Land improvements cost per acre	.61	.77	.93	.88
Buildings cost per acre - - - -	.64	.54	.81	.60
Land tax per acre - - - - -	.91	.79	.96	.69

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

Each farmer, however, should use caution in interpreting the data in Table 4. For example, the fact that hog farms showed the largest rate earned on the investment for 1942 and that general farms with the smallest amount of livestock showed the smallest does not mean that such a relationship will prevail over a long period of years. The relative profitableness of enterprises in 1942 was due largely to conditions affecting price and production.

When comparing the returns on the various groups of farms per \$100 worth of feed fed, one should consider the fact that there is a wide variation in the necessary returns per \$100 worth of feed fed to pay for feed (including pasture), labor, equipment, buildings, and other costs. According to 5-year averages of complete cost studies (1933-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

Differences in expenses, are significant for the four groups of farms. Labor input per 100 crop acres was highest on the general farms with the most livestock where 18.1 months of labor were used, and lowest on the grain farms, where 10.4 months of labor were used.

The labor cost per crop acre ranged from \$9.90 on the general farms with the most livestock to \$5.68 on the grain farms. The horse and machinery cost per crop acre was highest on the general farms with the least livestock where it averaged \$6.96 and lowest on the grain farms, where it averaged \$4.90; and the buildings cost per acre averaged \$.81 on the general farms with the least livestock and \$.54 on the hog farms.

Size of farm. When the farm records in Farming-Type Area 8 are sorted according to the total acres in the farm, they indicate that the larger farms had a greater total investment than did the smaller ones. The operators on the larger farms took in more money during the year than did those on the smaller ones. After deductions were made for farm business expenditures and interest on the investment, labor and management earnings on the 15 farms that were 301 acres or larger in size averaged \$5,271 contrasted with \$2,151 for the 40 farms that averaged 135 acres in size. The rate earned on investment was not significantly different for the three groups of farms.

The smaller farms were operated more intensively than were the larger ones. This variation was indicated by the larger amount of feed fed per acre to productive livestock, by the larger percent of income from livestock, and by the smaller percent of income from crops.

TABLE 5.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 8, 1942

Item	Total acres in farm		
	Less than 181	181 to 300	301 or more
Number of farms - - - - -	40	37	15
Acres per farm- - - - -	135	230	407
<u>Investments</u>			
Total per farm- - - - -	\$11 474	\$16 979	\$32 423
Total per acre- - - - -	85	74	80
Land per acre - - - - -	44	41	46
Land improvements per acre- - - - -	2.83	2.61	1.42
Buildings per acre- - - - -	9.23	7.19	8.08
Machinery per acre- - - - -	8.70	7.10	6.95
<u>Earnings</u>			
Per farm			
Gross earnings- - - - -	\$ 3 956	\$ 5 203	\$ 9 829
Gross expenses- - - - -	1 816	2 463	3 544
Net earnings- - - - -	\$ 2 140	\$ 2 740	\$ 6 285
Per acre			
Gross earnings- - - - -	\$ 29.32	\$ 22.58	\$ 24.17
Gross expenses- - - - -	13.46	10.69	8.72
Net earnings- - - - -	\$ 15.86	\$ 11.89	\$ 15.45
Rate earned on investment - - - - -	18.6%	16.1%	19.4%
Labor and management earnings - - - - -	\$ 2 151	\$ 2 477	\$ 5 271
<u>Size and Intensity</u>			
Percent of land area tillable - - - - -	85.3	82.9	81.2
Percent of tillable land in grain - - - - -	56.1	57.4	64.4
Percent in hay and pasture- - - - -	37.0	38.0	24.2
Feed fed per acre to prod. l.s. - - - - -	\$ 12.52	\$ 8.28	\$ 9.69
Percent of income from prod. l.s. - - - - -	77.9	65.2	66.7
Percent of income from crops- - - - -	8.9	21.1	24.5
Months of labor per 100 crop acres- - - - -	20.0	15.5	11.0
Total months of labor - - - - -	16.5	20.9	28.5
Number of work horses - - - - -	2.4	3.5	2.9
<u>Crop Yields per Acre</u>			
Corn, bu. - - - - -	55.0	47.9	51.5
Wheat, bu.- - - - -	18.1	17.2	11.7
<u>Livestock Returns</u>			
Per \$100 feed fed - - - - -	\$ 196	\$ 192	\$ 173
Hog returns per litter- - - - -	203	194	178
Dairy returns per cow - - - - -	109	89	96
<u>Expense Factors</u>			
Labor cost per crop acre- - - - -	\$ 11.42	\$ 8.70	\$ 5.70
Horse and machinery cost per crop acre- - - - -	6.55	6.14	4.86
Land improvements cost per acre - - - - -	.98	.90	.50
Buildings cost per acre - - - - -	.69	.60	.53
Land tax per acre - - - - -	.83	.76	.82

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their business by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and horse and machinery expenses. Labor and horse and machinery expenses per crop acre increase as the amount of livestock per acre increases but decrease as the size of farm increases. Therefore, the efficiency of a farm in using labor and machinery should be determined by comparing the expenses on the individual farm with those of farms of the same size having similar amounts of livestock per acre. The average labor cost per crop acre and the average horse and machinery cost per crop acre are shown for farms grouped according to acres per farm and value of feed fed per acre to productive livestock (Table 6).

TABLE 6.--LABOR COST PER CROP ACRE AND HORSE AND MACHINERY COST PER CROP ACRE FOR VARIATIONS IN SIZE OF FARM AND AMOUNT OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 8, 1942

Acres per farm	Feed fed per acre			Feed fed per acre		
	Less than \$6.00	\$6.00 to \$9.99	\$10.00 or more	Less than \$6.00	\$6.00 to \$9.99	\$10.00 or more
	(labor cost per crop acre)			(horse and machinery cost per crop acre)		
Less than 181	\$9.00	\$10.80	\$12.30	\$6.00	\$6.50	\$7.60
181 to 300	6.20	7.90	9.00	5.00	6.20	7.00
301 or more	5.50	5.90	6.20	4.50	5.10	5.50

Producing for War Needs

In any given period gross receipts for hogs, cattle, dairy sales, eggs, and grain are relative measures of production (Table 7). Therefore the account keeper should use these standards to compare his own production with that of other account keepers. He should then adopt on his farm the kind of farm plan and the management practices that will make the best possible use of land, buildings, livestock, labor, machinery, and other resources for the duration of the war. Thus he will have more products to put on the nation's markets and will be making the greatest possible contribution to the war effort.

TABLE 7.--INVESTMENTS, RECEIPTS, EXPENSES, AND EARNINGS
Accounting Farms in Farming-Type Area 8, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Number of farms - - - - -	--	92	80	57	63
Capital Investments					
Land- - - - -	\$ _____	\$ 9 384	\$ 8 951	\$10 378	\$ 9 979
Land improvements - - - - -	_____	502	) 2 039	2 087	1 896
Farm buildings- - - - -	_____	1 744)		
Horses- - - - -	_____	241	286	349	401
Productive livestock: Cattle- - -	_____	1 050	869	772	639
Hogs- - - - -	_____	522	279	276	296
Sheep - - - - -	_____	86	73	80	72
Poultry - - - - -	_____	152	123	130	127
<u>Total productive livestock- - -</u>	()	(1 810)	(1 344)	(1 258)	(1 134)
Feed, grain, and seeds- - - - -	_____	1 794	1 333	1 217	1 228
Machinery and equipment - - - -	_____	1 390	1 205	1 283	1 197
Automobile (farm share) - - - - -	_____	239	167	144	126
<u>Total - - - - -</u>	\$ _____	\$17 104	\$15 325	\$16 716	\$15 961
Receipts and Net Increases					
Horses- - - - -	\$ _____	\$ --	\$ --	\$ --	\$ --
Productive livestock: Cattle- - -	_____	792	615	444	420
Dairy sales	_____	241	245	161	149
Hogs- - - - -	_____	2 090	1 336	624	582
Sheep - - - - -	_____	90	87	66	49
Poultry - - - - -	_____	92	90	45	58
Egg sales - - - - -	_____	467	282	206	195
<u>Total productive livestock- - -</u>	()	(3 772)	(2 655)	(1 546)	(1 453)
Farm products used in household -	_____	317	267	211	239
Feed, grain, and seeds- - - - -	_____	987	1 063	935	708
AAA receipts- - - - -	_____	307	184	339	338
Labor off farm- - - - -	_____	27	29	31	31
Miscellaneous - - - - -	_____	2	7	14	13
<u>Total - - - - -</u>	\$ _____	\$ 5 412	\$ 4 205	\$ 3 076	\$ 2 782
Expenses and Net Decreases					
Land improvements - - - - -	\$ _____	\$ 173	) 195	\$ 180	\$ 113
Farm buildings- - - - -	_____	132)		
Horses- - - - -	_____	1	21	20	6
Productive livestock- - - - -	_____	--	--	--	--
Feed, grain, and seeds- - - - -	_____	--	--	--	--
Machinery and equipment - - - - -	_____	523	404	395	292
Automobile (farm share) - - - - -	_____	114	103	82	82
Livestock expense - - - - -	_____	39	23	18	22
Hired labor - - - - -	_____	333	237	187	172
Taxes - - - - -	_____	201	205	204	181
Miscellaneous - - - - -	_____	23	17	22	20
<u>Total - - - - -</u>	\$ _____	\$ 1 539	\$ 1 205	\$ 1 108	\$ 888
Receipts less expenses- - - - -	\$ _____	\$ 3 873	\$ 3 000	\$ 1 968	\$ 1 894
Family labor- - - - -	_____	227	178	155	137
Returns for labor, capital, mgt.	\$ _____	\$ 3 646	\$ 2 822	\$ 1 813	\$ 1 757
Operator's labor- - - - -	_____	588	468	419	421
Net earnings per farm - - - - -	\$ _____	\$ 3 058	\$ 2 354	\$ 1 394	\$ 1 336
<u>Rate Earned on Investment - - - -</u>	%	17.9%	15.4%	8.3%	8.4%
Interest on investment- - - - -	\$ _____	\$ 855	\$ 766	\$ 836	\$ 798
<u>Labor and Management Earnings - - -</u>	_____	2 791	2 056	977	959

FARM BUSINESS REPORT . . . 1942



Beef cattle are adapted to the available land, labor, and equipment found on many farms.
This is especially true when maximum use is made of roughages.

FARMING-TYPE AREA NINE Southern Fruit and Vegetable Area

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

Annual Farm Business Report

ON TWENTY-EIGHT FARMS IN FARMING-TYPE AREA 9, 1942

By P. E. Johnston, J. B. Cunningham, and J. E. Wills^{1/}

War adjustments. Farm account cooperators in Farming-Type Area 9 responded to the war demand for increased production in 1942 over that of 1941 by increasing grain acreage, number of dairy cows, and number of hens.

Item	1941	1942	Change
Acres per farm	232	214	18 acres decrease
Acres of grain crops	66	75	9 acres increase
Number of dairy cows	6	8	2 cows increase
Number of pigs weaned	52	46	6 pigs decrease
Number of hens	105	140	35 hens increase
Total months of labor	23	21	2 months decrease
Value of machinery (beginning of year)	\$1 154	\$1 263	\$109 increase
Tons of grain produced	48	48	None
Measure of volume of production for livestock and livestock products ^{2/}	\$2 260	\$2 412	\$152 (6.7%) increase



Farming-Type Area 9
Fruit and Vegetable

In 1942 the cooperators decreased the number of pigs weaned, used less labor, but increased machinery investments.

Even though grain acreage was larger in 1942 than in 1941, tons of grain produced were the same for each year. Failure to increase in 1942 was due, in part, to a small wheat crop. Livestock production, as measured by receipts and net increases for livestock and livestock products valued at the same price for 1942 as for 1941, increased 6.7 percent.

^{1/} W. N. Thompson supervised the closing of the farm accounts and the preparation of the tables used in this report. The project was conducted in cooperation with the county farm bureaus and was supervised by the following farm advisers: J. G. McCall, Jackson-Perry; J. R. Strubinger, Massac; G. C. Smith, Pope-Hardin; T. L. Davis, Pulaski-Alexander; and E. A. Bierbaum, Union.

^{2/} The 1941 actual receipts and net increases were used, for 1942 receipts and net increases were adjusted to the 1941 price level by dividing the 1942 receipts and net increases by the ratio of 1942 to 1941 Illinois farm prices for each class of livestock or livestock product.

TABLE 1.--INVENTORY CHANGES, CASH INCOME, AND CASH EXPENSES
Accounting Farms in Farming-Type Area 9, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Inventory Changes					
Land improvements - - - - -	\$ _____	\$ 13	\$) 11	\$ 132	\$ -79
Farm buildings- - - - -	_____	41)		
Horses- - - - -	_____	-29	-62	-16	-3
Productive livestock- - - - -	_____	477	356	141	19
Feed, grain, and seeds- - - - -	_____	314	274	181	61
Machinery and equipment - - - - -	_____	-65	36	35	9
Automobile (farm share) - - - - -	_____	-8	-32	41	5
Total - - - - -	\$ _____	\$ 743	\$ 583	\$ 514	\$ 12
Cash Receipts					
Land improvements - - - - -	\$ _____	\$ 18	\$) 8	\$ 31	\$ 20
Farm buildings- - - - -	_____	9)		
Horses- - - - -	_____	53	75	45	58
Productive livestock: Cattle- - -	_____	486	623	396	294
Dairy sales	_____	773	559	364	298
Hogs- - - - -	_____	1 203	747	331	360
Sheep - - - - -	_____	27	44	38	40
Poultry - - - - -	_____	115	76	60	60
Egg sales - - - - -	_____	407	186	119	124
Total productive livestock- - - - -	()	(3 011)	(2 235)	(1 308)	(1 176)
Feed, grain, and seeds- - - - -	_____	790	734	587	1 169
Machinery and equipment - - - - -	_____	137	206	94	100
Automobile (farm share) - - - - -	_____	31	9	40	13
AAA receipts- - - - -	_____	202	137	243	259
Labor off farm- - - - -	_____	25	29	14	21
Miscellaneous - - - - -	_____	1	20	2	15
Total - - - - -	\$ _____	\$ 4 277	\$ 3 453	\$ 2 364	\$ 2 831
Cash Expenses					
Land improvements - - - - -	\$ _____	\$ 159	\$) 258	\$ 213	\$ 168
Farm buildings- - - - -	_____	175)		
Horses- - - - -	_____	35	21	28	46
Productive livestock: Cattle- - -	_____	200	246	135	94
Hogs- - - - -	_____	112	60	34	25
Sheep - - - - -	_____	5	1	9	3
Poultry - - - - -	_____	32	24	15	13
Total productive livestock- - - - -	()	(349)	(331)	(193)	(135)
Feed and grain purchases- - - - -	_____	566	417	184	451
Crop and sealing expense- - - - -	_____	162	156	96	75
Machinery and equipment - - - - -	_____	561	678	448	373
Automobile (farm share) - - - - -	_____	147	76	157	92
Livestock expense - - - - -	_____	50	36	19	24
Hired labor - - - - -	_____	296	313	249	411
Taxes - - - - -	_____	167	159	147	135
Miscellaneous - - - - -	_____	24	18	18	25
Total - - - - -	\$ _____	\$ 2 691	\$ 2 463	\$ 1 752	\$ 1 935
Summary					
Total inventory change- - - - -	\$ _____	\$ 743	\$ 583	\$ 514	\$ 12
Cash balance- - - - -	_____	1 586	990	612	896
Farm products used in household - - - - -	_____	345	278	220	229
Receipts less expenses- - - - -	\$ _____	\$ 2 674	\$ 1 851	\$ 1 346	\$ 1 137
Total unpaid labor- - - - -	_____	778	663	530	522
Net earnings per farm - - - - -	\$ _____	\$ 1 896	\$ 1 188	\$ 816	\$ 615
Net earnings per acre - - - - -	\$ _____	\$ 8.85	\$ 5.13	\$ 3.49	\$ 3.31

Net earnings. The net earnings per farm on an inventory basis were higher in 1942 than in 1941; the average was \$1,896 in 1942 compared with \$1,188 in 1941. The figure representing net earnings per farm is the sum remaining as compensation for the use of the capital invested in the business and for the managerial ability of the operator. It is calculated by adding to the cash balance the value of farm products used in the household and the inventory increases and by subtracting from the resulting total the value of unpaid labor. Therefore this figure indicates the earning power of the business and determines the real value of the farm and its equipment. The average net earnings per acre were \$8.85 in 1942, \$5.13 in 1941, \$3.49 in 1940, and \$3.31 in 1939.

Inventory changes. The year 1942 was the sixth consecutive year in which inventories increased. The largest increase for the past four years was \$743 in 1942 and the smallest was \$12 in 1939 (Table 1). The largest increases in 1942 were for livestock and feed, grain, and seeds. The average amounts of grain on hand in Area 9 at the two inventory periods were:

<u>Crop</u>	<u>Beginning of year (bushels)</u>	<u>End of year (bushels)</u>
Corn	892	914
Oats	157	125
Wheat	148	83
Soybeans	41	91

Cash receipts and cash expenses. In 1942 cash receipts exceeded cash expenses by \$1,586, the largest margin for any year during the past four. The cash balance--the difference between cash receipts and expenses--is the amount of money which was available for family living expenses, interest, debt payments, and savings.

Unpaid labor. Although there was no appreciable change in the amount of family labor available, the total valuation of unpaid labor was higher for 1942 than for any other year in the past four. This increase resulted from the fact that the physical labor of the operator and other members of the family was valued at \$55 per month in 1942, \$45 per month in 1941, and at \$40 per month in 1940 and 1939.

Variation in farm earnings. A wide variation was found in earnings on the farms in Area 9. For example, 8 farms earned less than ten percent on their investment, with an average of 5.1 percent; but 8 farms earned 20 percent or more, with an average of 28.7 percent. After deducting all farm expenses and a charge of 5 percent for the use of the capital invested in the business, the former group of operators had \$545 for labor and management earnings contrasted with \$3,319 for the latter group. The variation in earnings for all the records in the area was as follows:

<u>Rate earned on investment (percent)</u>	<u>Number of farms</u>	<u>Average rate earned (percent)</u>	<u>Acres per farm</u>	<u>Capital invested per farm</u>	<u>Gross earnings per farm</u>	<u>Net earnings per farm</u>	<u>Labor and management earnings</u>
Less than 10.00	8	5.1	247	\$13 028	\$3 260	\$ 660	\$ 545
10.00 to 19.99	12	14.7	211	12 359	3 816	1 822	1 749
20.00 or more	8	28.7	186	11 317	5 982	3 245	3 319

TABLE 2.--FACTORS HELPING TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 9, 1942

Item	Your farm	Standards for your farm	Average of all farms
Rate earned on investment- - - - -	_____ %	15.5%	15.5%
Number of farms- - - - -	--	--	28
Acres in farm- - - - -	_____	214	214
Acres tillable - - - - -	_____	154	154
Acres in crops - - - - -	_____	99	99
Gross earnings per acre- - - - -	\$ _____	\$ _____ a/	\$ 19.09
Gross expenses per acre- - - - -	_____	_____	10.24
Net earnings per acre- - - - -	\$ _____	\$ _____	\$ 8.85
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 27	\$ 27
Value of improved land per acre- - - - -	_____	_____ a/	31
Value of buildings per acre- - - - -	_____	_____ e/	7
Total investment per acre- - - - -	_____	57	57
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	_____ a/	72.0
Percent of tillable land in:			
Corn - - - - -	_____	_____	15.8
Oats - - - - -	_____	_____	6.3
Wheat- - - - -	_____	_____	11.6
Soybeans - - - - -	_____	_____	6.7
Other crops- - - - -	_____	_____	18.6
Legume hay and pasture - - - - -	_____	_____	31.4
Nonlegume hay and pasture- - - - -	_____	_____	9.6
<u>Crop yields</u>			
Corn - - - - -	_____	_____ b/	42.4
Oats - - - - -	_____	_____	22.0
Wheat- - - - -	_____	_____	14.0
<u>Livestock Factors</u>			
Value of feed fed to prod. l.s.- - - - -	\$ _____	\$1 568	\$1 568
Feed fed per acre to prod. l.s.- - - - -	_____	_____ c/	7.32
Returns per \$100 worth of feed fed - - - - -	_____	_____	217
Poultry returns per hen- - - - -	_____	4.24	4.24
Number of litters farrowed - - - - -	_____	6.9	6.9
Number of pigs weaned per litter - - - - -	_____	6.7	6.7
Returns per litter farrowed- - - - -	\$ _____	\$ 186	\$ 186
Average number of cows milked- - - - -	_____	7.9	7.9
Dairy returns per cow milked - - - - -	\$ _____	\$ _____ c/	\$ 107
<u>Expense Factors</u>			
Horse and machinery cost per crop acre - - - - -	\$ _____	\$ _____ d/	\$ 7.77
Labor cost per crop acre - - - - -	_____	_____ e/	10.59
Total months of labor- - - - -	_____	_____	20.7
Number of work horses- - - - -	_____	_____	3.5
Land improvements cost per acre- - - - -	\$ _____	\$.60	\$.60
Buildings cost per acre- - - - -	_____	_____ e/	.58
Land tax per acre- - - - -	_____	_____ a/	.67

Source of Standards:

- a/ Table 3, value of improved land.
- b/ Fig. 1, value of improved land.
- c/ Table 4, source of income.

- d/ Table 6, size of farm and value of feed fed per acre.
- e/ Table 5, size of farm.

CHART FOR STUDYING THE EFFICIENCY OF VARIOUS PARTS OF YOUR BUSINESS

Accounting Farms in Farming-Type Area 9, 1942

The numbers above the double line of the page are the averages for the farms similar in organization to your farm. By drawing a line across each column at the place which measures the efficiency of your farm in that factor, you can compare your efficiency with that of other farmers in your locality.

Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Factors that affect the gross earnings									Factors that affect expenses			
			Percent of tillable land in legume hay and pasture	Crop yields			Feed fed per acre to prod. l.s.	Returns per \$100 feed fed	Poultry returns per hen	Hog returns per litter farrowed	Dairy returns per cow milked	Gross expenses per acre	Horse and machinery cost per crop acre	Labor cost per crop acre	Buildings cost per acre
				Corn, bu.	Oats, bu.	Wheat, bu.									
30.5	364							5.74	236						
27.5	334							5.44	226						
24.5	304							5.14	216						
21.5	274							4.84	206						
18.5	244							4.54	196						
15.5	214							4.24	186						
12.5	184							3.94	176						
9.5	154							3.64	166						
6.5	124							3.34	156						
3.5	94							3.04	146						
.5	64							2.74	136						
3%	30	\$2	2%	3	3	2	\$2	\$15	\$30	\$10	\$10	\$1	\$1	\$2	\$.20

*Each space between lines represents the values indicated at bottom of each column.

TABLE 3.--USE OF TILLABLE LAND AND OTHER FACTORS
RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 9, 1942

Item	Value of improved land			
	Less than \$22	\$22 to \$31	\$32 to \$41	More than \$41
Average value of improved land-	\$ 18	\$ 28	\$ 35	\$ 49
Number of farms - - - - -	5	12	8	3
Acres per farm- - - - -	165	216	259	168
Percent of land area tillable -	63.9	76.9	67.7	77.1
Percent of tillable land in:				
Corn- - - - -	15.7	15.3	15.6	19.0
Oats- - - - -	10.0	7.5	5.1	.3
Wheat - - - - -	5.5	11.5	14.0	11.7
Soybeans- - - - -	2.3	7.1	7.5	7.5
Other crops - - - - -	20.7	16.7	18.6	26.2
Legume hay and pasture- - - -	33.1	33.9	28.3	26.5
Nonlegume hay and pasture - -	12.7	8.0	10.9	8.8
Gross earnings per acre - - - -	\$17.82	\$15.15	\$21.58	\$33.32
Gross expenses per acre - - - -	<u>10.91</u>	<u>8.58</u>	<u>11.22</u>	<u>15.72</u>
Net earnings per acre - - - - -	\$ 6.91	\$ 6.57	\$10.36	\$17.60
Land tax per acre - - - - -	\$.53	\$.63	\$.72	\$.83

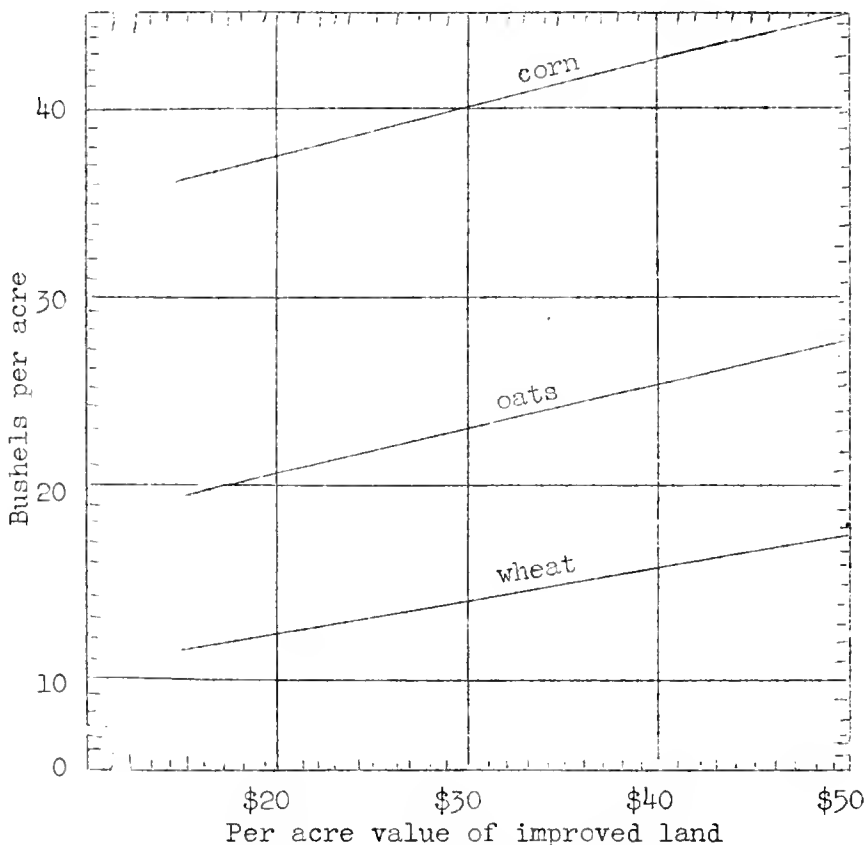


Fig. 1.--Average yields of corn, oats, and wheat with varying values of improved land.

Explanation of Tables

Variable standards are used in analyzing the farm business (Table 2). They make allowances for the following facts: (1) that the quality of land affects the cropping system and the crop yields; (2) that the kind of livestock influences the amount of feed fed and the returns per \$100 worth of feed fed; (3) that the size and intensity of the farm business affects practically all the cost items; and (4) that price relationships and quantities of the products produced affect the relative profitableness of various types of farming for any particular year.

The "standards for your farm" (Table 2) are taken from Tables 3 to 6 and from Figure 1 as follows:

- Table 3 - Value of improved land.
 - Gross earnings, gross expenses, and net earnings per acre.
 - Value of improved land per acre.
 - All items in the land-use section.
 - Land tax per acre.
- Figure 1 - Value of improved land.
 - Yields for corn, oats, and wheat.
- Table 4 - Source of income.
 - Feed fed per acre to productive livestock.
 - Returns per \$100 worth of feed fed.
 - Dairy returns per cow.
- Table 5 - Size of farm.
 - Value of buildings per acre.
 - Total months of labor
 - Number of work horses.
 - Buildings cost per acre.
- Table 6 - Size of farm and amount of feed fed per acre.
 - Horse and machinery cost per crop acre.
 - Labor cost per crop acre.

The terms used in the tables are the same as the terms used in the Illinois farm account book. For example, "improved land" is classified on Page 1 of the farm account book. It means crop land, tillable pasture, and land occupied by farmstead, roads, and lanes. Likewise, "crop acres" are listed on page 20 of the farm account book. They include all the tillable land on which a large amount of work has been done in preparing a seedbed or in cultivating or harvesting a crop.

Land use and crop yields. Net earnings per acre and land tax per acre increase as the value per acre for improved land increases. On the other hand, the percent of tillable land in legume and nonlegume hay and pasture decreased as the value of the land increased.

Yields per acre for corn, oats, and wheat increased as the land value increased from \$15 per acre to \$50 per acre (Fig. 1). By using Table 3 and Figure 1, the account keeper may find out whether his acreage in various crops, crop yields, and net earnings per acre were high or low for 1942 in comparison with the average of other farms in his area having about the same value of improved land.

TABLE 4.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 9, 1942

Item	Source of income		
	Hogs 40% +	General farms	
		L.S. 60%-	L.S. 60%+
Number of farms- - - - -	4	6	18
Percent of income from productive livestock-	88.4	53.0	80.8
Percent of income from crops - - - - -	--	34.8	3.9
<u>Investments</u>			
Total per farm - - - - -	\$13 218	\$10 414	\$12 651
Total per acre - - - - -	61	51	58
Land per acre- - - - -	29	25	27
Land improvements per acre - - - - -	3.69	4.27	2.36
Buildings per acre - - - - -	4.80	4.73	8.36
Machinery per acre - - - - -	7.34	6.25	6.96
<u>Earnings</u>			
Per farm			
Gross earnings - - - - -	\$ 5 066	\$ 4 017	\$ 3 933
Gross expenses - - - - -	<u>2 319</u>	<u>2 109</u>	<u>2 230</u>
Net earnings - - - - -	\$ 2 747	\$ 1 908	\$ 1 703
Per acre			
Gross earnings - - - - -	\$ 23.56	\$ 19.61	\$ 18.12
Gross expenses - - - - -	<u>10.78</u>	<u>10.30</u>	<u>10.27</u>
Net earnings - - - - -	\$ 12.78	\$ 9.31	\$ 7.85
Rate earned on investment- - - - -	20.8%	18.3%	13.5%
Labor and management earnings- - - - -	\$ 2 726	\$ 1 956	\$ 1 626
<u>Size and Intensity</u>			
Acres per farm - - - - -	215	205	217
Percent of land area tillable- - - - -	72.0	72.5	71.8
Percent of tillable land in grain- - - - -	60.5	48.4	46.2
Percent in hay and pasture - - - - -	29.6	37.3	44.9
Feed fed per acre to productive livestock-	\$ 11.44	\$ 5.19	\$ 7.09
Months of labor per 100 crop acres - - - -	17.0	22.0	21.6
Total months of labor- - - - -	18.9	20.8	21.1
<u>Crop yields per Acre</u>			
Corn, bu.- - - - -	42.8	50.1	40.1
Wheat, bu. - - - - -	9.1	16.6	14.0
<u>Livestock Returns</u>			
Per \$100 feed fed- - - - -	\$ 190	\$ 224	\$ 226
Hog returns per litter - - - - -	175	199	181
Dairy returns per cow- - - - -	97	90	112
<u>Expense Factors</u>			
Labor cost per crop acre - - - - -	\$ 9.12	\$ 11.99	\$ 10.50
Horse and machinery cost per crop acre - -	7.15	6.92	8.20
Land improvements cost per acre- - - - -	.37	.78	.60
Buildings cost per acre- - - - -	.45	.52	.64
Land tax per acre- - - - -	.70	.61	.68

Source of income. The grouping of accounting farms according to source of income for 1942 gives each farmer an opportunity to compare his farm with the average of other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors that are associated with various types of farming.

Each farmer, however, should use caution in interpreting the data in Table 4. For example, the fact that the hog farms earned a larger rate on the investment for 1942 than the general farms does not mean that such a relationship will prevail over a long period of years. The relative profitableness of various enterprises in 1942 was due largely to conditions affecting price and production.

In comparing the returns on the various groups of farms per \$100 worth of feed fed, the farmer should consider the fact that there is a wide variation in the necessary returns per \$100 worth of feed fed to pay for feed (including pasture), labor, equipment, buildings, and other costs. According to 5-year averages of complete cost studies (1933-1937), the necessary returns were: poultry, \$195; dairy cattle, \$157; hogs, \$127; and feeder cattle, \$117.

Furthermore, in any comparison of factors for the various groups of farms, one should consider the fact that the number of farms for which the averages are given is small and that the individual farms in each group are variable as to organization and management.

The labor cost per crop acre ranged from \$11.99 on the general farms with the least livestock to \$9.12 on the hog farms. The horse and machinery cost per crop acre and the buildings cost per acre were highest on the general farms with the most livestock.

Size of farm. When the farm records in Farming-Type Area 9 are sorted according to the total acres in the farm, they indicate that the larger farms had a greater total investment in land, improvements, and equipment than did the smaller ones. The operators on the larger farms took in more money during the year than did those on either of the other two groups. The smaller farms had higher investments per acre for land, land improvements, machinery, and total investment, indicating a higher capital input. The rate earned on investment and the labor and management earnings were lower for the 151 to 230 acre farms than for either of the other two groups, but there was a wide fluctuation in earnings in each size group..

The smaller farms were operated more intensively than were the larger ones. This variation was indicated by the much higher gross earnings per acre, by the larger amount of feed fed per acre to productive livestock, and by the higher crop yields.

TABLE 5.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 9, 1942

Item	Total acres in farm		
	Less than 151	151 to 230	231 or more
Number of farms - - - - -	5	13	10
Acres per farm- - - - -	105	175	320
<u>Investments</u>			
Total per farm- - - - -	\$ 8 433	\$ 9 701	\$17 480
Total per acre- - - - -	81	55	55
Land per acre - - - - -	31	25	27
Land improvements per acre- - - - -	8.45	2.24	2.54
Buildings per acre- - - - -	6.41	6.80	7.43
Machinery per acre- - - - -	8.22	7.92	5.89
<u>Earnings</u>			
Per farm			
Gross earnings- - - - -	\$ 3 727	\$ 3 252	\$ 5 381
Gross expenses- - - - -	1 921	1 884	2 751
Net earnings- - - - -	\$ 1 806	\$ 1 368	\$ 2 630
Per acre			
Gross earnings- - - - -	\$ 35.63	\$ 18.58	\$ 16.82
Gross expenses- - - - -	18.37	10.77	8.60
Net earnings- - - - -	\$ 17.26	\$ 7.81	\$ 8.22
Rate earned on investment - - - - -	21.4%	14.1%	15.0%
Labor and management earnings - - - - -	\$ 1 890	\$ 1 427	\$ 2 389
<u>Size and Intensity</u>			
Percent of land area tillable - - - - -	80.3	73.9	69.2
Percent of tillable land in grain - - - - -	45.8	49.9	48.4
Percent in hay and pasture- - - - -	40.8	41.9	40.6
Feed fed per acre to productive livestock -	\$ 19.11	\$ 6.15	\$ 6.23
Percent of income from productive livestock	91.6	70.4	76.3
Percent of income from crops- - - - -	--	13.9	9.1
Months of labor per 100 crop acres- - - - -	32.8	22.9	17.8
Total months of labor - - - - -	18.3	19.2	24.0
Number of work horses - - - - -	3.0	3.5	3.6
<u>Crop Yields per Acre</u>			
Corn, bu. - - - - -	50.8	38.4	44.3
Wheat, bu.- - - - -	18.5	15.9	9.9
<u>Livestock Returns</u>			
Per \$100 feed fed - - - - -	\$ 178	\$ 239	\$ 221
Hog returns per litter- - - - -	228	172	185
Dairy returns per cow - - - - -	94	87	128
<u>Expense Factors</u>			
Labor cost per crop acre- - - - -	\$ 17.81	\$ 11.26	\$ 9.00
Horse and machinery cost per crop acre- - -	9.88	7.80	7.64
Land improvements cost per acre - - - - -	1.62	.51	.50
Buildings cost per acre - - - - -	.78	.57	.57
Land tax per acre - - - - -	.78	.74	.59

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their business by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and horse and machinery expenses. Labor expenses per crop acre increase as the amount of livestock per acre increases but decrease as the size of farm increases. Horse and machinery cost per crop acre, on the other hand, remained constant as the amount of livestock per acre increased and decreased as the size of the farms increased. Therefore, the efficiency of a farm in using labor and machinery should be determined by comparing the expenses on the individual farm with those of farms of the same size having similar amounts of livestock per acre. The average labor cost per crop acre and the average horse and machinery cost per crop acre are shown for farms grouped according to acres per farm and value of feed fed per acre to productive livestock (Table 6).

TABLE 6.--LABOR COST PER CROP ACRE AND HORSE AND MACHINERY COST PER CROP ACRE FOR VARIATIONS IN SIZE OF FARM AND AMOUNT OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 9, 1942

Acres per farm	Feed fed per acre			Feed fed per acre		
	Less than \$4.00	\$4.00 to \$6.99	\$7.00 or more	Less than \$4.00	\$4.00 to \$6.99	\$7.00 or more
	(labor cost per crop acre)			(horse and machinery cost per crop acre)		
Less than 151	\$11.60	\$13.50	\$14.50	\$9.90	\$9.90	\$9.90
151 to 230	9.50	11.30	11.90	7.80	7.80	7.80
231 or more	8.50	9.50	10.20	7.60	7.60	7.60

Producing for War Needs

In any given period gross receipts for hogs, cattle, dairy sales, eggs, and grain are relative measures of production (Table 7). Therefore the account keeper should use these standards to compare his own production with that of other account keepers. He should then adopt on his farm the kind of farm plan and the management practices that will make the best possible use of land, buildings, livestock, labor, machinery, and other resources for the duration of the war. Thus he will have more products to put on the nation's markets and will be making the greatest possible contribution to the war effort.

TABLE 7.--INVESTMENTS, RECEIPTS, EXPENSES, AND EARNINGS
Accounting Farms in Farming-Type Area 9, 1939-1942

Item	Your farm	Average of all farms in area			
		1942	1941	1940	1939
Number of farms - - - - -	--	28	34	55	56
<u>Capital Investments</u>					
Land- - - - -	\$ _____	\$ 5 777	\$ 6 049	\$ 5 907	\$ 5 157
Land improvements - - - - -	_____	629	) 2 299	2 323	3 315
Farm buildings- - - - -	_____	1 522			
Horses- - - - -	_____	300	396	375	392
Productive livestock: Cattle- - -	_____	852	878	786	550
Hogs- - - - -	_____	314	199	172	235
Sheep - - - - -	_____	39	40	35	62
Poultry - - - - -	_____	127	97	86	91
<u>Total productive livestock- - - -</u>	()	(1 332)	(1 214)	(1 079)	(938)
Feed, grain, and seeds- - - - -	_____	1 223	1 068	843	768
Machinery and equipment - - - - -	_____	1 263	1 154	1 061	995
Automobile (farm share) - - - - -	_____	207	204	145	124
<u>Total - - - - -</u>	\$ _____	\$ 12 253	\$ 12 384	\$ 11 733	\$ 11 689
<u>Receipts and Net Increases</u>					
Horses- - - - -	\$ _____	\$ --	\$ --	\$ 1	\$ 9
Productive livestock: Cattle- - -	_____	473	569	377	266
Dairy sales	_____	773	559	364	298
Hogs- - - - -	_____	1 354	825	299	306
Sheep - - - - -	_____	28	47	39	25
Poultry - - - - -	_____	104	74	58	41
Egg sales - - - - -	_____	407	186	119	124
<u>Total productive livestock- - - -</u>	()	(3 139)	(2 260)	(1 256)	(1 060)
Farm products used in household -	_____	345	278	220	229
Feed, grain, and seeds- - - - -	_____	376	435	488	704
AAA receipts- - - - -	_____	202	137	243	259
Labor off farm- - - - -	_____	25	29	14	21
Miscellaneous - - - - -	_____	1	20	2	15
<u>Total - - - - -</u>	\$ _____	\$ 4 088	\$ 3 159	\$ 2 224	\$ 2 297
<u>Expenses and Net Decreases</u>					
Land improvements - - - - -	\$ _____	\$ 128	\$) 239	\$ 50	\$ 227
Farm buildings- - - - -	_____	125)		
Horses- - - - -	_____	11	8	--	--
Productive livestock- - - - -	_____	--	--	--	--
Feed, grain, and seeds- - - - -	_____	--	--	--	--
Machinery and equipment - - - - -	_____	489	436	319	264
Automobile (farm share) - - - - -	_____	124	99	76	74
Livestock expense - - - - -	_____	50	36	19	24
Hired labor - - - - -	_____	296	313	249	411
Taxes - - - - -	_____	167	159	147	135
Miscellaneous - - - - -	_____	24	18	18	25
<u>Total - - - - -</u>	\$ _____	\$ 1 414	\$ 1 308	\$ 878	\$ 1 160
Receipts less expenses- - - - -	\$ _____	\$ 2 674	\$ 1 851	\$ 1 346	\$ 1 137
Family labor- - - - -	_____	208	214	156	120
Returns for labor, capital, mgt.	\$ _____	\$ 2 466	\$ 1 637	\$ 1 190	\$ 1 017
Operator's labor- - - - -	_____	570	449	374	402
Net earnings per farm - - - - -	\$ _____	\$ 1 896	\$ 1 188	\$ 816	\$ 615
<u>Rate Earned on Investment - - - -</u>	%	15.5%	9.6%	7.0%	5.3%
Interest on investment- - - - -	\$ _____	\$ 613	\$ 619	\$ 587	\$ 585
Labor and Management Earnings - - -	_____	1 853	1 018	603	432

1942

COMPLETE COSTS AND FARM BUSINESS ANALYSIS

ON 26 FARMS

IN CHAMPAIGN AND PIATT COUNTIES, ILLINOIS

(Grain-Farming Section)

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Oats (combined)	4	9
Oats (threshed)	4	12
Soybeans	4	13
Winter wheat	5	16
Alfalfa hay	5	17
Clover hay	5	19
Soybean hay	5	21
Miscellaneous crops	--	23
<u>Livestock Production Costs</u>		
Hogs	24	27
Milk cattle	24	30
Feeder cattle	25	33
Beef cattle	25	34
Poultry	26	35
Sheep	26	38
<u>Labor and Power Costs</u>		
Man-labor costs	40	40
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COMPLETE COSTS AND FARM BUSINESS ANALYSIS ON 26 FARMS
IN CHAMPAIGN AND PIATT COUNTIES, ILLINOIS, 1942

By

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INTRODUCTION

This preliminary report, which covers the thirtieth year of a continuous farm cost study in Illinois^{1/}, is based upon the detailed cost account records of the entire business of twenty-six farmers in Champaign and Piatt counties cooperating with the University.

The report consists principally of itemized tables which present comparisons of the cost of producing each crop and each class of livestock on all the cooperating farms, together with the cost of man labor and horse and tractor power. Various efficiency factors are presented, showing their relation to income, expressed both as rate of interest earned on the investment and as the wage earned by the operator for his own labor and management.

The Area Studied

Champaign and Piatt counties, which lie in east-central Illinois close to the Illinois-Indiana line, are typical of the Illinois cash-grain area. These counties are in the heart of the corn and soybean section of the state--the soil is high in natural fertility and the land is practically all tillable.

Farms Included in the Study

Records show that farmers cooperating in the study secured somewhat higher yields and have better managed farms than do the average farmers in the area. As a result, it is believed they have somewhat lower costs than do many of their neighbors. However, it is felt that figures from these cost farms may safely be used for showing variations in costs from farm to farm or from year to year, thus presenting the opportunity for greater efficiency of production through the use of improved farm practices--the major purpose of this study.

The Year 1942

In east-central Illinois, 1942 spring and summer weather was favorable for all important field crops. In some localities, however, heavy June and July rains interfered with the harvesting of small grain and hay. Early frosts in late September caused some damage to the late-planted soybeans, and the harvesting of corn and soybeans was delayed because of rains and wet ground. Consequently, more unharvested corn and soybeans were in the field at the end of the calendar year than were recorded any year since this study began (1920). The weather was favorable for hay, and pasture crops did well until the early fall months, when growth was retarded by dryness.

^{1/} Crop costs for the first 25 years were published in Illinois, Bulletin 467.

Table 1.--Distribution of Land in Cost-Accounting Farms,
Champaign and Piatt Counties

Use of land	Acres per farm	
	1941	1942
Harvested crops	235.3	239.5
Rotation pasture	25.8	21.3
Soil-conserving crops (not harvested)	12.8	3.0
Bluegrass pasture	9.0	10.3
Farmstead	6.9	5.5
Idle land	--	1.5
Total acres in farm	289.8	281.1

The farms in the study average 281 acres in size or about 85 acres larger than the average-sized farm in the two counties. Cooperators were selected with a view of including farms of differing sizes in order to provide a better means of studying farm organization. The smallest farm in the 1942 study contained 79 acres; the largest, 563 acres.

Harvested crops were grown on about 85 percent of the farm area. The acreage shown in Table 2 in soil conserving crops (not harvested) does not include all land that came under the classification of soil-conserving acreage. A considerable acreage of soil-conserving land was in rotation pasture.

Table 2.--Distribution of Crop Area, Average Crop Yields, and Crop Costs on Cost-Accounting Farms, Champaign and Piatt Counties

Crop	Percent of cropland		Average yield per acre		Average net cost per bushel or ton		Variation in cost per bushel or ton in 1941	
	1941	1942	1941	1942	1941	1942	High	Low
Corn	35.08	36.97	72.4	71.4	\$.268	\$.293	\$.460	\$.231
Oats (combined)	10.34	10.34	41.2	38.0	.317	.354	.705	.207
Oats (threshed)	4.00	3.26	54.9	51.8	.262	.333	.488	.272
Soybeans	31.53	39.64	28.6	29.0	.595	.649	1.481	.485
Winter wheat	6.22	.84	24.2	15.0	.606	--	1.454	.726
Alfalfa hay	2.42	2.22	3.1	2.8	7.80	9.38	18.51	5.70
Clover hay	2.67	4.53	1.2	1.4	12.37	12.75	32.24	6.26
Soybean hay	.46	.60	1.8	1.7	13.92	15.11	25.18	9.29
Other crops	3.09	1.60	--	--	--	--	--	--
Soil-conserving crops (not harvested)	4.19	--	--	--	--	--	--	--

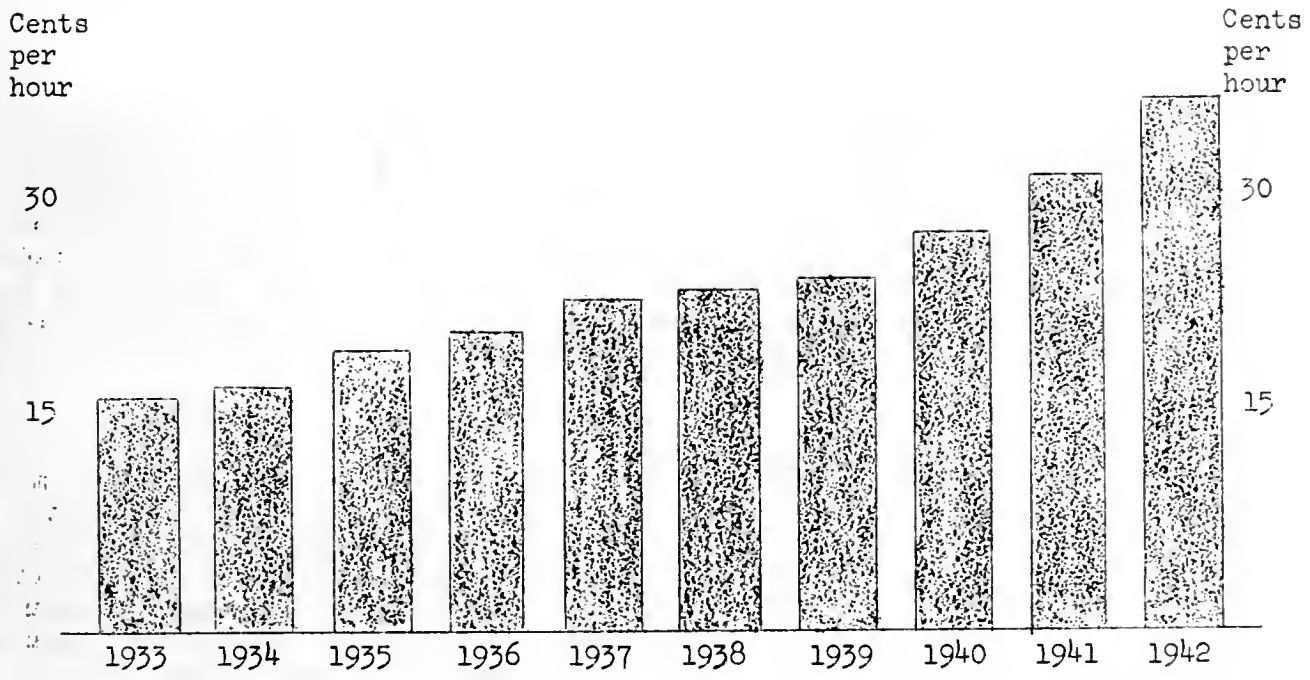


Fig. 1.--Hired Labor Cost per Hour on Champaign and Piatt County Cost Farms, 1933-1942

In 1942, average hourly wage rates of farm laborers on the cost farms rose 32 percent over their level in 1940. Monthly cash wages of hired farm labor for the state as a whole rose 38 percent over the 1940 wages. Hourly wage rates on the cost farms rose slower than cash wages because the value of perquisites (eggs, milk, meat, etc.) furnished farm labor and entering into the hourly wage rates did not advance as fast as cash farm wages.

CROP PRODUCTION COSTS

When the costs of individual crops are compared with the prices of these crops, wide differences appear. This may be misleading because the farmer must combine crops of low profit with those of high profit in order to have a well-rounded farming plan. Also, no attempt was made to charge the crops for fertility removed from the soil because no satisfactory method for evaluating such removal had been worked out. The more profitable crops, such as corn and soybeans, draw more heavily on soil fertility than do the less profitable small grains and hays.

In the interest of good farming and the continued low cost of production, it is necessary to include small grains as nurse crops and clovers as soil-building crops. Both groups are less profitable than corn and soybeans, for example, but all of them are needed to make the rotation as a whole profitable over a period of years. The farmers in this study are doing a better-than-average job of developing rotations that result in low costs of production and continued high yields; therefore the earnings shown are much higher than those found on the average farm of the area. The cost records show the ways in which farmers can economize in their operations and the degree to which profitable practices affect farm income.

Corn

The cost per acre of growing corn in 1942 was \$1.64 above the 1941 cost. Although corn yields were again unusually high, the cost of producing a bushel of corn rose from \$.238 in 1941 to \$.293 in 1942. In these figures no charge has been made for the soil fertility removed by the crop. With continued yields of corn above 70 bushels an acre, as occurred in 1941 and 1942, it is apparent that in time considerable expense will be required to maintain soil fertility, or corn yields will decline. Because of the combination of high yields and good prices, the 1942 corn crop showed the highest profit of any year during the history of the work.

Oats (combined)

The cost of producing an acre of combined oats in 1942 was \$14.96, as compared to \$13.95 in 1941--the cost per bushel, \$.354 in 1942 and \$.317 in 1941. In 1942, the relative number of farmers who combined instead of threshing oats was the same as in 1941 (21 of the 26) and there had been a marked increase in oats combining in 1941 over previous years. The common practice in 1942 was to windrow the oats and combine out of the windrow. With oats credited to the field at 44 cents a bushel and with an average yield of 38 bushels an acre, the crop made a margin above cost of \$3.24 an acre.

Oats (threshed)

The average cost of producing threshed oats was \$19.81 an acre--\$4.85 above that of combined oats--but the higher yield, due to better soil, made the threshed oats more profitable than those combined.

The acre yield of threshed oats was 52 bushels, or nearly 15 bushels more than the yield of oats windrowed and combined. The amount of straw saved and used on the farm was 560 pounds an acre more where oats were threshed than where they were combined and the straw picked up with the baler after the combine. In comparing the yields of grain of threshed and combined oats, the difference can be attributed very largely to the fact that during the past years more livestock has been kept on the seven farms where oats were threshed than on farms where oats were combined. The seven farms also made more use of rotation pastures and barnyard manure.

Soybeans

In 1942, the acre cost of soybeans was \$18.98 as compared with \$17.03 in 1941 and \$16.28 in 1940. Soybeans were grown on all of the 26 farms. The acreage per farm varied from a low of 10.5 on farm No. 79 to 223.6 on farm No. 92. The yield and quality of beans on some of the farms suffered from an extremely wet, late fall and early winter. Those farmers who harvested their beans before the middle of November escaped the snow and wet weather which kept some combines out of the field until March and April of 1943. The acre yield of soybeans in 1942, however, was above that of 1940 and 1941.

For the three years ending in 1942, the average cost of producing an acre of soybeans was \$17.41 as compared with \$19.98 for corn, but although an acre of corn cost about \$2.50 more than an acre of soybeans, the acre yield of corn in bushels was 2.5 times that of soybeans.

Winter Wheat

In 1942, winter wheat was grown on only four of the 26 farms. This wheat area amounted to less than one percent of the crop land on all the farms. (In the early 1920's, it was usual to find from 10 to 12 percent of the crop land on the cost farms in wheat.) The yield of wheat per acre varied from a low of 11.4 bushels to a high of 18.4 bushels, and the cost per bushel varied from 73 cents to \$1.45.

Alfalfa Hay

In 1942, the acre cost of producing alfalfa hay was \$26.90; with an average yield of 2.78 tons, the ton cost was \$9.38. On the low-cost farm, alfalfa was grown for hay and pasture, with the value of pasturage obtained from the field equal to nearly one-half that of hay. Because of the accounting practice in computing the net cost of hay of subtracting the value of pasturage and seed from the gross cost of the crop, the pasture credit of \$7.55 an acre on the low-cost farm made it possible for this farm, with a yield of only 1.43 tons of alfalfa an acre, to produce alfalfa for \$5.70 a ton. Most of the low-cost alfalfa is produced on farms with the higher alfalfa yields.

Only three of the alfalfa fields showed a loss when production on all 16 farms growing the crop was credited to the fields at the haying-time price of \$13.00 a ton. Alfalfa has proved to be the most profitable hay crop in the area because it out-yields other hays grown and it commands a higher price than other hays. Many farms in this area are not ideally situated for the production of alfalfa, and total hay requirements are limited by the amount of livestock, yet the fact that the crop ranks next to corn and soybeans in profitableness indicates the desirability of its being more generally used.

Clover Hay

Clover hay has not been a very profitable crop in east-central Illinois when figuring the costs and the income of the crop on a dollar-and-cent basis. The general experience of farmers is that the value of its effect upon other crops is sufficient to have it included in the corn belt rotation, unless some other legume can be produced which will have a better effect upon other crops or produce more hay and pasture, or both. The best interpretation of this account, then, is not to eliminate clover hay from the crop plan unless some other crop can fill its place at a greater net profit for the farm as a whole.

Soybean Hay

Soybean hay, a high-cost, low-profit crop, is sown in east-central Illinois largely as an emergency hay crop, or it comes from the borders cut to open the larger fields of beans grown for seed. A safe rule to remember is that it costs more to grow and harvest an acre of soybean hay than an acre of field corn.

CORN (HUSKED IN FIELD)
 Table 3.--Cost of Production (acre basis) on 25 farms (2,011.09 acres; 143,621 bushels)
 Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number									
	89	56	47	93	92	79	91	83	63	15
Acres in corn	108.93	89.45	59.13	167.03	190.20	24.94	103.14	44.18	110.58	88.96
Yield per acre (bu.)	79.68	80.00	70.69	88.62	79.18	88.05	71.86	67.45	69.18	71.49
Labor per acre										
Man labor	6.51	5.15	4.82	5.40	8.38	9.69	7.53	7.31	5.90	6.10
Horse labor	.44	--	.30	.59	2.24	--	--	1.36	.04	--
Tractor hours	6.16	4.51	4.13	4.71	4.99	5.58	7.09	6.33	5.32	4.77
Truck miles	.23	--	--	.23	2.76	--	.12	--	--	.11
COST ITEMS PER ACRE										
Growing cost										
Man labor	\$ 1.57	\$ 1.09	\$ 1.27	\$ 1.21	\$ 2.32	\$ 1.45	\$ 1.93	\$ 1.90	\$ 1.31	\$ 1.64
Horse labor	--	--	.33	.01	--	--	--	--	.03	--
Tractor use	1.70	1.51	2.24	1.56	1.94	2.35	2.55	2.45	1.86	1.99
Truck use	--	--	--	.01	.13	--	--	--	--	--
Machinery	.84	1.47	1.05	.79	.87	1.00	.75	1.04	1.05	.66
Seed	.86	.80	.83	1.33	.91	1.22	.72	.85	1.12	.86
Fertilizer	.77	2.17	.33	2.68	.44	4.89	1.60	1.61	.71	1.97
Hail insurance	--	--	.63	.70	.32	--	--	--	.57	--
Gen'l farm expense	1.94	1.02	1.13	1.23	1.39	.75	1.59	.98	1.14	1.44
Total growing cost	\$ 7.68	\$ 8.06	\$ 7.81	\$ 9.52	\$ 8.32	\$11.66	\$ 9.14	\$ 8.83	\$ 7.79	\$ 8.56
Harvesting cost										
Man labor	\$.85	\$.74	\$.51	\$ 1.46	\$ 1.46	\$ 1.83	\$.83	\$.75	\$.75	\$ 1.04
Horse labor	.22	--	--	.26	1.20	--	--	.58	--	--
Tractor use	.78	.98	.71	1.52	.93	1.23	1.03	.69	.89	.74
Picker	.98	1.06	.07	.92	.31	1.42	.57	1.24	1.54	1.03
Truck use	.01	--	--	.01	.07	--	.01	--	--	.01
Total harvesting cost	\$ 2.84	\$ 2.78	\$ 1.29	\$ 4.17	\$ 3.97	\$ 4.48	\$ 2.44	\$ 3.26	\$ 3.18	\$ 2.82
Cost of growing and harvesting	\$10.52	\$10.84	\$ 9.10	\$13.69	\$12.29	\$16.14	\$11.58	\$12.09	\$10.97	\$11.38
Taxes	1.35	1.54	1.76	1.36	.81	1.64	1.66	1.07	1.46	1.88
Interest on land	7.50	6.75	6.25	7.50	7.50	5.72	6.01	5.45	6.75	6.58
TOTAL COST	\$19.37	\$19.13	\$17.11	\$22.55	\$20.60	\$23.50	\$19.25	\$18.61	\$19.18	\$19.84
INCOME PER ACRE										
Grain	\$57.37	\$57.60	\$50.90	\$63.81	\$57.01	\$63.39	\$51.74	\$48.56	\$49.81	\$51.48
Pasture	.96	.12	.20	.27	.11	.46	--	.49	.53	.03
TOTAL INCOME	\$58.33	\$57.72	\$51.10	\$64.08	\$57.12	\$63.85	\$51.74	\$49.05	\$50.34	\$51.51
NET PROFIT PER ACRE	\$38.96	\$38.59	\$33.99	\$41.53	\$36.52	\$40.35	\$32.49	\$30.44	\$31.16	\$31.67
NET COST PER BUSHEL	\$.231	\$.238	\$.239	\$.251	\$.259	\$.262	\$.268	\$.269	\$.270	\$.277

Table 3.--Cost of Production (acre basis) on 25 farms (2,011.09 acres; 143,621 bushels) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number								
	75	45	67	74	95	27	98	90	62
Acres in corn	73.37	115.53	60.41	40.44	90.97	54.46	82.91	92.36	45.80
Yield per acre (bu.)	60.82	75.18	60.09	75.77	60.82	73.41	65.58	69.63	69.13
Labor per acre	6.42	7.76	5.80	10.46	7.33	7.86	7.92	15.90	9.44
Man labor	3.03	--	--	3.44	3.46	1.77	4.24	16.47	2.51
Horse labor	4.97	6.14	5.01	6.94	3.78	6.33	4.60	3.11	7.46
Tractor hours	--	2.03	.74	.05	--	--	3.53	--	--
Truck miles	--	--	--	--	--	--	--	--	--
COST ITEMS PER ACRE									
Growing cost									
Man labor	\$ 1.61	\$ 1.49	\$ 1.43	\$ 1.44	\$ 1.23	\$ 1.92	\$ 1.61	\$ 3.08	\$ 2.02
Horse labor	.14	--	--	.59	.36	1.02	.31	1.15	1.45
Tractor use	1.94	2.19	1.70	1.74	1.93	2.04	1.66	1.42	2.81
Truck use	--	.04	--	--	--	--	.08	--	--
Machinery	.82	1.50	.56	.81	.67	1.04	.85	.84	1.25
Seed	.88	1.44	.72	1.06	1.20	.98	1.35	.71	.95
Fertilizer	2.19	1.33	1.48	1.36	.60	.29	.48	1.08	1.02
Hail insurance	.20	--	--	--	.40	.62	--	--	.71
Gen'l farm expense	<u>1.11</u>	<u>1.40</u>	<u>2.07</u>	<u>1.81</u>	<u>1.06</u>	<u>2.52</u>	<u>1.85</u>	<u>2.47</u>	<u>2.22</u>
Total growing cost	\$ 8.89	\$ 9.39	\$ 7.96	\$ 8.81	\$ 7.45	\$ 10.44	\$ 8.19	\$ 10.75	\$ 12.54
Harvesting cost									
Man labor	\$.84	\$ 1.10	\$.77	\$ 2.11	\$ 1.44	\$.88	\$ 1.79	\$ 3.86	\$ 1.20
Horse labor	.25	--	--	1.15	.65	.17	.65	1.35	.66
Tractor use	.73	1.42	.55	1.85	.87	1.26	1.02	--	1.06
Picker	.08	1.05	.27	1.04	.96	1.77	1.83	--	.60
Truck use	--	.07	.05	--	--	.02	.08	--	--
Total harvesting cost	<u>1.90</u>	<u>3.64</u>	<u>1.64</u>	<u>6.15</u>	<u>3.92</u>	<u>4.10</u>	<u>5.37</u>	<u>5.21</u>	<u>3.52</u>
Cost of growing and harvesting	\$ 10.79	\$ 13.03	\$ 9.60	\$ 14.96	\$ 11.37	\$ 14.54	\$ 13.56	\$ 15.96	\$ 16.06
Taxes	1.12	1.56	2.07	1.51	1.56	1.80	1.33	1.95	2.07
Interest on land	5.50	7.50	6.50	7.00	5.85	7.50	6.75	6.15	6.25
TOTAL COST	<u>17.41</u>	<u>22.09</u>	<u>18.17</u>	<u>23.47</u>	<u>18.78</u>	<u>23.84</u>	<u>21.64</u>	<u>24.06</u>	<u>24.38</u>
INCOME PER ACRE									
Grain	\$ 43.78	\$ 54.13	\$ 43.26	\$ 54.55	\$ 44.01	\$ 52.86	\$ 47.22	\$ 50.13	\$ 49.77
Pasture	.18	.09	.29	.55	.20	.29	.44	.84	.85
TOTAL INCOME	<u>43.96</u>	<u>54.22</u>	<u>43.55</u>	<u>55.10</u>	<u>44.21</u>	<u>53.15</u>	<u>47.66</u>	<u>50.97</u>	<u>50.62</u>
NET PROFIT PER ACRE	\$ 26.55	\$ 32.13	\$ 25.38	\$ 31.63	\$ 25.43	\$ 29.31	\$ 26.02	\$ 26.91	\$ 26.24
NET COST PER BUSHEL	\$.283	\$.293	\$.298	\$.303	\$.305	\$.321	\$.323	\$.333	\$.340

CORN (HUSKED IN FIELD) (cont.)

Table 3.--Cost of Production (acre basis) on 25 farms (2,011.09 acres; 143,621 bushels)
Champaign-Platt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number					1942 average 25 farms	1941 average 27 farms	1940 average 30 farms
	100	99	71	49	96			
Acres in corn	62.86	24.28	69.67	96.81	93.97	80.48	80.57	80.51
Yield per acre (bu.)	61.87	65.90	54.87	59.19	65.84	71.38	72.42	55.95
Labor per acre	6.74	10.48	10.71	8.45	8.61	7.71	7.72	7.40
Man labor	1.06	4.54	9.76	.22	14.86	2.89	3.76	4.34
Horse labor	6.27	6.98	3.66	6.88	4.19	5.27	4.86	4.56
Tractor hours	--	--	--	.14	--	.59	.59	.31
Truck miles								
COST ITEMS PER ACRE								
Growing cost								
Man labor	\$ 1.73	\$ 2.86	\$ 1.62	\$ 2.12	\$ 2.17	\$ 1.74	\$ 1.20	\$ 1.27
Horse labor	.11	.50	.35	.08	.65	.24	.16	.41
Tractor use	2.30	4.07	2.18	2.35	2.93	2.04	1.70	1.77
Truck use	--	--	--	.03	--	.02	.02	.01
Machinery	1.31	1.33	.80	1.39	1.01	.97	.88	.92
Seed	1.13	1.09	.93	.90	1.06	1.00	.83	.80
Fertilizer	.90	2.26	2.12	.44	3.14	1.41	1.44	1.09
Hail insurance	--	.70	--	.43	.20	.24	.08	.09
Gen'l farm expense	2.44	2.58	1.18	2.52	1.97	1.61	1.47	1.61
Total growing cost	\$ 9.92	\$ 15.39	\$ 9.18	\$ 10.26	\$ 13.13	\$ 9.27	\$ 7.78	\$ 7.97
Harvesting cost								
Man labor	\$.65	\$.88	\$ 2.12	\$ 1.13	\$ 5.01	\$ 1.45	\$ 1.28	\$.82
Horse labor	.50	.94	1.95	.10	4.00	.64	.48	.61
Tractor use	.83	.55	.23	1.21	.08	.91	.98	.57
Picker	1.15	.76	.33	1.25	--	.81	.94	.91
Truck use	--	--	--	.01	--	.02	.02	.01
Total harvesting cost	\$ 3.13	\$ 3.13	\$ 4.63	\$ 3.70	\$ 9.09	\$ 3.83	\$ 3.70	\$ 2.92
Cost of growing and harvesting	\$ 13.05	\$ 18.52	\$ 13.81	\$ 13.96	\$ 22.22	\$ 13.10	\$ 11.48	\$ 10.89
Taxes	1.65	1.61	1.48	1.64	1.36	1.49	1.52	1.43
Interest on land	7.00	6.75	6.25	6.25	6.75	6.72	6.67	6.65
TOTAL COST	\$ 21.70	\$ 26.88	\$ 21.54	\$ 21.85	\$ 30.33	\$ 21.31	\$ 19.67	\$ 18.97
INCOME PER ACRE								
Grain	\$ 44.54	\$ 47.45	\$ 39.51	\$ 42.72	\$ 47.40	\$ 51.41	\$ 48.52	\$ 29.65
Pasture	.07	3.06	1.53	.07	.05	.37	.24	.23
TOTAL INCOME	\$ 44.61	\$ 50.51	\$ 41.04	\$ 42.79	\$ 47.45	\$ 51.78	\$ 48.76	\$ 29.88
NET PROFIT PER ACRE	\$ 22.91	\$ 23.63	\$ 19.50	\$ 20.94	\$ 17.12	\$ 30.47	\$ 29.09	\$ 10.91
NET COST PER BUSHEL	\$.350	\$.361	\$.365	\$.368	\$.460	\$.293	\$.268	\$.335

Table 4.--Cost of production (acre basis) on 21 farms (643.56 acres; 24,429 bushels) Champaign-Platt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number							
	89	73	63	83	80	93	49	15
Acres in oats	39.19	13.56	20.00	24.80	20.94	52.91	26.72	39.98
Yield per acre (bu.)	48.28	51.62	51.70	37.82	38.25	44.57	46.89	50.03
Labor per acre	2.77	1.62	3.99	2.03	2.86	2.63	4.30	3.04
Man hours	.38	.59	--	--	--	.64	.22	--
Horse hours	1.71	.66	2.69	2.03	1.66	1.14	2.08	1.90
Tractor hours	.01	--	2.20	--	--	.19	1.19	.55
Truck miles								
COST ITEMS PER ACRE								
Growing cost								
Man labor	\$.23	\$.26	\$.29	\$.47	\$.27	\$.26	\$.40	\$.40
Horse labor	.19	.27	--	--	--	.12	--	--
Tractor use	.15	.28	.42	.64	.41	.27	.55	.31
Truck use	--	--	--	--	--	--	.02	--
Machinery	.15	.20	.22	.28	.39	.13	.36	.36
Seed	1.94	1.78	1.71	1.53	1.30	1.55	1.29	1.64
Fertilizer	.44	1.94	.41	.92	1.34	1.53	.25	1.13
Insurance	--	--	--	--	--	--	--	--
Gen'l farm expense	.83	.34	1.32	.27	.42	.60	1.30	.71
Total growing cost	\$ 3.93	\$ 5.07	\$ 4.44	\$ 4.11	\$ 4.13	\$ 4.46	\$ 4.17	\$ 4.55
Harvesting cost								
Man labor	\$.78	\$.40	\$ 1.10	\$.27	\$.74	\$.93	\$ 1.23	\$.94
Horse labor	--	--	--	--	--	.17	.18	--
Tractor use	.47	.20	.93	.35	.72	.47	.50	.85
Truck use	--	--	.16	--	--	.01	.28	.04
Combine	1.08	1.55	1.56	.67	2.60	1.50	1.33	1.71
Total harvesting cost	\$ 2.33	\$ 2.15	\$ 3.75	\$ 1.29	\$ 4.06	\$ 3.08	\$ 3.52	\$ 3.54
Cost of growing and harvesting	\$ 6.26	\$ 7.22	\$ 8.19	\$ 5.40	\$ 8.19	\$ 7.54	\$ 7.69	\$ 8.09
Taxes	1.35	1.56	1.47	1.07	1.52	1.36	1.64	1.88
Interest on land	7.50	6.75	6.74	5.77	6.47	7.50	6.25	7.00
TOTAL COST	\$ 15.11	\$ 15.53	\$ 16.40	\$ 12.24	\$ 16.18	\$ 16.40	\$ 15.58	\$ 16.97
INCOME PER ACRE								
Grain	\$ 21.24	\$ 22.72	\$ 22.75	\$ 16.64	\$ 16.83	\$ 19.61	\$ 20.63	\$ 22.01
Straw	.19	.88	--	.33	.26	1.70	.14	--
Pasture	4.91	1.02	1.68	.92	4.68	.62	--	--
TOTAL INCOME	\$ 26.34	\$ 24.62	\$ 24.43	\$ 17.89	\$ 21.77	\$ 21.93	\$ 20.77	\$ 22.01
NET PROFIT PER ACRE	\$ 11.23	\$ 9.09	\$ 8.03	\$ 5.65	\$ 5.59	\$ 5.53	\$ 5.19	\$ 5.04
NET COST PER BUSHEL	\$.207	\$.264	\$.235	\$.291	\$.294	\$.316	\$.329	\$.339

Table 4.--Cost of production (acre basis) on 21 farms (643.56 acres; 24,429 bushels)
Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number							
	47	67	92	27	98	45	99	79
Acres in oats	31.65	20.93	80.97	12.68	38.68	74.65	4.96	5.76
Yield per acre (bu.)	38.45	33.44	35.89	43.45	33.97	37.71	36.84	41.67
Labor per acre								
Man hours	1.44	2.58	1.73	1.90	4.01	3.39	3.02	5.20
Horse hours	.25	--	.22	1.26	.98	--	.81	--
Tractor hours	.71	2.58	1.30	.95	1.50	1.51	1.41	2.86
Truck miles	.76	.48	.84	--	3.70	1.45	--	--
COST ITEMS PER ACRE								
Growing cost								
Man labor	\$.17	\$.75	\$.37	\$.32	\$.37	\$.17	\$.22	\$.88
Horse labor	.28	--	.12	.32	.16	--	.26	--
Tractor use	.24	.94	.38	.33	.23	.25	.43	1.02
Truck use	--	--	.04	--	.07	.01	--	--
Machinery	.19	.17	.14	.19	.24	.44	.39	.37
Seed	1.80	1.62	1.53	1.90	1.74	1.39	1.94	.94
Fertilizer	.19	.85	.25	.17	.28	.76	1.29	2.80
Insurance	.20	--	--	--	--	--	--	--
Gen'l farm expense	.34	.94	.29	.61	.87	.65	.84	.38
Total growing cost	\$ 3.41	\$ 5.27	\$ 3.12	\$ 3.84	\$ 3.96	\$ 3.67	\$ 5.37	\$ 6.39
Harvesting cost								
Man labor	\$.36	\$.24	\$.42	\$.46	\$.12	\$.97	\$.81	\$.82
Horse labor	--	--	--	.53	.06	--	--	--
Tractor use	.27	.33	.33	.26	.32	.55	.42	.40
Truck use	.06	.03	.02	--	.09	.07	--	--
Combine	1.77	.81	1.20	1.99	1.12	1.44	1.08	2.57
Total harvesting cost	\$ 2.46	\$ 1.41	\$ 1.97	\$ 3.24	\$ 2.71	\$ 3.03	\$ 2.31	\$ 3.79
Cost of growing and harvesting	\$ 5.87	\$ 6.68	\$ 5.09	\$ 7.08	\$ 6.67	\$ 6.70	\$ 7.68	\$10.18
Taxes	1.76	2.07	.81	1.80	1.33	1.56	1.61	1.64
Interest on land	6.25	6.50	7.50	7.50	6.72	7.50	6.75	6.50
TOTAL COST	\$13.88	\$15.25	\$13.40	\$16.38	\$14.75	\$15.76	\$16.04	\$18.32
INCOME PER ACRE								
Grain	\$16.92	\$14.72	\$15.79	\$19.12	\$14.95	\$16.59	\$16.21	\$18.34
Straw	--	1.14	.20	--	--	.60	.73	1.56
Pasture	.23	2.19	--	--	1.87	.40	.61	--
TOTAL INCOME	\$17.15	\$18.05	\$15.99	\$19.12	\$16.82	\$17.59	\$17.55	\$19.90
NET PROFIT PER ACRE	\$ 3.27	\$ 2.80	\$ 2.59	\$ 2.74	\$ 2.07	\$ 1.83	\$ 1.51	\$ 1.58
NET COST PER BUSHEL	\$.355	\$.356	\$.368	\$.377	\$.379	\$.391	\$.399	\$.402

Table 4.--Cost of production (acre basis) on 21 farms (643.56 acres; 24,429 bushels) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number					1942 average 21 farms	1941 average 20 farms	1940 average 14 farms
	75	62	91	100	95			
Acres in oats	40.58	40.61	25.29	15.65	13.05	30.65	30.87	26.91
Yield per acre (bu.)	29.45	25.73	24.67	27.41	17.93	37.96	41.18	66.49
Labor per acre								
Man hours	4.17	1.78	1.86	2.42	3.39	2.77	2.84	3.11
Horse hours	2.12	--	--	.80	--	.38	.74	.99
Tractor hours	2.81	.95	1.50	1.55	2.47	1.61	1.67	1.57
Truck miles	.52	.96	--	--	1.22	.83	.66	.21
COST ITEMS PER ACRE								
Growing cost								
Man labor	\$.87	\$.24	\$.33	\$.53	\$.54	\$.36	\$.28	\$.26
Horse labor	.11	--	--	.51	--	.09	.05	.09
Tractor use	.90	.18	.46	.40	1.17	.40	.41	.36
Truck use	--	--	--	--	.01	.01	--	--
Machinery	.32	.30	.24	.36	.39	.27	.22	.39
Seed	1.74	1.26	2.00	1.26	1.55	1.58	1.15	1.26
Fertilizer	1.25	.58	.91	.52	.35	.75	.74	.56
Insurance	--	--	--	--	--	.01	.03	--
Gen'l farm expen	.71	.46	.48	1.00	.55	.64	.54	.76
<u>Total growing cost</u>	\$ 5.90	\$ 3.02	\$ 4.42	\$ 4.58	\$ 4.56	\$ 4.11	\$ 3.42	\$ 3.68
Harvesting cost								
Man labor	\$.60	\$.37	\$.39	\$.34	\$.64	\$.69	\$.62	\$.59
Horse labor	.16	--	--	--	--	.04	.17	.09
Tractor use	.34	.30	.44	.43	.51	.45	.46	.41
Truck use	.03	.04	--	--	.09	.05	.03	.03
Combine	1.09	.63	1.24	1.15	1.12	1.32	1.03	.87
<u>Total harvesting cost</u>	\$ 2.22	\$ 1.34	\$ 2.07	\$ 1.92	\$ 2.36	\$ 2.55	\$ 2.31	\$ 1.99
Cost of growing and harvesting								
Taxes	8.12	4.36	6.49	6.50	6.92	6.66	5.73	5.67
Interest on land	1.12	2.07	1.66	1.65	1.56	1.47	1.46	1.47
<u>TOTAL COST</u>	\$ 14.74	\$ 12.68	\$ 14.90	\$ 15.15	\$ 13.73	\$ 14.96	\$ 13.95	\$ 13.87
INCOME PER ACRE								
Grain	\$ 12.96	\$ 11.32	\$ 10.86	\$ 12.06	\$ 7.89	\$ 16.70	\$ 12.76	\$ 17.29
Straw	--	--	.65	.62	1.09	.41	.20	.65
Pasture	1.58	.50	2.50	.09	--	1.09	.68	.40
<u>TOTAL INCOME</u>	\$ 14.54	\$ 11.82	\$ 14.01	\$ 12.77	\$ 8.98	\$ 18.20	\$ 13.64	\$ 18.34
NET PROFIT PER ACRE	\$ -20	\$ -86	\$ -89	\$ -238	\$ -475	\$ 3.24	\$ -31	\$ 4.47
NET COST PER BUSHEL	\$.447	\$.474	\$.476	\$.527	\$.705	\$.354	\$.317	\$.193

Table 5.--Cost of Production (acre basis) on 7 farms (202.91 acres; 10,509 bushels) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number							1942 average of 7 farms	1941 average of 8 farms	1940 average of 14 farms
	56	63	74	71	90	80	96			
Acres in oats	61.88	21.81	33.84	29.09	22.11	1.97	32.21	34.35	26.37	
Yield per acre (bu.)	60.26	51.77	60.20	45.17	46.72	40.10	36.88	54.91	69.44	
Labor per acre	6.62	7.21	10.34	11.31	6.99	15.48	9.58	6.09	7.06	
Man hours	--	--	1.18	2.13	4.12	--	.50	3.62	4.11	
Horse hours	1.99	2.35	2.90	2.23	2.00	5.58	1.99	1.54	1.63	
Tractor hours	.15	1.15	.30	--	.32	--	--	.48	.14	
Truck miles										
COST ITEMS PER ACRE										
Growing cost										
Man labor	\$.25	\$.30	\$.68	\$.66	\$.60	\$.25	\$.55	\$.29	\$.27	
Horse labor	--	--	--	.10	.14	--	.15	.07	.07	
Tractor use	.38	.41	1.12	1.65	.45	.43	.78	.35	.42	
Truck use	--	--	--	--	--	--	--	--	--	
Machinery	.83	.22	1.90	.45	.12	.40	.29	.22	.22	
Seed	2.04	1.71	1.63	1.76	1.61	1.37	1.26	1.14	1.25	
Fertilizer	1.24	.41	.78	1.21	.62	1.41	1.80	1.00	.86	
Gen'l farm expense	1.39	1.39	2.00	1.44	1.63	.44	1.25	1.13	1.32	
Total growing cost	\$ 6.13	\$ 4.44	\$ 8.11	\$ 7.27	\$ 5.17	\$ 4.30	\$ 6.08	\$ 4.20	\$ 4.41	
Harvesting cost										
Man labor	\$ 2.14	\$ 2.28	\$ 2.95	\$ 3.26	\$ 2.99	\$ 5.23	\$ 2.79	\$ 1.66	\$ 1.74	
Horse labor	--	--	.60	.33	1.18	--	--	.59	1.07	
Tractor use	.68	.84	.45	.36	.66	3.16	.63	.58	.49	
Truck use	.01	.09	.01	--	.02	--	--	.02	.01	
Machinery	--	1.67	--	.15	.76	.04	.48	.38	.37	
Threshing	1.13	2.33	.54	.40	.49	1.54	.59	.70	1.16	
Twine	.32	.25	.46	.60	.52	.51	.57	.28	.28	
Total harvesting cost	\$ 4.28	\$ 7.46	\$ 5.01	\$ 5.10	\$ 6.65	\$ 10.48	\$ 5.06	\$ 4.21	\$ 5.12	
Cost of growing and harvesting										
Cost of growing and harvesting	\$ 10.41	\$ 11.90	\$ 13.12	\$ 12.37	\$ 11.82	\$ 14.78	\$ 11.14	\$ 8.41	\$ 9.53	
Taxes	1.54	1.47	1.50	1.48	1.94	1.60	1.37	1.71	1.51	
Interest on land	6.75	6.75	7.00	6.25	6.11	6.80	6.75	6.70	6.67	
TOTAL COST	\$ 18.70	\$ 20.12	\$ 21.62	\$ 20.10	\$ 19.87	\$ 23.18	\$ 19.26	\$ 16.82	\$ 17.71	
INCOME PER ACRE										
Grain	\$ 26.51	\$ 22.78	\$ 26.49	\$ 19.87	\$ 20.56	\$ 17.69	\$ 16.23	\$ 17.02	\$ 18.06	
Straw	.92	1.79	1.86	2.01	1.13	.27	.33	1.70	1.42	
Pasture	1.38	1.68	--	3.08	.44	4.92	.93	.75	.38	
TOTAL INCOME	\$ 28.81	\$ 26.25	\$ 28.35	\$ 24.96	\$ 22.13	\$ 22.88	\$ 17.49	\$ 19.47	\$ 19.86	
NET PROFIT PER ACRE	\$ 10.11	\$ 6.13	\$ 6.73	\$ 4.86	\$ 2.26	\$ -.30	\$ -1.77	\$ 2.65	\$ 2.15	
NET COST PER BUSHEL										

Table 6.---Cost of Production (acre basis) on 26 farms (2,467 acres; 71,630 bushels) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number									
	92	80	83	93	15	89	56	73	27	49
Acres in soybeans	223.55	51.84	42.49	167.91	78.42	89.94	147.47	11.21	67.16	157.73
Yield per acre (bu.)	33.56	34.72	24.22	34.42	31.62	27.72	27.80	31.04	29.62	26.14
Labor per acre	4.03	3.98	2.90	3.66	3.99	3.53	4.07	4.59	2.95	4.16
Man hours	--	--	--	1.57	--	.06	--	--	.33	.58
Horse hours	2.29	2.81	2.28	2.36	2.78	2.92	2.93	4.59	2.42	2.00
Tractor miles	2.65	.02	.94	1.07	2.61	2.33	1.37	--	.06	.19
COST ITEMS PER ACRE										
Growing cost										
Man labor	\$ 1.40	\$.60	\$.80	\$ 1.17	\$ 1.04	\$.76	\$ 1.06	\$ 1.39	\$.84	\$.94
Horse labor	--	--	--	.70	--	.03	--	--	--	.47
Tractor use	1.17	1.20	1.13	1.06	1.25	.74	1.33	2.44	1.07	.79
Truck use	.06	--	--	--	--	--	--	--	--	.04
Machinery	.64	.75	.42	.67	.64	.70	1.02	.79	.59	.61
Seed	1.69	3.50	2.98	2.99	4.28	3.68	3.37	2.81	4.42	4.40
Fertilizer	.25	1.35	.92	1.53	.90	.44	1.24	1.94	.17	.25
Hail insurance	.32	.19	--	.70	--	--	--	--	.15	.20
Gen'l farm expense	.67	.40	.46	.84	.94	1.18	.81	.96	.95	1.25
Total growing cost	\$ 6.20	\$ 7.99	\$ 6.71	\$ 9.66	\$ 9.05	\$ 7.53	\$ 8.83	\$ 10.33	\$ 8.19	\$ 8.95
Harvesting cost										
Man labor	\$.43	\$.74	\$.25	\$.58	\$.71	\$.53	\$.37	\$.40	\$.45	\$.65
Horse labor	--	--	--	--	--	--	--	--	.22	--
Tractor use	.21	.84	.03	.43	.44	.29	.18	.66	.38	.41
Truck use	.13	--	.07	.06	.20	.24	.13	--	--	.01
Combine	1.11	2.57	.50	1.33	.93	.75	1.25	1.62	2.29	.64
Total harvesting cost	\$ 1.88	\$ 4.15	\$.85	\$ 2.40	\$ 2.28	\$ 1.81	\$ 1.93	\$ 2.68	\$ 3.34	\$ 1.71
Cost of growing and harvesting	\$ 8.08	\$ 12.14	\$ 7.56	\$ 12.06	\$ 11.33	\$ 9.34	\$ 10.76	\$ 13.01	\$ 11.53	\$ 10.66
Taxes	.81	1.53	1.07	1.36	1.87	1.35	1.54	1.56	1.80	1.64
Interest on land	7.50	6.50	5.52	7.50	6.70	7.50	6.75	6.75	7.50	6.25
TOTAL COST	\$ 16.39	\$ 20.17	\$ 14.15	\$ 20.92	\$ 19.90	\$ 18.19	\$ 19.05	\$ 21.32	\$ 20.83	\$ 18.55
INCOME PER ACRE										
Grain	\$ 53.70	\$ 55.56	\$ 38.75	\$ 55.08	\$ 50.60	\$ 44.35	\$ 44.48	\$ 49.67	\$ 47.38	\$ 41.87
Pasture	.12 ^a	.38	.07	.10	--	.17	.50	--	.12	--
TOTAL INCOME	\$ 53.82	\$ 55.94	\$ 38.82	\$ 55.18	\$ 50.60	\$ 44.52	\$ 44.98	\$ 49.67	\$ 47.50	\$ 41.87
NET PROFIT PER ACRE	\$ 37.43	\$ 35.77	\$ 24.67	\$ 34.26	\$ 30.70	\$ 26.33	\$ 25.93	\$ 28.35	\$ 26.67	\$ 23.32
NET COST PER BUSHEL	\$.485	\$.570	\$.581	\$.605	\$.629	\$.650	\$.667	\$.687	\$.699	\$.710

a/ Hail insurance dividend.

SOYBEANS (COMBINED) (cont.)

Table 6.--Cost of Production (acre basis) on 26 farms (2,467 acres; 71,630 bushels) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number									
	100	45	75	98	47	71	99	74	90	67
Acres in soybeans	61.92	162.34	106.49	92.64	78.72	60.79	30.03	149.22	96.40	60.73
Yield per acre (bu.)	28.38	28.67	24.50	23.60	24.34	25.48	28.77	25.89	21.52	18.20
Labor per acre	3.43	4.55	4.61	3.66	3.18	3.80	3.13	5.92	5.95	2.50
Man hours	1.43	--	.84	.58	--	1.36	--	--	.56	--
Horse hours	2.67	2.70	3.41	2.45	2.62	2.74	3.13	3.21	3.48	2.35
Tractor hours	--	7.13	.45	3.98	1.43	--	--	.92	.13	1.49
Truck miles										
COST ITEMS PER ACRE										
Growing cost										
Man labor	\$.93	\$.97	\$ 1.18	\$.82	\$.74	\$.84	\$.90	\$ 1.58	\$ 1.99	\$.73
Horse labor	.45	--	.01	.03	--	.02	--	--	.06	--
Tractor use	1.11	1.33	1.54	.76	1.38	1.36	1.69	1.48	1.42	.88
Truck use	--	.05	--	.08	--	--	--	--	.01	.02
Machinery	.55	1.00	.84	.55	.52	.53	.81	.82	.56	.44
Seed	4.93	4.67	3.63	3.88	3.40	3.11	5.31	2.95	3.29	3.18
Fertilizer	.52	.76	1.25	.28	.18	1.21	1.29	1.34	.61	.85
Hail insurance	--	--	.18	--	.71	--	.67	--	--	--
Gen'l farm expense	1.25	.83	.79	.89	.72	.79	.77	1.03	1.01	.89
Total growing cost	\$ 9.74	\$ 9.61	\$ 9.42	\$ 7.29	\$ 7.65	\$ 7.86	\$ 11.44	\$ 9.20	\$ 8.95	\$ 6.99
Harvesting cost										
Man labor	\$.26	\$.53	\$.59	\$.54	\$.41	\$.69	\$.36	\$.52	\$.32	\$.22
Horse labor	.48	--	.10	.16	--	.25	--	--	.02	--
Tractor use	.19	.25	.27	.25	.40	.76	.59	.30	.25	.26
Truck use	--	.34	.03	.09	.11	--	--	.04	--	.08
Combine	1.04	1.02	.99	1.12	1.77	1.97	1.85	1.57	1.13	.77
Total harvesting cost	\$ 1.97	\$ 2.21	\$ 1.98	\$ 2.16	\$ 2.69	\$ 3.67	\$ 2.80	\$ 2.43	\$ 1.72	\$ 1.33
Cost of growing and harvesting	\$ 11.71	\$ 11.82	\$ 11.40	\$ 9.45	\$ 10.34	\$ 11.53	\$ 14.24	\$ 11.63	\$ 10.67	\$ 8.32
Taxes	1.65	1.57	1.12	1.33	1.76	1.48	1.61	1.51	1.95	2.07
Interest on land	7.00	7.50	5.50	6.75	6.25	6.25	6.75	7.00	6.13	6.50
TOTAL COST	\$ 20.36	\$ 20.89	\$ 18.02	\$ 17.53	\$ 18.35	\$ 19.26	\$ 22.60	\$ 20.14	\$ 18.75	\$ 16.89
INCOME PER ACRE										
Grain	\$ 45.40	\$ 45.88	\$ 39.21	\$ 37.75	\$ 38.94	\$ 40.77	\$ 46.03	\$ 41.43	\$ 34.44	\$ 29.52
Pasture	.08	--	--	.09	.06	--	.81	.14	.19	.34
TOTAL INCOME	\$ 45.48	\$ 45.88	\$ 39.21	\$ 37.84	\$ 39.00	\$ 40.77	\$ 46.84	\$ 41.57	\$ 34.63	\$ 29.86
NET PROFIT PER ACRE	\$ 25.12	\$ 24.99	\$ 21.19	\$ 20.31	\$ 20.65	\$ 21.51	\$ 24.24	\$ 21.43	\$ 15.88	\$ 12.97
NET COST PER BUSHEL	\$.715	\$.728	\$.736	\$.739	\$.751	\$.756	\$.757	\$.773	\$.862	\$.910

SOYBEANS (COMBINED) (cont.)

Table 6.--Cost of production (acre basis) on 26 farms (2,467 acres; 71,630 bushels)
Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number						1942 average of 26 farms	1941 average of 28 farms	1940 average of 31 farms
	96	63	95	79	91	62			
Acres in soybeans	87.62	97.74	147.70	10.52	61.85	124.13	94.87	77.34	73.16
Yield per acre (bu.)	25.08	21.88	19.57	23.38	13.71	10.54	29.04	28.56	21.52
Labor per acre									
Man hours	5.16	4.24	3.51	7.08	3.14	2.48	4.02	4.30	4.37
Horse hours	.68	--	--	--	--	--	.33	.21	.98
Tractor hours	2.34	3.68	2.75	4.66	2.56	2.27	2.71	2.96	2.67
Truck miles	--	2.46	1.09	1.00	--	.99	1.59	1.90	.63
COST ITEMS PER ACRE									
Growing cost									
Man labor	\$ 1.37	\$ 1.16	\$.79	\$ 1.64	\$.65	\$.68	\$ 1.06	\$.85	\$.84
Horse labor	.21	--	--	--	--	--	.10	.03	.15
Tractor use	1.42	1.55	1.35	2.19	.96	.96	1.21	1.22	1.16
Truck use	--	--	.01	.10	--	--	.02	.01	.01
Machinery	.88	.66	.39	.98	.61	.66	.68	.67	.58
Seed	5.23	4.45	4.34	6.13	3.13	2.50	3.59	2.12	1.82
Fertilizer	1.80	.41	.35	2.80	.91	.58	.79	.78	.61
Hail insurance	.18	.58	.47	--	.32	.35	.22	.13	.08
Gen'l farm expense	.67	.88	.46	.52	.67	.64	.83	.81	.94
Total growing cost	\$11.76	\$ 9.69	\$ 8.16	\$14.36	\$ 7.25	\$ 6.37	\$ 8.50	\$ 6.62	\$ 6.19
Harvesting cost									
Man labor	\$.56	\$.33	\$.78	\$.68	\$.77	\$.18	\$.50	\$.52	\$.40
Horse labor	--	--	--	--	--	--	.03	.01	.07
Tractor use	.39	.35	.90	.54	.71	.17	.37	.46	.30
Truck use	--	.18	.07	.02	--	.05	.09	.10	.03
Combine	2.14	1.56	1.48	2.57	1.73	.63	1.28	1.18	1.22
Total harvesting cost	\$ 3.09	\$ 2.42	\$ 3.23	\$ 3.81	\$ 3.21	\$ 1.03	\$ 2.27	\$ 2.27	\$ 2.02
Cost of growing and harvesting	\$14.85	\$12.11	\$11.39	\$18.17	\$10.46	\$ 7.40	\$10.77	\$ 8.89	\$ 8.21
Taxes	1.36	1.47	1.56	1.64	1.66	2.07	1.50	1.53	1.41
Interest on land	6.75	6.75	5.77	5.00	6.02	6.25	6.71	6.61	6.61
TOTAL COST	\$22.96	\$20.33	\$18.72	\$24.81	\$18.14	\$15.72	\$18.98	\$17.03	\$16.23
INCOME PER ACRE									
Grain	\$40.14	\$35.02	\$31.39	\$37.41	\$21.94	\$16.86	\$41.44	\$42.83	\$15.11
Pasture	.05	.16	.04	.32	--	.12	.12	.04	.34
TOTAL INCOME	\$40.19	\$35.18	\$31.43	\$37.73	\$21.94	\$16.98	\$41.56	\$42.87	\$15.45
NET PROFIT PER ACRE	\$17.23	\$14.85	\$12.71	\$12.92	\$ 3.80	\$ 1.26	\$22.58	\$25.84	\$ - .78
NET COST PER BUSHEL	\$.913	\$.921	\$.955	\$ 1.05	\$ 1.323	\$ 1.481	\$.649	\$.595	\$.738

Table 7.--Cost of production (acre basis) on 4 farms (52.41 acres; 771 bushels) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per bushel)

Items	Farm number				1941a/	1940
	95	62	49	75	average of 13 farms	average of 15 farms
Acres in winter wheat	19.39	21.39	4.80	6.83	28.43	28.03
Yield per acre (bu.)	18.36	11.36	17.08	13.18	24.16	26.56
Labor per acre	2.83	2.94	4.69	9.81	3.75	3.69
Man hours	--	.26	.42	1.46	.53	.42
Horse hours	2.08	2.40	3.90	8.78	2.30	2.39
Tractor hours	2.76	.75	--	.73	2.42	1.24
Truck miles						
COST ITEMS PER ACRE						
Growing cost						
Man labor	\$.53	\$.49	\$ 1.17	\$ 2.27	\$.59	\$.45
Horse labor	--	.02	.07	--	.03	.06
Tractor use	1.13	.92	1.82	2.70	.88	.94
Truck use	.27	--	--	--	.06	--
Machinery	.63	.47	.67	1.01	.45	.39
Seed	1.99	2.75	2.88	3.32	1.56	1.30
Fertilizer	.35	.58	--	1.25	1.00	1.14
Hail insurance	--	--	--	--	.15	.20
Gen'l farm expense	.53	.69	1.31	2.18	.64	.72
Total growing cost	\$ 5.43	\$ 5.92	\$ 7.92	\$ 12.73	\$ 5.36	\$ 5.20
Harvesting cost						
Man labor	\$.37	\$.35	\$.48	\$.79	\$.52	\$.50
Horse labor	--	--	--	.19	.04	--
Tractor use	.20	.37	.28	.52	.32	.41
Truck use	.06	.03	--	.04	.03	.08
Combine	1.17	.66	.64	.99	1.04	.94
Total harvesting cost	\$ 1.80	\$ 1.41	\$ 1.40	\$ 2.53	\$ 2.00	\$ 1.93
Cost of growing and harvesting	\$ 7.23	\$ 7.33	\$ 9.32	\$ 15.26	\$ 7.36	\$ 7.13
Taxes	1.56	2.07	1.64	1.12	1.46	1.33
Interest on land	5.25	6.25	6.25	5.50	6.76	6.80
TOTAL COST	\$ 14.04	\$ 15.65	\$ 17.21	\$ 21.88	\$ 15.58	\$ 15.26
INCOME, PER ACRE						
Grain	\$ 18.36	\$ 11.36	\$ 17.08	\$ 13.18	\$ 21.77	\$ 17.53
Straw	.72	5.05	.63	--	.28	.11
Pasture	--	--	--	2.73	.67	.28
TOTAL INCOME	\$ 19.08	\$ 16.41	\$ 17.71	\$ 15.91	\$ 22.72	\$ 17.92
NET PROFIT PER ACRE	\$ 5.04	\$.76	\$.50	\$ -5.57	\$ 7.14	\$ 2.66
NET COST PER BUSHEL	\$.726	\$.933	\$.971	\$ 1.454	\$.606	\$.560

There were not enough acres of wheat in 1941 to include in the average.

Table 8.--Cost of production (acre basis) on 16 farms (138.11 acres; 384 tons) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per ton)

Items	Farm number									
	79	75	99	80	100	15	56	73	93	74
Acres in alfalfa	8.74	9.65	3.14	17.00	.99	10.53	14.70	14.31	11.51	11.68
Yield per acre (ton)	1.43	3.68	4.22	2.88	4.80	3.40	2.31	3.07	3.56	4.26
Pasture days	--	--	--	--	3.03	--	17.62	--	--	--
Labor per acre	8.64	16.27	20.06	16.12	20.71	10.83	10.68	10.36	20.77	11.47
Man hours	--	8.60	1.99	--	16.16	--	2.18	2.15	12.19	5.65
Horse hours	4.06	3.73	3.82	5.62	3.03	5.22	4.42	5.37	2.19	1.54
Tractor hours	--	7.36	--	--	--	.95	--	--	1.22	1.46
Truck miles	--	--	--	--	--	--	--	--	--	--
COST ITEMS PER ACRE										
Man labor	\$ 2.89	\$ 6.16	\$ 7.26	\$ 5.93	\$ 7.21	\$ 5.27	\$ 3.83	\$ 4.52	\$ 8.83	\$ 7.61
Horse labor	--	2.50	.65	--	10.41	--	1.08	.58	5.25	2.86
Tractor use	1.55	1.95	2.21	2.55	1.43	3.38	2.17	3.59	1.36	3.78
Truck use	--	.47	--	--	--	.07	--	--	.06	.06
Machinery	1.43	2.55	3.58	1.43	1.78	1.52	2.00	1.08	1.55	3.19
Pick-up baler	--	--	1.28	2.37	--	5.54	--	5.67	--	10.72
Combine	--	--	--	--	--	--	--	--	--	--
Seed	.36	--	1.28	.58	1.48	.64	1.18	.69	2.92	1.54
Inoculation	--	--	--	--	--	--	--	--	--	--
Fertilizer	1.40	.63	.65	.68	.26	.56	.62	.97	.77	.39
Thresher	--	--	--	--	--	--	--	--	--	--
Gen'l farm expense	.63	3.68	5.17	1.61	7.52	2.55	2.12	1.42	4.71	2.67
TOTAL OPERATING COST	\$ 8.26	\$17.94	\$22.08	\$15.15	\$30.09	\$19.53	\$13.00	\$18.52	\$25.45	\$32.82
Taxes	1.64	1.12	1.61	1.53	1.65	1.87	1.54	1.57	1.36	1.51
Interest on land	5.79	5.50	6.76	6.50	7.00	6.00	6.75	6.75	7.50	7.00
TOTAL COST	\$15.69	\$24.56	\$30.45	\$23.18	\$38.74	\$27.40	\$21.29	\$26.84	\$34.31	\$41.33
INCOME PER ACRE										
Hay	\$18.59	\$57.94	\$57.92	\$41.60	\$62.38	\$53.55	\$30.07	\$48.43	\$46.31	\$55.37
Pasture	7.55	--	--	--	.14	--	1.32	--	--	--
Seed	--	--	--	--	--	--	--	--	--	--
TOTAL INCOME	\$26.14	\$57.94	\$57.92	\$41.60	\$62.52	\$53.55	\$31.39	\$48.43	\$46.31	\$55.37
NET PROFIT PER ACRE										
	\$10.45	\$33.38	\$27.47	\$18.42	\$23.78	\$26.15	\$10.10	\$21.59	\$12.00	\$14.04
NET COST PER TON										
	\$ 5.70	\$ 6.68	\$ 7.22	\$ 8.04	\$ 8.04	\$ 8.06	\$ 8.63	\$ 8.73	\$ 9.63	\$ 9.70

Table 8.--Cost of production (acre basis) on 16 farms (138.11 acres; 384 tons) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per ton)

Items	Farm number						av. of 16 farms	1941 av. of 18 farms	1940 av. of 21 farms
	67	63	49	91	62	47			
Acres in alfalfa	1.55	3.30	9.42	15.20	3.80	2.59	8.63	9.25	9.22
Yield per acre (ton)	1.29	1.21	1.83	1.97	1.84	1.54	2.78	3.07	2.35
Pasture days	--	120.00	--	--	--	--	4.76	11.91	12.76
Labor per acre	3.87	11.51	8.55	15.53	9.14	10.23	13.06	13.92	13.94
Man hours	--	7.50	3.87	--	.53	12.74	3.41	5.06	7.60
Horse hours	1.94	1.75	2.07	8.95	5.33	.77	4.40	4.04	2.49
Tractor hours	1.29	--	2.02	.66	--	--	1.04	.79	.49
Truck miles									
COST ITEMS PER ACRE									
Man labor	\$ 1.46	\$ 4.00	\$ 3.60	\$ 5.72	\$ 3.15	\$ 3.75	\$ 5.36	\$ 4.87	\$ 4.12
Horse labor	--	5.77	2.99	--	.11	12.15	1.69	1.18	1.68
Tractor use	.94	.83	1.30	3.86	2.66	.46	2.53	2.23	1.32
Truck use	.08	--	.50	.03	--	--	.09	.05	--
Machinery	3.63	2.72	1.07	2.71	15.99	1.70	2.33	1.66	1.14
Pick-up baler	--	--	3.03	1.44	--	--	2.60	2.30	1.22
Combine	--	--	--	--	--	--	--	--	--
Seed	--	1.23	1.57	1.00	--	--	1.00	1.06	.75
Inoculation	--	--	--	--	--	--	--	--	--
Fertilizer	.42	.20	.13	.46	.29	.10	.62	.72	.46
Thresher	--	--	--	--	--	--	--	--	--
Gen'l farm expense	1.41	2.23	2.55	3.32	2.52	2.42	2.57	2.43	2.72
TOTAL OPERATING COST	\$ 7.94	\$16.98	\$16.74	\$18.54	\$24.72	\$20.58	\$18.79	\$16.50	\$13.41
Taxes	2.07	1.47	1.64	1.66	2.07	1.76	1.57	1.56	1.63
Interest on land	6.50	6.75	6.25	6.75	6.25	6.25	6.54	6.56	6.74
TOTAL COST	\$16.51	\$25.20	\$24.63	\$26.95	\$33.04	\$28.59	\$26.90	\$24.62	\$21.78
INCOME PER ACRE									
Hay	\$16.77	\$15.75	\$28.84	\$27.47	\$23.95	\$20.08	\$39.54	\$31.99	\$22.03
Pasture	--	8.90	--	--	--	--	.83	.66	.64
Seed	--	--	--	--	--	--	--	--	--
TOTAL INCOME	\$16.77	\$24.65	\$28.84	\$27.47	\$23.95	\$20.08	\$40.37	\$32.65	\$22.67
NET PROFIT PER ACRE	\$.26	\$ -.55	\$ 4.21	\$.52	\$ -9.09	\$ -8.51	\$13.47	\$ 8.03	\$.89
NET COST PER TON	\$12.80	\$13.45	\$13.45	\$13.65	\$17.93	\$18.51	\$ 9.38	\$ 7.80	\$ 9.00

CLOVER HAY
 \$12.00
 \$11.00
 \$10.00
 \$9.00
 \$8.00
 \$7.00
 \$6.00
 \$5.00
 \$4.00
 \$3.00
 \$2.00
 \$1.00
 \$0.00

Table 9.--Cost of Production (acre basis) on 13 farms (228.98 acres; 314 tons) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per ton)

Items	Farm number												
	83	56	75	49	93	15	96	71	92				
Acres in clover hay	10.21	13.23	15.38	2.72	19.01	9.24	48.47	10.52	35.26				
Yield per acre (ton)	.98	1.36	1.24	1.79	2.05	1.36	1.59	1.43	1.36				
Labor per acre													
Man hours	4.21	3.46	6.59	6.62	11.36	2.76	6.31	9.27	4.97				
Horse hours	.98	1.32	2.34	3.86	2.93	--	2.24	11.43	.11				
Tractor hours	1.47	1.06	1.99	3.30	3.18	2.33	1.68	--	1.39				
Truck miles	.39	--	--	--	1.68	.54	--	--	1.42				
COST ITEMS PER ACRE													
Man labor	\$ 1.49	\$ 1.49	\$ 2.61	\$ 3.29	\$ 4.93	\$ 1.71	\$ 2.49	\$ 3.25	\$ 2.36				
Horse labor	.42	.62	.30	1.97	1.21	--	.68	2.85	.02				
Tractor use	.71	.66	1.22	2.59	1.89	1.49	1.30	--	.92				
Truck use	.03	--	--	--	.08	.04	--	--	.10				
Machinery	.83	.50	1.24	1.09	.64	.77	1.04	1.45	.10				
Pick-up baler	--	2.67	--	2.13	1.46	1.17	2.46	--	2.89				
Combine	.50	--	.95	.88	--	.93	--	--	--				
Seed	.73	.46	.58	.70	1.55	.45	1.13	.39	.25				
Fertilizer	.46	.62	.63	.35	.77	.56	.90	.61	.13				
Gen'l farm expense	.50	.46	1.36	1.83	2.66	1.06	1.04	1.03	.83				
TOTAL OPERATING COST	\$ 5.67	\$ 7.48	\$ 8.89	\$ 14.83	\$ 15.19	\$ 8.18	\$ 11.04	\$ 9.58	\$ 8.79				
Taxes	1.07	1.54	1.12	1.64	1.36	1.87	1.36	1.48	.81				
Interest on land	6.00	6.75	5.50	6.25	7.50	6.25	6.75	6.25	7.50				
TOTAL COST	\$ 12.74	\$ 15.77	\$ 15.51	\$ 22.72	\$ 24.05	\$ 16.30	\$ 19.15	\$ 17.31	\$ 17.10				
INCOME PER ACRE													
Hay	\$ 10.77	\$ 18.71	\$ 16.99	\$ 24.64	\$ 28.21	\$ 18.75	\$ 25.18	\$ 15.69	\$ 18.64				
Pasture	--	7.02	--	.40	--	--	--	--	--				
Seed	6.61	--	3.51	2.48	--	--	--	--	--				
TOTAL INCOME	\$ 17.38	\$ 25.73	\$ 20.50	\$ 27.52	\$ 28.21	\$ 18.75	\$ 25.18	\$ 15.69	\$ 18.64				
NET PROFIT PER ACRE													
NET PROFIT PER ACRE	\$ 4.64	\$ 9.96	\$ 4.99	\$ 4.80	\$ 4.16	\$ 2.45	\$ 6.03	\$ -1.62	\$ 1.54				
NET COST PER TON													
NET COST PER TON	\$ 6.26	\$ 6.43	\$ 9.71	\$ 11.06	\$ 11.72	\$ 11.96	\$ 11.98	\$ 12.14	\$ 12.61				

Table 9.--Cost of Production (acre basis) on 13 farms (228.98 acres; 314 tons) Champaign-Piatt Counties--1942 (farms ranked in order of net cost per ton)

Items	Farm number					1942 average of 13 farms	1941 average of 9 farms	1940 average of 15 farms
	27	95	45	100	89a/ 98a/			
Acres in clover hay	2.72	14.95	41.84	5.45	38.03	17.61	22.56	19.56
Yield per acre (ton)	1.84	1.34	.96	.92	.46	1.37	1.18	1.30
Labor per acre								
Man hours	9.37	10.00	9.91	8.95	1.76	7.26	6.52	8.38
Horse hours	10.47	.69	--	12.62	.29	2.05	2.42	3.63
Tractor hours	--	1.91	2.83	.92	.92	1.89	1.78	2.05
Truck miles	--	1.47	1.24	--	--	.724	1.48	.48
COST ITEMS PER ACRE								
Man labor	\$ 3.42	\$ 3.84	\$ 3.37	\$ 2.99	\$.79	\$ 2.86	\$ 2.16	\$ 2.55
Horse labor	4.11	.19	--	6.89	.14	.73	.49	.64
Tractor use	--	1.17	1.64	.25	.42	1.20	1.06	1.24
Truck use	--	.12	.07	--	--	.05	.10	.03
Machinery	.58	1.15	.96	.60	.41	1.00	.88	.70
Pick-up baler	--	1.78	2.27	--	.78	1.85	1.18	1.05
Combine	--	--	.32	.88	--	.21	.31	.76
Seed	.84	.40	.46	.85	.40	.69	.75	.97
Fertilizer	.09	.17	.38	.26	.22	.51	.34	.32
Gen'l farm expense	3.00	1.45	1.81	2.88	.53	1.35	1.23	1.82
TOTAL OPERATING COST	\$14.04	\$10.27	\$11.28	\$15.60	\$ 3.69	\$10.45	\$ 8.50	\$10.08
Taxes	1.80	1.56	1.56	1.65	1.35	1.35	1.33	1.43
Interest on land	7.50	5.25	7.50	7.00	7.50	6.81	6.88	6.48
TOTAL COST	\$23.34	\$17.08	\$20.34	\$24.25	\$12.54	\$18.61	\$16.71	\$17.99
INCOME PER ACRE								
Hay	\$20.22	\$18.42	\$13.14	\$10.09	\$ 6.32	\$19.10	\$11.01	\$11.13
Pasture	--	--	--	--	.85	.41	.70	.73
Seed	--	--	.65	2.29	--	.73	1.45	2.02
TOTAL INCOME	\$20.22	\$18.42	\$13.79	\$12.38	\$ 7.17	\$20.24	\$13.16	\$13.88
NET PROFIT PER ACRE	\$-3.12	\$ 1.34	\$-6.55	\$-11.87	\$-5.37	\$ 1.63	\$-3.55	\$-4.11
NET COST PER TON	\$12.70	\$12.75	\$20.60	\$23.94	\$25.44	\$12.75	\$12.37	\$11.73

a/ Not included in the average as one crop was lost due to weather.

Table 10.--Cost of production (acre basis) on 9 farms (37.18 acres; 63 tons) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per ton)

Items	Farm number								
	71	98	56	93	63	83			
Acres in soybean hay	10.58	2.88	3.12	5.78	1.68	.96			
Yield per acre (tons)	2.36	1.91	1.60	1.90	1.79	2.08			
Labor per acre									
Man hours	19.38	15.89	13.30	20.03	18.15	21.61			
Horse hours	15.72	.17	.64	8.48	10.71	8.33			
Tractor hours	2.08	3.38	4.80	2.90	2.83	32.29			
Truck miles	--	1.74	--	3.11	--	--			
COST ITEMS PER ACRE									
Growing cost									
Man labor	\$.84	\$.81	\$.97	\$ 1.18	\$ 1.14	\$.68			
Horse labor	.02	.04	--	.69	--	3.56			
Tractor use	1.37	.83	1.18	1.05	1.51	1.05			
Truck use	--	.08	--	.01	--	--			
Machinery	.37	.54	1.05	.66	.66	.36			
Seed	3.88	3.76	3.30	1.18	4.37	2.92			
Fertilizer	1.21	.28	1.24	1.53	.41	.92			
Gen'l farm expense	--	--	2.64	4.57	1.73	--			
<u>Total growing cost</u>	\$ 7.69	\$ 6.34	\$ 10.38	\$ 10.87	\$ 9.82	\$ 9.49			
Harvesting cost									
Man labor	\$ 5.82	\$ 5.05	\$ 3.75	\$ 7.67	\$ 5.22	\$ 7.27			
Horse labor	3.35	--	.32	3.02	8.44	--			
Tractor use	--	.58	1.13	.80	--	14.40			
Truck use	--	--	--	.15	--	--			
Machinery	1.19	1.44	.42	2.70	1.35	.57			
<u>Total harvesting cost</u>	\$ 10.36	\$ 7.07	\$ 5.62	\$ 14.34	\$ 15.01	\$ 22.24			
Cost of growing and harvesting	\$ 18.05	\$ 13.41	\$ 16.00	\$ 25.21	\$ 24.83	\$ 31.73			
Taxes	1.48	1.33	1.54	1.36	1.46	1.07			
Interest on land	6.25	6.75	6.75	7.50	6.75	6.00			
TOTAL COST	\$ 25.78	\$ 21.49	\$ 24.29	\$ 34.07	\$ 33.04	\$ 38.80			
INCOME PER ACRE									
Hay	\$ 22.45	\$ 18.14	\$ 15.22	\$ 18.08	\$ 16.97	\$ 19.79			
NET PROFIT PER ACRE	\$ -3.33	\$ -3.35	\$ -9.07	\$ -15.99	\$ -16.07	\$ -19.01			
NET COST PER TON	\$ 10.91	\$ 11.25	\$ 15.16	\$ 17.90	\$ 18.50	\$ 18.62			

Table 10.--Cost of production (acre basis) on 9 farms (37.18 acres; 63 tons) Champaign-Piatt Counties--1942 (Farms ranked in order of net cost per ton)

Items	Farm number		1942 average of 9 farms	1941 average of 8 farms	1940 average of 23 farms
	80	67			
Acres in soybean hay	1.37	6.67	4.13	3.66	7.10
Yield per acre (tons)	1.46	.90	1.69	1.84	1.56
Labor per acre	30.84	7.65	15.88	16.45	11.32
Man hours	--	--	7.40	10.78	6.21
Horse hours	10.40	4.91	4.16	3.17	2.86
Tractor hours	--	.90	.79	1.11	.26
Truck miles	--	--	--	--	--
COST ITEMS PER ACRE					
Growing cost					
Man labor	\$.55	\$.69	\$.86	\$.83	\$.81
Horse labor	--	--	.21	.10	.25
Tractor use	1.17	.82	1.09	1.38	.99
Truck use	--	.02	.01	.04	--
Machinery	.71	.43	.51	.54	.50
Seed	3.63	3.05	3.22	2.03	1.61
Fertilizer	1.34	.85	1.00	1.56	.83
Gen'l farm expense	3.08	2.78	1.62	3.15	1.87
<u>Total growing cost</u>	<u>\$10.48</u>	<u>\$ 8.64</u>	<u>\$ 8.52</u>	<u>\$ 9.63</u>	<u>\$ 6.86</u>
Harvesting cost					
Man labor	\$ 9.75	\$ 2.23	\$ 5.03	\$ 4.26	\$ 2.36
Horse labor	--	--	2.24	2.27	.98
Tractor use	3.34	1.59	1.05	.48	.49
Truck use	--	.04	.03	.06	.01
Machinery	.20	1.23	1.23	.68	.79
<u>Total harvesting cost</u>	<u>\$13.29</u>	<u>\$ 5.09</u>	<u>\$ 9.58</u>	<u>\$ 7.75</u>	<u>\$ 4.63</u>
Cost of growing and harvesting	\$23.77	\$13.73	\$18.10	\$17.38	\$11.49
Taxes	1.53	2.07	1.54	1.58	1.46
Interest on land	6.50	6.50	6.73	6.71	6.36
<u>TOTAL COST</u>	<u>\$31.80</u>	<u>\$22.30</u>	<u>\$26.37</u>	<u>\$25.67</u>	<u>\$19.31</u>
INCOME PER ACRE					
Hay	\$13.87	\$ 8.54	\$16.10	\$14.01	\$11.64
NET PROFIT PER ACRE	\$-17.93	\$-13.76	\$-10.27	\$-11.66	\$-7.67
NET COST PER TON	\$21.78	\$24.80	\$15.56	\$13.92	\$12.36

Table 11.--Cost of production (acre basis), Champaign-Piatt Counties--1942

Items	Farm number							
	Barley	Rye	Sweet corn	Silage	Mixed hay	Timothy seed	Oat and clover hay	
Acres in crop	49	56	83	79	93	45	67	80
Yield per acre (bu. or ton)	5.00	1.22	5.56	3.70	4.00	37.26	4.96	15.12
Labor per acre	8.00	41.80	5.40	10.81	19.00	4.56	1.21	1.49
Man hours	2.30	19.68	13.67	57.50	20.13	2.24	8.77	6.25
Horse hours	--	--	--	--	16.00	--	--	--
Tractor hours	1.10	11.48	2.88	14.26	7.38	.67	3.23	2.49
Truck miles	--	.82	14.39	--	1.63	3.15	2.82	--
COST ITEMS PER ACRE								
Growing cost								
Man labor	\$.27	\$ 2.48	\$ 1.06	\$ 1.46	\$ 1.17	\$.03	\$ --	\$.12
Horse labor	--	--	--	--	--	--	--	--
Tractor use	.36	4.54	1.43	2.37	1.53	.05	--	.18
Machinery	.30	.75	.93	4.94	.83	--	--	.19
Seed	2.45	5.62	.93	1.01	1.30	.48	6.31	.22
Fertilizer	.25	1.24	1.61	4.89	2.69	.38	.42	.68
Gen'l farm expense	.68	4.71	1.84	3.88	4.52	.32	3.19	.59
Total growing cost	\$ 4.31	\$ 19.34	\$ 7.80	\$ 18.55	\$ 12.11	\$ 1.33	\$ 9.92	\$ 1.98
Harvesting cost								
Man labor	\$.62	\$ 4.09	\$ 3.96	\$ 17.52	\$ 7.33	\$.71	\$ 3.58	\$ 2.44
Horse labor	--	--	--	--	6.93	--	--	--
Tractor use	.18	1.59	--	5.93	3.25	.36	1.73	1.08
Truck use	--	.08	1.03	--	.08	.17	.19	--
Machinery	--	.48	--	.51	1.83	--	3.31	.32
Combine or baler	.64	4.10	--	--	--	.73	1.68	2.19
Total harvesting cost	\$ 1.44	\$ 10.34	\$ 4.99	\$ 23.96	\$ 19.42	\$ 1.97	\$ 10.49	\$ 6.03
Cost of growing and harvesting	\$ 5.75	\$ 29.68	\$ 12.79	\$ 42.51	\$ 31.53	\$ 3.30	\$ 20.41	\$ 8.01
Taxes	1.64	1.54	1.07	1.64	1.36	1.57	2.07	1.53
Interest on land	6.25	6.75	4.50	6.13	7.50	7.50	6.50	6.50
TOTAL CCST	\$ 13.64	\$ 37.97	\$ 18.36	\$ 50.28	\$ 40.39	\$ 12.37	\$ 28.98	\$ 16.04
INCOME PER ACRE								
Grain or seed	\$ 3.52	\$ 27.59	\$ 44.62	\$ 64.86	\$ 114.00	\$ 10.27	\$ 16.03	\$ 19.72
Hay	--	--	--	--	--	--	--	--
Straw	--	--	--	--	--	.24	--	--
Pasture	--	2.44	--	--	--	--	--	--
TOTAL INCOME	\$ 3.52	\$ 30.03	\$ 44.62	\$ 64.86	\$ 114.00	\$ 10.51	\$ 16.03	\$ 19.72
NET PROFIT PER ACRE	\$ -10.12	\$ -7.94	\$ 26.26	\$ 14.58	\$ 73.61	\$ -1.86	\$ -12.95	\$ 3.68
NET COST PER BUSHEL OR TON	\$ 1.71	\$.85	\$ 3.40	\$ 4.65	\$ 2.13	\$ 2.66	\$ 23.96	\$ 10.78

LIVESTOCK PRODUCING COSTSHogs

In 1942, hogs supplied 21.2 percent of the gross farm income on these farms located in an area of the state where before 1930, hogs were responsible for less than 15 percent of the gross income. In 1942, the income from hogs amounted to \$2,800 per farm. On 23 of the 26 farms, an average of 23,065 pounds of pork was produced per farm. All but two of the 23 hog producers showed a net profit on pork averaging \$4.22 for every 100 pounds produced.

The favorable showing of the hog enterprise was due principally to the low price of corn and the relatively high price of hogs. However, on the average, hogs have shown favorable returns over a period of years when the ratio between corn and hog prices has been nearer normal than in 1942.

High hog costs are frequently due to direct losses caused by disease, unthrifty hogs caused by internal parasites or disease, losses of pigs at farrowing time, or poor feeding practices.

Milk Cattle

Milk production was an important enterprise on 12 of the 26 farms. The average number of dairy cows on the 12 farms where milk production was important, was between 10 and 11. On the other 14 farms a few dairy cows were kept mainly to supply the family--if a surplus of milk appeared at any time during the year, it was separated and the sour cream marketed.

Since 1938 there has been a marked swing towards more milk production on farms in the heart of the cash-grain area. Among the 28 cost farms in 1938, not one had as many as 10 cows. In 1942, there were four farms with more than 10 milk cows, while on all the cost farms milk production increased 21 percent between 1938 and 1942.

In 1942, the average net cost of producing milk on the cost farms was \$2.57 a hundred pounds. Farms complying with the local sanitary regulations obtained average yearly prices for their milk ranging from \$2.00 to \$2.95 a hundred pounds, depending upon the market to which the milk was shipped and the premiums received for high butterfat content of the milk. The average 1942 local market price received for milk which did not meet sanitary requirements was \$1.65 a hundred pounds.

Producing milk under the price ratio which existed in 1942 between farm-grown dairy feeds and milk prices proved unprofitable on 17 of the 26 farms. On 11 of the 17 farms, more than 5 cows were milked and milk or cream was sold on the market; the rest of the farms kept cows for milk to use on the farm and sold little or no dairy products.

As will be seen by examining Table 13, the production of milk per cow varied in 1942 from 2,618 pounds on one farm to 9,239 pounds on the farm securing the highest milk production. While low milk production per cow will make the cost of milk run high, it is not always the rule, of course, that the highest producing herd is the most profitable.

Feeder Cattle

Five of the farmers fed beef calves or yearlings which were finished and shipped to the market in 1942. Dairy steers were fed on farm No. 96. These steers had been on feed several months prior to January 1, 1942, when this farm was added to the list of cooperating farms.

Other than for farm No. 96, the figures in Table 14 represent the cost of putting on gains from the time the steers were purchased in 1941 until they were sold in 1942. The weight of the steers when purchased varied from 469 to 774 pounds, and the cost of the steers by the time they reached the farm ranged from \$10.59 to \$12.86 a hundred pounds.

Feed was 85 percent of the fattening cost. For each 100 pounds of gain, the cattle were fed 678 pounds of corn and 314 pounds of hay and were pastured 11 days. When the steers were sold, their owners received 90 cents a bushel for all the corn fed to them after the market price of all other feeds had been paid and all other expenses met.

Hogs were placed in the feedlot with all the feeder cattle under study. The gains made by hogs while they were following cattle were credited to the cattle at the average yearly price received for the hogs sold from the farm. The hogs' gain in weight from corn in steer droppings depended largely on the weight of the steers and the kind and amount of corn fed them. The following factors were used in calculating the gains in hogs when they ran behind feeder cattle:

Pork Per Bushel of Corn-Fed Steers (Steers not fed silage)

<u>Kind of corn fed to cattle</u>	<u>Yearling steers</u> (lb. of pork)	<u>Calves</u>
Broken ear	1.5	--
Corn- and cob-meal	.5	.3
Crushed ear	.75	.5
Ground shelled	.5	.3
Shelled	1.2	.75

Beef Cattle

Records on beef herds for the year reflect the place they have on the farms, but they also reflect the result of much improved beef prices. Much of the feed used by cattle was cheap roughage and legume pasturage (in the rotation to maintain soil fertility)--forms of feed for which there is practically no market and which would otherwise have been a loss. Man labor, which was also a large item of expense, was charged during the entire year at the same rate per hour for all work. Much of the labor for cattle came during the winter when there was little other work to be done--thus helping to provide productive use of labor.

General farm expense, also an important item in the cost of cattle, consists of a share of the general operating expense, such as the upkeep of fences and the farmstead, cutting weeds, and other work which is not directly productive of any income, but a share of which must be borne by each part of the farm business.

In Table 15, the figure called "returns to roughage and labor per animal unit" shows how much cattle paid for these otherwise non-marketable products. All of the herds with over five beef cows paid well for what might otherwise have been surplus roughage and idle labor.

Poultry

The poultry enterprise is considered of minor importance on most of the cost farms. The average number of hens included in this report was 123 per farm--the smallest flock consisted of 47, the largest, 238. Farm No. 93 had no chickens until October.

The poultry enterprise is similar to the beef cattle enterprise in some respects and should not be judged on the basis of profit alone. In figuring the costs, all labor used was figured on the hourly basis at the same rate as that for all other work done on the farm--36.7 cents per hour in 1942, which in many cases may be a rather heavy charge for the actual labor put on poultry, for even though this required considerable time, the work usually is not hard.

The poultry enterprise on these farms returned 41 cents for an hour of labor. When looked upon in this way, poultry is relatively more profitable than is indicated by the cost data.

Sheep

Throughout 1942, farm flocks of sheep were kept on eight of the farms. Three other farms purchased a few ewes or lambs with a view to starting a farm flock. The sheep enterprise is similar to the beef-herd enterprise in relation to the utilization of labor and waste feeds and, therefore, should not be judged on the basis of profit alone.

Sheep may have returned enough for the non-marketable feeds and have helped enough in keeping down weeds on the farm to have made their handling worthwhile. In finding the costs shown in Table 17, an attempt was made to place a market value on most of the feeds these flocks consumed. This was difficult to do as one is never sure that the non-marketable feed would have brought anything on the market.

HOGS

Table 12.--Cost of production of 100 lb. live weight of hogs on 23 farms (530,493 lb.)
Champaign-Platt Counties--1942 (Farms ranked in order of total cost of producing 100 lb.)

Items	Farm number								
	79	74	75	45	67	56	83	90	80
COST ITEMS PER 100 POUNDS									
Feed fed	\$ 5.16	\$ 5.52	\$ 5.85	\$ 6.22	\$ 4.95	\$ 6.52	\$ 5.78	\$ 6.73	\$ 5.61
Man labor	.99	.52	.85	.56	1.10	.60	1.37	1.05	1.36
Interest on investment	.07	.24	.26	.31	.16	.20	.30	.22	.28
Building expense	--	.05	.02	.31	.37	.14	.24	.04	.09
Equipment expense	.39	.06	.14	.33	.29	.33	.14	.07	.68
Veterinary and medicine	--	.13	--	--	.25	.21	.14	.09	.32
Gen'l farm expense	.23	.27	.38	.31	1.04	.33	.50	.42	.41
Miscellaneous	--	.06	.18	.21	.27	.12	.07	.10	.19
TOTAL COST	\$ 6.84	\$ 6.85	\$ 7.68	\$ 8.25	\$ 8.43	\$ 8.45	\$ 8.54	\$ 8.72	\$ 8.94
INCOME PER 100 POUNDS									
Receipts and net increases	\$15.28	\$12.41	\$13.50	\$15.14	\$13.06	\$13.03	\$13.89	\$13.21	\$13.55
PROFIT PER 100 POUNDS	\$ 8.44	\$ 5.56	\$ 5.82	\$ 6.89	\$ 4.63	\$ 4.58	\$ 5.35	\$ 4.49	\$ 4.61
FEEDS FED PER 100 POUNDS									
Corn equivalent									
Corn	373	285	382	288	203	369	311	348	305
Oats	368	263	374	259	178	341	301	331	281
Wheat	6	26	9	34	29	33	12	20	27
Soybeans	--	--	--	--	--	--	--	--	--
Tankage equivalent	3	30	12	47	32	39	30	20	24
Soybeans	4	--	--	--	--	--	--	2	--
Tankage	--	--	4	2	--	21	--	2	--
Skimmilk	--	56	--	1	20	37	--	10	--
Other proteins	--	34	10	53	36	21	40	22	--
Millfeeds	--	--	--	10	8	--	--	1	7
Minerals	--	1	--	3	6	1	--	1	1
Straw	--	20	12	37	5	21	16	15	16
Roughage	--	7	8	--	--	--	--	--	21
Pasture days (an. unit)	--	3	4	1	3	4	--	4	4
MAN HOURS PER 100 POUNDS	3.1	1.5	2.2	1.7	2.9	1.7	3.7	2.7	4.1
Pork produced from feed fed	1 615	58 170	24 620	21 409	11 098.5	29 205	4 990	30 410	18 420
Total pounds hogs produced	1 615	58 170	24 620	24 440	11 387	34 629	4 990	30 410	18 420
Sold	2 740	36 335	19 110	26 180	16 652	30 194	4 680	29 805	15 810
Used	--	1 735	530	1 335	--	1 150	210	765	--

Table 12.--Cost of production of 100 lb. live weight of hogs on 23 farms (530,493 lb.)
Champaign-Piatt Counties--1942 (Farms ranked in order of total cost of producing 100 lb.)

Items	Farm number								
	96	95	91	62	73	99	49	98	15
COST ITEMS PER 100 POUNDS									
Feed fed	\$ 6.88	\$ 6.67	\$ 6.61	\$ 6.42	\$ 6.51	\$ 6.36	\$ 8.05	\$ 6.93	\$ 9.12
Man labor	1.09	1.26	1.30	1.21	1.24	1.05	.71	1.66	.86
Interest on investment	.19	.25	.10	.46	.27	.40	.42	.29	.18
Building expense	.07	.06	.05	.24	--	.68	.22	.10	.10
Equipment expense	.17	.10	.11	.20	.43	.11	.09	.30	.17
Veterinary and medicine	.23	.05	.19	.04	.24	.38	--	.16	.15
Gen'l farm expense	.42	.50	.77	.90	.73	.70	.55	.95	.46
Miscellaneous	.02	.22	.07	.10	.23	.04	.21	.15	.25
TOTAL COST	\$ 9.07	\$ 9.11	\$ 9.20	\$ 9.57	\$ 9.65	\$ 9.72	\$ 10.25	\$ 10.54	\$ 11.29
INCOME PER 100 POUNDS									
Receipts and net increases	\$ 11.37	\$ 13.86	\$ 13.39	\$ 13.99	\$ 17.88	\$ 18.02	\$ 14.74	\$ 14.10	\$ 15.57
PROFIT PER 100 POUNDS	\$ 2.30	\$ 4.75	\$ 4.19	\$ 4.42	\$ 8.23	\$ 8.30	\$ 4.49	\$ 3.56	\$ 4.28
FEEDS FED PER 100 POUNDS									
Corn equivalent	416	415	367	405	441	413	512	425	450
Corn	409	369	353	380	410	404	441	347	396
Oats	8	54	17	29	35	11	65	91	64
Wheat	--	--	--	--	--	--	14	--	--
Tankage equivalent	27	11	17	18	10	17	7	22	52
Soybeans	--	--	--	--	--	--	--	1	1
Tankage	--	3	--	--	--	7	--	--	--
Skimmilk	55	13	14	--	--	28	19	208	15
Other proteins	30	8	20	24	8	10	7	4	65
Millfeeds	--	1	2	--	9	1	--	--	2
Minerals	9	1	66	1	1	--	--	15	2
Straw	5	12	3	4	4	12	--	--	2
Roughage	--	--	10	--	--	--	--	--	9
Pasture days (an. unit)	1	6	4	4	5	1	5	3	2
MAN HOURS PER 100 POUNDS	3.2	3.5	3.6	3.5	3.5	2.9	1.8	4.5	2.0
Pork produced from feed fed	36 288	23 625	31 033	11 405	7 620	10 594	9 345	6 935	62 332
Total pounds hogs produced	36 680	23 625	31 135	11 405	7 620	10 594	11 460	6 935	62 445
Sold	30 655	16 040	32 305	21 430	7 480	7 449	13 380	4 165	62 555
Used	--	1 320	360	--	--	480	280	1 190	850

HOGS (cont.)

Table 12.--Cost of production of 100 lb. live weight of hogs on 23 farms (530,493 lb.)
Champaign-Piatt Counties--1942 (Farms ranked in order of total cost of producing 100 lb.)

Items	Farm number					1942 av. of 23 farms	1941 av. of 25 farms	1940 av. of 27 farms
	89	63	92	71	47a			
COST ITEMS PER 100 POUNDS								
Feed fed	\$ 8.61	\$ 8.68	\$ 8.39	\$11.37	\$17.05	\$ 7.23	\$ 5.54	\$ 4.83
Man labor	1.02	1.03	1.19	1.23	4.84	1.02	.77	.66
Interest on investment	.22	.22	.12	.33	.95	.23	.19	.13
Building expense	.05	.14	.34	.35	.55	.13	.13	.12
Equipment expense	.15	.31	.11	.04	.14	.20	.17	.18
Veterinary and medicine	.21	.14	.22	.03	--	.18	.10	.09
Gen'l farm expense	.83	.57	.43	.40	3.13	.53	.44	.46
Miscellaneous	.33	.33	.76	.10	.35	.19	.17	.02
TOTAL COST	<u>\$11.42</u>	<u>\$11.42</u>	<u>\$11.56</u>	<u>\$13.85</u>	<u>\$27.01</u>	<u>\$ 9.71</u>	<u>\$ 7.51</u>	<u>\$ 6.49</u>
INCOME PER 100 POUNDS								
Receipts and net increases	\$16.45	\$13.86	\$12.67	\$12.91	\$20.90	\$13.93	\$10.61	\$ 5.52
PROFIT PER 100 POUNDS	\$ 5.03	\$ 2.44	\$ 1.11	\$ -.94	\$-6.11	\$ 4.22	\$ 3.10	\$ -.97
FEEDS FED PER 100 POUNDS								
Corn equivalent	483	498	391	791	998	396	375	391
Corn	353	452	244	737	998	359	331	356
Oats	151	32	172	62	--	41	51	39
Wheat	--	19	--	--	--	1	1	1
Tankage equivalent	29	34	45	5	95	32	33	27
Soybeans	1	--	--	--	--	--	1	2
Tankage	--	11	--	--	--	4	15	8
Skimmilk	65	4	129	30	894	28	59	35
Other proteins	29	28	46	3	26	33	12	18
Milfeed	1	2	--	--	--	2	3	--
Minerals	15	1	--	--	--	7	.8	.8
Straw	16	17	4	16	--	15	17	17
Roughage	3	5	--	--	--	4	3	4
Pasture days (an. unit)	5	3	2	3	--	3	4	4
MAN HOURS PER 100 POUNDS	2.8	2.9	2.6	3.6	13.2	2.7	2.4	2.3
Pork produced from feed fed	33 513	32 755	7 238	7 280	2 335	22 362	16 939	17 963
Total pounds hogs produced	34 092	32 755	7 329	9 380	2 335	23 065	18 023	17 088
Sold	30 700	30 435	7 775	5 715	9 540	21 007	16 538	18 511
Used	317	1 185	1 200	--	225	4 922	418	19 308

a/ Not included in the average.

MILK CATTLE

Table 13.--Cost items and income (animal unit basis) for milk cattle on 23 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of net profit for each animal unit)

Items	Farm number								
	56	79	27	80	90	75	67	73	92
COST ITEMS PER ANIMAL UNIT									
Feed	\$ 74.97	\$ 79.52	\$ 69.16	\$ 59.68	\$ 62.95	\$ 92.20	\$ 50.39	\$ 27.71	\$ 64.62
Man labor	35.20	34.39	54.05	32.33	15.43	22.32	14.77	15.40	55.94
Horse labor	--	--	--	--	.19	.13	--	.10	--
Interest on investment	4.45	3.18	4.08	3.58	3.94	3.81	3.51	5.44	6.24
Building expense	2.23	1.43	8.62	1.48	1.29	1.71	2.67	2.35	38.44
Equipment expense	.33	2.42	.84	2.88	1.79	1.98	.68	2.46	4.68
Veterinary, medicine and testing	3.44	1.94	--	.49	--	3.08	1.33	2.08	2.81
Gen'l farm expense	19.71	7.94	47.49	9.79	6.18	10.00	13.97	8.99	20.20
Miscellaneous	4.84	16.92	23.65	17.02	2.87	14.99	7.81	10.13	1.84
TOTAL COST	\$145.17	\$147.74	\$207.89	\$127.25	\$ 94.64	\$150.22	\$ 95.13	\$134.66	\$194.77
INCOME PER ANIMAL UNIT									
Milk	\$ 87.12	\$154.37	\$214.43	\$134.72	\$ 44.24	\$ 96.46	\$ 63.57	\$110.27	\$104.31
Increase	99.16	24.32	21.49	15.66	57.44	55.00	26.07	11.69	76.87
Manure	.95	3.56	2.45	1.43	.49	2.89	1.08	2.54	2.38
TOTAL INCOME	\$187.23	\$182.25	\$238.37	\$151.81	\$102.17	\$154.35	\$ 90.72	\$124.50	\$183.56
NET PROFIT PER ANIMAL UNIT	\$ 42.06	\$ 34.51	\$ 30.48	\$ 24.56	\$ 7.53	\$ 4.13	\$ -4.41	\$ -10.16	\$ -11.21
MILK PRODUCED PER COW	7 735	7 378	8 459	7 715	4 820	6 677	5 713	6 005	7 730
Value of milk per cow	\$127.63	\$215.48	\$214.43	\$223.45	\$ 79.53	\$167.72	\$109.40	\$167.09	\$127.55
Herd cost per cow ^{a/}	\$ 66.01	\$167.32	\$183.95	\$182.71	\$ 65.98	\$160.54	\$116.99	\$182.48	\$141.26
Herd cost of 100 lbs. of milk	\$.85	\$ 2.27	\$ 2.17	\$ 2.37	\$ 1.37	\$ 2.40	\$ 2.05	\$ 3.04	\$ 1.83
FEED PER ANIMAL UNIT									
Farm grains	2 895	1 563	2 404	1 834	557	2 693	1 742	2 509	1 534
Millfeeds	96	325	--	126	23	303	--	36	257
Hay	1 626	4 664	3 270	1 320	--	2 769	1 793	4 892	2 290
Silage	--	409	--	--	1 978	--	--	--	--
Whole milk	--	100	--	248	1 573	469	325	68	--
Skim milk	1 021	102	--	--	345	--	--	--	--
Pasture days	244	195	295	188	330	198	213	208	236
LABOR PER ANIMAL UNIT									
Man hours	99.1	109.0	147.4	97.9	39.7	58.0	38.4	43.1	121.5
Horse hours	--	--	--	--	1.3	1.0	--	.2	--
Number of animal units	5.23	34.2	2.6	16.67	16.18	23.3	16.4	13.94	2.14
Number of dairy cows	3.57	24.5	2.6	10.05	9.0	13.4	9.53	9.2	1.75

a/ Net after deducting increase and manure.

31.

Table 13.--Cost items and income (animal unit basis) for milk cattle on 23 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of net profit for each animal unit)

Items	Farm number								
	96	45	98	83	62	74	49	99	95
COST ITEMS PER ANIMAL UNIT									
Feed	\$110.39	\$ 64.10	\$ 62.72	\$ 74.19	\$ 87.34	\$ 74.09	\$ 63.66	\$ 58.39	\$ 65.78
Man labor	39.09	33.95	28.18	39.81	17.57	32.90	35.86	17.21	18.23
Horse labor	.83	--	--	--	--	.29	--	--	--
Interest on investment	5.50	4.97	3.57	4.46	3.45	3.38	7.46	3.30	3.82
Building expense	3.22	.94	1.46	5.28	1.44	1.59	1.17	5.68	5.01
Equipment expense	2.76	1.98	1.65	2.24	1.89	1.55	1.16	.39	.54
Veterinary, medicine and testing	8.03	--	.59	1.60	--	.89	--	1.24	.74
Gen'l farm expense	15.14	18.74	16.09	14.51	13.11	16.93	27.69	11.53	7.20
Miscellaneous	3.58	3.08	.61	14.44	8.23	2.76	.95	1.12	.42
TOTAL COST	\$188.54	\$127.76	\$114.87	\$156.53	\$133.03	\$134.38	\$137.95	\$ 98.86	\$101.74
INCOME PER ANIMAL UNIT									
Milk	\$ 84.76	\$ 61.81	\$ 53.72	\$124.23	\$ 64.31	\$ 54.41	\$ 41.89	\$ 39.47	\$ 22.70
Increase	88.92	50.26	44.00	7.77	42.05	52.06	64.68	23.28	37.11
Manure	3.65	1.09	1.03	4.49	.61	1.20	.39	1.15	.54
TOTAL INCOME	\$177.33	\$113.16	\$ 98.75	\$136.49	\$106.97	\$107.67	\$106.96	\$ 63.90	\$ 60.35
NET PROFIT PER ANIMAL UNIT	\$-11.21	\$-14.60	\$-16.12	\$-20.04	\$-26.06	\$-26.71	\$-30.99	\$-34.96	\$-41.39
MILK PRODUCED PER COW	9 239	5 897	5 970	6 092	3 222	6 645	2 618	4 027	3 033
Value of milk per cow	\$191.49	\$ 97.29	\$ 82.00	\$143.16	\$ 98.22	\$109.65	\$ 41.89	\$ 66.38	\$ 50.05
Herd cost per cow ^{a/}	\$216.82	\$120.28	\$106.60	\$166.24	\$138.03	\$163.49	\$ 72.87	\$125.17	\$141.35
Herd cost of 100 lbs. of milk	\$ 2.35	\$ 2.04	\$ 2.14	\$ 2.73	\$ 4.28	\$ 2.46	\$ 2.78	\$ 3.11	\$ 4.66
FEED PER ANIMAL UNIT									
Farm grains	2 527	2 461	1 299	2 243	2 239	1 697	1 572	1 042	1 541
Millfeeds	562	178	30	80	--	311	--	3	--
Hay	5 640	2 084	1 840	2 370	1 369	2 942	3 289	2 162	2 850
Silage	--	--	--	--	--	--	--	--	--
Whole milk	203	--	927	315	662	532	--	404	757
Skim milk	--	--	447	--	--	113	--	392	116
Pasture days	264	218	259	270	314	207	379	337	241
LABOR PER ANIMAL UNIT									
Man hours	116.2	102.6	75.5	108.0	51.0	97.3	93.0	46.9	50.0
Horse hours	2.7	--	--	--	--	.6	--	--	--
Number of animal units	16.72	3.4	11.22	7.49	8.4	15.72	1.14	11.1	12.13
Number of dairy cows	7.4	2.16	7.35	6.5	5.5	7.8	1.14	6.6	5.5

a/ Net after deducting increase and manure.

MILK CATTLE (cont.)

Table 13.--Cost items and income (animal unit basis) for milk cattle on 23 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of net profit for each animal unit)

Items	Farm number			1942 average of 23 farms	1941 average of 26 farms	1940 average of 29 farms
	93	47	89			
COST ITEMS PER ANIMAL UNIT						
Feed	\$ 88.60	\$ 82.67	\$118.88	\$ 77.82	\$ 62.88	\$ 48.68
Man labor	45.44	35.40	41.64	29.41	25.16	20.57
Horse labor	.60	--	.07	.16	.11	.19
Interest on investment	6.49	4.28	4.47	4.18	3.63	3.17
Building expense	4.54	1.67	2.41	3.11	2.80	2.83
Equipment expense	3.34	2.93	.77	2.08	.42	2.04
Veterinary medicine and testing	11.59	.96	2.12	2.81	.92	1.55
Gen'l farm expense	21.06	22.88	33.95	13.63	13.53	13.17
Miscellaneous	10.26	2.21	10.07	8.66	7.87	3.92
TOTAL COST	\$191.92	\$153.00	\$214.38	\$141.86	\$117.32	\$ 96.12
INCOME PER ANIMAL UNIT						
Milk	\$101.99	\$ 85.28	\$144.09	\$ 90.87	\$ 84.67	\$ 63.75
Increase	41.58	18.97	15.15	39.12	25.83	23.96
Manure	2.53	--	.48	1.99	2.87	1.94
TOTAL INCOME	\$146.10	\$104.25	\$159.72	\$131.98	\$113.37	\$ 89.65
NET PROFIT PER ANIMAL UNIT	\$-45.82	\$-48.75	\$-54.66	\$-9.88	\$-3.95	\$-6.47
MILK PRODUCED PER COW	6 276	8 037	9 207	6 355	6 513	6 500
Value of milk per cow	\$166.66	\$132.60	\$151.92	\$147.14	\$125.40	\$100.04
Herd cost per cow ^{a/}	\$241.54	\$208.42	\$209.55	\$163.14	\$131.25	\$110.20
Herd cost per 100 lbs. of milk	\$ 3.85	\$ 2.59	\$ 2.28	\$ 2.57	\$ 2.02	\$ 1.70
FEED PER ANIMAL UNIT						
Farm grains	2 893	2 456	5 541	2 040	1 967	1 934
Mill feeds	410	96	98	193	123	47
Hay	1 608	2 814	1 970	2 861	3 331	2 951
Silage	2 896	--	--	351	171	108
Whole milk	100	296	280	403	464	398
Skim milk	100	871	--	135	143	203
Pasture days	214	291	337	238	224	221
LABOR PER ANIMAL UNIT						
Man hours	92.3	96.5	113.6	79.86	80.0	73.38
Horse hours	1.3	--	.2	.52	.5	.72
Number of animal units	26.93	6.22	3.30	11.41	9.92	8.65
Number of dairy cows	16.48	4.0	3.13	7.04	6.70	5.51

a/ Net after deducting increase and manure.

Table 14.--Cost and income (head basis) for feeder cattle on 6 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of net profit per head sold)

Items	Farm number						1942 av. of 5 droves	1941 av. of 6 droves	1940 av. of 8 droves
	49	45	93	56	67	96			
Number of head sold	29	54	35	117	13	9	41	42	38
Sales weight	1 251	947	1 222	927	1 011	1 104	1 015	1 098	944
Purchase weight	774	483	684	469	471	867	538	535	533
Gain in weight	477	464	538	458	540	238	477	563	461
Days on feed	262	299	324	326	402	135	316	335	285
Gain per head per day	1.82	1.55	1.66	1.40	1.34	1.76	1.51	1.68	1.62
PURCHASE VALUE PER HEAD SOLD	\$ 91.43	\$ 62.08	\$ 72.47	\$ 59.55	\$ 49.98	\$ 83.78	\$ 65.15	\$ 55.31	\$ 50.72
FEEDING COST PER HEAD									
Feed	\$ 71.62	\$ 62.49	\$ 75.91	\$ 65.82	\$ 58.71	\$ 42.61	\$ 66.82	\$ 62.57	\$ 43.44
Man labor	2.79	1.55	6.69	2.16	6.40	6.82	2.96	3.41	2.79
Horse labor	.06	--	1.87	.13	--	--	.34	.29	.16
Interest on investment	4.81	2.28	4.71	2.58	4.14	1.43	3.16	3.16	2.22
Building expense	1.04	3.51	.68	1.01	2.34	2.49	1.58	1.20	1.31
Equipment expense	.90	1.23	1.77	.28	.45	.90	.78	.31	1.03
Gen'l farm expense	2.20	.87	3.29	1.21	5.87	2.64	1.79	2.40	2.02
Miscellaneous	1.16	.84	1.55	.54	.59	.78	.82	1.25	.10
TOTAL FEEDING COST	\$ 84.58	\$ 72.77	\$ 96.47	\$ 73.73	\$ 78.50	\$ 57.67	\$ 78.25	\$ 74.59	\$ 53.07
TOTAL COST PER HEAD	\$ 176.01	\$ 134.85	\$ 168.94	\$ 133.28	\$ 128.48	\$ 141.45	\$ 143.40	\$ 129.90	\$ 103.79
INCOME PER HEAD									
Sales value	\$ 191.65	\$ 135.43	\$ 163.83	\$ 131.36	\$ 124.13	\$ 131.22	\$ 143.50	\$ 123.82	\$ 104.28
Value of hog gains	9.75	6.41	8.23	5.46	2.79	5.60	6.42	6.44	2.34
Manure	.75	.82	3.83	.77	1.15	1.44	1.23	2.43	1.96
TOTAL INCOME PER HEAD	\$ 202.15	\$ 142.66	\$ 175.89	\$ 137.59	\$ 128.07	\$ 138.26	\$ 151.15	\$ 132.69	\$ 108.58
PROFIT PER HEAD	\$ 26.14	\$ 7.81	\$ 6.95	\$ 4.31	\$ -.41	\$ -3.19	\$ 7.75	\$ 2.79	\$ 4.79
PURCHASE PRICE PER CWT.	\$ 11.81	\$ 12.86	\$ 10.59	\$ 12.68	\$ 10.62	\$ 9.67	\$ 11.71	\$ 10.34	\$ 9.52
SALE PRICE PER CWT.	\$ 15.32	\$ 14.30	\$ 13.41	\$ 14.16	\$ 12.28	\$ 11.88	\$ 13.89	\$ 11.28	\$ 10.49
AMOUNT OF FEED (lb.)									
Corn	3 541	2 315	2 963	3 756	2 446	2 035	3 237	3 604	2 904
Oats	254	1 115	245	214	263	142	422	855	250
Millfeeds	252	194	171	134	19	89	160	310	175
Hay	1 307	1 574	2 611	1 143	1 769	1 407	1 426	1 749	2 384
Silage	--	--	2 057	--	--	--	290	--	--
Minerals and salt	14	23	62	9	46	8	22	11	11
Straw	422	259	343	--	288	189	169	370	301
Pasture days	59	18	111	34	164	--	51	52	63.40
LABOR									
Man hours	7.3	4.7	14.6	6.2	17.2	20.3	7.79	10.72	9.81
Horse hours	1	--	4.9	.4	--	--	.92	1.54	1.14
FEEDING COST PER 100 LB. GAIN	\$ 15.53	\$ 14.11	\$ 15.70	\$ 13.57	\$ 13.81	\$ 21.29	\$ 16.40	\$ 13.26	\$ 11.51
PRICE REALIZED PER BU. CORN	\$ 1.18	\$.96	\$.87	\$.83	\$.72	\$.67	\$.90	\$.66	\$.52

a/ Not included in the average. Calves had been on feed several months before farmer entered cost study group.

Table 16.--Cost and income for entire flock on 25 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of total net profit from the poultry enterprise)

Items	Farm number									
	89	71	83	63	95	73	74	15	67	75
Number of hens in flock	195	230	132	89	161	125	136	198	47	112
Eggs per hen	106	172	116	170	74	164	117	113	47	85
COST ITEMS PER FLOCK										
Feed	\$352.08	\$582.10	\$311.82	\$344.93	\$109.88	\$239.68	\$360.43	\$367.31	\$ 97.96	\$205.35
Man labor	110.93	127.85	69.27	61.87	74.74	134.31	129.80	140.92	36.49	61.84
Horse labor	.49	4.26	--	6.30	1.16	6.46	.76	--	--	3.34
Interest on investment	10.56	12.10	7.15	4.49	6.79	6.12	7.82	9.39	3.27	7.44
Bldg. and equip. expense	16.39	17.35	40.13	17.40	15.85	46.45	50.09	60.08	37.73	23.40
Gen'l farm expense	90.44	41.23	25.25	34.11	29.54	78.43	66.79	75.34	34.52	27.70
Miscellaneous	24.72	13.02	17.83	18.21	5.84	25.41	20.57	25.63	12.51	30.98
Decrease	--	--	--	--	--	--	--	--	--	--
TOTAL COST	\$605.61	\$797.91	\$471.45	\$487.31	\$243.80	\$536.86	\$636.26	\$678.67	\$222.48	\$360.05
INCOME PER FLOCK										
Eggs sold	\$428.65	\$775.70	\$368.18	\$283.55	\$176.92	\$467.03	\$308.06	\$550.74	\$ 20.57	\$124.40
Eggs used	90.00	106.20	40.80	102.82	96.00	44.40	74.70	45.78	31.35	93.30
Manure	1.35	10.88	14.93	1.35	.90	4.35	4.27	6.28	.82	5.33
Increase and meat sales	326.58	90.31	212.79	256.80	101.78	137.58	364.56	165.89	210.06	176.54
TOTAL INCOME	\$846.58	\$983.09	\$636.70	\$644.52	\$375.60	\$653.36	\$751.59	\$768.69	\$262.80	\$399.57
NET PROFIT PER FLOCK	\$240.97	\$185.18	\$165.25	\$157.21	\$131.80	\$116.50	\$115.33	\$ 90.02	\$ 40.32	\$ 39.52
FEED FED FLOCK (lb.)										
Farm grains	19 445	33 788	15 264	17 584	6 028	8 438	14 754	12 012	1 525	9 003
Purchased concentrates	400	2 000	2 375	2 400	525	3 000	3 900	5 300	1 373	2 200
Skim milk	5 298	7 860	150	3 145	--	--	2 701	3 353	600	--
Litter	300	4 000	1 200	2 400	1 340	1 560	2 500	3 000	--	800
LABOR PER FLOCK										
Man hours	302.75	373.25	188.00	176.5	205.00	375.75	384.00	320.00	95.00	160.75
Horse hours	1.00	21.5	--	8.00	4.00	14.00	1.5	--	--	26.00
Number of eggs produced										
No. used in household	20 701	39 498	15 297	15 121	11 856	20 520	15 920	22 372	2 205	9 487
No. sold	3 600	4 248	1 632	3 301	3 840	1 776	2 988	1 833	1 254	3 733
No. used for hatching	17 101	35 250	13 650	11 820	8 016	18 384	12 932	20 539	951	5 754
No. used for hatching	--	--	15	--	--	360	--	--	--	--
NET RETURNS PER 100 HENS	\$123.57	\$ 80.51	\$125.19	\$176.64	\$ 81.86	\$ 93.20	\$ 84.80	\$ 45.46	\$ 85.79	\$ 35.29
NET COST PER DOZEN EGGS	\$.215	\$.218	\$.237	\$.232	\$.180	\$.246	\$.244	\$.282	\$.239	\$.248

POULTRY (Total Flock) (cont.)

Table 16.--Cost and income for entire flock on 25 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of total net profit from the poultry enterprise)

Items	Farm number										
	56	76	92	93a/	90	100	79	99	27	80	49
Number of hens in flock	76	33	6	238	110	191	129	33	189	111	
Eggs per hen	107	125	59	107	65	99	50	89	74	96	
COST ITEMS PER FLOCK											
Feed	\$275.18	\$230.57	\$ 14.22	\$454.35	\$219.80	\$351.76	\$246.52	\$ 43.14	\$188.19	\$153.82	
Man labor	72.71	63.77	--	241.54	67.48	172.21	52.16	48.86	97.05	49.17	
Horse labor	--	--	--	6.46	1.28	--	--	--	--	--	
Interest on investment	2.79	3.90	.33	13.23	7.26	6.92	8.13	4.13	8.35	5.55	
Bldg. and equip. expense	63.82	59.87	8.04	36.61	11.99	27.00	25.75	19.65	47.99	23.93	
Gen'l farm expense	40.71	23.03	--	96.82	71.44	39.75	34.95	42.93	29.39	37.97	
Miscellaneous	6.26	13.17	--	16.77	10.40	8.92	12.31	3.45	10.36	9.75	
Decrease	--	--	1.94	--	--	--	--	--	2.85	18.87	
TOTAL COST	\$461.47	\$394.31	\$ 24.53	\$865.78	\$389.65	\$606.56	\$379.82	\$162.16	\$384.18	\$299.06	
INCOME PER FLOCK											
Eggs sold	\$133.69	\$ 79.96	\$ 3.41	\$469.93	\$ 86.54	\$389.95	\$ 61.93	\$ 25.68	\$242.41	\$197.94	
Eggs used	60.00	27.00	5.60	107.40	78.00	59.10	104.55	40.20	86.30	45.38	
Manure	2.25	7.20	.30	1.95	9.30	8.25	6.08	1.57	5.10	1.12	
Increase and meat sales	284.21	289.92	--	268.03	173.75	106.82	161.13	44.45	--	--	
TOTAL INCOME	\$480.15	\$404.08	\$ 9.31	\$847.31	\$347.59	\$564.12	\$333.69	\$111.90	\$333.81	\$244.44	
NET PROFIT PER FLOCK	\$ 18.68	\$ 9.77	\$-15.22	\$-18.47	\$-42.06	\$-42.44	\$-46.13	\$-50.26	\$-50.37	\$-54.62	
FEED FED FLOCK (lb.)											
Farm grains	13 408	9 448	528	19 182	15 041	16 922	14 082	3 020	8 800	9 205	
Purchased concentrates	2 100	2 075	200	3 000	200	2 500	800	--	1 600	350	
Skim milk	--	1 969	--	--	3 990	353	7 095	--	--	646	
Litter	500	600	--	2 600	165	300	500	500	1 500	3 420	
LABOR PER FLOCK											
Man hours	204.75	138.5	--	621.75	197.00	546.00	142.25	133.25	294.0	127.5	
Horse hours	--	--	--	42.5	2.00	--	--	--	--	--	
Number of eggs produced											
No. used in household	8 130	4 134	356	25 350	7 174	18 942	6 462	2 928	14 018	10 701	
No. sold	2 400	1 080	224	1 248	3 120	2 364	4 182	1 608	3 452	1 815	
No. used for hatching	5 610	3 054	132	21 054	3 864	16 578	2 280	1 176	10 566	8 886	
NET RETURNS PER 100 HENS	\$ 24.58	\$ 29.61	\$-23.67	\$ -7.76	\$-38.24	\$-22.22	\$-35.76	\$152.30	\$-26.65	\$-49.21	
NET COST PER DOZEN EGGS	.275	.303	.799	.279	.309	.306	.352	.391	.324	.339	

a/ Not included in average.

Table 16.--Cost and income for entire flock on 25 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of total net profit from the poultry enterprise)

Items	Farm number				1942 av. of 25 farms	1941 av. of 26 farms	1940 av. of 28 farms
	98	45	62	96			
Number of hens in flock	83	57	74	78	132	109	104
Eggs per hen	78	149	88	176	107	108	101
COST ITEMS PER FLOCK							
Feed	\$177.25	\$274.97	\$147.59	\$400.40	\$280.94	\$213.39	\$167.80
Man labor	51.77	51.51	44.32	137.52	94.54	82.06	65.16
Horse labor	--	--	--	3.13	1.35	.92	1.02
Interest on investment	2.80	2.06	3.82	3.88	6.69	5.93	4.61
Bldg. and equip. expense	28.27	32.53	13.61	69.14	34.34	35.67	33.95
Gen'l farm expense	29.56	28.44	33.06	53.24	49.01	44.18	39.35
Miscellaneous	9.92	28.88	3.78	22.28	15.74	14.19	9.36
Decrease	--	--	16.20	--	--	--	--
TOTAL COST	\$299.57	\$418.39	\$262.38	\$689.59	\$482.61	\$396.34	\$321.25
INCOME PER FLOCK							
Eggs sold	\$125.69	\$116.36	\$138.92	\$247.63	\$356.91	\$184.44	\$132.71
Eggs used	21.15	82.80	15.30	85.10	111.90	42.84	36.51
Manure	2.78	2.85	1.58	11.70	14.02	5.31	4.78
Increase and meat sales	94.74	129.62	--	223.84	493.25	172.48	105.23
TOTAL INCOME	\$244.36	\$331.63	\$155.80	\$568.27	\$976.08	\$405.07	\$279.23
NET PROFIT PER FLOCK	\$-55.21	\$-86.76	\$-106.58	\$-121.32	\$-169.20	\$ 8.73	\$-42.02
FEED FED FLOCK (lb.)							
Farm grains	8 613	11 556	9 976	14 072	13 375	12 046	10 714
Purchased concentrates	1 450	2 845	300	3 840	1 986	2 028	1 825
Skim milk	2 726	--	--	7 663	2 299	2 447	1 697
Litter	200	1 000	500	2 000	1 315	1 523	1 104
LABOR PER FLOCK							
Man hours	138.75	155.75	128.5	408.75	261.89	261.80	238.80
Horse hours	--	--	--	10.00	5.22	4.81	5.46
Number of eggs produced							
No. used in household	6 510	8 472	6 514	13 689	13 347	11 839	11 015
No. sold	842	3 312	613	3 404	2 514	2 256	2 306
No. used for hatching	5 668	5 160	5 901	10 284	10 678	9 512	8 696
NET RETURNS PER 100 HENS	\$-66.52	\$452.21	\$-144.03	\$-155.54	\$-128.18	\$ 8.00	\$-42.37
NET COST PER DOZEN EGGS	\$.352	\$.356	\$.501	\$.347	\$.365	\$.225	\$.250

SHEEP

Table 17.--Cost and income for flocks on 11 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of net profit per flock)

Items	Farm number					
	90	89	79	49	67	83
COST ITEMS PER FLOCK						
Feed	\$ 11.74	\$ 20.60	\$ 29.07	\$ 15.91	\$ 16.34	\$ 75.69
Man labor	4.26	40.39	5.91	11.67	2.98	--
Interest on investment	2.42	6.75	.60	3.78	.78	3.20
Building expense	.45	--	--	--	--	8.33
Equipment expense	.15	.99	.13	.13	.03	.38
Gen'l farm expense	--	--	1.38	--	--	--
Veterinary and medicine	--	2.70	--	--	--	--
Miscellaneous	2.09	.59	.06	2.49	.93	3.69
TOTAL COST	\$ 21.11	\$ 72.02	\$ 37.15	\$ 33.98	\$ 21.06	\$ 91.29
INCOME PER FLOCK						
Increase	\$ 13.00	\$ 29.37	\$ 12.28	\$ 18.00	\$ 5.00	\$ 47.28
Wool	8.70	42.92	9.66	--	--	18.06
Manure	--	.15	.38	--	--	1.95
TOTAL INCOME	\$ 21.70	\$ 72.44	\$ 22.32	\$ 18.00	\$ 5.00	\$ 67.29
NET PROFIT PER FLOCK	\$.59	\$.42	\$ -14.83	\$ -15.98	\$ -16.06	\$ -24.00
FEED PER FLOCK (lb.)						
Corn	--	--	112	--	--	--
Oats	32	656	64	--	704	288
Soybeans	--	--	--	--	--	--
Millfeeds	--	--	--	--	--	--
Minerals	11	32	4	12	4	13
Hay	357	1 500	1 000	2 000	250	2 250
Straw	300	--	--	--	250	--
Pasture days	166	--	317	--	99.5	1 046
Whole milk	--	--	--	--	--	--
LABOR PER FLOCK	11	110.25	18.75	30.25	7.75	--
Man hours						
AVERAGE NUMBER OF SHEEP	3.0	12.0	1.0	6.0	2.0	5.0
NUMBER OF EWES, JAN. 1, 1942	1.0	12.0	1.0	--	--	8.0
LAMBS PER EWE	--	.6	1.0	--	--	1.4

Table 17.--Cost and income for flocks on 11 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of net profit per flock)

Items	Farm number			
	99	80	45	95
COST ITEMS PER FLOCK				
Feed	\$ 91.30	\$454.27	\$ 10.01	\$ 70.39
Man labor	33.46	65.85	6.46	71.28
Interest on investment	8.08	30.28	1.48	4.02
Building expense	24.41	42.18	--	2.90
Equipment expense	.94	5.63	.27	.31
Gen'l farm expense	22.42	19.94	3.56	--
Veterinary and medicine	10.74	6.62	--	--
Miscellaneous	.82	23.39	.37	2.95
TOTAL COST	\$192.17	\$648.16	\$ 22.15	\$151.85
INCOME PER FLOCK				
Increase	\$ 97.40	\$379.44	\$-25.60	\$ 31.95
Wool	59.20	219.02	--	31.24
Manure	1.28	11.92	--	1.50
TOTAL INCOME	\$157.88	\$610.38	\$-25.60	\$ 64.59
NET PROFIT PER FLOCK	\$-34.29	\$-37.78	\$-47.75	\$-87.26
FEED PER FLOCK (lb.)				
Corn	--	5 656	--	672
Oats	1 368	4 160	--	1 344
Soybeans	--	--	--	--
Millfeeds	--	--	--	--
Minerals	68	328	--	39
Hay	3 460	19 500	--	3 000
Straw	--	1 000	--	500
Pasture days	767	2 530	134	328
Whole milk	--	--	--	--
LABOR PER FLOCK	91.25	199.5	19.5	196.5
Man hours				
AVERAGE NUMBER OF SHEEP	15.0	55.0	2.0	7.0
NUMBER OF EWES, JAN. 1, 1942	11.0	55.0	--	4.0
LAMBS PER EWE	1.5	.9	--	1.8

LABOR AND POWER COSTS

Man-Labor Costs

The total farm cost of man labor includes not only cash but perquisites furnished to hired labor in the form of board and room, or a house with land for a garden, and meat, milk, eggs, or other farm products, plus average local labor wages applied to the time spent by the operator and members of his family. Products grown on the farm and given to hired labor were included in the farm labor cost at farm prices. On these 280 acre farms, the total man labor cost was \$1813, of which \$817 was hired labor cost.

For 1942, the hourly labor rates for the various farms ranged from 31.5 cents to 49.2 cents, with an average of 36.7 cents,

Table 18.--Man-Labor Cost, Including the Cost of Husking and Detasseling Corn

Item	Average of 26 farms		Your farm	
	Amount	Percent of total	Amount	Percent of total
Hired-labor cost				
Cash	\$544.47	66.7	\$ _____	_____
Perquisites				
Board	83.39	10.2	_____	_____
Food	35.56	4.3	_____	_____
Feed	68.36	8.4	_____	_____
Buildings and lots	85.06	10.4	_____	_____
Total	(\$272.37)	(33.3)	(\$ _____)	(_____)
Total	\$816.84	100.0	\$ _____	_____
Hours of labor performed by hired men	2102.	--	_____	--
Cost an hour of hired labor (including husking and detasseling)	\$.376	--	\$ _____	--
Cost an hour of regular monthly labor	\$.367	--	\$ _____	--

Item	Average of 26 farms			Your farm		
	Cost	Percent of total cost	Hours of labor	Cost	Percent of total cost	Hours of labor
Hired labor	\$ 816.84	43.5	2102	\$ _____	_____	_____
Custom labor	34.17	1.8	65	_____	_____	_____
Family labor	148.26	7.9	404	_____	_____	_____
Operator's labor	877.84	46.8	2394	_____	_____	_____
Total labor	\$1877.11	100.0	4965	\$ _____	_____	_____
Labor off farm	\$ 64.30	--	175	\$ _____	_____	_____
Net labor on farm	\$1812.81	--	4790	\$ _____	_____	_____

Horse-Labor Costs

Horses were used in operating 19 of the 26 farms. On 13 of the 19 farms the available horses were each worked less than 300 hours: on only one farm were they used more than 700 hours. As a source of power, horses have declined to the point where, with but few exceptions, only one team is kept.

Tractor Costs

All of the 26 farms used tractors; five of them had three for a part or all of the year, 11 had two, and the remaining five had one. Thus, a total of 47 tractors were used in operating the 26 farms.

The drawbar-horsepower ratings of each of the 47 tractors were obtained from the reports of the Nebraska Tractor Tests and varied from 9.8 to 29.6. For the purpose of analyzing and comparing operating costs, the tractors were divided into three groups: (1) Those with drawbar-horsepower ratings between 9.0 and 16.0, (2) those with ratings between 16.0 and 21.0, and (3) those with ratings between 21.0 and 30.0. These groupings are somewhat arbitrary, although there appeared to be logical breaks in horsepower at the three ratings selected.

The cost per hour of the tractors used in the 9.0 to 16.0 drawbar rating group during the cropping season varied from a low of 27.9 cents to a high of 71.5 cents. The average cost of operating these small tractors, not including the cost of the time of the operator, was 46.6 cents an hour.

The average operating cost per hour in the 16.0 to 21.0 drawbar rating group (not including the cost of the operator's time) varied from 29.4 cents to 70.3 cents. The machine with the lowest cost per hour was used 708 hours during the year, whereas the tractor with the highest hourly cost was used only 526 hours. The difference in the hourly cost of the two tractors did not entirely come from the difference in the hours of usage--much of it came from the difference in expense for overhauling and repairs.

Tractors in the 21.0 to 30.0 drawbar rating group were nearly all used with three-bottom plows and other large tillage and harvesting machinery. The operating cost per tractor, not including the operator's charge, varied from a low of 44.8 to a high of 75.4 cents an hour. The average hourly operator's cost for one of these large tractors was 64.1 cents.

HORSE LABOR

Table 19.--Net cost on 19 farms (53 work horses)
Champaign-Piatt Counties--1942 (Items of cost and feed on number of horse units)
(Farms ranked in order of net cost per hour of horse labor)

Items	Farm number							
	75	90	71	98	95	96	99	93
Number of work horses	2.0	4.32	5.0	3.0	2.0	6.96	2.0	4.4
Number of horse units	2.0	6.32	5.0	3.0	2.0	6.96	2.0	7.5
COST ITEMS PER HORSE UNIT								
Feed	\$ 60.52	\$ 39.84	\$ 46.46	\$ 31.77	\$ 54.94	\$ 58.12	\$ 60.24	\$ 61.31
Man labor	16.06	13.37	7.71	6.68	27.30	24.63	15.31	25.66
Horse labor	--	.27	.08	--	--	.35	--	1.77
Interest on investment	5.19	5.45	3.72	1.71	2.00	4.24	2.00	6.42
Depreciation	7.50	--	7.00	5.00	--	8.62	--	3.33
Shelter	5.38	3.44	2.74	1.05	9.42	5.28	10.17	5.89
Harness	2.87	4.26	1.22	1.25	3.68	1.51	.56	2.07
Veterinary	--	--	--	--	--	--	--	6.03
Miscellaneous	3.02	1.88	1.18	2.16	1.62	1.35	.38	3.58
TOTAL COST FOR YEAR	\$100.54	\$ 68.51	\$ 70.11	\$ 49.62	\$ 98.96	\$104.10	\$ 88.66	\$116.06
Appreciation	\$ --	\$ 9.02	\$ --	\$ --	\$ --	\$ --	\$ 20.00	\$ --
Manure credit	2.25	.42	.81	.37	.64	2.10	1.43	2.66
NET COST FOR YEAR	\$ 98.29	\$ 59.07	\$ 69.30	\$ 49.25	\$ 98.32	\$102.00	\$ 67.23	\$113.40
AMOUNT OF FEED (lb.)								
Total concentrates								
Corn	1 043	372	1 053	506	1 120	829	280	1 732
Oats	548	433	531	16	168	460	704	235
Hay	3 750	1 753	1 260	1 180	4 288	4 526	4 000	3 067
Other roughage	--	2 294	160	--	508	--	250	1 333
Pasture days	123	211	305	263	172	169	325	218
LABOR (chores)								
Man hours	41.75	34.41	22.50	17.92	74.88	73.20	41.75	52.13
Horse hours	--	1.78	.40	--	--	1.15	--	4.0
Average hours worked by each horse	765.0	568	349.8	218.5	338.2	325.8	211.2	435.2
COST PER HOUR	\$.128	\$.152	\$.198	\$.225	\$.291	\$.313	\$.318	\$.444

HORSE LABOR (cont.)

Table 19.--Net cost on 19 farms (53 work horses)
 Champaign-Piatt Counties--1942 (Items of cost and feed on number of horse units)
 (Farms ranked in order of net cost per hour of horse labor)

Items	Farm number						
	73	89	56	74	92	100	27
Number of work horses	2.0	2.0	3.0	3.48	2.15	2.0	2.0
Number of horse units	2.0	2.0	3.3	3.48	2.15	2.0	2.0
COST ITEMS PER HORSE UNIT							
Feed	\$ 51.74	\$ 46.50	\$ 36.83	\$ 73.55	\$ 68.82	\$ 75.14	\$ 39.07
Man labor	10.82	18.69	3.63	9.91	23.99	22.56	12.97
Horse labor	--	.12	--	.07	--	1.13	--
Interest on investment	3.00	3.81	2.39	4.10	6.57	1.19	4.28
Depreciation	--	--	--	4.31	30.23	2.50	11.13
Shelter	2.75	1.26	1.88	1.59	17.22	7.86	17.67
Harness	1.12	3.75	2.23	6.98	2.46	.80	1.16
Veterinary	--	--	--	--	--	--	1.00
Miscellaneous	2.12	1.05	.32	.84	12.50	1.88	1.26
TOTAL COST FOR YEAR	\$ 71.55	\$ 75.18	\$ 47.28	\$ 101.35	\$ 161.79	\$ 113.06	\$ 88.54
Appreciation	\$ --	\$ 2.50	\$ 1.82	\$ --	\$ --	\$ --	\$ --
Manure credit	\$ 1.69	.19	.29	1.58	3.25	3.15	.90
NET COST FOR YEAR	\$ 69.86	\$ 72.49	\$ 45.17	\$ 99.77	\$ 158.54	\$ 109.91	\$ 87.64
AMOUNT OF FEED (lb.)							
Total concentrates							
Corn	35	--	255	1 931	990	2 485	658
Oats	660	992	126	1 163	476	440	272
Hay	4 000	1 750	1 439	718	4	3 080	1 250
Other roughage	500	750	152	790	233	350	--
Pasture days	184	334	302	194	212	264	289
LABOR (chores)							
Man hours	30.25	51.0	10.23	29.0	52.10	65.88	35.38
Horse hours	--	.25	--	.14	--	1.75	--
Average hours worked by each horse	152.0	148.2	100.0	197.4	295.3	171.2	130.0
COST PER HOUR	\$.461	\$.489	\$.499	\$.505	\$.537	\$.642	\$.674

HORSE LABOR (cont.)

Table 19.--Net cost on 19 farms (53 work horses)
Champaign-Piatt Counties--1942 (Items of cost and feed on number of horse units)
(Farms ranked in order of net cost per hour of horse labor)

Items	Farm number		1942 average of 19 farms	1941 average of 16 farms	1940 average of 21 farms
	49	62			
Number of work horses	2.0	1.1	2.0	2.7	3.1
Number of horse units	2.0	1.1	2.0	3.0	3.2
COST ITEMS PER HORSE UNIT					
Feed	\$ 49.82	\$ 39.00	\$ 52.12	\$ 42.05	\$ 35.39
Man labor	9.81	10.35	15.20	11.07	8.49
Horse labor	--	--	.35	.24	.03
Interest on investment	5.00	2.64	4.04	4.50	4.56
Depreciation	20.00	47.27	7.48	6.74	13.93
Shelter	6.02	4.16	5.26	4.67	4.40
Harness	3.53	2.99	2.53	2.86	2.77
Veterinary	--	8.64	1.11	.31	.24
Miscellaneous	2.10	2.31	2.19	2.02	1.44
TOTAL COST FOR YEAR	\$ 96.28	\$117.36	\$ 90.28	\$ 74.46	\$ 71.25
Appreciation	\$ --	\$ --	\$ 1.84	\$ 5.16	\$.04
Manure credit	.19	.41	1.33	2.56	1.52
NET COST FOR YEAR	\$ 96.09	\$116.95	\$ 87.11	\$ 66.74	\$ 69.69
AMOUNT OF FEED (lb.)					
Total concentrates					
Corn	1 316	865	912	1 478	1 602
Oats	240	65	435	680	726
Hay	750	1 091	2 522	798	876
Other roughage	900	455	623	2 429	2 507
Pasture days	344	264	242	705	594
LABOR (chores)					
Man hours	28.0	30.0	39.64	34.81	31.25
Horse hours	--	--	.95	1.15	.21
Average hours worked by each horse	122.0	138.6	260.1	387.0	349.2
COST PER HOUR	\$.768	\$.843	\$.369	\$.173	\$.200

TRACTORS WITH DRAWBAR RATINGS BETWEEN 9.0 AND 16.0 HORSEPOWER

Table 20.--Total operating cost of tractor and hours of use for 7 tractors
Champaign-Piatt Counties--1942 (Tractors ranked in order of net cost per hour of use)

Items	Farm number							1942 average of 7 tractors ^{b/}			
	91	79	63	27	15	73	99		92 ^{a/}	98 ^{a/}	
Horsepower rating	9.8	13.8	10.1	12.1	15.8	15.8	13.8	10.9	10.9	10.9	13.03
COST ITEMS PER TRACTOR											
Fuel and oil	\$ 88.99	\$135.31	\$119.17	\$ 99.02	\$ 95.42	\$ 75.30	\$ 68.92	\$ 10.78	\$ 7.03	\$ 7.03	\$ 97.45
Repairs	64.50	3.11	37.71	68.80	4.77	3.65	34.88	30.90	--	--	31.06
Man labor	6.89	12.92	1.75	5.13	1.54	.18	.18	2.46	.75	.75	4.08
Shelter	5.07	.58	.21	2.96	12.77	5.50	12.28	--	--	--	5.62
Depreciation	45.00	80.00	40.00	50.00	105.00	150.00	75.00	--	25.00	25.00	77.86
Interest on investment	22.25	18.50	18.75	22.50	42.00	51.03	42.50	1.78	3.67	3.67	31.08
Miscellaneous	1.36	--	5.46	--	5.57	4.05	6.86	1.10	1.23	1.23	3.32
TOTAL COST	<u>\$234.06</u>	<u>\$250.42</u>	<u>\$223.05</u>	<u>\$248.41</u>	<u>\$267.07</u>	<u>\$289.71</u>	<u>\$240.62</u>	<u>\$ 46.02</u>	<u>\$ 37.68</u>	<u>\$ 37.68</u>	<u>\$250.48</u>
HOURS TRACTOR USED											
Draw-bar work	825.00	612.50	493.00	464.00	473.50	399.50	336.00	58.50	16.50	16.50	514.78
Belt work	15.00	45.00	--	10.50	26.75	61.50	.75	5.50	--	--	22.79
TOTAL HOURS USED	<u>840.00</u>	<u>657.50</u>	<u>493.00</u>	<u>474.50</u>	<u>500.25</u>	<u>461.00</u>	<u>336.75</u>	<u>64.00</u>	<u>16.50</u>	<u>16.50</u>	<u>537.57</u>
NET COST PER HOUR											
Year new	\$.279	\$.381	\$ 452	\$.524	\$.534	\$.628	\$.715	\$.719	\$ 2.28	\$ 2.28	\$.466
Hours of man labor (chores and overhauling)	1939	1939	1938	1937	1941	1942	1940	1942	1942	1942	--
Crop acres per farm	19.00	39.50	5.00	14.00	3.50	.50	.50	5.00	2.00	2.00	11.71
	205.48	66.71	255.11	137.02	261.37	60.60	62.41	428.15	226.39	226.39	149.81

a/ Not included in the average. Tractor purchased late in 1942.

b/ There were not enough tractors of this size on the cost farms in 1941 to warrant computing average cost.

TRACTORS WITH DRAWBAR RATINGS BETWEEN 16.0 AND 21.0 HORSEPOWER (cont.)

Table 21.--Total operating cost of tractor and hours of use for 20 tractors
Champaign-Piatt Counties--1942 (tractors ranked in order of net cost per hour of use)

Items	Farm number						
	100	83	92	45	62	75	45
Horsepower rating	19.2	19.2	19.1	19.3	20.5	16.3	19.3
COST ITEMS PER TRACTOR							
Fuel and oil	\$132.43	\$150.25	\$ 97.77	\$147.80	\$154.87	\$122.62	\$117.77
Repairs	50.16	83.17	1.95	105.54	30.60	58.61	59.73
Man labor	5.74	5.90	2.76	4.80	32.25	10.87	7.28
Shelter	13.16	2.90	10.28	3.95	.85	1.44	2.82
Depreciation	75.00	50.00	120.00	40.00	98.50	59.03	50.00
Interest on investment	33.54	32.50	34.00	28.00	61.52	22.00	20.00
Miscellaneous	.71	1.15	2.52	1.78	2.52	5.00	.55
TOTAL COST	<u>\$310.74</u>	<u>\$325.87</u>	<u>\$269.31</u>	<u>\$331.87</u>	<u>\$381.11</u>	<u>\$279.57</u>	<u>\$258.15</u>
HOURS TRACTOR USED							
Draw-bar work	652.25	678.00	543.00	667.75	756.50	491.50	506.25
Belt work	2.25	6.00	--	--	7.00	61.00	--
TOTAL HOURS USED	<u>654.50</u>	<u>684.00</u>	<u>543.00</u>	<u>667.75</u>	<u>763.50</u>	<u>552.50</u>	<u>506.25</u>
NET COST PER HOUR	\$.475	\$.476	\$.496	\$.497	\$.499	\$.506	\$.510
Year new	1942	1939	1939	1937	1941	1936	1941
Hours of man labor (chores and overhauling)	16.75	16.00	6.00	14.50	93.50	28.25	22.00
Crop acres per farm	152.22	128.20	529.98	485.54	235.73	252.30	485.54

TRACTORS WITH DRAWBAR RATINGS BETWEEN 16.0 AND 21.0 HORSEPOWER (cont.)

Table 21.--Total operating cost of tractor and hours of use for 20 tractors
Champaign-Piatt Counties--1942 (tractors ranked in order of net cost per hour of use)

Items	Farm number				1942 average of 20 tractors	1941 average of 25 tractors
	92	93	71	91		
Horsepower rating	19.1	19.2	20.5	16.3	19.0	19.4
COST ITEMS PER TRACTOR						
Fuel and oil	\$ 90.35	\$185.38	\$109.03	\$139.54	\$121.86	\$106.70
Repairs	25.45	25.22	--	128.63	37.51	33.89
Man labor	3.68	6.15	1.28	7.25	6.03	4.59
Shelter	10.28	1.70	1.82	23.79	5.54	2.99
Depreciation	125.00	100.00	150.00	45.00	82.98	93.94
Interest on investment	33.75	33.75	59.90	24.75	34.60	34.29
Miscellaneous	3.15	.30	1.41	1.08	2.17	1.60
TOTAL COST	<u>\$291.66</u>	<u>\$352.50</u>	<u>\$323.44</u>	<u>\$370.04</u>	<u>\$290.69</u>	<u>\$278.09</u>
HOURS TRACTOR USED						
Draw-bar work	525.00	623.00	493.00	526.00	588.59	531.10
Belt work	--	4.00	--	--	11.59	11.23
TOTAL HOURS USED	<u>525.00</u>	<u>627.00</u>	<u>493.00</u>	<u>526.00</u>	<u>600.18</u>	<u>542.33</u>
NET COST PER HOUR	\$.556	\$.562	\$.656	\$.703	\$.484	\$.528
Year new	1939	1938	1941	1936	--	--
Hours of man labor (chores and overhauling)	8.00	12.50	3.75	20.00	16.50	15.58
Crop acres per farm	529.98	428.15	181.65	205.48	296.74	298.68

TRACTORS WITH DRAWBAR RATINGS BETWEEN 21.0 AND 30.0 HORSEPOWER

Table 22.---Total operating cost of tractor and hours of use for 16 tractors
Champaign-Piatt Counties--1942 (Tractors ranked in order of net cost per hour of use)

Items	Farm number								
	49	67	75	63	49	74	15	56	92
Horsepower rating	21.2	26.2	29.2	24.8	21.2	24.6	21.2	24.4	26.2
COST ITEMS PER TRACTOR									
Fuel and oil	\$184.18	\$ 87.69	\$154.16	\$154.62	\$170.40	\$ 97.23	\$192.12	\$171.68	\$195.63
Repairs	15.55	4.15	26.70	63.05	38.42	2.00	127.74	58.48	10.65
Man labor	4.05	.19	13.56	12.27	17.36	--	4.40	13.49	3.22
Shelter	1.92	5.90	1.44	4.39	1.87	1.19	2.49	5.36	5.38
Depreciation	60.00	47.50	65.00	60.00	68.00	85.00	--	200.00	200.00
Interest on investment	25.00	24.88	19.06	35.50	38.75	21.75	18.75	50.00	55.00
Miscellaneous	<u>.67</u>	<u>.75</u>	<u>.24</u>	<u>10.42</u>	<u>2.96</u>	<u>.34</u>	<u>2.07</u>	<u>5.00</u>	<u>3.39</u>
TOTAL COST	\$291.37	\$171.06	\$280.16	\$340.25	\$337.76	\$207.51	\$347.57	\$504.01	\$473.27
HOURS TRACTOR USED									
Drawbar work	631.00	311.00	476.00	591.00	581.00	346.00	560.00	789.00	739.00
Belt work	<u>20.00</u>	<u>9.00</u>	<u>30.00</u>	<u>19.50</u>	<u>10.25</u>	<u>1.00</u>	<u>5.00</u>	<u>19.00</u>	<u>--</u>
TOTAL HOURS USED	651.00	320.00	506.00	610.50	591.25	347.00	565.00	808.00	739.00
NET COST PER HOUR	\$.448	\$.535	\$.554	\$.557	\$.571	\$.598	\$.615	\$.624	\$.640
Year new	1938	1940	1942	1937	1938	1934	1936	1939	1941
Hours of man labor (chores and overhauling)	10.50	.50	35.25	35.00	45.00	--	10.00	38.00	7.00
Crop acres per farm	303.20	155.25	252.30	255.11	303.20	304.25	261.37	381.32	529.98

TRACTORS WITH DRAWBAR RATINGS BETWEEN 21.0 AND 30.0 HORSEPOWER (cont.)

Table 22.---Total operating cost of tractor and hours of use for 16 tractors
Champaign-Piatt Counties--1942 (Tractors ranked in order of net cost per hour of use)

Items	Farm number						1941 av. of 15 tractors	1942 av. of 16 tractors	1941 av. of 15 tractors
	45	93	47	96	95	80			
Horsepower rating	29.6	22.6	26.2	19.7	20.9	24.8	25.7	24.3	24.7
COST ITEMS PER TRACTOR									
Fuel and oil	\$268.93	\$331.12	\$200.50	\$129.55	\$ 96.98	\$187.17	\$280.26	\$181.39	\$175.27
Repairs	72.97	93.77	15.81	30.25	59.82	71.54	123.73	50.91	29.60
Man labor	13.72	13.54	1.47	2.86	--	16.59	11.28	8.00	8.28
Shelter	4.52	1.70	2.80	3.65	3.65	7.89	5.69	3.74	3.41
Depreciation	160.42	125.00	101.00	59.01	100.00	123.00	165.00	101.18	113.70
Interest on investment	24.00	61.25	53.15	10.00	15.00	61.50	60.00	35.85	42.22
Miscellaneous	4.27	3.66	2.72	--	--	6.00	1.14	2.72	3.51
TOTAL COST	<u>\$548.83</u>	<u>\$630.04</u>	<u>\$377.48</u>	<u>\$235.32</u>	<u>\$275.45</u>	<u>\$473.69</u>	<u>\$647.10</u>	<u>\$383.80</u>	<u>\$375.99</u>
HOURS TRACTOR USED									
Drawbar work	794.25	871.00	518.50	330.75	363.00	633.00	809.00	583.97	590.63
Belt work	--	38.00	14.50	--	10.50	6.00	49.50	14.51	20.87
TOTAL HOURS USED	<u>794.25</u>	<u>909.00</u>	<u>533.00</u>	<u>330.75</u>	<u>373.50</u>	<u>639.00</u>	<u>858.50</u>	<u>598.48</u>	<u>611.50</u>
NET COST PER HOUR	\$.691	\$.693	\$.708	\$.711	\$.737	\$.741	\$.754	\$.641	\$.615
Year new	1936	1940	1940	1939	1938	1941	1940	--	--
Hours of man labor (chores and overhauling)	41.50	27.5	4.00	8.50	--	45.50	34.00	21.39	26.97
Crop acres per farm	485.54	428.15	172.09	262.27	262.27	286.04	175.50	301.12	301.45

FARM EARNINGS

Farm earnings in 1942 were the highest recorded since the cost accounting work in Champaign and Piatt Counties began 22 years ago. These high earnings were due to exceptionally good crop yields and to the advances in the prices of crops and livestock on hand at the beginning of the year, as well as to the good prices paid for crops and livestock produced in 1942. This period of high income was in distinct contrast with such periods as the early 1930's, when farm income failed to meet the operating expenses and farming gave no return for the use of capital. Farm debts, however, are paid from long-term farm earnings. Over the entire period of this study, the earnings on these better-than-average farms approximated 7.7 percent annually on the total farm investment. This return is probably three percent higher than the average rate of interest received of all farms in this same area. It is safe to assume, from the results of many studies made by this department, that the 1942 income of the average farm in the area approximated that of the lower one-third of the farms in this study.

THE ANALYSIS OF THE FARM BUSINESS

The costs, incomes, profits and losses, yields, labor and power requirements, other physical factors in crop production, and the feed and labor used for each livestock enterprise of the 26 farms in the study have been set forth in the preceding pages. The following tables (Tables 23, 24, and 25) bring together in convenient form some pertinent information dealing largely with the farms as a whole. The comparisons afforded here should be of particular value to the individual cooperator in his efforts to improve the management of the farm.

In Tables 23, 24, and 25, the farms are arranged in order of the rate earned on investment. The figures in the other columns do not run in any particular order insofar as the size of the figures is concerned. Farms differ in many respects, so usually a farm with a high income has some points of weakness and a farm with a low income has some points of strength.

At the foot of each column, figures are shown for the high- and low-income farms and for the average of the group. These figures are an aid in making comparisons with individual farms.

Description of Table 23 (Page 52)

Rate earned on capital represents the net income of the farm, expressed as a percentage of the total investment. The value of the labor of the farmer and his family is deducted as an expense, but no compensation is allowed for his management.

Total investment per acre is the combined value of land, improvements (except operator's dwelling), machinery, feed, grain, and livestock, as shown in the opening inventory, divided by the total farm acreage.

Operating capital per acre is the sum of the capital invested in the farm business other than real estate. The principal items in the operating capital are the investment in livestock, machinery, grain, and feed at the beginning of the year. A high operating capital usually indicates an intensive farm business.

(Continued on page 53)

Table 23.--Factors helping to analyze the farm business on 26 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of rate earned on investment)

Farm No.	Rate earned on capital in percent	Acres in farm	Total investment per acre	Operating capital per acre	Farm buildings per acre		Fencing per acre		Gross income per acre	Total expense per acre	Net income per acre	Percent of cropland in			Crop yields per acre of			
					Investment	Expense	Investment	Expense				Corn	Oats	Wheat	Soybeans	Corn	Oats	Wheat	Soybeans
80	22.65	202.49	\$222.36	\$66.09	\$19.49	\$1.84	\$2.08	7.32	\$87.82	\$37.46	\$50.36	38.3	13.0	--	78	38	--	35
74	22.14	353.30	213.59	51.46	18.08	1.46	1.41	.31	71.99	24.71	47.28	36.0	11.1	--	76	60	--	26
92	21.82	563.40	202.74	38.75	12.84	1.75	1.00	.15	61.87	17.62	44.25	35.9	15.3	--	79	36	--	34
56	21.79	418.24	218.83	54.42	14.76	1.95	.88	.47	102.71	55.02	47.69	36.6	16.2	--	80	60	--	28
79	21.17	99.60	195.20	66.24	17.18	2.11	1.35	.41	93.30	51.97	41.33	42.9	8.6	--	88	42	--	23
75	20.38	309.29	164.67	41.17	11.34	.80	.74	.41	52.81	19.25	33.56	29.1	16.1	2.7	61	29	13	25
83	19.41	153.48	156.80	38.13	11.13	1.79	.88	.36	74.08	43.65	30.43	38.8	19.3	--	67	38	--	24
89	18.29	314.40	217.16	56.05	9.15	1.06	1.39	.43	67.87	28.16	39.71	38.1	13.7	--	80	48	--	28
49	17.24	344.75	189.55	53.17	9.99	.95	1.36	.32	65.40	32.73	32.67	31.4	8.7	1.6	59	47	17	26
73	17.09	79.07	221.15	56.99	24.98	2.35	3.63	.83	83.84	46.05	37.79	35.5	22.4	--	70	52	--	31
98	17.08	249.19	183.39	38.54	8.92	1.13	.98	.54	51.11	19.79	31.32	36.6	17.1	--	66	34	--	24
15	16.71	340.57	224.14	61.95	18.70	3.57	4.63	.88	67.82	30.37	37.45	47.1	15.3	--	71	50	--	32
63	16.56	318.55	184.47	37.98	9.83	1.39	.80	.14	51.77	21.22	30.55	43.4	16.4	--	69	52	--	22
71	16.30	239.84	190.23	48.14	11.85	.90	1.83	.61	46.36	15.36	31.00	38.4	16.0	--	55	45	--	25
27	15.71	158.47	214.58	37.11	26.51	2.70	.88	.18	56.64	22.92	33.72	39.8	9.2	--	73	43	--	30
91	15.55	241.16	206.14	48.63	28.13	2.06	2.94	.69	55.25	23.19	32.06	50.2	12.3	--	72	25	--	14
45	15.36	518.15	241.45	59.17	28.38	2.04	.74	.28	77.39	40.32	37.07	34.9	15.4	--	75	38	--	29
96	14.93	308.48	201.27	47.54	16.48	2.15	.76	.48	73.71	43.66	30.05	33.8	11.6	--	66	37	--	25
93	14.89	536.87	258.79	67.26	27.72	2.74	2.49	.59	75.45	36.93	38.52	39.9	12.4	--	89	45	--	34
99	14.37	81.52	267.37	67.54	60.48	6.28	1.55	.64	77.13	38.69	38.44	38.9	8.0	--	66	37	--	29
95	14.27	317.53	181.01	48.00	14.97	1.28	.68	.22	53.25	27.42	25.83	31.8	4.6	6.8	61	18	18	20
47	14.26	201.48	177.74	44.52	6.92	.75	.53	.10	48.75	23.42	25.33	34.4	18.4	--	71	38	--	24
90	14.15	330.28	180.46	36.04	19.55	1.99	.88	.12	44.50	18.96	25.54	39.7	9.5	--	70	47	--	22
100	12.58	157.37	192.95	30.28	18.49	1.75	.79	.26	48.87	24.59	24.28	41.3	10.3	--	62	27	--	28
67	12.57	192.77	214.95	67.46	15.96	2.54	1.08	.48	74.29	47.26	27.03	38.9	13.4	--	60	33	--	18
62	10.65	279.47	163.49	36.29	4.98	.51	.86	.16	45.99	28.58	17.41	19.4	17.2	9.1	69	26	11	11
High	22.65	563.40	267.37	67.54	60.48	6.28	4.63	.88	102.71	55.02	50.36	50.2	22.4	9.1	89	60	18	35
Low	10.65	79.07	156.80	30.28	4.98	.51	.53	.10	44.50	15.36	17.41	19.4	4.6	1.6	55	18	11	11
Av.	16.84	281.14	205.24	50.47	16.98	1.80	1.40	.38	65.69	30.62	35.07	37.0	13.6	.8	71	41	15	29

Investment and expense under farm buildings per acre is the total building investment and annual expense reduced to an acre basis. High figures often show over investment in buildings, and very low figures often indicate inadequate equipment.

Investment and expense under fencing per acre may represent a considerable burden.

Gross income per acre is the sum of sales, increases in inventory, products used in the household, and perquisites furnished to labor, divided by the total farm acreage. The total expense includes cash expenditures, decreases in inventory, perquisites furnished labor, and the value of unpaid labor of farm operator and family.

Net income per acre is the difference between the gross income and the total expense an acre.

Description of Table 24 (Page 54)

Crop acres in farm indicates the acreage upon which work was performed, such as preparing a seedbed, planting, or harvesting.

Investment and expense under crop machinery per crop acre is the burden each acre of crops must bear for the machinery (not including power) which is necessary to work it. Machinery expense per acre includes the cost of power-drawn machines hired to do custom work on the farm.

Man labor cost per crop acre is the value of hired labor plus the value of the time of the farm operator and members of the farm family. This time is charged at hired man's wages and is distributed over each crop acre in the farm.

Power cost per crop acre includes the acre cost of horse labor, tractor power, truck expense, and the farm share of automobile expense. Power cost includes the cost of power hired to do custom work on the farm.

Power and machinery cost per crop acre is the total of the power cost and machinery expense shown per crop acre.

Labor, power, and machinery cost per crop acre includes the combined cost of these three items.

Man labor under "cost per \$100 gross income" represents the proportion of the income required to pay the total labor bill (operator, family, hired labor, and perquisites).

Power and machinery under "cost per \$100 gross income" is that percentage of the total income of the farm represented by the machinery and horse costs.

Total farm under "costs per \$100 gross income" is the proportion of all income required to pay total expenses.

(Continued on page 56)

Table 24.--Factors helping to analyze the farm business on 26 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of rate earned on investment)

Farm No.	Rate earned	Crop acres per farm	Crop machinery per acre		Man labor cost per crop acre	Power cost per crop acre	Power and machinery cost per crop acre	Labor, power and machinery cost per crop acre	Cost per \$100 gross income		Crop acres per man	Labor and power cost per hour			
			In-vestment	Ex-pense					Man	Power and machinery		Man labor	Horse	A	B	C
80	22.65	175.50	\$11.66	\$4.31	\$13.75	\$5.33	\$9.64	\$23.39	\$13.57	\$9.51	60.31	\$3.30	\$--	\$--	\$.754
74	22.14	304.25	9.13	3.03	7.38	5.01	8.04	15.42	8.82	9.62	111.86	.338	.505	.394	.598
92	21.82	529.98	5.94	1.90	5.37	3.73	5.63	11.00	8.17	8.56	205.42	.460	.537	.565	.640
56	21.79	381.32	6.65	2.67	6.10	3.72	6.39	12.49	5.41	5.67	140.71	.355	.499	.496	.624
79	21.17	66.71	11.45	3.73	31.18	6.66	10.39	41.57	22.38	7.46	24.26	.315	--	.381	--
75	20.38	252.30	9.38	1.86	7.48	3.77	5.63	13.11	11.57	8.69	123.07	.385	.128	--	.554
83	19.41	128.20	7.30	1.72	7.61	2.89	4.61	12.22	8.58	5.20	115.50	.368	--	--	--
89	18.29	280.28	8.38	2.03	5.95	4.61	6.64	12.59	7.82	8.72	148.30	.366	.489	.294	--
49	17.24	303.20	12.54	2.36	4.61	4.38	6.74	11.35	6.19	9.07	200.79	.386	.807	.447	.448
73	17.09	60.60	8.46	4.18	12.68	8.74	12.92	25.60	11.59	11.81	68.86	.357	.461	--	.448
98	17.08	226.39	7.29	2.67	6.46	3.86	6.53	12.99	11.48	11.61	139.75	.373	.225	.370	.571
15	16.71	261.37	9.69	3.05	8.67	3.87	6.92	15.59	9.81	7.83	118.80	.440	--	--	.615
63	16.56	255.11	7.17	2.75	5.69	4.58	7.33	13.02	8.81	11.34	147.46	.351	.788	--	.557
71	16.30	181.65	3.93	1.83	7.21	4.30	6.13	13.34	11.79	10.01	114.97	.343	.198	--	--
27	15.71	137.02	4.09	3.14	4.86	4.20	7.34	12.20	7.41	11.21	180.29	.367	.674	--	--
91	15.55	205.48	7.92	2.66	8.92	5.33	7.99	16.91	13.76	12.32	98.32	.363	--	.703	--
45	15.36	485.54	7.96	3.54	6.20	3.33	6.87	13.07	7.51	8.32	131.23	.331	--	.497	.691
96	14.93	262.27	7.40	3.22	11.88	5.94	9.16	21.04	13.70	10.57	73.46	.336	.313	.510	.711
93	14.89	428.15	7.83	2.83	10.96	5.59	8.42	19.38	11.58	8.90	107.58	.492	.444	--	.711
99	14.37	62.41	9.38	4.41	13.01	8.16	12.58	25.59	12.92	12.49	67.11	.367	.318	.562	.737
95	14.27	286.04	6.39	2.27	5.67	3.55	5.82	11.49	9.59	9.85	158.91	.365	.291	--	.693
47	14.26	172.09	9.80	2.15	4.06	4.97	7.12	11.18	7.11	12.47	217.84	.367	--	--	.741
90	14.15	232.75	3.80	1.82	11.24	4.35	6.17	17.41	17.81	9.78	85.26	.388	.152	--	.708
100	12.58	152.22	3.39	2.10	4.61	5.42	7.52	12.13	9.12	14.88	179.08	.343	.642	--	--
67	12.57	155.25	8.47	1.62	8.02	4.99	6.61	14.63	8.70	7.16	115.00	.384	--	.404	.535
62	10.65	235.73	7.28	2.06	4.35	3.18	5.24	9.59	7.97	9.62	190.10	.345	.843	.458	--
High	22.65	529.98	12.54	4.41	31.18	8.74	12.92	41.57	22.38	14.88	217.84	.492	1.12	.703	.754
Low	10.65	60.60	3.39	1.62	4.06	2.89	4.61	9.59	5.41	5.20	24.26	.315	.128	.294	.448
Av.	16.84	239.51	7.16	2.60	7.57	4.43	7.03	14.60	9.82	9.11	119.76	.367	.369	.484	.641

Table 25.--Factors helping to analyze the farm business on 26 farms
Champaign-Piatt Counties--1942 (Farms ranked in order of rate earned on investment)

Farm No.	Rate earned	Labor and management wage	Acres in farm	Hours man labor performed on farm			Man equivalent per farm	Percent hired labor of total labor cost	G.F.E. per hour man labor	Investment per acre in prod. L. S.	Live stock income per acre	Returns per \$100 invested in productive L. S.	Returns per \$100 feed fed				Feed fed per acre to prod. L. S.
				By operator	By hired labor	Total for farm							Cattle	Swine	Poultry	All other	
80	22.65	\$ 8875.58	202.49	2428	4446	6970	2.91	60.70	\$.100	\$14.82	\$29.47	\$198.93	\$254	\$242	\$176	\$223	\$13.22
74	22.14	13690.22	353.30	2065	3938	6515	2.72	56.05	.174	11.21	27.35	244.04	145	225	209	204	13.40
92	21.82	20003.73	563.40	2146	3758	6170	2.58	68.58	.166	1.64	3.96	241.84	216	151	175	177	2.23
56	21.79	16139.03	418.24	1810	4294	6480	2.71	64.62	.199	26.26	39.79	151.49	130	200	174	142	27.96
79	21.17	4363.82	99.60	3312	3073	6585	2.75	37.85	.073	23.56	70.94	301.07	229	296	160	222	31.96
75	20.38	8989.94	309.29	3064	1824	4908	2.05	40.37	.172	10.40	23.66	227.54	167	231	195	193	12.27
83	19.41	4480.64	153.48	2608	38	2650	1.11	1.84	.134	7.63	15.76	206.61	184	240	204	196	8.03
89	18.29	9989.62	314.40	2200	10	4525	1.89	.14	.299	10.73	24.17	225.30	69	191	240	154	15.74
49	17.24	8697.52	344.75	1782	840	3608	1.51	28.87	.298	12.57	15.37	122.27	174	183	147	174	8.83
73	17.09	2793.52	79.07	1854	190	2107	.88	6.64	.209	25.97	47.44	182.67	142	275	273	192	24.76
98	17.08	6767.39	249.19	3194	616	3880	1.62	16.35	.213	5.04	9.35	185.40	157	203	138	171	5.46
15	16.71	9801.88	340.57	2339	2850	5271	2.20	60.46	.235	14.42	37.23	258.21	143	171	209	167	22.31
53	16.56	7302.95	318.55	1322	2012	4137	1.73	45.44	.193	7.30	17.31	237.80	57	160	187	146	11.92
71	16.30	5835.63	239.84	1858	1850	3782	1.58	44.90	.110	19.87	29.31	147.50	165	114	169	156	18.78
27	15.71	4415.63	158.47	1660	30	1818	.76	--	.322	1.86	4.62	248.02	345	--	259	328	1.41
91	15.55	6194.99	241.16	2486	2395	4996	2.09	45.89	.214	10.42	29.78	285.88	210	203	134	189	15.75
45	15.36	13747.06	518.15	2150	5258	8850	3.70	56.01	.183	13.13	18.44	140.47	130	243	121	153	12.06
96	14.93	7131.04	308.48	2626	5020	8552	3.57	57.38	.130	11.47	25.54	222.61	143	165	142	154	16.62
93	14.89	15130.69	536.87	3766	5678	9522	3.98	69.74	.228	13.54	22.48	166.02	158	149	52	154	14.56
99	14.37	2921.22	81.52	2132	--	2217	.93	--	.246	23.44	38.15	162.76	109	284	135	187	20.35
95	14.27	6137.39	317.53	1906	486	4320	1.80	9.96	.144	8.17	14.63	179.03	92	208	342	166	8.80
47	14.26	3932.04	201.48	1594	--	1902	.79	--	.237	5.46	6.49	119.00	126	125	106	122	5.32
90	14.15	6589.20	330.28	3090	2823	6539	2.73	47.62	.156	8.92	19.80	222.05	162	197	186	185	10.68
100	12.58	2762.15	157.37	1002	946	2039	.85	37.52	.363	2.70	4.17	154.27	137	--	158	147	2.83
67	12.57	4208.75	192.77	2437	682	3240	1.35	22.12	.363	11.99	21.62	180.38	169	264	268	197	10.98
62	10.65	3328.60	279.47	2015	662	2972	1.24	17.23	.257	6.07	9.42	155.33	122	218	95	163	5.77
High	22.65	20003.73	563.40	3766	5678	9522	3.70	69.74	.363	26.26	70.94	301.07	345	296	342	328	31.96
Low	10.65	2762.15	79.07	1002	10	1818	.76	.14	.073	1.64	3.96	119.00	57	114	52	122	1.41
Av.	16.94	7854.93	281.14	2263	2066	4790	2.00	43.51	.188	11.22	21.34	190.20	151	192	176	169	12.62

Description of Table 25 (Page 55)

Labor and management wage is the income left to pay for the labor and management of the operator after all the other expenditures and the interest at 5 percent on the total farm investment have been deducted from gross income.

Hours of man labor performed per farm is the time devoted to the farm business by the operator, members of his family, and hired labor. The figure for operator's labor is growing smaller each year.

Man equivalent per farm represents the average number of men used on the farm and assumes that each man worked 2,263 hours per year, the average number of hours for the 26 operators.

The percentage of total labor cost which hired labor cost represents indicates the extent to which the farm is dependent on hired labor.

General farm expense includes miscellaneous expenditures of the farm, such as taxes on land in the farmstead, farm share of auto expense, farm bureau dues, farm papers, and the other expenditures which cannot be allocated directly to the productive farm enterprise. It also includes labor for the time spent in cutting hedgerows, cutting weeds in fence rows, etc. These general or overhead items are grouped together and proportioned to the crop and livestock enterprises on the basis of amounts of man labor used. The cost of these general farm expenses for each hour of labor used on the farm provides the basis of distributing this item.

Investment per acre in productive livestock includes the average of the beginning and closing inventories of livestock other than horses reduced to an acre basis.

Livestock income per acre and returns per \$100 invested in productive livestock vary with the kind of livestock; dairy cattle, hogs, and poultry usually show a more rapid turnover and higher relative returns than do beef herds and sheep.

Returns per \$100 feed fed is a good measure of livestock efficiency, although it obviously is affected by the relative prices of livestock and feed. To be profitable, livestock should pay more than market prices for feed, although some feeds used have little or no sales value.

Feed fed per acre to productive livestock indicates the intensity of livestock production on a farm.

Farm Efficiency Chart (Page 57)

Of the 52 comparisons shown in Tables 23, 24, and 25, seventeen have been selected as a basis for a farm efficiency chart.

When the position of each farm in these 17 factors is indicated on this chart, it shows the farm operator in a graphic way some of the more important factors of analysis of his farm business.

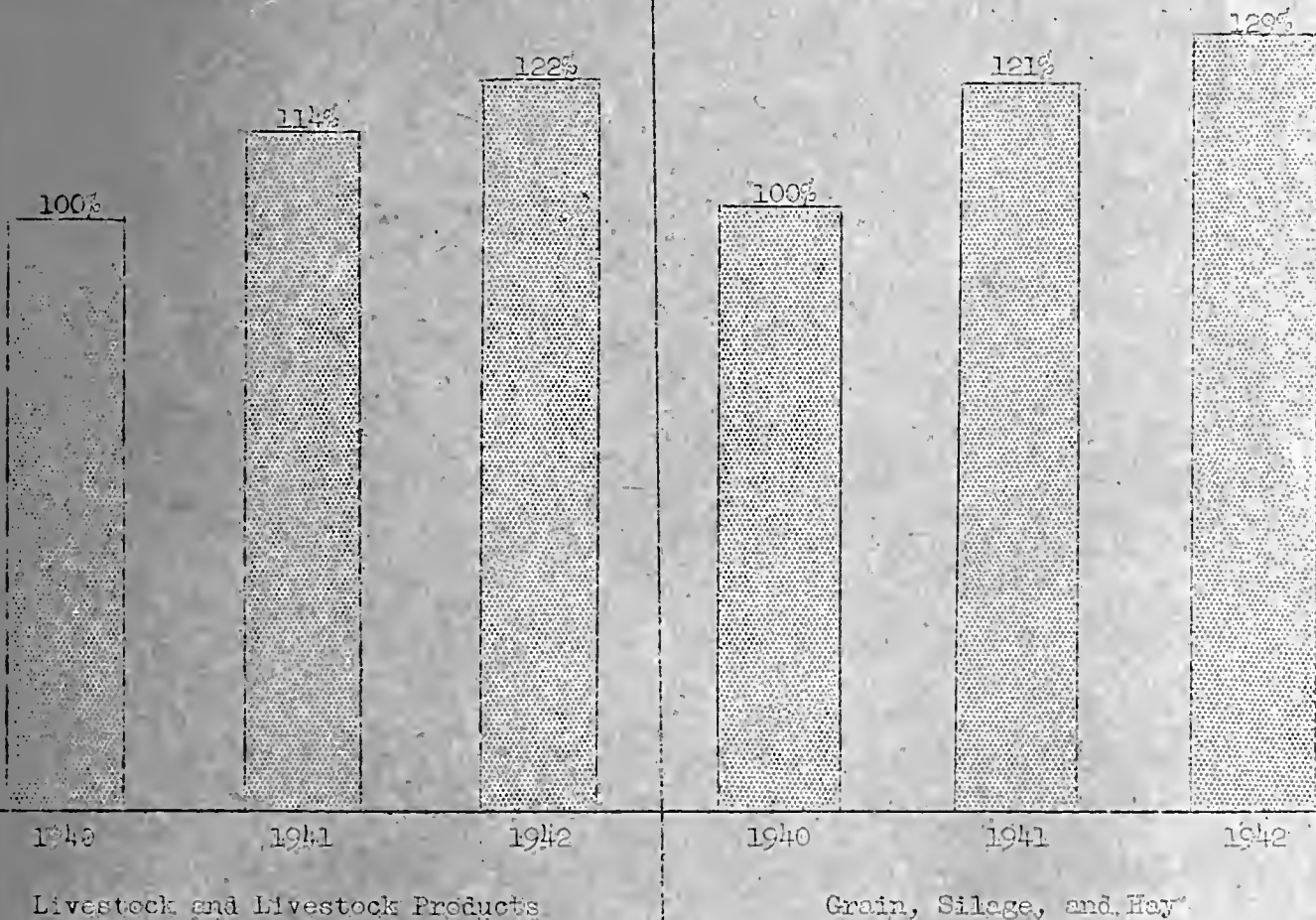
The numbers between the lines across the middle of the page are the approximate averages for the 26 farms for the factors named at the top of the columns. A line drawn across each column at the number for your farm shows your efficiency as compared with that of the other farmers.

Rate earned on investment	Crops						Livestock			Labor and power			Power and machinery cost per crop acre	Labor, power & machinery cost per crop acre	Size of farm
	Corn		Oats		Soybeans		Feed fed per acre	Income per acre	Re-turns per \$100 fed	Man	Horse	Tractor horsepower			
	Yield per acre	Cost per bu.	Yield per acre	Cost per bu.	Yield per acre	Cost per bu.									
							16-21	21-30							
--	85	--	--	--	--	27.00	42.00	240	--	.65	.27	.43	--	--	560
23.00	83	--	59	--	.47	25.00	39.00	230	--	.61	.30	.46	--	--	520
22.00	81	--	56	--	.50	23.00	36.00	220	.32	.57	.33	.49	4.50	--	480
21.00	79	--	53	--	.53	21.00	33.00	210	.33	.53	.36	.52	5.00	--	440
20.00	77	.23	50	35	.56	19.00	30.00	200	.34	.49	.39	.55	5.50	9.00	400
19.00	75	.25	47	33	.59	17.00	27.00	190	.35	.45	.42	.58	6.00	11.00	360
18.00	73	.27	44	31	.62	15.00	24.00	180	.36	.41	.45	.61	6.50	13.00	320
16.84	71	.29	41	29	.65	12.62	21.34	169	.37	.37	.48	.64	7.03	14.60	281
16.00	69	.31	38	27	.68	11.00	18.00	160	.38	.33	.51	.67	7.50	17.00	240
15.00	67	.33	35	25	.71	9.00	15.00	150	.39	.29	.54	.70	8.00	19.00	200
14.00	65	.35	32	23	.74	7.00	12.00	140	.40	.25	.57	.73	8.50	21.00	160
13.00	63	.37	29	21	.77	5.00	9.00	130	.41	.21	.60	.76	9.00	23.00	120
12.00	61	.39	26	19	.80	3.00	6.00	120	.42	.17	.63	--	9.50	25.00	80
11.00	59	.41	23	17	.83	1.00	3.00	110	.43	.13	.66	--	10.00	27.00	--
10.00	57	.43	20	15	.86	--	--	--	.44	--	.69	--	10.50	29.00	--



EIGHTEENTH ANNUAL REPORT OF THE FARM BUREAU FARM MANAGEMENT SERVICE 1942 825 FARMS IN 31 COUNTIES

Relative Amounts of Feed and Livestock Produced on the Same 450 Farms in
1940, 1941 and 1942
(For more complete data, see page 1)



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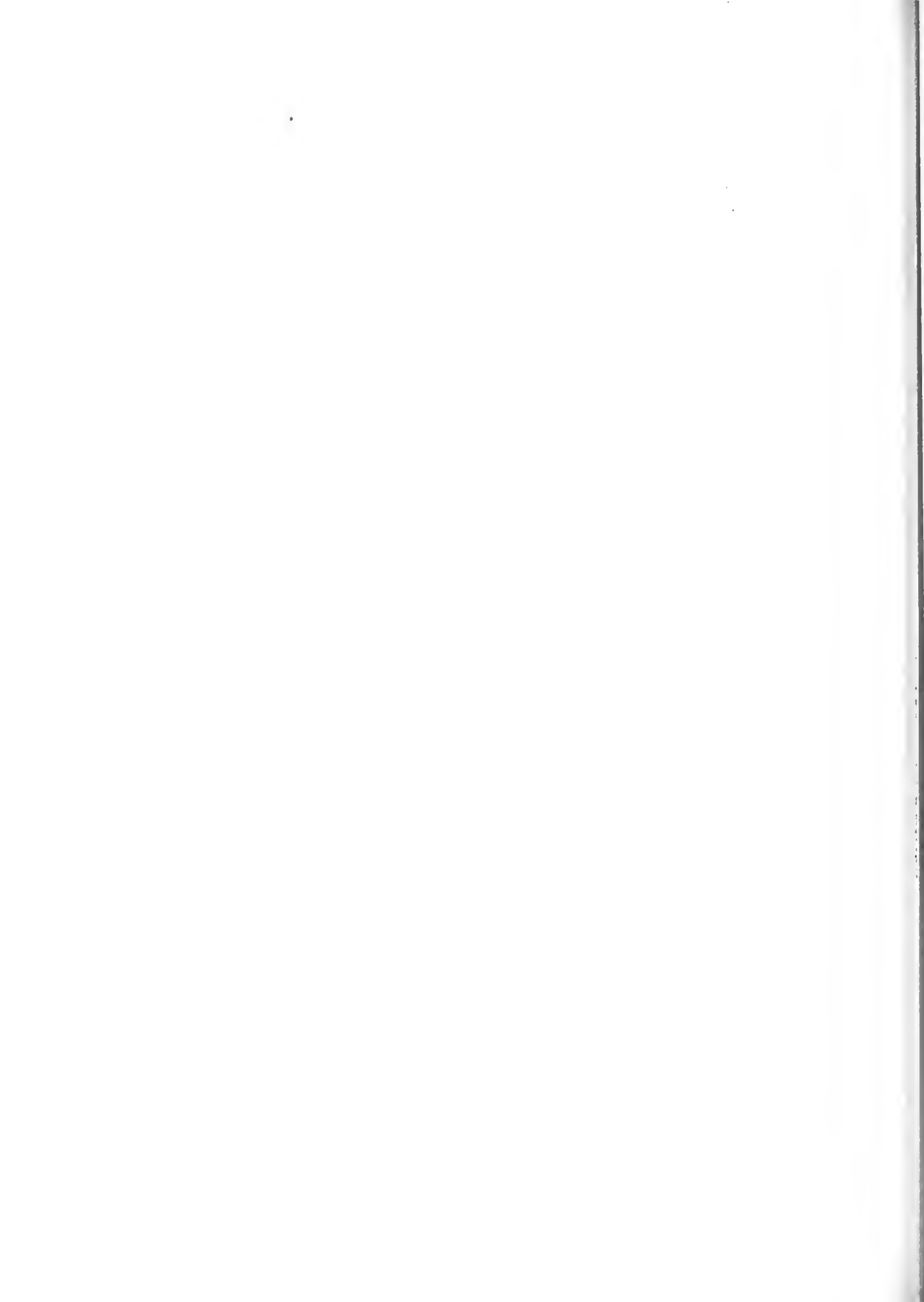
In Cooperation with Farm Bureaus in 31 Counties

May, 1943
AE-2076



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EIGHTEENTH ANNUAL REPORT OF THE
FARM BUREAU FARM MANAGEMENT SERVICE
FOR THE YEAR 1942^{1/}

M. L. Mosher, W. A. Herrington, B. E. King, M. P. Gehlbach, Earl M. Hughes,
and H. C. M. Case^{2/}

The splendid response of Farm Bureau Farm Management Service cooperators during 1942 to the wartime food-production-program request that farmers further increase the production of essential products is shown by increases in both crops and livestock grown on cooperators' farms in 1942 compared with that grown in 1941 (Table 1). A comparison of production for the two years on the same 430 farms on

Table 1.--Production of Feed and Livestock per Farm on the Same
430 Farms During 1940, 1941, and 1942
(See chart on the front cover)

Product	Quantities produced per farm			Percentage change		
	1940	1941	1942	1940 to 1941	1941 to 1942	1940 to 1942
	Feed					
Grain--tons.	182.1	223.1	242.2	+22.5	+8.6	+33.0
Corn silage--tons.	20.8	21.8	20.6	+4.8	-5.5	-1.0
Hay--tons.	49.3	52.9	51.0	+7.3	-3.6	+3.4
Total digestible nutrients--tons	172.7	208.3	223.1	+20.6	+7.1	+29.2
Index of total production.	100.0	120.6	129.2	+20.6	+7.1	+29.2
Livestock and livestock products						
Hogs--tons	16.0	19.1	22.2	+19.4	+16.2	+38.8
Cattle--tons	9.0	10.0	9.6	+11.1	-4.0	+6.7
Sheep--tons. . . . .	.8	.8	.6	± 0.0	-25.0	-25.0
Poultry--pounds.	678	1 081	938	+58.8	-13.0	+38.3
Milk--tons	23.7	24.7	24.8	+4.2	+.4	+4.6
Eggs--dozens	1 158	1 335	1 544	+14.6	+15.8	+33.3
Value per farm of livestock and livestock products at 1930 to 1941 prices ^{a/}	\$4 781	\$5 471	\$5 842	+14.4	+6.8	+22.2
Index of total production.	100.0	114.4	122.2	+14.4	+6.8	+22.2
Use of labor						
Number of men working.	1.93	1.99	2.06	+3.1	+3.5	+6.7
Total tons of digestible nutrients produced per man.	89.5	104.8	108.3	+17.1	+3.3	+21.0
Total value of livestock and livestock products at 1930 to 1941 prices produced per man	\$2 477	\$2 749	\$2 836	+11.1	+3.2	+14.5

^{a/} The value per farm of all livestock and livestock products calculated by using average prices over a long period of years gives a fairly accurate idea of the total production of all livestock and livestock products.

^{1/} Records of 825 farms were included. About 85 other records were kept, but were not used, because the farms were unusual or the records were received late.

^{2/} As Head of the Department of Agricultural Economics, H. C. M. Case gives general supervision to the project, which is under the direct supervision of M. L. Mosher.

which records were kept during 1940, 1941, and 1942, shows that the amount of digestible nutrients in grain, corn silage, and hay produced in 1942 was increased 7.1 percent over that produced the year before, and the total amount of all livestock and livestock products, 6.8 percent above that produced in 1941.

The increases in production of three products in 1942 compared with those in 1941 were due largely to the following factors:

Grain--1. A 19.3-percent increase in acreage of corn and soybeans, with a corresponding decrease in small grain, hay and pasture.
2. A 3.3-percent increase in yield per acre of corn; yields of other crops were approximately the same both years. If 1942 yields of crops on these farms are considered, one acre of corn produced 3,438 pounds of digestible nutrients per acre and all other grain, silage, and hay crops produced an average of only 1,456 pounds per acre. Of 189.1 acres planted in corn, corn silage, small grain, soybeans, and hay crops, 86.2 acres (45.6 percent) in corn produced 66.4 percent of the digestible feed.

Hogs --1. A 10.8-percent increase in the number of litters farrowed.
2. An increase from 6.5 to 6.6 in the average number of pigs weaned per litter. (There was a slight increase of 348 pounds in the death loss per farm.)
3. A 9-pound (3.6 percent) increase in the average weight of hogs sold.

Eggs --1. A 12-percent increase in the number of hens in laying flocks.
2. A 3-percent increase in the number of eggs produced per hen.

There was a slight increase in the number of cows milked and a corresponding decrease in the milk produced per cow. The death loss of cattle and sheep also increased slightly.

The maximum production of farm products in 1942 has been called for as a vital war measure. This eighteenth annual report illustrates the fact that maximum production results from the well-balanced effects of high crop yields, efficient livestock production, the efficient use of all available labor, and the effective use of buildings and machinery. On these farms, which are already well organized and operated, there can be but little increase in production without a corresponding increase in the amount of labor used.

Farm Earnings in 1942 (Table 3, page 5). Average earnings of the farms in the Farm Bureau Farm Management Service were higher in 1942 than for any other year during the 18 that the project has been carried on. These high earnings were due to good crop yields and to favorable prices received for grain, livestock, and livestock products sold or inventoried at the end of the year.

Earnings of farms shown in this report are much higher than those of typical farms in the same area. Repeated studies have shown that the average earnings of all farms in an area are much lower than those of the farms included in the Farm Bureau Farm Management Service.

Gross earnings are a usable measure of the amounts of crops and livestock produced on a farm for any one year in the area covered by these records, where most income comes from grain and livestock. The gross earnings per acre were 73 percent higher on the 165 most profitable farms than on the 165 least profitable ones, even though the soil of the former farms was slightly less productive than that of the latter group. The gross earnings per man were 86 percent higher for the 165 most profitable than for the 165 least profitable farms.

As usual, wide differences in earnings were evident among farms having about the same opportunities. The net returns for capital and management averaged \$8,062 more on the 165 most profitable farms than on the 165 least profitable ones, although the most profitable farms averaged only 12 more acres per farm than did the contrasting farms (Table 4, page 6). The quality of the land was evidently slightly better on the least profitable group of farms (Table 5, page 10).

Farms where large numbers of hogs were raised had an unusually great advantage over other types of farms in 1942. The 165 most profitable farms had two and one-half times as many hogs at the beginning of the year (Table 3, page 5) and produced four times as many during the year as did the 165 least profitable farms. On the other hand, farms that produced beef cattle, dairy products, and grain for market were at a disadvantage. The price advantage of hogs compared with that of beef cattle, dairy products, and corn, to which the advantage of hog farms was due, is shown in the chart on page 25. Each cooperator may profitably compare his farm earnings and the factors affecting his farm earnings with those of other farms of the same type (see chart, page 9 and Table 6, pages 12 and 13).

Much more livestock was fed on the 165 most profitable farms than on the 165 least profitable ones, as is shown by the value of feed fed per acre, which was \$32.00 and \$21.00, respectively (Table 4, page 6).

Cooperators in the Farm Bureau Farm Management Service have a rare opportunity to use the good earnings of these war years to pay off present debts and to promote the war program, both by buying war bonds and by contributing to the Red Cross and similar organizations. The purchase of war bonds is patriotic and is also good business, because the purchaser can build up a reserve which can be easily converted into cash and which will be very useful when depression years come or when conditions are such that needed improvements can be made in the home and on the farm.

Table 2.--Cash Balances and Inventory Changes on All Farms, and Earnings on Rented Farms

Item	Your farm	All 825 farms	165 farms with high returns on capital	165 farms with low returns on capital
Cash balances--total farm				
Total cash receipts	\$ _____	\$17 011	\$20 721	\$13 251
Total cash expenses	_____	10 182	11 363	8 953
Cash balances ^{a/}	\$ _____	\$ 6 829	\$ 9 358	\$ 4 298
Inventory changes--total farm				
Land improvements	\$ _____	\$ 53	\$ 31	\$ 69
Farm buildings	_____	23	-17	-14
Horses	_____	-13	-18	-13
Productive livestock	_____	1 505	2 143	324
Feed, grain, and seeds	_____	829	1 509	294
Machinery and equipment	_____	186	214	130
Auto.	_____	-26	-31	-21
Total inventory changes	\$ _____	\$ 2 557	\$ 3 831	\$ 769
Rented farms--number.		390	97	69
Tenant's share				
Capital	\$ _____	\$10 402	\$11 137	\$ 9 600
Returns for labor, capital, and management	\$ _____	\$ 5 817	\$ 8 460	\$ 2 964
Five percent of capital	_____	520	557	480
Labor and management earnings	\$ _____	\$ 5 297	\$ 7 903	\$ 2 484
Cash balances				
Total cash receipts	\$ _____	\$11 125	\$14 696	\$ 8 281
Total cash expenses	_____	7 211	9 215	5 852
Cash balances	\$ _____	\$ 3 914	\$ 5 481	\$ 2 429
Landlord's share				
Capital	\$ _____	\$39 211	\$38 858	\$35 615
Returns for capital	_____	3 870	5 331	2 167
Rate earned on capital--percent		9.9	13.7	6.1

a/ The cash balance as used in this report would be a true cash balance if all sales and purchases had been for cash. It is really the difference between sales and purchases.

Cash Balances and Inventory Changes. Both cash receipts and inventory increases were high in 1942. Although cash expenses also were high, total cash balances were unusually favorable. The 165 most profitable farms had average cash balances of \$5,060 more than those of the 165 least profitable farms, and inventory increases of \$3,062 more.

Tenants' and Landlords' Earnings. The 390 tenants who kept records in this project received average earnings of \$5,297 for their labor and management. This amount includes about \$375 for the sale value of farm produce used in the home, but it does not include the value of the house rent, which would have cost about \$300 per tenant family at town and city rates. The landlords of the same 390 farms received average net incomes of 9.9 percent on their capital investments.

The cash balances of tenants on the 97 rented farms among the 165 most profitable farms averaged \$3,052 larger than those of tenants on the 69 rented farms among the 165 least profitable group. The landlords of these 97 farms also averaged \$3,164 more from their investments than the landlords of the 165 least profitable farms.

Table 3.--Capital, Receipts, Expenses, and Earnings on Inventory Basis

Item	Your farm	All 825 farms	165 farms with high returns on capital	165 farms with low returns on capital
Capital				
Land.	\$ _____	\$29 388	\$27 546	\$26 412
Land improvements	_____	1 057	976	931
Farm buildings.	_____	6 068	4 902	6 986
Horses.	_____	242	215	257
Productive livestock: Cattle	_____	3 769	3 230	3 913
Hogs	_____	1 524	2 374	899
Sheep.	_____	243	195	229
Poultry.	_____	160	142	179
Total productive livestock.	(_____)	(5 696)	(5 941)	(5 220)
Bees.	_____	5	--	22
Feed, grain, and seeds.	_____	5 584	5 351	5 076
Machinery and equipment	_____	2 980	2 689	3 018
Auto (farm share)	_____	334	341	308
Total capital	\$ _____	\$51 354	\$47 961	\$48 230
Receipts and net increases				
Horses.	\$ _____	\$ --	\$ --	\$ --
Productive livestock: Cattle	_____	3 012	3 490	2 170
Dairy sales.	_____	1 316	860	1 638
Hogs	_____	5 534	9 817	2 494
Sheep.	_____	175	211	123
Poultry.	_____	170	149	201
Egg sales.	_____	393	382	347
Total productive livestock.	(_____)	(10 600)	(14 909)	(6 973)
Bees.	_____	--	--	5
Farm products used in household	_____	377	393	360
Feed, grain, and seeds.	_____	1 734	844	1 368
Agricultural adjustment receipts.	_____	702	726	535
Labor off farm.	_____	46	31	48
Miscellaneous	_____	15	19	10
Total receipts and net increases.	\$ _____	\$13 474	\$16 922	\$ 9 299
Expenses and net decreases				
Land improvements	\$ _____	\$ 229	\$ 225	\$ 216
Farm buildings.	_____	462	352	548
Horses.	_____	11	9	21
Productive livestock.	_____	--	--	--
Feed, grain, and seeds.	_____	--	--	--
Machinery and equipment	_____	1 306	1 210	1 335
Auto (farm share)	_____	178	165	175
Livestock expense	_____	140	150	147
Hired labor	_____	904	761	984
Taxes	_____	406	398	367
Miscellaneous	_____	75	70	79
Total expenses and net decreases.	\$ _____	\$ 3 711	\$ 3 340	\$ 3 872
Receipts less expenses.	\$ _____	\$ 9 763	\$13 582	\$ 5 427
Family labor.	_____	239	233	228
Returns for labor, capital, management.	\$ _____	\$ 9 524	\$13 349	\$ 5 199
Operator's labor.	_____	742	777	689
Net earnings per farm	\$ _____	\$ 8 782	\$12 572	\$ 4 510
Rate earned on capital--percent	_____	17.1	26.2	9.4
Five percent interest on capital.	\$ _____	\$ 2 568	\$ 2 398	\$ 2 411
Labor and management earnings	_____	6 956	10 951	2 788

Table 4.--Some Factors That Affect Farm Earnings and That Are Used on the Farm Efficiency Chart on the Opposite Page, and Returns from All Productive Livestock

Item	Your farm	All 825 farms	165 farms with high returns on capital	165 farms with low returns on capital
<u>Net earnings on the total business on all farms (See page 5)</u>				
Rate earned on capital--percent	_____	17.1	26.2	9.4
Labor and management earnings	\$ _____	\$ 6 956	\$10 951	\$ 2 788
<u>Net earnings on rented farms--number of rented farms (See page 4).</u>				
Tenant's labor and management earnings. \$ _____	\$ _____	\$ 5 297	\$ 7 903	\$ 2 484
Landlord's rate earned on capital--percent	_____	9.9	13.7	6.1
<u>Gross earnings factors</u>				
Gross earnings per acre--percent of average on similar soil (See page 10).	_____	100	125	72
Gross earnings per man--percent of average (See page 27).	_____	100	130	70
Crop yields--percent of average on similar soil (See page 15)				
Corn,	_____	100	104	89
Oats.	_____	100	105	98
Wheat	_____	100	119	107
Soybeans.	_____	100	126	85
All grain crops	_____	100	110	92
Livestock returns--percent of average from same amount of feed				
Cattle (See pages 18 to 22)	_____	100	107	86
Hogs (See page 17).	_____	100	107	85
Sheep (See page 23)	_____	100	123	86
Poultry (See page 24)	_____	100	102	92
All livestock (See below)	_____	100	107	86
<u>Costs--percent of normal (See page 27)</u>				
Labor	_____	100	91	111
Horses and machinery.	_____	100	93	113
<u>Organization of farm (See page 10)</u>				
Size of business--estimated days of work	_____	434	466	381
Size of farm--total acres	_____	260	246	234
Percent of farm tillable.	_____	86	86	85
Percent of tillable land in biennial and perennial legumes (See page 15).	_____	22	22	20
Feed per acre to productive livestock . \$ _____	\$ _____	\$ 25	\$ 32	\$ 21
<u>Returns from all productive livestock^a</u>				
Total value of feed	\$ _____	\$ 6 406	\$ 7 999	\$ 5 011
Total returns--1.	_____	10 911	15 240	7 264
Returns at average rate--2.	_____	10 911	14 223	8 461
Percent of average returns (% 1 is of 2).	_____	100	107	86
Returns per \$100 feed	_____	170	191	145

^a Analysis of all livestock enterprises are recorded and discussed on pages 16 to 24. This summary is shown here in order to conserve space.

Chart 1.—Farm Efficiency Chart

11 arms	Tenant farms only			Gross earnings factors											Percent of normal costs	Organization factors						
	Operator's labor and management earnings/ capital	Tenant's labor and management earnings/ capital	Landlord's rate earned on his capital	Crop yields—percent of average on similar soil					Livestock returns—percent of average from same feed													
				Corn	Oats	Wheat	Soybeans	All grain crops	Cattle	Hogs	Sheep	Poultry	All livestock	Labor		Horses and machinery	Size of business—estimated days of work	Size of farm—total acres	Percent of farm tillable	Percent of land in biennial and perennial legumes	Feed per acre to productive livestock—dollars	
13	230	140	25	260	240	140	180	180	165	140	175	160	200	230	160	50	40	1200	800	99	50	90
The best one-fifth of the farms in each factor comes between this line and the next line below.																						
5	4	4	10	27	15	15	15	15	15	15	18 to 22	17	23	24	6	27	27	10	10	10	15	10
2	99	71	13	129	135	116	123	137	125	115	121	116	142	127	113	82	79	555	340	95	30	36
7	70	53	10	100	100	100	100	100	100	100	100	100	100	100	100	100	100	434	260	86	22	25
The average of the farms in each factor comes to this line.																						
12	35	28	6	77	75	85	79	71	71	86	81	86	55	77	87	129	121	282	160	78	15	13
The lowest one-fifth of the farms in each factor comes between this line and the bottom line.																						
3	0	10	0	50	40	60	40	40	20	60	50	55	10	20	60	200	200	130	70	40	0	2

Hundreds of dollars.

Source of Farm Income as Related to Rate Earned on Capital

Each sign (+) represents a farm, as farms were distributed from the bottom to the top of the chart according to rate earned on capital.

Rate earned -
percent

MAJOR SOURCE OF INCOME							
Grain farms		Hog farms		Cattle 40% or more	Dairy 40% or more	General farms ^{a/}	
60% +	40% to 59%	60% or more	40% to 59%			General livestock	Mixed income
40							
39		+	+				
38			+				
37			+				
36			+				
35			+				
34			+				
33			+	+		+	+
32	+		+				
31			+				
30		+	+			+	
29			+				
28		+	+			+	+
27			+			+	+
26		+	+			+	+
25		+	+	+		+	+
24		+	+		+		+
23	+	+	+	+		+	+
22		+	+	+		+	+
21	+	+	+	+		+	+
20		+	+	+		+	+
19	+	+	+	+		+	+
18	+	+	+	+		+	+
17	+	+	+	+		+	+
16							
15	+	+	+	+		+	+
14	+	+	+	+		+	+
13	+	+	+	+		+	+
12	+	+	+	+		+	+
11	+	+	+	+		+	+
10	+	+	+	+		+	+
9							
8	+						
7	+						
6	+						
5							
4							
3	+						

^{a/} General farms have less than 40 percent of their income from any one source or have 40 percent or more from each of two sources. General livestock farms have 60 percent or more of their income from productive livestock, and mixed income farms have less than 60 percent of their income from productive livestock.

Table 5.--Organization of the Farm Business

Item	Your farm	All 825 farms	165 farms with high returns on capital	165 farms with low returns on capital
<u>Size and intensity of business</u>				
Size of farm--total acres	_____	260	246	234
Percent of land tillable.	_____	86	86	85
Days of productive work: ^{a/}				
On crops.	_____	141	132	130
On productive livestock	_____	293	334	251
Total days of productive work	_____	434	466	381
Days of work per acre of the farm	_____	1.67	1.89	1.63
Feed per acre to productive livestock ^{b/}	\$ _____	\$ 24.64	\$ 32.45	\$ 21.37
Gross earnings per acre-1	_____	51.82	68.65	39.65
Gross earnings per acre on similar soil ^{c/} -2	_____	51.82	55.00	55.20
Percent of average (% 1 is of 2).	_____	100	125	72
Gross expenses per acre	_____	18.04	17.65	20.42
Net earnings per acre	_____	33.78	51.00	19.23
<u>Capital per acre</u>				
Land--all land in farm.	\$ _____	\$113.03	\$111.75	\$112.63
Improved land	(_____)	(120.00)	(119.00)	(120.00)
Land improvements	_____	4.07	3.96	3.97
Limestone and rock phosphate.	(_____)	(1.15)	(1.22)	(.99)
Farm buildings.	_____	23.34	19.89	29.79
Operating capital	_____	57.08	58.97	59.28
Total capital per acre.	_____	197.52	194.57	205.67
<u>Sources of earnings--percent of total</u>				
All cattle.	_____	22	21	23
Dairy sales	_____	10	5	17
Hogs.	_____	41	58	27
Sheep and wool.	_____	1	1	1
Poultry and eggs.	_____	4	3	6
Farm products used in household	_____	3	2	4
Feed, grain, and seeds.	_____	13	5	15
AAA receipts.	_____	5	4	6
Miscellaneous	_____	1	1	1

^{a/} The method of calculating the days of productive work on crops and livestock is explained on page 26.

^{b/} The method of calculating the value of feed fed to livestock is explained in the footnote to Table 8, page 16.

^{c/} The gross earnings per acre of each farm are compared with the average gross earnings per acre of farms on which the same value was placed on the bare land of the whole farm.

Organization of the Farm Business. The average size of the 825 farms used in this report was 260 acres. That the average size of the 165 farms with the highest rate of return on their capital was only 246 acres does not show that the smaller farms were more efficient because of their size. The medium-to small-sized farms were more profitable because they produced more hogs than the large farms, and hog farms were the most profitable of all in 1942 (pages 12 and 13) because of the relatively high price of hogs (page 25).

Neither does the relatively small average size (234 acres) of the 165 farms with the lowest returns on their capital indicate that small farms were relatively unprofitable because they were small. Such farms were relatively unprofitable because most dairy farms were small, and dairy farms were the least profitable type in 1942 (pages 12 and 13), because of the relatively low price received for dairy products last year (page 25).

Farm management records kept in Illinois for 27 years show that according to the long-time average, there is little difference in returns on the capital invested on farms of 120 acres or larger. Very few records are available for farms of under 120 acres.

The larger value of feed fed per acre and the larger total number of days of work on crops and livestock reported for the 165 farms with the highest returns on their capital show that they were more intensively operated than the average farms for which reports were received.

The first group of farms were also less expensively equipped with buildings than the average of all farms, and the 165 farms with the lowest returns were much more expensively equipped.

While expensive buildings are a source of expense instead of income on many farms, building them may be justified because of the pleasure they give to the farmer and his family.

Source of Farm Earnings. There were wide differences in the farm earnings on farms of different types in 1942 (see pages 9, 12, and 13) caused largely by differences in the price levels of different products (see page 25). Intensive hog farms receiving 60 percent or more (an average of 71 percent) of their income from hogs realized 71 percent more on their capital than did dairy farms receiving 40 percent or more (57 percent average) of their income from dairy products. Gross earnings per man were 88 percent higher on the intensive hog farms than on the dairy farms.

The eight types of farms listed in order of net returns on their capital, were: (1) intensive hog farms; (2) less intensive hog farms; (3) general livestock farms (36 percent of their income was from hogs); (4) mixed income farms (27 percent of their income was from hogs); (5) cattle farms; (6) less intensive grain farms (20 percent of their income was from hogs); (7) intensive grain farms; and (8) dairy farms.

The order of these eight types of farms, according to the percent of average gross earnings received per man, including that of hired man, family, and operator, was: (1) intensive hog farms, 130; (2) cattle farms, 129; (3) intensive grain and less intensive hog farms were the same, 107; (5) mixed income farms, 105; (6) general livestock farms, 101; (7) less intensive grain farms, 100; and (8) dairy farms, 69.

The relatively high crop yields on the cattle and dairy farms (106 and 108 percent of average, respectively) are customarily produced because of the large acreages of legumes grown for hay and pasture on those types of farms, and because of the large amounts of manure that the cattle make available.

Table 6.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Farm Earnings (Continued)

Item	Your farm	Grain farms	
		60% or more	40% to 59%
Number of farms		51	104
<u>Source of farm earnings--percent of total</u>			
All cattle.	_____	5	9
Dairy sales	_____	3	6
Hogs.	_____	7	20
Sheep and wool.	_____	1	1
Poultry and eggs.	_____	3	4
Farm products used in household	_____	2	3
Feed, grain, and seeds.	_____	72	50
AAA receipts.	_____	6	6
Miscellaneous	_____	1	1
<u>Net earnings on the total business on all farms</u>			
Rate earned on capital--percent	_____	14.7	14.8
Labor and management earnings	\$ _____	\$6 318	\$6 227
<u>Net earnings on rented farms--number of rented farms</u>			
Tenant's labor and management earnings. . .	\$ _____	\$4 259	\$4 649
Landlord's rate earned on capital--percent.	_____	9.4	9.4
<u>Gross earnings factors</u>			
Gross earnings per acre--percent of average on similar soil.	_____	73	80
Gross earnings per man--percent of average.	_____	107	100
<u>Crop yields--% of average on similar soil</u>			
Corn.	_____	100	96
Oats.	_____	93	94
Wheat	_____	126	108
Soybeans.	_____	106	98
All grain crops	_____	99	95
<u>Livestock returns--percent of average from same feed</u>			
Cattle.	_____	93	95
Hogs.	_____	95	102
Sheep	_____	118	117
Poultry	_____	115	98
All livestock	_____	98	99
<u>Costs--percent of normal</u>			
Labor	_____	101	107
Horses and machinery.	_____	103	104
<u>Organization of farm</u>			
Size of business--days of work.	_____	296	342
Size of farm--total acres	_____	320	280
Percent of farm tillable.	_____	92	92
Percent of tillable land in biennial and perennial legumes.	_____	15	17
Feed per acre to productive livestock . . .	\$ _____	\$ 5.29	\$11.19

Table 6.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Farm Earnings (Concluded)

Cattle 40% or more	Livestock farms		Dairy 40% or more	General 60% or more	Mixed income farms
	Hog farms 60% or more	40% to 59%			
75	123	192	71	146	63
58	13	17	10	27	15
3	3	7	57	11	7
25	71	51	14	36	27
1	1	2	0	1	1
2	3	4	5	5	5
2	2	3	3	3	3
5	3	11	6	12	34
4	4	5	4	5	7
0	0	0	1	0	1
15.8	22.4	18.8	13.1	16.6	16.0
\$8 052	\$8 536	\$7 407	\$3 637	\$6 917	\$6 755
28	59	93	35	74	33
\$5 989	\$6 311	\$5 668	\$3 657	\$5 293	\$5 143
9.9	12.4	11.3	6.2	8.2	9.2
113	129	104	105	99	84
129	130	107	69	101	105
107	104	103	97	100	98
111	98	98	126	105	98
104	98	100	96	89	128
105	109	106	79	105	113
106	101	100	108	100	100
98	96	99	101	97	96
99	101	99	92	98	106
87	99	90	105	107	97
94	94	100	100	99	89
98	99	99	100	98	100
103	96	98	100	100	97
103	102	100	99	96	99
494	443	435	540	479	384
303	232	248	188	267	284
84	84	84	79	85	88
21	25	23	50	23	21
\$38.25	\$35.33	\$27.20	\$26.43	\$27.41	\$15.65

Crop Production Records

Crop Yields. The 1942 average yield of 74 bushels on corn per acre on cooperating farms was the highest it has ever been during the 18 years that records have been kept on Farm Bureau Farm Management Service farms. High crop yields on the 165 most profitable farms and low crop yields on the 165 least profitable ones were evidently partly responsible for the high and low earnings on the respective groups of farms (Table 7, page 15).

Soybean yields were not so high as in recent years. This was due largely to the weather conditions at harvest time which made it impossible to harvest all of the crop on some farms. The average yield of 22 bushels per acre was obtained on the 13.1 percent of the tillable land in soybeans which was harvested. The records in Table 7 show that soybeans in 1.2 percent of the tillable land were not harvested during 1942. Some of them were finally harvested during the spring of 1943.

Crop System. The percent of tillable land occupied by high or low net income crops is an important factor affecting net farm earnings. Corn, harvested soybeans, and alfalfa for hay and pasture occupied 38.5, 14.3, and 9.4 percent, respectively, of the tillable land on the 165 most profitable farms and only 35.8, 11.5, and 7.1 percent on the 165 least profitable group.

The percent of tillable land in biennial and perennial legumes is important because it affects future crops. Many farmers fail to realize on the high income value of certain legume crops because they do not utilize these crops fully either as seed producing crops or as feed for livestock. It is generally believed that about 25 percent of the tillable land should grow soil-building legumes each year in order to maintain fertility. The most successful farmers do so and realize an additional profit from the use of these legumes as seed or feed.

One of the most important and difficult problems facing some corn-belt farmers as a result of various soil conservation programs is that of utilizing efficiently the increasing acreages of legumes and grasses being grown for soil improvement and erosion control purposes. The incomes of farms that are being improved with limestone and legumes often suffer during the years before the legumes are effective in increasing crop yields.

Table 7.--Crop Production Records

Item	Your farm	All 825 farms	165 farms with high returns on capital	165 farms with low returns on capital				
Crop yields								
1. Corn yield--bushels per acre.		74	80	68				
2. Average yield on similar soil ^{a/}		74	77	77				
Percent of average (% 1 is of 2)		100	104	89				
1. Oats yield--bushels per acre.		50	52	48				
2. Average yield on similar soil		50	49	49				
Percent of average (% 1 is of 2)		100	105	98				
1. Wheat yield--bushels per acre		21	24	21				
2. Average yield on similar soil		21	20	20				
Percent of average (% 1 is of 2)		100	119	107				
1. Soybean yield--bushels per acre		22	26	18				
2. Average yield on similar soil		22	21	21				
Percent of average (% 1 is of 2)		100	126	85				
1. Crop-yield index--all grain crops		100	109	92				
2. Crop-yield index on similar soils ^{a/}		100	99	99				
Percent of average (% 1 is of 2)		100	110	92				
(Percent)								
Crop system--percent of tillable land in:								
<u>Grain crops</u>								
Corn--includes silage corn.		36.8	38.5	35.8				
Oats.		18.3	17.8	19.4				
Wheat		1.7	1.9	1.2				
Soybeans harvested.		13.7	14.3	11.5				
Soybeans not harvested.		1.2	.4	3.0				
Miscellaneous . . . . .		.7	.5	1.4*		
Total grain		72.4	73.4	72.3				
<u>Hay and pasture crops</u>								
	Hay	Pas.	Hay	Pas.	Hay	Pas.	Hay	Pas.
Alfalfa			6.0	2.3	5.9	3.5	5.7	1.4
Red or alsike clover.			2.9	2.8	2.7	3.6	3.5	2.2
Sweet clover.0	2.5	.0	1.9	.0	1.8
Mixed clover and grass.			1.3	3.4	1.2	2.9	1.9	3.3
Soybeans.2	.0	.0	.0	.5	.0
Bluegrass0	2.5	.0	2.3	.0	2.2
Timothy2	.8	.1	.5	.4	.9
Oats.0	.3	.0	.2	.0	.6
Sudan0	.3	.0	.1	.0	.5
Miscellaneous3	.4	.2	.2	.3	.6
Total hay and pasture			10.9	15.3	10.1	15.2	12.3	13.5
<u>Other crops</u>			1.4		1.3		1.9	
<u>Total harvested crops</u>			84.5		84.6		86.3	
All biennial and perennial legumes.			21.7		21.9		20.4	
All annual legumes.			14.9		14.8		15.2	
Crops after first-year sweet clover			6.5		7.4		5.7	

^{a/} The average yield on similar soil was obtained by taking the average yield of all farms on which the improved land had been given the same value per acre. (See page 28.)

Efficiency of Livestock Enterprises

On livestock farms the efficiency with which the livestock is produced or purchased, fed, and marketed is as important in making the net farm income high or low as are all the other factors combined. (See Bulletin 444, "Farm Practices and Their Effects on Farm Earnings," page 554.)

Since about 60 to 80 percent of all the costs of producing livestock is for the feed, the returns from livestock for \$100 feed fed is the most satisfactory single measure of efficiency for each class of livestock. The average returns per \$100 feed fed to different classes of livestock during 1942 are shown in Table 8. The returns on Farm Bureau Farm Management Service farms for each of ten years, the average of the ten years 1933 to 1942, and the average yearly price of corn are also shown in Table 8.

Table 8.--Returns per \$100 Feed for Different Classes of Livestock

Class of livestock	Returns per \$100 feed ^{a/}										10-yr. aver.
	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942 ^{b/}	
Beef cow herds ^{c/} . . .	\$ 90	\$ 84	\$110	\$ 85	\$ 99	\$119	\$146	\$134	\$136	\$127	\$113
Dairy herds	152	145	143	150	159	193	204	198	212	176	173
Dual herds.	112	118	141	109	116	151	162	173	162	151	140
Beef and dairy.	101	109	118	117	141	126	167	162	157	137	134
Feeder cattle	97	125	152	96	106	142	131	136	124	136	124
Beef and feeders.	87	113	119	102	116	142	143	134	130	131	122
Dairy and feeders	108	135	141	104	117	140	151	154	144	133	132
Dual and feeders.	85	--	147	101	107	137	129	147	--	150	125 ^{d/}
Beef, dairy, feeders	99	120	124	103	124	137	150	147	138	129	127
Native sheep.	--	--	93	109	123	98	136	142	160	131	124 ^{d/}
Feeder sheep.	--	--	163	101	50	153	136	149	122	147	128 ^{d/}
Native and feeders.	123	160	122	103	72	122	133	141	119	126	122
Hogs.	128	127	174	155	122	184	144	118	193	201	155
Poultry	217	198	211	180	157	208	195	177	202	187	193
Yearly price of corn	.32	.58	.74	.73	.91	.45	.43	.54	.63	.77	.61

a/ When the value of feed fed during 1942 was calculated, the grain was priced at the average farm prices for Illinois, reported by the Illinois Cooperative Crop Reporting Service as follows: corn, 77 cents; oats, 47 cents; barley, 70 cents; wheat, \$1.10; soybeans, \$1.60; rye, 65 cents. Purchased supplements were priced at cost, and hay, silage, and pasture were priced at farm values in the area.

b/ This column gives the returns at average rate referred to in the livestock accounts.

c/ Calves from some beef cow herds were sold at weaning time, whereas other calves were fed until they weighed 1,000 pounds or more.

d/ Average of eight years only.

Table 9.--Hog Enterprise^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms		641	214	214
Total feed to hogs--value	\$ _____	\$ 3 331	\$ 2 911	\$ 3 692
Total returns from hogs--1.	_____	6 707	7 011	6 136
Total returns at average rate ^{b/} --2.	_____	6 707	5 851	7 421
Percent of average returns (% 1 is of 2)	_____	100	120	83
Returns per \$100 feed	\$ _____	\$ 201	\$ 241	\$ 166
Number of litters farrowed.	_____	29	29	28
Pigs farrowed per litter (278 farms).	_____	7.8	7.9	7.5
Pigs weaned per litter.	_____	6.5	6.7	6.1
Total pounds of pork produced	_____	46 411	48 141	43 211
Death loss: Pounds	_____	1 006	685	1 431
Percent of total produced.	_____	2.2	1.4	3.3
Average weight per hog sold	_____	262	259	261
Percent of sales for year on hand Jan. 1.	_____	39	37	42
Price received per 100 lb. sold	\$ _____	\$ 13.47	\$ 13.53	\$ 13.42
Feed charge per 100 lb. pork produced	_____	7.18	6.05	8.54
<u>Amounts of feed per 100 lb. pork</u>				
Grain--pounds	_____	407	336	489
Protein and mineral feeds--pounds	_____	43	39	49
Total concentrates--pounds.	_____	450	375	538
Hay--pounds	_____	4	4	5
Pasture--pasture days	_____	2	2	2
Pounds of protein and minerals per 100 lb. concentrates	_____	9.6	10.4	9.2

a/ Farms were divided into groups according to the returns per \$100 feed fed to hogs. Only farms producing 10,000 pounds or more per farm were used in this comparison.

b/ The returns at average rate for any kind of livestock are the total returns which the cooperator receives from the feed fed if he receives the same returns for each \$100 worth of feed fed as that received by the average cooperator feeding the same class of livestock. The average returns per \$100 feed fed to different classes of livestock are given in Table 8, page 16.

Hogs. Because of the demands of the wartime program and because of prospective profits, Farm Bureau Farm Management Service cooperators produced 16 percent more pork per farm in 1942 than in 1941. Hogs proved unusually profitable on most farms in 1942 because the price relationship between corn and hogs was favorable to the latter. See page 25. The average selling price of hogs for 641 farms was \$13.47 per 100 pounds. The average selling price of corn was 77 cents (Table 17, page 25). Thus 100 pounds of pork sold for a price equal to the farm value of 17.5 bushels of corn. The hogs on the profitable farms produced large litters, with an average of 6.7 pigs weaned per litter; they used relatively small amounts of feed--only 375 pounds per 100 pounds gain; and their owners marketed more than the average number of spring pigs in the fall.

Table 10. Dairy-Cattle Enterprise-

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed	Number of cows per herd			
					5.0 to 9.9	10.0 to 19.9	20.0 to 29.9	30.0 or more
Number of farms		270	90	90	62	99	65	44
Number of cows in herd		19.2	19.4	18.1	7.4	14.5	24.2	38.9
Number of cows milked		17.3	17.7	16.0	6.4	12.9	21.9	35.7
Total animal units in herd		25.6	26.0	24.5	10.1	19.6	31.9	51.6
Percent of cattle units milked		67.5	68.0	65.3	63.5	65.4	68.8	69.2
Total feed to cattle--value	\$	2 225	1 989	2 463	754	1 670	2 917	4 526
Total returns from cattle--1.		3 928	4 482	3 350	1 337	2 837	5 257	8 070
Total returns at average rate ^{b/} --2.		3 928	3 521	4 360	1 335	2 956	5 163	8 011
Percent of average returns (% 1 is of 2)		100	127	77	100	96	102	101
Returns per \$100 feed	\$	177	225	136	177	170	180	178
Total pounds of milk produced		138 215	147 063	126 693	45 061	98 557	184 750	289 962
Total pounds of butterfat produced		5 344	5 616	4 810	1 817	3 954	6 663	11 242
Percent of butterfat in milk (222 farms)		3.8	3.8	3.7	4.2	3.9	3.5	3.8
Total pounds of beef produced		7 641	8 272	7 258	3 553	6 637	9 091	13 521
Death loss: Pounds		522	369	641	192	433	440	1 309
Percent of total produced		6.8	4.5	8.8	5.4	6.5	4.8	9.7
Pounds of milk per cow milked		7 998	8 327	7 918	7 034	7 665	8 423	8 124
Pounds of butterfat per cow milked		303	318	289	281	301	301	312
Pounds of beef per cow in herd		398	425	401	479	457	375	347
Total value of milk produced	\$	3 161	3 537	2 706	880	2 151	4 259	7 027
Returns per 100 lb. milk produced		2.29	2.41	2.14	1.95	2.18	2.31	2.42
Returns per lb. of butterfat produced . . . . .		.52	.54	.50	.41	.48	.55	.54
Price received per 100 lb. cattle sold		10.27	10.76	9.94	10.66	10.70	10.67	9.19
Price paid per 100 lb. cattle bought		14.41	13.45	16.80	13.31	15.61	13.84	14.41
Feed charge per 100 lb. milk or 10 lb. beef ^{c/}		1.03	.87	1.24	.94	1.01	1.06	1.06
Amounts of feed per 100 lb. milk								
Grain--pounds		24.4	21.0	28.4	28.3	25.6	23.3	23.5
Protein and mineral feeds--pounds		5.2	5.2	5.8	2.5	4.0	6.0	6.2
Total concentrates--pounds		29.6	26.2	34.2	30.8	29.6	29.3	29.7
Hay--pounds		40.2	34.6	46.7	48.1	43.1	37.3	38.3
Silage--pounds		61.1	50.5	68.9	8.0	41.7	76.4	77.7
Pasture--pasture days		1.9	1.7	2.4	2.2	2.0	1.9	1.9
Pounds of protein and mineral feeds per 100 lb. concentrates		17.7	19.8	17.0	8.2	13.7	20.6	21.0

^{a/} Only farms which had five or more cows per farm were used in these comparisons.
^{b/} See footnote b of Table 9.

Table 11.--Feeder Cattle Enterprises^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms		74	25	25
Number of cows in herd.		3.3	3.7	2.9
Number of cows milked		2.0	1.8	1.9
Total animal units in herd.		63.0	60.0	65.9
Percent of cattle units milked.		3.1	3.0	2.8
Total feed to cattle--value	\$	\$ 6 595	\$ 6 051	\$ 7 127
Total returns from cattle--1.		8 969	9 712	8 291
Total returns at average rate ^{b/} --2.		8 969	8 229	9 693
Percent of average returns (% 1 is of 2)		100	118	86
Returns per \$100 feed	\$	\$ 136	\$ 161	\$ 116
Pounds of beef produced		51 905	54 896	44 878
Death loss: Pounds		898	725	1 291
Percent of total produced.		1.7	1.3	2.9
Pounds of milk produced		11 758	11 584	9 767
Price received per 100 lb. cattle sold.	\$	\$ 13.77	\$ 14.05	\$ 13.69
Price paid per 100 lb. cattle bought.		12.89	12.58	12.42
Feed charge per 100 lb. beef ^{c/}		12.42	10.79	15.54
<u>Amounts of feed per 100 lb. beef</u>				
Grain--pounds		632	523	815
Protein and mineral feeds--pounds		55	58	68
Total concentrates--pounds.		687	581	883
Hay--pounds'.		248	235	295
Silage--pounds.		201	121	261
Pasture--pasture days		6	7	6
Pounds of protein and mineral feeds per 100 lb. of concentrates.		8.0	9.9	7.7

a/ Only farms that produced 5,000 pounds or more of beef from purchased feeder cattle were used in these comparisons.

b/ See "Footnote b," Table 9.

c/ This is the feed charge for each 100 pounds of live weight of animal or 1,000 pounds of milk. Approximately the same amount of feed is required to produce either 100 pounds of beef or 1,000 pounds of milk.

Dairy Cattle. Few dairy farms were among the most profitable farms, because of comparatively low prices of dairy products (see pages 9 and 25). Some were profitable. The most profitable one-third of the dairy herds paid an average of \$225 for each \$100 worth of feed fed whereas the least profitable one-third paid only \$136 (Table 10, page 18).

Feeder Cattle. The average returns of \$136 for each \$100 worth of feed fed to feeder cattle on 74 farms was slightly more than the amount needed to pay for the feed, labor, use of equipment, and other costs. Feeder cattle gains appeared to be more dependent upon the low feed costs per 100 pounds gain than upon the quality of cattle fed or the spread between the buying and selling prices. Compared with the 25 least profitable herds, the 25 most profitable ones had \$4.75 less feed charges per 100 pounds, but had only a few cents more spread.

Table 12.--Beef Cow Herds^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed	Calves sold when weaned
Number of farms		61	20	20	13
Number of cows in herd		19.6	16.6	21.0	20.9
Number of cows milked		2.5	2.3	2.7	3.2
Total animal units in herd		31.7	24.5	36.4	26.8
Percent of cattle units milked		7.7	9.3	7.3	12.0
Total feed to cattle--value	\$	\$ 1 752	\$ 1 259	\$ 2 122	\$ 1 131
Total returns from cattle--1.		2 229	2 399	1 848	1934
Total returns at average rate ^{b/} --2.		2 229	1 599	2 695	1 436
Percent of average returns (% 1 is of 2)		100	150	69	135
Returns per \$100 feed	\$	\$ 127	\$ 191	\$ 87	\$ 171
Pounds of beef produced		14 233	14 043	13 627	13 337
Death loss: Pounds		1 091	758	1 657	729
Percent of total produced		7.7	5.4	12.2	5.5
Pounds of beef per cow in herd		727	847	650	637
Pounds of milk produced		14 853	14 216	14 219	17 388
Price received per 100 lb. cattle sold \$		\$ 12.90	\$ 13.29	\$ 11.76	\$ 12.76
Price paid per 100 lb. cattle bought		15.10	13.58	13.57	14.56
Feed charge per 100 lb. beef ^{c/}		11.14	8.14	14.10	7.50
Amounts of feed per 100 lb. beef					
Grain--pounds		360	235	474	107
Protein and mineral feeds--pounds		17	11	22	11
Total concentrates--pounds		377	246	496	118
Hay--pounds		445	464	518	413
Silage--pounds		192	39	186	225
Pasture--pasture days		39	31	48	41
Pounds of protein and mineral feeds per 100 lb. of concentrates		4.6	4.6	4.5	8.9

^{a/} Only farms having five or more cows per farm and whose operators kept complete feed and production records were used in these comparisons.

^{b/} See "Footnote b," Table 9.

^{c/} See "Footnote c," Table 11.

Beef-Cow Herds. Most beef-cow herds paid well for their feed in 1942. The most profitable third of this kind of cattle paid \$191 for each \$100 worth of feed fed, whereas the least profitable third paid only \$87 for \$100 worth of feed. The difference was evidently due, at least in part, to the larger production of 197 pounds of beef per cow and to the lower feed cost of \$5.96 per 100 pounds for the more profitable herds. The profitable herds were fed much less grain and silage for each 100 pounds of gain than the unprofitable herds.

Thirteen herds from which calves were "sold" at weaning time to the feeding herd brought good returns of \$171 for each \$100 worth of feed fed. An average of 637 pounds of beef per cow was produced at a feed cost of \$7.50 per 100 pounds.

Table 13.--Dual-Purpose Cattle Enterprises^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms		21	7	7
Number of cows in herd.		10.2	9.9	10.4
Number of cows milked		6.0	7.5	5.2
Total animal units in herd.		16.8	16.4	16.5
Percent of cattle units milked.		35.9	45.8	31.5
Total feed to cattle--value	\$	\$ 1 146	\$ 950	\$ 1 274
Total returns from cattle--1.		1 727	2 083	1 305
Total returns at average rate ^{b/} --2.		1 727	1 434	1 924
Percent of average returns (% 1 is of 2)		100	145	68
Returns per \$100 feed	\$	\$ 151	\$ 219	\$ 102
Total pounds of milk produced		34 170	33 258	33 288
Total pounds of butterfat produced.		1 399	1 393	1 306
Percent of butterfat in milk.		3.7	4.2	3.4
Total pounds of beef produced		8 787	11 201	5 857
Death loss: Pounds		524	525	382
Percent of total produced.		6.0	4.7	6.5
Pounds of milk per cow milked		5 650	4 418	6 419
Pounds of butterfat per cow milked.		219	174	240
Pounds of beef per cow in herd.		861	1 131	562
Total value of milk produced.	\$	\$ 700	\$ 840	\$ 627
Returns per 100 lb. milk produced		2.05	2.53	1.88
Returns per lb. of butterfat produced . . . . .		.46	.52	.45
Price received per 100 lb. cattle sold.		11.00	10.61	10.73
Price paid per 100 lb. cattle bought.		12.46	11.96	13.63
Feed charge per 100 lb. beef ^{c/}		9.39	6.54	13.86
Amounts of feed per 100 lb. beef				
Grain--pounds		308	180	507
Protein and mineral feeds--pounds		19	18	13
Total concentrates--pounds.		327	198	520
Hay--pounds		452	371	642
Silage--pounds.		--	--	--
Pasture--pasture days		25	23	30
Pounds of protein and mineral feeds per 100 lb. concentrates		5.7	9.2	5.7

a/ Only farms having five or more cows per farm and whose operators kept complete feed and production records were used in these comparisons.

b/ See "Footnote b," Table 9.

c/ See "Footnote c," Table 11.

Dual-Purpose Cattle. The 21 herds of dual-purpose cattle repaid their owners well in 1942. The seven most profitable herds were fed much less grain than were the seven least profitable herds. Dual-purpose cattle produced both beef and milk at a lower feed cost than did any other class of cattle (Tables 10 to 14). While Farm Bureau Farm Management Service records have revealed this advantage repeatedly from year to year, they have also shown that the price received for the beef sold from dual-purpose herds is always low compared with the price received for beef from good beef-cow herds and from purchased feeder cattle.

Table 14.--Feeder Cattle and Dairy and/or Beef Breeding Herd Enterprises^a

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms		83	28	28
Number of cows in herd.		15.7	12.8	16.5
Number of cows milked		4.1	4.6	3.3
Total animal units in herd.		36.3	26.7	39.0
Percent of cattle units milked.		11.3	17.3	8.5
Total feed to cattle--value	\$	\$ 2 983	\$ 2 088	\$ 3 370
Total returns from cattle--1.		3 940	3 597	3 447
Total returns at average rate ^b --2.		3 940	2 756	4 448
Percent of average returns (% 1 is of 2)		100	131	77
Returns per \$100 feed	\$	\$ 132	\$ 172	\$ 102
Total pounds of milk produced		25 956	29 832	19 792
Total pounds of butterfat produced.		1 169	1 356	912
Percent of butterfat in milk.		4.0	4.0	4.1
Total pounds of beef produced		22 404	18 744	21 425
Death loss: Pounds		911	994	1 195
Percent of total produced.		4.1	5.3	5.6
Pounds of milk per cow milked		6 320	6 435	5 997
Pounds of butterfat per cow milked.		264	266	273
Total value of milk produced.	\$	\$ 535	\$ 655	\$ 406
Returns per 100 lb. milk produced		2.06	2.20	2.05
Returns per lb. of butterfat produced . . . . .		.43	.47	.42
Price received per 100 lb. cattle sold.		12.77	13.07	12.67
Price paid per 100 lb. cattle bought.		12.67	11.90	13.31
Feed charge per 100 lb. beef ^c /		11.93	9.61	14.40
Amounts of feed per 100 lb. beef				
Grain--pounds		525	405	633
Protein and mineral feeds--pounds		35	30	39
Total concentrates--pounds.		560	435	672
Hay--pounds		330	248	399
Silage--pounds.		233	211	279
Pasture--pasture days		20	18	25
Pounds of protein and mineral feeds per 100 lb. concentrates		6.2	6.9	5.9

a/ Only farms having five or more animal units in cattle and whose operators kept complete feed and production records were used in these comparisons.

b/ See "Footnote b," Table 9.

c/ See "Footnote c," Table 11.

Mixed Cattle Enterprises. Cooperators who have two or more classes of cattle and keep only one account may compare their results in table 14 with those of other cooperators who follow the same plan. In general, such cooperators will find their returns per \$100 worth of feed fed large or small as the proportion of dairy cattle on their farms is large or small.

Table 15.--Sheep Enterprises^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
<u>Native flocks of sheep</u>				
Number of flocks.		104	35	35
Total feed to sheep--value.	\$ _____	\$ 416	\$ 274	\$ 497
Total returns from sheep--1	_____	544	576	399
Total returns at average rate ^{b/} --2.	_____	544	359	651
Percent of average returns (% 1 is of 2)	_____	100	160	61
Returns per \$100 feed	\$ _____	\$ 131	\$ 210	\$ 80
Pounds of mutton and wool produced.	_____	3 651	3 770	2 954
Death loss: Pounds	_____	549	493	568
Percent of total produced.	_____	15.0	13.1	19.2
Price received per 100 lb. sold	\$ _____	\$ 13.86	\$ 13.99	\$13.05
Feed charge per 100 lb. produced.	_____	11.40	7.27	16.83
<u>Amounts of feed per 100 lb. produced</u>				
Grain--pounds	_____	216	114	315
Protein and mineral feeds--pounds	_____	8	6	8
Total concentrates--pounds.	_____	224	120	323
Hay--pounds	_____	544	366	819
Silage--pounds.	_____	57	74	46
Pasture--pasture days	_____	64	43	94
Pounds of protein and mineral feeds per 100 lb. concentrates		3.5	4.9	2.6
<u>Feeder sheep bought</u>				
Number of flocks.		26	9	9
Total feed to sheep--value.	\$ _____	\$ 1 138	\$ 1 017	\$1 077
Total returns from sheep--1	_____	1 677	2 212	1 032
Total returns at average rate ^{b/} --2.	_____	1 677	1 495	1 583
Percent of average returns (% 1 is of 2)	_____	100	148	65
Returns per \$100 feed	\$ _____	\$ 147	\$ 217	\$ 96
Pounds of mutton and wool produced.	_____	11 198	13 824	8 774
Death loss: Pounds	_____	1 583	2 087	1 445
Percent of total produced.	_____	14.1	15.1	16.5
Price received per 100 lb. sold	\$ _____	\$ 12.71	\$ 12.94	\$12.45
Price paid per 100 lb. bought	_____	12.22	11.75	12.18
Feed charge per 100 lb. produced.	_____	10.16	7.36	12.27
<u>Amounts of feed per 100 lb. produced</u>				
Grain--pounds	_____	477	323	625
Protein and mineral feeds--pounds	_____	14	18	13
Total concentrates.	_____	491	341	638
Hay--pounds	_____	305	222	341
Silage--pounds.	_____	14	33	0
Pasture--pasture days	_____	14	10	12
Pounds of protein and mineral feeds per 100 lb. concentrates		2.9	5.2	2.0

^{a/} Only farms having three or more animal units in sheep were used in these comparisons.

^{b/} See "Footnote b," Table 9.

Table 16.--Poultry Enterprises^{2/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed	Farms divided according to the number of hens per farm			
					50 to 99 hens	100 to 199 hens	200 to 399 hens	400 or more hens
Number of flocks		521	174	174	106	295	105	15
Total feed to poultry	\$	\$ 434	\$ 342	\$ 484	\$ 196	\$ 366	\$ 660	\$ 1 899
Total returns from poultry--1		811	871	666	363	668	1 276	3 543
Total returns at average rate ^{b/} --2		811	640	905	367	684	1 234	3 551
Percent of average returns (% 1 is of 2)		100	136	74	99	98	103	100
Returns per \$100 feed	\$	\$ 187	\$ 255	\$ 138	\$ 185	\$ 183	\$ 193	\$ 187
Average number of hens kept		172	167	166	78	143	270	720
Number of eggs produced per hen		135	146	116	114	132	135	157
Total returns per hen	\$	\$ 4.71	\$ 5.21	\$ 4.01	\$ 4.67	\$ 4.66	\$ 4.73	\$ 4.92
Total feed cost per hen		2.52	2.05	2.92	2.52	2.55	2.44	2.64
Average price of eggs per dozen . . . . .		.31	.31	.31	.29	.31	.32	.34
Percent of eggs laid in Oct., Nov., Dec.		23.2	23.9	22.4	20.9	21.5	25.4	23.6
Amounts of feed per hen		97	79	115	104	101	94	85
Grain--pounds		36	31	39	31	34	34	47
Protein, mineral, and mixed feeds--lb.		133	110	154	135	135	128	132
Total concentrates--pounds								
Pounds of protein, mineral, and mixed feeds per 100 pounds of feed		26.9	27.5	25.2	23.1	25.5	26.8	35.9

a/ Farms were divided into groups according to the returns per \$100 worth of feed fed to poultry. Only flocks having 50 or more hens were used in this comparison.

b/ See "Footnote b," Table 9.

Sheep. Most of the native flocks of sheep paid well for their feed at the prices charged, especially since more than 75 percent of their feed consisted of hay and pasture which have little or no market value.

Feeder sheep, like feeder cattle, brought a little more than enough average returns to pay for their feed, labor, and other costs of production. A few droves did very well, while others lost money.

Poultry. Responding to the demands of the wartime program and to the better price of eggs, Farm Bureau Farm Management Service cooperators stepped up their 1942 egg production by 16 percent over that of 1941. Their poultry was increased 15 hens per flock, and the flocks increased egg production four eggs per hen for 430 farms on which comparisons were made. Compared with the one-third least profitable flocks, the one-third most profitable flocks produced 30 more eggs per hen.

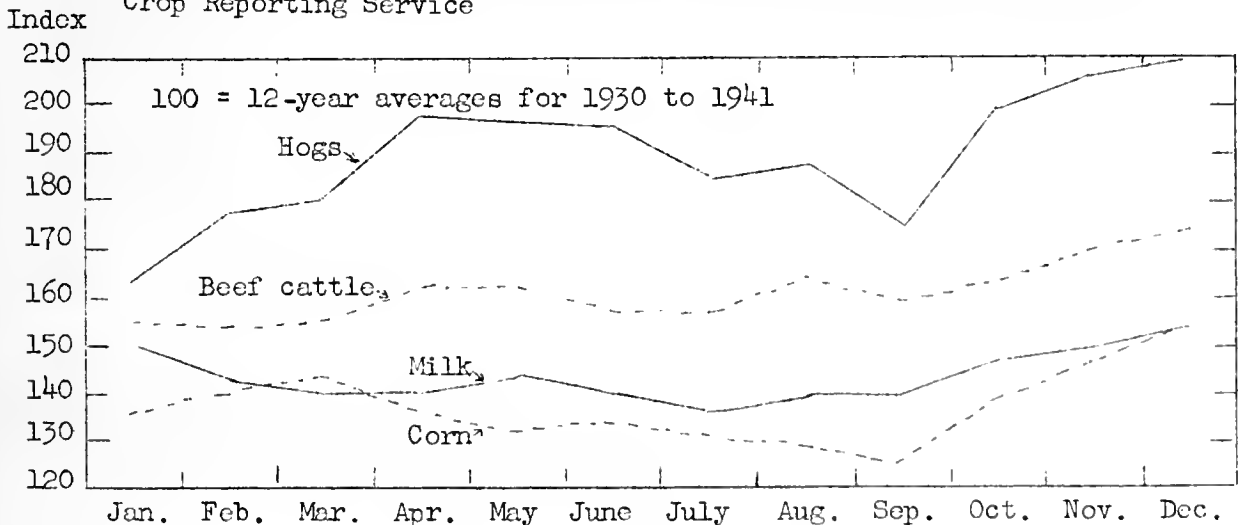
Influence of Price on Farm Earnings

Price of products sold is of course one of the important factors that affect farm earnings. Usually each cooperator will find that production costs are much more effective in making incomes high or low when compared with other farms than are the prices of products sold. If his prices are consistently low from year to year, each cooperator may well study the reasons for such low prices. The amounts and prices of most of the products sold during 1942 are shown in Table 17.

Table 17.--Amounts and Prices of Some Products Sold

Item	Your farm	All 825 farms	165 farms with high returns on capital	165 farms with low returns on capital
<u>Amounts of products sold</u>				
Corn--bushels		2 361	2 039	2 042
Oats--bushels		709	650	570
Wheat--bushels		102	111	84
Soybeans--bushels		484	581	330
Beef--pounds		38 512	41 366	36 057
Pork--pounds		37 450	65 648	18 490
Mutton and wool--pounds		3 179	2 625	2 644
Milk--pounds produced		65 036	44 807	79 060
Eggs--dozens		1 261	1 255	1 060
<u>Prices received</u>				
Corn--per bushel	\$	\$.77	\$.78	\$.76
Oats--per bushel . . . . .		.49	.49	.49
Wheat--per bushel		1.11	1.14	1.11
Soybeans--per bushel		1.58	1.57	1.55
Beef--per 100 lb.		13.14	13.63	12.49
Pork--per 100 lb.		13.47	13.53	13.46
Mutton and wool--per 100 lb.		12.68	12.95	12.93
Milk--per 100 lb.		2.23	2.25	2.23
Eggs--per dozen . . . . .		.31	.30	.33

Monthly Price Indices of Hogs, Beef Cattle, Milk and Corn for 1942
 Illinois farm prices were obtained from the Illinois Cooperative Crop Reporting Service



Labor and Horse and Machinery Costs

Labor Costs. The average labor costs of \$1,754 per farm on the 165 farms with the highest earnings constituted only 91 percent of the \$1,920 average labor costs on all the farms requiring the same amount of work on crops and livestock. On the other hand, labor costs were \$191 (11 percent) higher on the 165 least profitable farms than on all the farms with similar labor requirements.

Maximum wartime farm production during a time of acute labor shortage calls for the most effective use of all available labor. That the effective use of labor also brings the most profit to the farmer is evidenced by the fact that the gross earnings per man on the 165 most profitable farms were 30 percent higher than the average gross earnings for all farms. Similar returns for the 165 least profitable farms were 30 percent less than the average. Most of this advantage of the most profitable group of farms was due to higher crop yields and higher livestock returns for feed fed (Table 4, page 6).

Horse and machinery costs. Low power and machinery costs for the amount of work done increased the net farm earnings on many farms. The average cost of \$1,532 per farm on the 165 most profitable farms was \$108 (7 percent) less than the average cost on farms having about the same amount of work on crops and livestock. The cost on the 165 least profitable farms was \$195 (13 percent) more than the average of similar farms.

The standard days of man labor required for the production of crops and livestock, as shown in Table 18, are based on many years of complete cost studies conducted by the Department of Agricultural Economics. Estimates for uncommon crops were made by applying the same figure used for similar common crops. These standard requirements were applied to the acres of crops and the amounts of livestock on each farm in order to calculate the total days of productive labor for the farm.

Table 18.--Standards for Calculating Days of Productive Labor on Crops and Productive Livestock

<u>Kind of crop or livestock</u>	<u>Days of labor required</u>
Corn	.80 per acre
Oats (threshed basis)	.61 per acre
Winter wheat (combined basis)	.36 per acre
Spring wheat (threshed)	.61 per acre
Barley (threshed)	.61 per acre
Soybeans for grain (combined)	.42 per acre
Alfalfa	1.27 per acre
Clover or mixed hay	.81 per acre
Timothy	.81 per acre
Soybean hay	1.55 per acre
Cattle other than cows milked	1.80 per animal unit ^{a/}
Cows milked	12.00 per cow
Hogs	.25 per 100 pounds
Sheep	3.10 per animal unit ^{a/}
Hens	26.80 per 100 hens

^{a/} An animal unit consists of one mature cow, two heifer calves or yearlings, 1,000 pounds liveweight of feeder cattle, five to six ewes, and 10 to 20 lambs.

Table 19.--Labor, Horse and Machinery, and Miscellaneous Costs

Item	Your farm	All 825 farms	165 farms with high returns on capital	165 farms with low returns on capital
Days of productive work^{a/}				
On crops	_____	141	132	130
On livestock	_____	293	334	251
Total days of productive work	_____	434	466	381
Labor cost				
Gross earnings per man--1	\$ _____	\$6 605	\$8 590	\$4 626
Average earnings of all farms--2.	_____	6 605	6 605	6 605
Percent of average (% 1 is of 2)	_____	100	130	70
Average number of men for 12 months	_____	2.04	1.97	2.01
Days of productive work per man	_____	213	236	190
Labor charge per month of labor	\$ _____	\$ 76	\$ 74	\$ 77
Total labor cost ^{b/} --1	_____	1 859	1 754	1 871
Labor cost at normal rate ^{c/} --2.	_____	1 859	1 920	1 680
Percent of normal cost (% 1 is of 2)	_____	100	91	111
Horse and machinery cost				
Average number of work horses	_____	2.8	2.7	2.9
Percent of farms with tractors	_____	98.2	97.6	97.6
Percent of farms with trucks	_____	55.6	50.9	54.5
Feed cost per workable horse	\$ _____	\$ 57	\$ 55	\$ 57
Total horse and machinery cost ^{d/} --1	_____	1 655	1 532	1 695
Cost at normal rate ^{e/} --2.	_____	1 655	1 640	1 500
Percent of normal cost (% 1 is of 2)	_____	100	93	113
Expenses and net decreases				
Auto--only farm share	\$ _____	\$ 178	\$ 165	\$ 175
Truck--only farms with trucks	_____	106	97	109
Tractor--only farms with tractor	_____	425	395	426
Other machinery--all farms	_____	775	718	800
Income from use of machinery	_____	196	165	189
Selected items of expense per acre				
Land improvements	\$ _____	\$.88	\$.91	\$.92
Limestone and rock phosphate	(_____)	(.47)	(.53)	(.47)
Farm buildings	_____	1.78	1.43	2.34
Machinery and equipment	_____	5.02	4.91	5.69
Automobile	_____	.68	.67	.75
Livestock expense	_____	.55	.61	.62
Hired and home labor	_____	7.25	7.19	8.11
Taxes--land and personal	_____	1.56	1.61	1.56
Miscellaneous	_____	.28	.28	.34
Feed, grain, seed, livestock decreases	_____	.04	.04	.09
Total expenses per acre	_____	18.04	17.65	20.42

a/ A day of work (or a productive man-work unit) is the amount of work done on crops and livestock by the average farm laborer in one ten-hour day (Table 18).

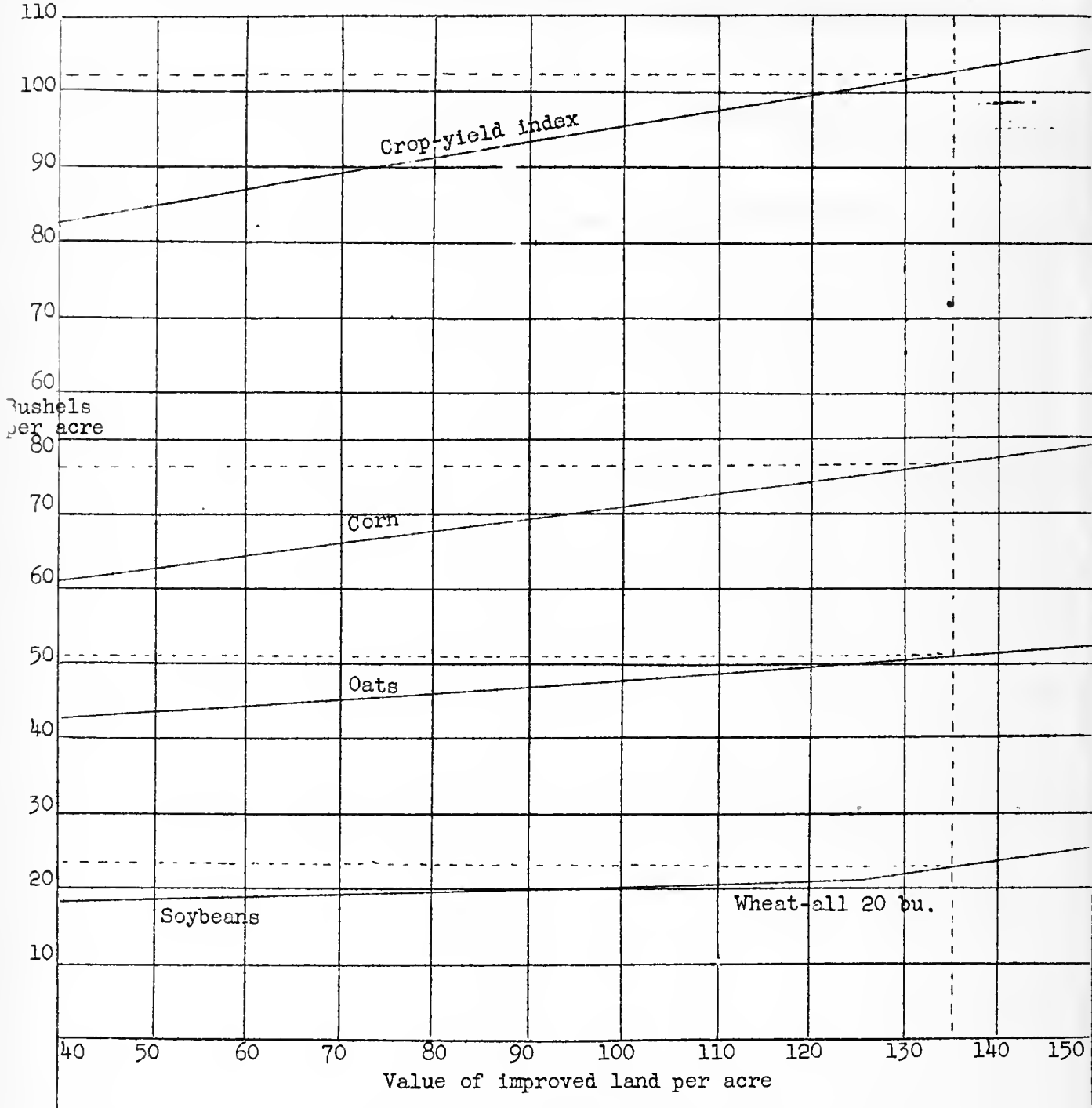
b/ Labor cost includes the amount paid for hired labor, the value of family labor not paid for in cash, and the value of the operator's labor figured at the common rate of wages paid to good, married, men workers.

c/ The labor cost at normal rate for any farm is the average labor cost for all the farms which require about the same amount of work on crops and livestock as the farm that is being considered.

d/ Horse cost includes depreciation and feed costs. Machinery cost includes the cost of depreciation, fuel, supplies, and repairs.

e/ The horse and machinery cost at normal rate for any farm is the average horse and machinery cost for all the farms which require about the same amount of work on crops and livestock as the farm that is being considered, and which receive little or no income from custom work.

Crop yield index The Crop-Yield Index and Yields (bushels per acre) of Corn, Oats, Wheat, and Soybeans, as They Vary With the Value Per Acre of Improved Land^{a/}



^{a/} The average yields of corn, oats, wheat, and soybeans, and the average crop-yield index for farms having any given value of improved land per acre can be found by using this chart in the following manner: Locate on the bottom line the acre value of the improved land; with a sharp-pointed pencil, draw a perpendicular line from the point on the bottom line that indicates the acre value of the improved land to the top of the chart; from the points where the perpendicular line crosses the lines for the different crops and the crop-yield index, draw horizontal lines across the chart until they cross the left-hand side of the chart; and, finally, read the average yields and the crop-yield index from the scale on the left-hand side of the chart. The average yields of farms on which the improved land is valued at \$135 per acre are located on the chart. They are: corn, 76 bushels; oats, 51 bushels; wheat, 20 bushels; soybeans, 23 bushels; and the crop-yield index, 102.

Area and County Averages of Farm Earnings on the Cash Basis
and Factors Helping to Analyze the Farm Business

Farm earnings on the cash basis and some factors helping to analyze the farm business are shown in Table 20, pages 30 to 35, for the average of all 825 farms, for all farms in each of the four Farm Bureau Farm Management Service areas, and for all farms in each of 30 counties.

Each cooperator may compare his farm earnings and efficiency factors with those of other farms in the same county and area.

The county and area averages of the rate earned on the capital investment varied greatly according to the major source of income. The western Illinois counties enjoyed the highest average earnings because of the large portion of income which was derived from hogs; the northeastern counties obtained the lowest average earnings because of the large income from dairy products; and the central counties received next to the lowest earnings because of the large amount of grain that was sold. The relative prices of hogs, dairy products, and grain were responsible for those differences (see chart, page 25). High or low average crop yields also were evidently partly responsible for high or low earnings in some counties.

The cash balance, which represents the amount available for payment of family living expenses, payments on debts, income taxes, and savings, varied greatly from county to county and area to area. The amount of the cash balance varied with the size of the farm as well as with the source of income and efficiency of farm operation.

Purpose of This Report

Each cooperator or other reader of this report should realize that its primary purpose is to enable each cooperator to learn (1) how profitable his farm was operated compared with other farms of the same type in the same area, and (2) the reasons for high or low earnings on each cooperator's farm.

The report has been prepared for the cooperators with the idea that the fieldmen will explain it to each man. It was not planned as the report of a research project; therefore little interpretation of data is presented.

Averages of the most profitable and least profitable farms, and of the most profitable and least profitable livestock enterprises are included in the report in order that each cooperator may compare his record with the averages of the most and least profitably operated farms and not primarily to show causes of high and low earnings, although some such causes are evidenced by those averages.

Table 20.--Area and County Averages of Factors Affecting the Farm Business (cont.)

Item	Your farm	Average all farms	Northern area	Northeast area
Number of farms	_____	825	211	173
Acres in farm	_____	260	262	224
Value of land per acre	\$ _____	\$ 113	\$ 123	\$ 99
Total investments per acre	_____	198	213	196
Rate earned on investment--percent	_____	17.1	18.1	13.4
Gross earnings per acre	\$ _____	\$ 51.82	\$ 59.88	\$ 51.81
Gross expenses per acre	_____	18.04	21.34	25.48
Net earnings per acre	_____	33.78	38.54	26.33
Gross earnings per man	_____	6 605	7 710	5 526
<u>Cash receipts--total</u>	\$ _____	\$17 011	\$18 272	\$14 181
Livestock except dairy and poultry	_____	10 506	12 011	7 433
Dairy products	_____	1 316	1 113	3 119
Poultry and eggs	_____	570	516	559
Feed, grain, and seeds	_____	3 534	3 505	2 189
Machinery and equipment	_____	258	247	307
Labor off farm and miscellaneous	_____	125	117	118
Soil conservation payments	_____	702	763	456
<u>Cash expenses--total</u>	\$ _____	\$10 182	\$10 516	\$10 004
Livestock bought	_____	3 297	3 615	3 379
Feed, grain, and seeds	_____	2 629	2 750	1 967
Machinery and equipment	_____	1 902	1 871	1 894
Land improvements and buildings	_____	790	789	1 137
Livestock, crop, and other expense	_____	254	267	265
Hired labor	_____	904	842	1 041
Taxes (land and personal)	_____	406	382	321
Cash balance for the year	\$ _____	\$ 6 829	\$ 7 756	\$ 4 177
Inventory changes	_____	2 557	2 995	2 316
Farm products used in household	_____	377	360	334
Receipts less expenses on inventory basis	_____	9 763	11 111	6 827
Crop yields: Corn--bushels per acre	_____	74	80	70
Oats--bushels per acre	_____	50	54	56
Wheat--bushels per acre	_____	21	26	22
Soybeans--bushels per acre	_____	22	22	18
Crop-yield index	_____	100	106	98
Feed per acre to productive livestock	\$ _____	\$ 24.64	\$ 26.92	\$ 25.33
Returns per \$100 feed: Cattle	_____	144	141	149
Hogs	_____	200	203	184
Sheep	_____	129	131	112
Poultry	_____	183	180	190
All livestock	_____	170	172	160
All livestock--% of ave. returns from feed	_____	100	99	94
Percent of land area tillable	_____	86	88	85
Percent of tillable land in: Corn	_____	37	38	35
Oats	_____	18	21	19
Wheat	_____	2	1	2
Soybeans for grain	_____	14	12	13
All hay and pasture crops	_____	26	26	27
Other crops	_____	3	2	4
Biennial and perennial legumes	_____	22	22	21
Months of man labor	_____	24.4	24.4	25.2
Labor cost per crop acre	\$ _____	\$ 9.85	\$ 9.44	\$ 11.68
Horse and machinery cost per crop acre	_____	8.77	8.27	10.31
Improvements cost per acre	_____	2.66	2.83	3.73
Limestone and phosphate cost per acre	_____	.47	.58	.66
Taxes per acre (land and personal)	_____	1.56	1.46	1.43

Table 20.--Area and County Averages of Factors Affecting the Farm Business (cont.)

Central area	Western area	Counties in the northern area						
		Bureau	DeKalb	Grundy	Kendall	LaSalle	Lee	Mar.-Put.
234	206	21	36	19	21	50	35	29
265	283	252	227	268	234	270	269	304
\$ 130	\$ 96	\$ 121	\$ 131	\$ 113	\$ 117	\$ 131	\$ 116	\$ 118
209	172	214	245	184	211	224	201	196
16.4	19.7	19.4	18.1	17.9	17.4	16.4	18.4	20.3
\$ 52.71	\$ 55.91	\$ 65.90	\$ 72.04	\$ 48.11	\$ 58.01	\$ 57.14	\$ 55.23	\$ 61.99
18.40	22.13	24.31	27.63	15.27	21.35	20.45	18.11	22.04
34.31	33.78	41.59	44.41	32.84	36.66	36.69	37.12	39.95
7 240	7 499	8 698	7 668	7 130	7 280	7 301	7 522	8 598
\$16 998	\$18 153	\$18 688	\$21 615	\$13 523	\$14 493	\$17 814	\$16 788	\$22 251
9 010	13 266	13 662	16 022	4 169	9 376	10 734	10 979	16 330
821	578	809	1 418	1 198	1 255	1 183	1 061	739
725	459	623	524	623	786	486	477	261
5 302	2 699	2 289	2 582	6 496	1 988	4 206	3 290	3 719
262	227	358	278	156	295	260	174	222
104	158	167	129	69	95	139	82	117
774	766	780	662	812	698	806	725	863
\$ 8 967	\$11 398	\$11 838	\$14 059	\$ 4 908	\$ 9 053	\$10 009	\$ 8 851	\$12 776
2 611	3 700	4 408	5 906	638	3 105	3 222	3 081	3 834
2 320	3 410	3 158	3 880	1 200	1 997	2 244	2 022	4 368
1 909	1 939	2 118	1 895	1 578	1 675	2 037	1 646	1 982
593	725	730	804	499	947	823	739	892
230	258	249	278	176	306	323	179	309
837	931	835	939	502	656	960	821	903
467	435	340	357	315	367	400	363	488
\$ 8 031	\$ 6 755	\$ 6 850	\$ 7 556	\$ 8 615	\$ 5 440	\$ 7 805	\$ 7 937	\$ 9 475
1 594	3 418	4 152	3 192	987	3 871	2 716	2 676	3 460
399	407	400	378	322	312	387	349	334
10 024	10 580	11 402	11 126	9 924	9 623	10 908	10 962	13 269
72	74	84	84	75	76	80	81	81
47	43	48	58	50	60	50	59	50
20	19	27	27	33	31	25	29	20
24	23	24	19	22	18	23	23	23
98	97	107	111	101	104	104	111	105
\$ 20.10	\$ 26.89	\$ 33.40	\$ 36.67	\$ 11.60	\$ 29.14	\$ 23.69	\$ 24.38	\$ 29.24
141	143	132	150	171	138	137	137	137
205	200	201	192	210	196	204	206	216
137	123	129	157	120	123	123	170	113
181	185	166	172	186	181	188	198	158
172	174	167	170	189	169	169	170	179
100	100	96	99	104	96	98	100	103
90	80	87	92	88	91	89	88	81
38	36	38	37	40	35	40	36	37
18	16	19	21	20	24	21	22	19
2	2	1	1	1	1	1	1	2
16	14	9	8	21	15	11	10	15
23	29	31	27	17	24	26	30	26
3	3	2	6	1	1	1	1	1
20	23	25	22	15	21	22	25	22
23.2	25.3	22.9	25.6	21.7	22.4	25.3	23.7	26.3
\$ 8.56	\$ 10.53	\$ 9.88	\$ 10.80	\$ 7.61	\$ 9.11	\$ 9.45	\$ 9.15	\$ 9.47
7.73	9.45	8.48	8.83	7.01	7.89	8.41	7.85	8.89
2.10	2.39	2.90	3.36	2.22	3.61	2.78	2.55	2.58
.38	.32	.69	.74	.48	.64	.49	.53	.54
1.76	1.54	1.35	1.57	1.18	1.57	1.48	1.35	1.60

Table 20.--Area and County Averages of Factors Affecting the Farm Business (cont.)

Item	Counties in the northeast area			
	Boone	Cook	DuPage	Kane
Number of farms	18	6	17	32
Acres in farm	226	189	153	216
Value of land per acre	\$ 84	\$ 92	\$ 102	\$ 108
Total investments per acre	171	216	206	242
Rate earned on investment--percent	14.0	7.1	12.9	13.5
Gross earnings per acre	\$ 45.43	\$ 53.63	\$ 55.42	\$ 68.77
Gross expenses per acre	21.41	38.33	28.81	36.00
Net earnings per acre	24.02	15.30	26.61	32.77
Gross earnings per man	5,110	4,395	4,804	6,947
Cash receipts--total	\$12,913	\$ 8,887	\$10,193	\$22,725
Livestock except dairy and poultry	7,711	2,189	5,697	17,030
Dairy products	3,227	5,418	2,333	2,999
Poultry and eggs	330	582	490	362
Feed, grain, and seeds	838	189	1,038	1,631
Machinery and equipment	306	169	220	276
Labor off farm and miscellaneous	110	71	94	134
Soil conservation payments	391	269	321	293
Cash expenses--total	\$ 9,247	\$10,066	\$ 6,479	\$17,739
Livestock bought	4,213	806	1,825	8,996
Feed, grain, and seeds	1,296	1,779	1,437	3,486
Machinery and equipment	1,614	1,930	1,511	2,049
Land improvements and buildings	940	2,774	662	1,318
Livestock and other expense	208	490	199	310
Hired labor	709	1,956	576	1,224
Taxes (land and personal)	267	331	269	356
Cash balance for the year	\$ 3,666	\$-1,179	\$ 3,714	\$ 4,986
Inventory changes	2,535	4,009	1,020	2,676
Farm products used in household	321	485	317	332
Receipts less expenses on inventory basis	6,522	3,315	5,051	7,994
Crop yields: Corn--bushels per acre	71	58	69	83
Oats--bushels per acre	56	59	60	64
Wheat--bushels per acre	22	25	26	26
Soybeans--bushels per acre	9	20	16	19
Crop-yield index	97	99	99	114
Feed per acre to productive livestock	\$ 26.29	\$ 29.34	\$ 29.76	\$ 40.99
Returns per \$100 feed: Cattle	140	186	150	135
Hogs	177	141	192	174
Sheep	130	91	128	71
Poultry	223	159	183	183
All livestock	152	172	166	144
All livestock-% of ave. returns from feed	89	95	94	89
Percent of land area tillable	81	80	84	87
Percent of tillable land in: Corn	35	29	35	40
Oats	20	22	23	20
Wheat	1	1	--	1
Soybeans for grain	4	7	13	7
All hay and pasture crops	32	35	27	26
Other crops	8	6	2	6
Biennial and perennial legumes	24	29	19	22
Months of man labor	24.1	27.7	21.2	25.7
Labor cost per crop acre	\$ 12.09	\$ 18.31	\$ 13.45	\$ 12.61
Horse and machinery cost per crop acre	9.68	14.96	11.51	11.92
Improvements cost per acre	3.02	7.26	4.32	5.30
Limestone and phosphate cost per acre . . . . .	.54	.97	.56	.90
Taxes per acre (land and personal)	1.18	1.75	1.76	1.65

Table 20.--Area and County Averages of Factors Affecting the Farm Business (cont.)

Counties in the northeast area				Counties in the central area				
Kankakee	Lake	McHenry	Will	Ford	Livings.	McLean	Tazewell	Woodford
32	8	27	33	8	58	55	60	53
274	160	200	259	357	232	311	255	252
\$ 105	\$ 90	\$ 82	\$ 103	\$ 107	\$ 134	\$ 134	\$ 120	\$ 134
177	218	184	189	177	214	216	196	218
14.0	10.9	14.6	13.4	16.7	14.5	17.0	18.2	15.6
\$ 43.34	\$ 59.93	\$ 54.77	\$ 45.37	\$ 45.58	\$ 47.96	\$ 55.53	\$ 53.96	\$ 53.94
18.63	36.06	27.97	20.04	15.95	16.93	18.77	18.35	19.96
24.71	23.87	26.80	25.33	29.63	31.03	36.76	35.61	33.98
5 917	4 271	4 800	5 484	7 040	6 699	8 121	6 993	7 061
\$12 383	\$11 492	\$11 428	\$14 253	\$18 806	\$12 555	\$22 035	\$16 167	\$17 302
4 210	3 294	3 411	7 243	10 128	4 924	13 455	8 005	9 839
1 659	4 439	6 262	1 689	1 054	640	881	1 105	598
534	523	580	923	1 066	1 097	425	537	791
4 727	2 065	532	3 347	5 034	4 907	5 967	5 384	4 993
386	799	162	331	150	201	321	303	236
97	132	68	183	187	103	109	89	105
770	240	413	537	1 187	683	877	744	740
\$ 6 551	\$ 8 572	\$ 7 921	\$10 120	\$12 191	\$ 6 347	\$11 659	\$ 8 402	\$ 9 194
1 162	1 195	968	3 398	4 586	1 582	3 658	2 336	2 663
1 402	1 982	1 671	1 956	2 469	1 377	3 100	2 240	2 612
1 897	1 990	1 652	2 257	2 398	1 669	2 289	1 816	1 810
810	1 074	1 709	881	578	604	647	573	549
198	314	340	235	259	198	268	199	254
733	1 704	1 278	1 063	1 321	563	1 147	782	805
349	313	303	330	580	354	550	456	501
\$ 5 832	\$ 2 920	\$ 3 507	\$ 4 133	\$ 6 615	\$ 6 208	\$10 376	\$ 7 765	\$ 8 103
1 633	1 239	2 375	3 083	4 466	1 524	1 531	1 887	972
325	355	343	319	357	388	373	413	429
7 790	4 514	6 225	7 535	11 438	8 120	12 280	10 065	9 509
65	57	65	70	65	69	71	77	74
44	65	62	54	44	49	46	41	49
20	30	13	23	25	25	20	18	16
18	12	11	18	18	22	26	24	21
86	102	105	96	87	96	100	99	99
\$ 14.87	\$ 26.30	\$ 26.92	\$ 19.92	\$ 16.56	\$ 15.49	\$ 22.99	\$ 19.01	\$ 23.05
137	185	188	140	139	139	139	157	129
197	184	187	188	223	212	198	209	206
102	--	129	148	173	94	121	171	126
190	192	191	193	208	195	175	173	169
161	185	188	156	176	174	168	182	166
92	103	104	94	105	100	98	105	97
91	76	77	88	95	92	92	87	89
33	30	33	35	35	40	40	34	37
16	19	17	20	21	22	16	13	20
2	2	--	3	2	1	1	6	1
24	4	1	17	11	14	18	18	12
22	35	41	21	30	20	23	25	24
3	10	8	4	1	3	2	4	6
17	27	31	17	27	18	19	22	21
24.1	27.1	27.3	25.7	27.7	19.9	25.5	23.6	23.1
\$ 7.84	\$ 20.78	\$ 16.93	\$ 9.68	\$ 8.28	\$ 8.05	\$ 7.97	\$ 9.39	\$ 9.02
8.17	12.44	13.05	8.95	7.19	7.60	7.69	7.81	7.92
2.66	4.63	4.17	2.85	1.74	2.19	2.11	2.10	2.04
.66	.51	.61	.54	.19	.48	.38	.38	.34
1.27	1.94	1.52	1.27	1.63	1.53	1.77	1.79	1.99

Table 20.--Area and County Averages of Factors Affecting the Farm Business (cont.)

Item	Counties in western area		
	Fulton	Henderson	Henry
Number of farms	14	12	34
Acres in farm.	297	423	267
Value of land per acre	\$ 87	\$ 74	\$ 102
Total investments per acre	149	153	189
Rate earned on investment--percent	16.7	19.9	18.9
Gross earnings per acre.	\$ 43.72	\$ 64.42	\$ 63.97
Gross expenses per acre.	18.85	34.00	28.26
Net earnings per acre.	24.87	30.42	35.71
Gross earnings per man	6 330	9 756	7 643
Cash receipts--total	\$15 602	\$36 488	\$20 988
Livestock except dairy and poultry	11 147	32 087	17 438
Dairy products	502	219	567
Poultry and eggs	333	140	532
Feed, grain, and seeds	2 173	2 246	1 470
Machinery and equipment.	189	280	117
Labor off farm and miscellaneous	624	325	63
Soil conservation payments	634	1 191	801
Cash expenses--total	\$ 8 416	\$31 074	\$14 599
Livestock bought	1 912	13 742	5 927
Feed, grain, and seeds	2 700	9 630	4 592
Machinery and equipment.	1 709	3 074	1 675
Land improvements and buildings.	529	1 496	655
Livestock, crop, and other expense	240	664	215
Hired labor.	873	1 923	1 057
Taxes (land and personal).	453	545	478
Cash balance for the year.	\$ 7 186	\$ 5 414	\$ 6 389
Inventory changes.	839	8 084	3 706
Farm products used in household.	370	344	436
Receipts less expenses on inventory basis.	8 395	13 842	10 531
Crop yields: Corn--bushels per acre	66	71	77
Oats--bushels per acre	39	45	46
Wheat--bushels per acre.	17	19	22
Soybeans--bushels per acre	21	18	21
Crop-yield index	87	92	99
Feed per acre to productive livestock.	\$ 21.57	\$ 39.26	\$ 34.98
Returns per \$100 feed: Cattle	142	135	139
Hogs	214	187	194
Sheep.	151	110	154
Poultry.	244	135	168
All livestock.	186	154	168
All livestock-% of ave. returns from feed.	100	96	98
Percent of land area tillable.	73	73	80
Percent of tillable land in: Corn	32	36	36
Oats	15	16	17
Wheat.	7	2	1
Soybeans for grain.	15	7	8
All hay and pasture crops	30	32	35
Other crops	1	7	3
Biennial and perennial legumes.	26	24	26
Months of man labor.	24.6	33.5	26.8
Labor cost per crop acre	\$ 11.21	\$ 11.46	\$ 12.68
Horse and machinery cost per crop acre	9.98	11.31	10.12
Improvements cost per acre	2.17	2.46	2.72
Limestone and phosphate cost per acre. . . . .	.25	.32	.30
Taxes per acre (land and personal)	1.52	1.29	1.79

Table 20.--Area and County Averages of Factors Affecting the Farm Business (cont.)

Counties in the western area						
Knox	McDonough	Mercer	Peoria	Rock Isl'd	Stark	Warren
25	24	17	28	21	16	15
301	280	345	231	201	248	340
103	111	80	100	77	113	103
179	192	152	173	153	187	170
19.8	22.4	18.4	20.6	20.7	17.8	19.4
\$ 53.47	\$ 66.68	\$ 45.26	\$ 55.20	\$ 51.58	\$ 52.15	\$ 52.14
18.06	23.84	17.25	19.52	19.89	18.96	19.07
35.41	42.84	28.01	35.68	31.69	33.19	33.07
7 792	8 056	7 087	6 838	6 303	7 288	7 448
\$17 255	\$21 289	\$19 541	\$13 485	\$10 195	\$15 189	\$17 363
10 918	15 872	13 311	9 160	6 608	8 782	12 180
715	380	567	569	923	490	686
293	625	465	454	631	496	408
4 134	3 371	3 653	2 341	1 393	4 120	2 771
216	221	473	228	165	386	127
112	141	191	114	84	139	87
867	679	881	619	391	776	1 104
\$ 9 792	\$13 027	\$11 281	\$ 7 516	\$ 5 383	\$ 8 576	\$10 063
3 226	3 555	3 231	2 062	844	1 894	2 826
2 228	5 043	3 050	2 122	1 684	2 166	2 333
1 993	1 983	2 478	1 533	1 387	2 371	2 148
652	800	729	550	577	849	853
237	267	310	187	163	223	303
953	950	906	744	418	723	1 151
503	429	577	318	310	350	449
\$ 7 463	\$ 8 262	\$ 8 260	\$ 5 969	\$ 4 812	\$ 6 613	\$ 7 300
3 797	4 444	2 146	2 851	2 233	2 247	4 574
437	436	393	376	406	375	433
11 697	13 142	10 799	9 196	7 451	9 235	12 307
74	79	73	74	72	73	72
41	49	38	42	39	44	41
16	16	20	23	17	--	29
25	26	24	22	23	21	22
100	107	95	95	91	94	94
\$ 22.08	\$ 33.69	\$ 21.28	\$ 23.54	\$ 23.19	\$ 19.46	\$ 22.22
142	149	145	154	170	121	141
207	190	201	212	203	205	209
134	130	43	136	100	124	138
214	198	175	196	174	191	168
178	175	168	190	188	175	183
102	99	100	106	103	97	103
82	86	72	81	80	86	83
35	34	39	34	39	41	40
15	14	13	18	17	19	18
1	3	2	2	1	--	1
23	24	13	12	4	19	11
25	23	30	32	36	19	30
1	2	3	2	3	2	--
19	19	23	27	33	16	22
24.9	27.8	26.4	22.4	19.8	21.3	28.6
\$ 9.18	\$ 10.16	\$ 9.64	\$ 10.76	\$ 11.65	\$ 8.70	\$ 9.74
8.52	8.79	8.94	9.17	9.78	9.05	9.71
2.37	2.49	1.83	2.33	2.33	2.45	2.49
.30	.40	.20	.37	.27	.21	.53
1.67	1.53	1.67	1.37	1.54	1.41	1.32

Purpose and Organization of the Farm Bureau Farm Management Service

The Farm Bureau Farm Management Service was first organized in Illinois in 1925. The service has proved helpful to cooperating farmers in many ways. First, it enables each farmer to learn how profitably he has operated his farm as compared with the operation of other farms of the same type. Second, through an annual report it points out clearly to each cooperator those parts of the business that tend to make his farm income high or low. Third, it gives each cooperator the opportunity to learn from the most successful farmers the practices that have led to their success. Fourth, it provides a carefully audited annual record of the farm business that proves helpful in making income tax returns, securing bank credit, adjusting the shares of the tenant's and the landlord's income, settling estates, and adjusting taxes.

Advisory committees, composed of one representative from each Farm Bureau of the cooperating counties and the head of the Department of Agricultural Economics, plan and direct the work. These committees employ fieldmen from among those recommended by the University. They also hold and expend the funds collected from the cooperators. The fieldmen make five regular contacts with all the cooperators during the year. On these visits they assist the men with their records, study the annual analysis of his business with each cooperator, and discuss management problems.

The organization and continuation of the project have been made possible by the hearty support of the farm advisers, their assistants, and the county committeemen. During the past year the fieldmen, farm advisers, and committeemen were as follows:

North central area, organized in 1925. Fieldman--W. A. Herrington. Farm advisers and committeemen, Livingston County--J. L. Stormont and John W. Monroe; McLean County--O. L. Welsh and B. C. Kraft; Tazewell County--C. F. Bayles and H. L. Peine; Woodford County--T. H. Brock and J. F. Felter.

Western area, organized in 1930. Fieldman--B. E. King. Farm advisers and committeemen, Fulton County--J. E. Watt and M. R. Stoggs; Henderson County--A. J. Rehling and J. N. Rowley; Henry County--H. K. Danforth and J. P. Hanna; Knox County--A. R. Kemp and W. A. Mynard; McDonough County--R. G. Benbow and C. J. Webb; Mercer County--E. M. Edwards and L. J. Schroll; Peoria County--I. F. Green, and George Schissler; Rock Island County--R. C. Smith and H. O. Klawonn; Stark County--W. A. Gilbert and Harry F. Morse; Warren County--E. W. Walworth and Carl Stewart.

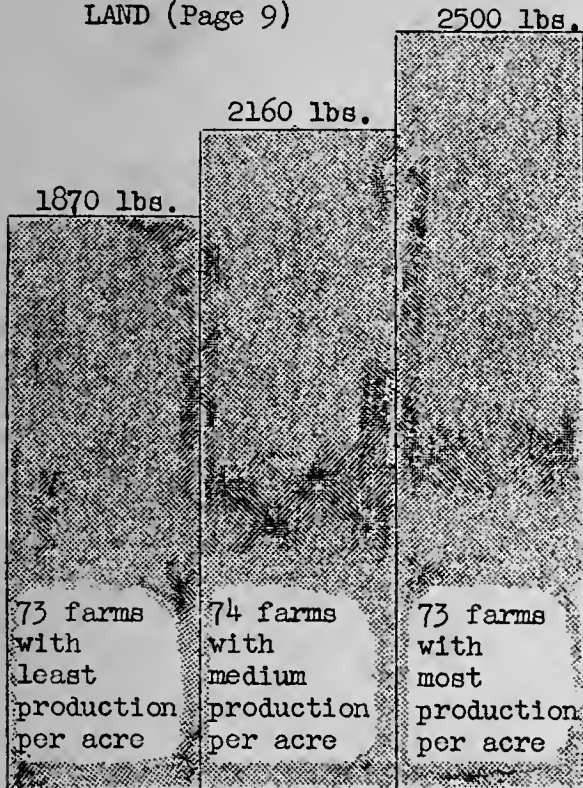
Northern area, organized in 1931. Fieldman--M. P. Gehlbach. Farm advisers and committeemen, Bureau County--P. V. Dean and Robert Jackson; DeKalb County--D. G. McAllister and M. C. Bullis; Grundy County--M. E. Tascher and E. N. Burnham, Jr.; Kendall County--W. P. Miller and Ralph Smith; LaSalle County--F. A. Painter and W. F. Whipple; Lee County--C. E. Yale and Clarence Hart; Marshall-Putnam County--L. J. Hager and C. O. Johnson.

Northeastern area, organized in 1942. Fieldman--E. M. Hughes. Farm advisers and committeemen, Boone County--D. M. Chalcraft and _____; Cook County--C. A. Hughes and George O. Fairweather; DuPage County--H. S. Wright and Harold C. Vial; Kane County--A. C. Johnson and Herbert R. Damisch; Kankakee County--G. T. Swaim and Elmer Speckman; Lake County--Ray T. Nicholas and E. E. Elsbury; McHenry County--J. H. Brock and Walter Winn; Will County--L. W. Braham and Lloyd C. Smith.

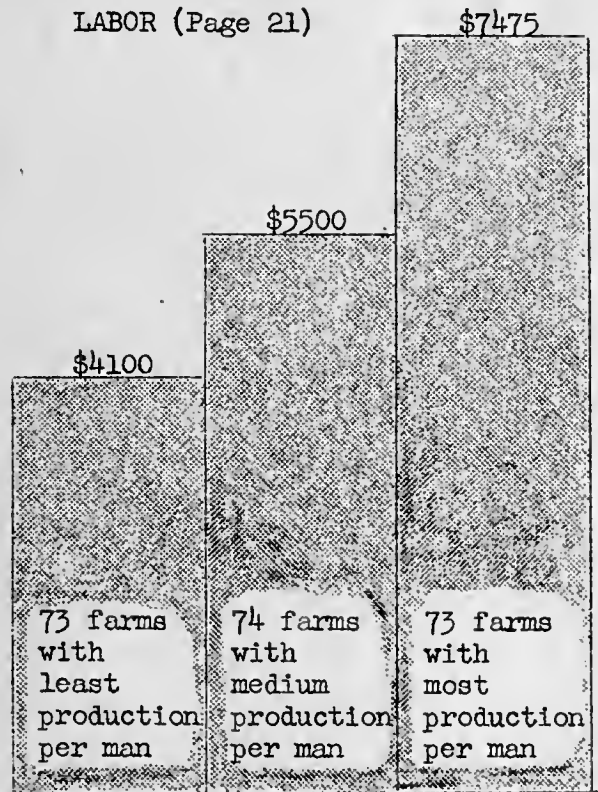
NORTH CENTRAL ILLINOIS SUMMARY 1940-41-42

MAXIMUM PRODUCTION FROM LAND AND LABOR

LAND (Page 9)



LABOR (Page 21)



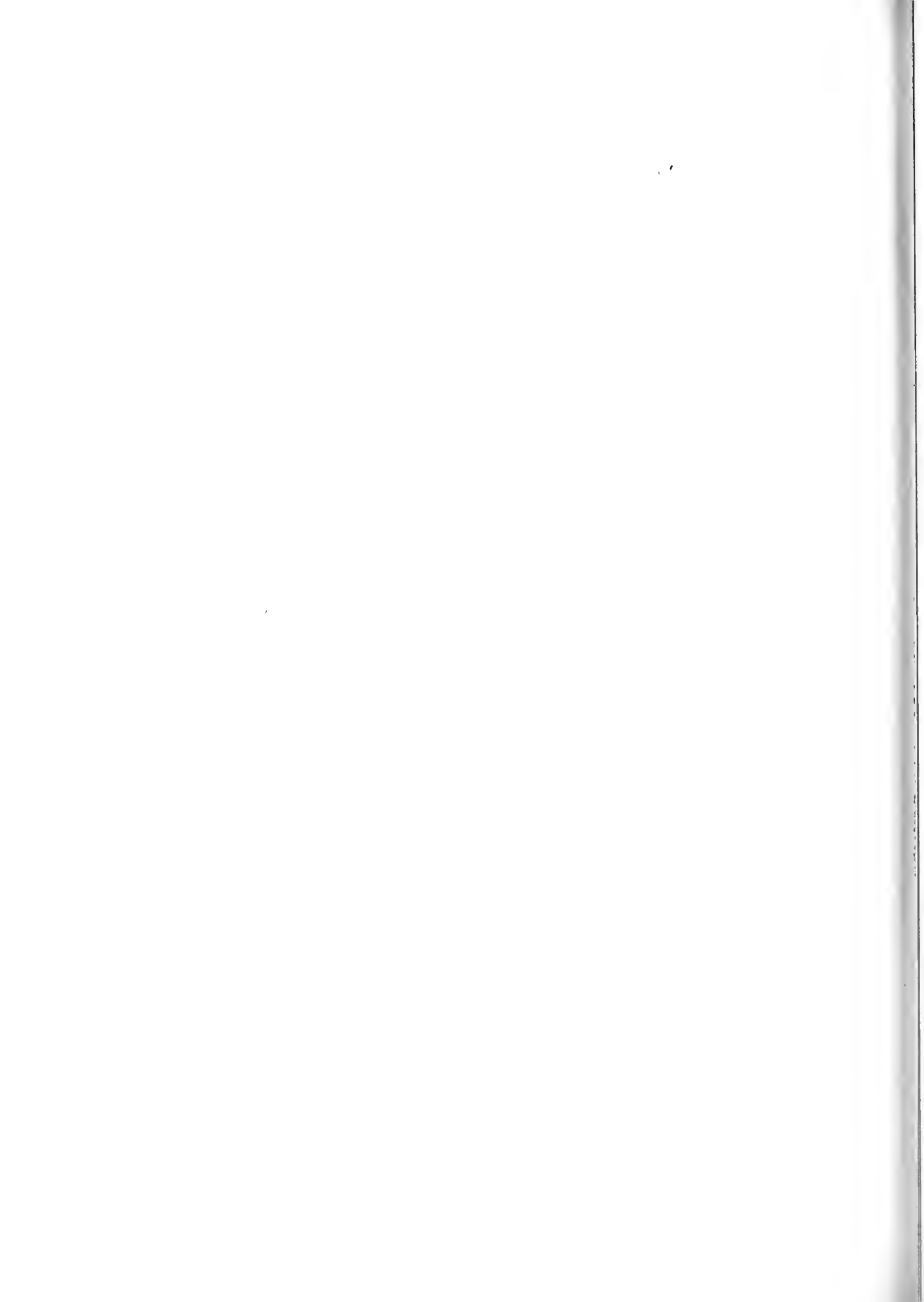
Pounds per acre of digestible nutrients in grain, hay, and silage
 (The three groups had about equal land values.)

Gross earnings per man from crops and livestock



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To cooperators of the Farm Bureau Farm Management Service of Livingston, McLean, Tazewell, Woodford, and Ford Counties:

This report has been prepared for the benefit of all of you who have cooperated in the Service during the three years 1940, 1941, and 1942. I hope that a careful study of its pages will help each of you to realize better how you can work most efficiently in the wartime food production program and how you can profit from your farm operations even more than you have in the past.

By studying this report you can see how your gross farm earnings, net farm earnings, the efficiency of each of the many factors which affect the earnings, and the organization of your farm compare with those of all the 220 farms used in the report, as well as with those of the 44 most profitable farms and the 44 least profitable ones.

The figures by which the many factors of your farm may be compared with figures representing the average factors of the different groups of farms are written into the "Your Farm" column of Tables 1 to 20, pages 2 to 32. Your fieldman will help to enter your record on the farm efficiency chart on page 5 as he discusses your three years' business with you. This chart, when carefully completed, will enable you to see clearly where your farm stands in regard to net earnings and to each of the factors which affect earnings in comparison with those of all other farms. While it may be a little difficult for some cooperators to understand some of the percentage measures used, please understand that they are a means of measuring your farm efficiencies more accurately than would otherwise be possible. Please study Table 3 on page 4 and the farm efficiency chart on page 5 with special care, for they form the most valuable part of the report.

The charts on pages 22 to 31 will be of special interest to all of you who wish to study further the relationship of many efficiency and organizational factors to farm earnings. A careful study of such relationships will enable some of you to understand better why your earnings are high or low and with what factors you need to work in order to make them higher. The charts will enable you to see more clearly than will figures alone just how your farm fits into the picture.

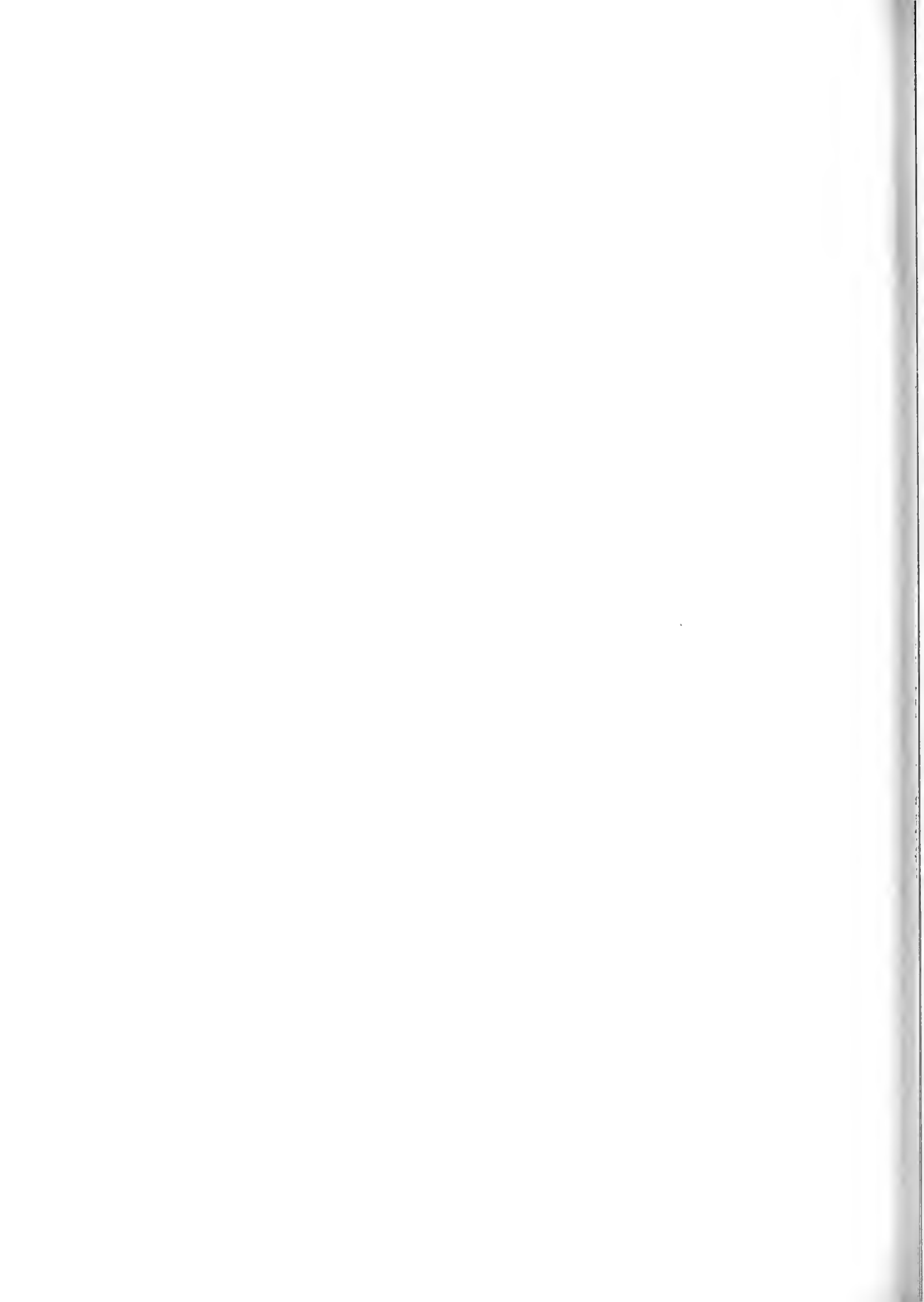
You will find very little discussion of the data shown in the tables and charts. Your fieldman will show you how the report will help you analyze your own businesses and will tell you about the practices followed by the most successful cooperating farmers.

I hope that the report will prove valuable to you and that we may have the pleasure of working with you for another four years.

Very truly yours,

M. L. Mosher, Professor
Farm Management Extension

MLM:SM



THREE YEARS' REPORT OF THE FARM BUREAU FARM MANAGEMENT SERVICE ON 220 FARMS
IN NORTH CENTRAL ILLINOIS FOR 1940, 1941, AND 1942^{1/}

M. L. Mosher, W. A. Herrington, and H. C. M. Case^{2/}

Introduction

Maximum production of farm products from land and labor is a necessary part of the war-winning program in which the United States and the other United Nations are engaged. Maximum production can be reached only when the best yields of crops are produced, the best livestock returns are secured from available feed, and available labor and equipment are used most efficiently.

This report shows that some farmers are much more successful than others in making the best use of land, feed, labor, and equipment. (See front cover.) Such efficiency pays them well. (See charts 1 to 10, pages 22 to 31.)

The individual farmer will always profit from a careful study of his farm business. This report will enable each cooperator in the Farm Bureau Farm Management Service of North Central Illinois during the three years of 1940, 1941, and 1942 to study his business more accurately than has been possible from any one year's report. It spreads any unusual or accidental losses or gains over a period of years.

Capital investments, receipts, expenses, and net earnings. The average total capital investment on the 220 farms included in this report was \$53,990 (Table 2, page 3). This amount included the value of 266 acres of land valued, without buildings or fences, at an average of \$131 per acre (Table 4, page 6).

The total annual receipts and net increases, including the value of farm products used in the household, amounted to \$10,544 per farm. Income from hogs, grain, and cattle contributed 82.1 percent of the gross earnings (Table 4, page 6).

Including the operator's and family's labor, the total annual operating costs per farm were \$3658. Of this total, 40 percent was for labor; 27 percent for machinery and equipment; 12 percent for farm improvements; 12 percent for taxes; and 9 percent for other expenses.

The average annual net income for investment, risk, and management was \$6886 per farm, or 12.8 percent of the total capital of \$53,990.

^{1/} The 220 farms were located in Livingston, McLean, Tazewell, Woodford, and Ford Counties. Records were kept for 22 additional farms in this area during the three years, but they were not used in this report because these farms differed markedly from the other cooperating farms in type of land, size, and organization or operation practices.

^{2/} As Head of the Department of Agricultural Economics, H. C. M. Case gives general supervision to the project, which is under the direct supervision of M. L. Mosher. W. A. Herrington has been fieldman in this area since 1935.

Table 1.--Cash Balances and Inventory Changes on All Farms, and Earnings on Rented Farms

Item	Your farm	All 220 farms	44 farms with high returns on capital	44 farms with low returns on capital
Cash balances--total farm				
Total cash receipts	\$ _____	\$13 270	\$16 174	\$11 651
Total cash expenses	_____	7 591	9 216	7 343
Cash balances ^{a/}	\$ _____	\$ 5 679	\$ 6 958	\$ 4 308
Inventory changes--total farm				
Farm improvements	\$ _____	\$ 76	\$ 88	\$ 64
Horses	_____	-39	-39	-44
Productive livestock	_____	951	1 353	537
Feed, grain, and seeds	_____	455	741	222
Machinery and equipment	_____	195	285	112
Auto	_____	10	28	5
Total inventory changes	\$ _____	\$ 1 648	\$ 2 456	\$ 896
Rented farms--number		102	33	15
Tenant's share				
Capital	\$ _____	\$ 9 250	\$ 9 397	\$ 9 519
Returns for labor, capital, and management	\$ _____	\$ 4 522	\$ 5 726	\$ 2 599
Five percent of capital	_____	462	470	476
Labor and management earnings	\$ _____	\$ 4 060	\$ 5 256	\$ 2 123
Cash balances				
Total cash receipts	\$ _____	\$ 9 399	\$11 036	\$ 7 938
Total cash expenses	_____	6 277	7 272	5 476
Cash balances	\$ _____	\$ 3 122	\$ 3 764	\$ 2 462
Landlord's share				
Capital	\$ _____	\$40 545	\$39 934	\$37 173
Returns for capital	_____	3 074	3 779	2 072
Rate earned on capital--percent		7.6	9.5	5.6

a/ The cash balance as used in this report would be a true cash balance if all sales and purchases had been for cash. It is really the difference between sales and purchases.

Cash Balances and Inventory Changes. Both cash receipts and inventory increases were high during 1940, 1941, and 1942. Although cash expenses also were high, total cash balances were unusually favorable. The 44 most profitable farms had average cash balances of \$2,650 more than those of the 44 least profitable farms, and inventory increases of \$1,560 more.

Tenants' and Landlords' Earnings. The 102 tenants who kept records in this project received average earnings of \$4,060 for their labor and management. This amount includes about \$330 for the sale value of farm produce used in the home, but it does not include the value of the house rent, which would have cost about \$300 per tenant family at town and city rates. The landlords of the same 102 farms received average net incomes of 7.6 percent on their capital investments.

The cash balances of tenants on the 33 rented farms among the 44 most profitable farms averaged \$1,302 larger than those of tenants on the 15 rented farms among the 44 in the least profitable group. The landlords of these 33 farms averaged \$1,707 more from their investments than the landlords of the 15 least profitable rented farms.

Table 2.--Capital, Receipts, Expenses, and Earnings on Inventory Basis

Item	Your farm	All 220 farms	44 farms with high returns on capital	44 farms with low returns on capital
Capital				
Land.	\$ _____	\$34 838	\$32 254	\$34 272
Farm improvements	_____	6 424	5 134	7 555
Horses.	_____	299	259	326
Productive livestock: Cattle	_____	2 654	2 238	3 195
Hogs	_____	891	1 455	695
Sheep.	_____	231	294	358
Poultry.	_____	134	125	132
Total productive livestock.	(_____)	(3 910)	(4 112)	(4 380)
Bees.	_____	13	--	--
Feed, grain, and seeds.	_____	5 474	5 515	5 211
Machinery and equipment	_____	2 778	2 529	2 936
Auto (farm share)	_____	254	236	245
Total capital.	\$ _____	\$53 990	\$50 039	\$54 925
Receipts and net increases				
Horses.	\$ _____	\$ --	\$ --	\$ --
Productive livestock: Cattle	_____	1 972	2 139	1 956
Dairy sales.	_____	735	620	510
Hogs	_____	2 982	5 235	1 957
Sheep.	_____	246	405	177
Poultry.	_____	156	143	176
Egg sales.	_____	334	355	290
Total productive livestock.	(_____)	(6 425)	(8 897)	(5 066)
Bees.	_____	--	--	--
Farm products used in household	_____	330	357	331
Feed, grain, and seeds.	_____	2 959	2 337	2 408
Agricultural adjustment receipts.	_____	775	818	731
Labor off farm.	_____	41	44	39
Miscellaneous	_____	14	11	11
Total receipts and net increases.	\$ _____	\$10 544	\$12 464	\$ 8 586
Expenses and net decreases				
Farm improvements	\$ _____	\$ 438	\$ 382	\$ 486
Horses.	_____	19	9	25
Productive livestock.	_____	--	--	--
Feed, grain, and seeds.	_____	--	--	--
Machinery and equipment	_____	977	963	1 055
Auto (farm share)	_____	148	141	160
Livestock expense	_____	95	108	83
Hired labor	_____	691	576	723
Taxes	_____	452	441	450
Miscellaneous	_____	67	73	69
Total expenses and net decreases.	\$ _____	\$ 2 887	\$ 2 693	\$ 3 051
Receipts less expenses.	\$ _____	\$ 7 657	\$ 9 771	\$ 5 535
Family labor.	_____	154	160	189
Returns for labor, capital, management.	\$ _____	\$ 7 503	\$ 9 611	\$ 5 346
Operator's labor.	_____	617	663	700
Net earnings per farm	\$ _____	\$ 6 886	\$ 8 948	\$ 4 746
Rate earned on capital--percent	_____	12.8	17.9	8.6
Five percent interest on capital.	\$ _____	\$ 2 699	\$ 2 502	\$ 2 746
Labor and management earnings	\$ _____	\$ 4 804	\$ 7 109	\$ 2 600

Table 3.--Some Factors That Affect Farm Earnings and That Are Used on the Farm Efficiency Chart on the Opposite Page, and Returns from All Productive Livestock

Item	Your farm	All 220 farms	44 farms with high returns on capital	44 farms with low returns on capital
<u>Net earnings on the total business on all farms (See page 3)</u>				
Rate earned on capital--percent	_____	12.8	17.9	8.6
Labor and management earnings	\$ _____	\$4 804	\$7 109	\$2 600
<u>Net earnings on rented farms--number of rented farms (See page 2)</u>				
Tenant's labor and management earnings. \$ _____	_____	102	33	15
Landlord's rate earned on capital--percent.	_____	\$4 060	\$5 256	\$2 123
_____	_____	7.6	9.5	5.6
<u>Gross earnings factors</u>				
Total digestible nutrients per acre--percent of average on similar soil (See page 9)	_____	100	111	94
Gross earnings per man--percent of average (See page 21).	_____	100	123	79
<u>Crop yields--percent of average on similar soil (See page 9)</u>				
Corn.	_____	100	109	94
Oats.	_____	100	105	97
Wheat	_____	100	109	94
Soybeans.	_____	100	123	85
All grain crops	_____	100	111	95
<u>Livestock returns--percent of average from same amount of feed</u>				
Cattle (See pages 12 to 16)	_____	100	107	86
Hogs (See page 11).	_____	100	103	95
Sheep (See page 17)	_____	100	115	81
Poultry (See page 18)	_____	100	104	93
All livestock (See page 10)	_____	100	105	90
<u>Costs--percent of normal (See page 21)</u>				
Labor	_____	100	92	110
Horses and machinery.	_____	100	94	110
<u>Organization of farm^{a/}</u>				
Size of business--estimated days of work	_____	402	442	366
Size of farm--total acres	_____	266	249	260
Percent of farm tillable.	_____	90	91	88
Percent of tillable land in biennial and perennial legumes,	_____	23	21	24
Feed per acre to productive livestock . \$ _____	_____	\$15.25	\$21.24	\$14.49

a/ These factors regarding the organization of the farm are not shown on the farm efficiency chart (page 5). However, they are needed in order to interpret other factors shown on the chart.

Chart 1.--Farm Efficiency Chart

All farms		Tenant farms only				Gross earnings factors										Percent of normal costs	
						Crop yields--percent of average on similar soil					Livestock returns--percent of average from same feed						
Rate earned on total capital	Operator's labor and management earnings ^{a/}	Tenant's labor and management earnings ^{a/}	Landlord's rate earned on his capital	Total digestible nutrients per acre-percent of average	Gross earnings per man-percent of average	Corn	Oats	Wheat	Soybeans	All grain crops	Cattle	Hogs	Sheep	Poultry	All livestock	Labor	Horses and machinery
27.1	125	125	15.9	149	200	130	135	160	160	130	170	150	160	200	150	55	55
The best one-fifth of the farms in each factor comes between this line and the next line below.																	
See pages 3	3	2	2	9	21	9	9	9	9	9	12 to 16	11	17	18	10	21	21
15.6	63	51	9.3	111	126	112	112	117	117	111	114	111	131	122	112	84	81
12.8	48	41	7.6	100	100	100	100	100	100	100	100	100	100	100	100	100	100
The average of the farms in each factor comes to this line.																	
9.8	28	24	5.6	90	79	89	83	85	80	90	86	93	85	82	92	115	115
The lowest one-fifth of the farms in each factor comes between this line and the bottom line.																	
6.3	10	12	.7	70	50	60	45	45	30	75	65	70	60	50	70	170	180

^{a/} Hundreds of dollars

Table 4.--Organization of the Farm Business

Item	Your farm	All 220 farms	44 farms with high returns on capital	44 farms with low returns on capital
<u>Size and intensity of business</u>				
Size of farm--total acres	_____	266	249	260
Percent of land tillable.	_____	90	91	88
Days of productive work: ^{a/}				
On crops.	_____	153	143	150
On productive livestock	_____	250	299	216
Total days of productive work	_____	403	442	366
Days of work per acre of the farm	_____	1.51	1.78	1.41
Feed per acre to productive livestock ^{b/}	\$ _____	\$ 15.25	\$ 21.24	\$ 14.49
Gross earnings per acre	_____	39.65	50.03	33.09
Gross expenses per acre	_____	13.75	14.11	14.80
Net earnings per acre	_____	25.90	35.92	18.29
<u>Capital per acre</u>				
Land--all land in farm.	\$ _____	\$131.02	\$129.48	\$132.07
Improved land	(_____)	(136.00)	(132.00)	(137.00)
Farm improvements	_____	24.14	20.61	29.11
Limestone and rock phosphate.	(_____)	(1.12)	(1.16)	(.91)
Operating capital	_____	47.89	50.78	50.47
Total capital per acre.	_____	203.05	200.87	211.65
<u>Source of earnings--percent of total</u>				
All cattle.	_____	18.7	17.2	22.8
Dairy sales	_____	7.0	5.0	5.9
Hogs.	_____	28.3	42.0	22.8
Sheep and wool.	_____	2.3	3.2	2.1
Poultry and eggs.	_____	4.7	3.8	5.4
Farm products used in household	_____	3.1	2.9	3.9
Feed, grain, and seeds.	_____	28.1	18.8	28.0
AAA receipts.	_____	7.3	6.6	8.5
Miscellaneous	_____	.5	.5	.6

a/ The method of calculating the days of productive work on crops and livestock is explained on page 20.

b/ The method of calculating the value of feed fed to livestock is explained in the footnote to Table 7, page 10.

Organization of the Farm Business. The average size of the 220 farms used in this report was 266 acres. That the average size of the 44 farms with the highest rate of return on their capital was only 249 acres does not show that the smaller farms were more efficient because of their size. The medium- to small-sized farms were more profitable because they produced more hogs than the large farms, and hog farms were the most profitable of all during 1940, 1941, and 1942 (Chart 4, page 25) because of the relatively high price of hogs (page 19).

The larger value of feed fed per acre and the larger total number of days of work on crops and livestock reported for the 44 farms with the highest returns on their capital show that they were more intensively operated than the average farms for which reports were received.

The first group of farms were also less expensively equipped with buildings than the average of all farms, and the 44 farms with the lowest returns were much more expensively equipped.

While expensive buildings are a source of expense instead of income on many farms, building them may be justified because of the pleasure they give to the farmer and his family.

Size of Farms. Farm management records kept in Illinois for 27 years show that according to the long-time average, there is little difference in returns on the capital invested on farms of 120 acres or larger. Very few records are available for farms of under 120 acres (Chart 9, page 30). The six most profitable farms were from 160 to 200 acres in size.

Source of Farm Earnings. Hog farms were very profitable compared with other types of farms during the three years of 1940, 1941, and 1942 because of an advantage in price (See page 19). Thirty-eight hog farms earned an average of about 14.3 percent on their total farm capital as compared with 11.4 percent for grain farms, 11.7 percent for cattle farms, and 12.3 percent for a few dairy farms (Chart 4, page 25).

Intensity of the Farm Business. The more intensively operated farms have an advantage over the less intensively operated ones during periods when prices of livestock and livestock products are high in comparison with the prices of grain. Since this price relationship prevailed during the three years 1940, 1941, and 1942, the more extensively operated farms were at a relative disadvantage. This is shown in Chart 10, page 31.

Table 5.--Crop System--Percent of Tillable Land in Different Crops

Item	Your farm		All 220 farms		44 farms with high returns on capital		44 farms with low returns on capital	
	(percent)		(percent)		(percent)		(percent)	
<u>Crop system--percent of tillable land in:</u>								
<u>Grain crops</u>								
Corn--includes silage corn.			35.6		36.4		35.5	
Oats.			18.8		17.1		20.0	
Wheat			3.3		3.9		2.1	
Soybeans.			11.3		14.2		9.8	
Miscellaneous . . . . .			.1		.0		.0	
Total grain			69.1		71.6		67.4	
<u>Hay and pasture crops</u>								
	Hay	Pas.	Hay	Pas.	Hay	Pas.	Hay	Pas.
Alfalfa			4.9	1.0	4.3	1.3	5.9	.7
Red or alsike clover.			2.2	.6	1.6	.4	2.6	.7
Sweet clover.			--	8.1	--	7.5	--	6.1
Mixed clover and grass. . . . .			.7	4.2	1.1	3.5	1.3	5.8
Soybeans. . . . .			.6	--	.6	--	.8	--
Bluegrass			--	1.5	--	1.6	--	1.2
Timothy . . . . .			.2	.6	.2	.6	.3	1.3
Oats. . . . .			.0	.3	.0	.3	.0	.3
Sudan . . . . .			.0	.1	.0	.0	.0	.1
Miscellaneous . . . . .			.5	.8	.5	.8	.5	.6
Total hay and pasture			9.1	17.2	8.3	16.0	11.4	16.8
<u>Other crops</u>			4.6		4.1		4.4	
<u>Total harvested crops</u>			82.8		84.0		83.2	
All biennial and perennial legumes. . .			22.5		20.8		23.9	
All annual legumes.			13.4		16.4		11.7	
Crops after first-year sweet clover . .			2.9		4.8		1.7	

Crop System. The percent of tillable land occupied by high or low net income crops is an important factor affecting net farm earnings. Corn and soybeans occupied 36.4 and 14.2 percent, respectively, of the tillable land on the 44 most profitable farms and only 35.5 and 9.8 percent on the 44 least profitable group.

The percent of tillable land in biennial and perennial legumes is important because it affects future crops. Many farmers fail to realize on the high income value of certain legume crops because they do not utilize these crops fully either as seed producing crops or as feed for livestock. It is generally believed that about 25 percent of the tillable land should grow soil-building legumes each year in order to maintain fertility. The most successful farmers do so and realize an additional profit from the use of these legumes as seed or feed.

One of the most important and difficult problems facing some corn-belt farmers as a result of various soil conservation programs is that of utilizing efficiently the increasing acreages of legumes and grasses being grown for soil improvement and erosion control purposes. The incomes of farms that are being improved with limestone and legumes often suffer during the years before the legumes are effective in increasing crop yields.

Table 6.--Crop Yields

Item	Your farm	All 220 farms	44 farms with high returns on capital	44 farms with low returns on capital
1. Corn yield--bushels per acre.		66	71	62
2. Average yield on similar soil ^{a/}		66	65	66
Percent of average (% 1 is of 2)		100	109	94
1. Oats yield--bushels per acre.		52	55	52
2. Average yield on similar soil		52	52	53
Percent of average (% 1 is of 2)		100	105	97
1. Wheat yield--bushels per acre		23	25	22
2. Average yield on similar soil		23	23	24
Percent of average (% 1 is of 2)		100	109	94
1. Soybean yield--bushels per acre		23	28	20
2. Average yield on similar soil		23	23	23
Percent of average (% 1 is of 2)		100	123	85
1. Crop-yield index--all grain crops		100	107	93
2. Crop-yield index on similar soils ^{a/}		100	97	98
Percent of average (% 1 is of 2)		100	111	95
1. Total digestible nutrients--pounds per acre.		2 146	2 374	2 022
2. Average on similar soil		2 146	2 135	2 160
Percent of average (% 1 is of 2)		100	111	94

a/ The average yield on similar soil was obtained by taking the average yield of all farms on which the improved land had been given the same value per acre.

Crop Yields. The three-year average yield of 66 bushels of corn per acre on cooperating farms was the highest it has ever been during the 18 years that records have been kept on Farm Bureau Farm Management Service farms. High crop yields on the 44 most profitable farms and low crop yields on the 44 least profitable ones were evidently partly responsible for the high and low earnings on the respective groups of farms (Table 6 on this page).

The 44 farms with the highest crop yields received average net earnings of approximately 15.5 percent on their capital, while the 44 farms with the lowest crop yields received only 10.5 percent. This difference of 5 percent amounts to about \$2,500 per farm per year (Chart 1, page 22).

The total weight of digestible nutrients per acre depends both on the yield per acre of each crop grown and on the proportion of the land that is in the kinds of crops which produce the most digestible nutrients per acre. Corn and alfalfa normally produce about twice as much digestible food per acre as other crops commonly grown in this area.

Efficiency of Livestock Enterprises

On livestock farms the efficiency with which the livestock is produced or purchased, fed, and marketed is as important in making the net farm income high or low as are all the other factors combined. (See Bulletin 444, "Farm Practices and Their Effect on Farm Earnings," page 554.) Since about 60 to 80 percent of all the costs of producing livestock is for feed, the returns from livestock for \$100 feed fed is the most satisfactory single measure of efficiency for each class of livestock. The average returns per \$100 feed fed to different classes of livestock for each of the ten years, 1933 to 1942, the average of the ten years, and the average yearly price of corn are shown in Table 7.

Table 7.--Returns per \$100 Feed for Different Classes of Livestock

Class of livestock	Returns per \$100 feed ^{a/}										10-yr. aver.
	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	
Beef cow herds ^{b/} . . .	\$ 90	\$ 84	\$110	\$ 85	\$ 99	\$119	\$146	\$134	\$136	\$127	\$113
Dairy herds	152	145	143	150	159	193	204	198	212	176	173
Dual herds	112	118	141	109	116	151	162	173	162	151	140
Beef and dairy	101	109	118	117	141	126	167	162	157	137	134
Feeder cattle	97	125	152	96	106	142	131	136	124	136	124
Beef and feeders	87	113	119	102	116	142	143	134	130	131	122
Dairy and feeders	108	135	141	104	117	140	151	154	144	133	132
Dual and feeders	85	--	147	101	107	137	129	147	--	150	125 ^{c/}
Beef, dairy, feeders	99	120	124	103	124	137	150	147	138	129	127
Native sheep	--	--	93	109	123	98	136	142	160	131	124 ^{c/}
Feeder sheep	--	--	163	101	50	153	136	149	122	147	128 ^{c/}
Native and feeders	123	160	122	103	72	122	133	141	119	126	122
Hogs	128	127	174	155	122	184	144	118	193	201	155
Poultry	217	198	211	180	157	208	195	177	202	187	193
Yearly price of corn	.32	.58	.74	.73	.91	.45	.43	.54	.63	.77	.61

- a/ When the value of feed fed was calculated, the grain was priced at the average farm prices for Illinois as reported by the Illinois Cooperative Crop Reporting Service. Purchased supplements were priced at cost, and hay, silage, and pasture were priced at farm values in the area.
- b/ Calves from some beef cow herds were sold at weaning time; others were fed until they weighed 1,000 pounds or more.
- c/ Average of eight years only.

Table 8.--Returns from All Productive Livestock

Item	Your farm	All 220 farms	44 farms with high returns on capital	44 farms with low returns on capital
Total value of feed	\$ _____	\$4 055	\$5 291	\$3 760
Total returns--1.	_____	6 693	9 178	5 315
Returns at average rate--2.	_____	6 693	8 779	5 936
Percent of average returns (% 1 is of 2)	_____	100	105	90
Returns per \$100 feed	_____	165	175	141

Table 9.--Hog Enterprise^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms		169	56	56
Total feed to hogs--value	\$ _____	\$2 076	\$1 845	\$2 141
Total returns from hogs--1.	_____	3 705	3 784	3 244
Total returns at average rate ^{b/} --2.	_____	3 705	3 284	3 811
Percent of average returns (% 1 is of 2)	_____	100	115	85
Returns per \$100 feed	\$ _____	\$ 178	\$ 205	\$ 152
Number of litters farrowed.	_____	22	22	20
Pigs weaned per litter.	_____	6.5	6.7	6.2
Total pounds of pork produced	_____	35 521	35 306	32 160
Death loss: Pounds	_____	681	542	905
Percent of total produced.	_____	1.9	1.5	2.8
Average weight per hog sold	_____	251	249	251
Percent of sales for year on hand Jan. 1.	_____	39	39	40
Price received per 100 lb. sold	\$ _____	\$ 9.62	\$ 9.87	\$ 9.40
Feed charge per 100 lb. pork produced . .	_____	5.84	5.23	6.66
<u>Amounts of feed per 100 lb. pork</u>				
Grain--pounds	_____	382	339	431
Protein and mineral feeds--pounds	_____	40	41	39
Total concentrates--pounds.	_____	422	380	470
Hay--pounds	_____	4	4	4
Pasture--pasture days	_____	2	1	2
Pounds of protein and minerals per 100 lb. concentrates	_____	9.5	10.8	8.3

a/ Farms were divided into groups according to the returns per \$100 feed fed to hogs. Only those farms producing 10,000 pounds or more of pork per farm were used in this comparison.

b/ The returns at average rate for any kind of livestock are the total returns which the cooperator would receive from the feed fed if he received the same returns for each \$100 worth of feed fed as that received by the average cooperator feeding the same class of livestock. The average returns per \$100 feed fed to different classes of livestock are given in Table 7, page 10.

Hogs. Because of the demands of the wartime program and because of prospective profits, Farm Bureau Farm Management Service cooperators produced 39 percent more pork per farm in 1942 than in 1940^{1/}. Hogs proved unusually profitable on most farms in 1941 and 1942 because the price relationship between corn and hogs was favorable to the latter. (See pages 10 and 19.) The three-year average selling price of hogs for the 220 farms was \$9.65 per 100 pounds and the average selling price of corn was 67 cents (Table 17, page 19). Thus, 100 pounds of pork sold for a price equal to the farm value of 14.4 bushels of corn. The hogs on the profitable farms produced large litters, with an average of 6.7 pigs weaned per litter and they used relatively small amounts of feed--only 380 pounds per 100 pounds gain.

^{1/} See the Eighteenth Annual Report of the Farm Bureau Farm Management Service for the year 1942.

Table 10.--Dairy-Cattle Enterprise^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms	_____	60	20	20
Number of cows in herd.	_____	13.9	17.9	10.7
Number of cows milked	_____	12.2	15.8	9.4
Total animal units in herd.	_____	19.3	23.7	15.6
Percent of cattle units milked.	_____	63.2	66.7	60.3
Total feed to cattle--value	\$ _____	\$1 161	\$1 385	\$1 029
Total returns from cattle--1.	_____	2 478	3 567	1 698
Total returns at average rate ^{b/} --2.	_____	2 478	2 950	2 192
Percent of average returns (% 1 is of 2)	_____	100	121	77
Returns per \$100 feed	\$ _____	\$ 213	\$ 258	\$ 165
Total pounds of milk produced	_____	92 216	128 986	66 068
Total pounds of beef produced	_____	6 087	7 123	5 312
Death loss: Pounds	_____	376	282	356
Percent of total produced.	_____	6.2	4.0	6.7
Pounds of milk per cow milked	_____	7 559	8 164	7 029
Pounds of beef per cow in herd.	_____	438	398	496
Total value of milk produced.	\$ _____	\$1 865	\$2 851	\$1 148
Returns per 100 lb. milk produced	_____	2.02	2.21	1.74
Price received per 100 lb. cattle sold.	_____	9.93	9.73	10.83
Price paid per 100 lb. cattle bought.	_____	13.56	13.15	16.68
Feed charge per 100 lb. milk or 10 lb. beef ^{c/}	_____	.76	.69	.86
Amounts of feed per 100 lb. milk				
Grain--pounds	_____	22.9	21.4	26.3
Protein and mineral feeds--pounds	_____	4.1	4.2	3.7
Total concentrates--pounds.	_____	27.0	25.6	30.0
Hay--pounds	_____	43.2	37.3	51.6
Silage--pounds.	_____	22.7	26.2	21.4
Pasture--pasture days	_____	2.1	1.9	2.2
Pounds of protein and mineral feeds per 100 lb. concentrates	_____	15.2	16.4	12.3

a/ Only farms which had five or more cows per farm were used in these comparisons.
 b/ See footnote b of Table 9.
 c/ Approximately the same amount of feed is required to produce 100 pounds of milk or 10 pounds of liveweight of cattle.

Dairy Cattle. Few dairy farms were among the most profitable farms, because of comparatively low prices of dairy products (see chart 4, page 25). The most profitable one-third of the dairy herds paid an average of \$258 for each \$100 worth of feed fed whereas the least profitable one-third paid only \$165 (Table 10, above).

Table 11.--Feeder Cattle Enterprises^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms		26	9	9
Number of cows in herd.		3.3	3.7	3.1
Number of cows milked		2.0	2.3	1.8
Total animal units in herd.		45.5	44.7	48.7
Percent of cattle units milked.		4.4	5.1	3.7
Total feed to cattle--value	\$	\$3 907	\$4 020	\$3 866
Total returns from cattle--1.		5 030	6 051	4 025
Total returns at average rate ^{b/} --2.		5 030	5 186	4 987
Percent of average returns (% 1 is of 2)		100	117	81
Returns per \$100 feed	\$	129	\$ 151	\$ 104
Pounds of beef produced		34 663	39 522	30 758
Death loss: Pounds		919	704	1 361
Percent of total produced.		2.7	1.8	4.4
Pounds of milk produced		13 370	15 070	11 531
Price received per 100 lb. cattle sold.	\$	\$11.70	\$12.18	\$10.78
Price paid per 100 lb. cattle bought.		11.28	11.48	10.83
Feed charge per 100 lb. beef ^{c/}		10.85	9.80	12.11
<u>Amounts of feed per 100 lb. beef</u>				
Grain--pounds		638	604	678
Protein and mineral feeds--pounds		56	59	52
Total concentrates--pounds.		694	663	730
Hay--pounds		285	299	274
Silage--pounds.		331	131	669
Pasture--pasture days		7	5	11
Pounds of protein and mineral feeds per 100 lb. of concentrates.		8.1	8.9	7.1

a/ Only farms that produced 5,000 pounds or more of beef from purchased feeder cattle were used in these comparisons.

b/ See "Footnote b," Table 9.

c/ This is the feed charge for each 100 pounds of live weight of animal or 1,000 pounds of milk. Approximately the same amount of feed is required to produce either 100 pounds of beef or 1,000 pounds of milk.

Feeder Cattle. The average returns of \$129 for each \$100 worth of feed fed to feeder cattle on 26 farms was slightly more than the amount needed to pay for the feed, labor, use of equipment, and other costs. Feeder cattle gains appeared to be more dependent upon the low feed costs per 100 pounds gain than upon the quality of cattle fed or the spread between the buying and selling prices. Compared with the 9 least profitable herds, the 9 most profitable ones had \$2.31 less feed charges per 100 pounds, but had only 75 cents more spread.

Table 12.--Beef Cow Herds^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms	_____	13	4	4
Number of cows in herd.	_____	16.2	15.0	16.8
Number of cows milked	_____	2.1	1.4	2.6
Total animal units in herd.	_____	30.0	24.6	37.7
Percent of cattle units milked.	_____	7.0	5.7	6.9
Total feed to cattle--value	\$ _____	\$1 541	\$1 136	\$2 418
Total returns from cattle--1.	_____	1 833	1 859	2 350
Total returns at average rate ^{b/} --2.	_____	1 833	1 352	2 877
Percent of average returns (% 1 is of 2)	_____	100	138	82
Returns per \$100 feed	\$ _____	\$ 119	\$ 164	\$ 97
Pounds of beef produced	_____	13 680	11 288	19 376
Death loss: Pounds	_____	716	385	1 214
Percent of total produced.	_____	5.2	3.4	6.3
Pounds of beef per cow in herd.	_____	844	753	1 153
Pounds of milk produced	_____	14 144	8 041	15 736
Price received per 100 lb. cattle sold.	\$ _____	\$10.95	\$13.38	\$10.30
Price paid per 100 lb. cattle bought.	_____	14.22	13.03	15.16
Feed charge per 100 lb. beef ^{c/}	_____	10.21	9.39	11.54
<u>Amounts of feed per 100 lb. beef</u>				
Grain--pounds	_____	450	305	613
Protein and mineral feeds--pounds	_____	15	12	20
Total concentrates--pounds.	_____	465	317	633
Hay--pounds	_____	474	582	446
Silage--pounds.	_____	77	0	24
Pasture--pasture days	_____	39	45	34
Pounds of protein and mineral feeds per 100 lb. of concentrates	_____	3.2	3.8	3.2

a/ Only farms having five or more cows per farm and whose operators kept complete feed and production records were used in these comparisons.

b/ See "Footnote b," Table 9.

c/ See "Footnote c," Table 11.

Beef-Cow Herds. Most beef-cow herds paid well for their feed in 1940, 1941, and 1942 (See Table 7, page 10). The most profitable third of this kind of cattle paid \$164 for each \$100 worth of feed fed, whereas the least profitable third paid only \$97 for \$100 worth of feed. The difference was evidently due to the lower feed cost of \$2. per 100 pounds for the more profitable herds. The profitable herds were fed much less grain for each 100 pounds of gain than the unprofitable herds.

Table 13.--Dual-Purpose Cattle Enterprises^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms		12	4	4
Number of cows in herd.		12.6	7.0	19.8
Number of cows milked		5.6	5.0	6.2
Total animal units in herd.		19.9	11.5	29.3
Percent of cattle units milked.		28.1	43.5	21.2
Total feed to cattle--value	\$	\$ 1 000	\$ 512	\$ 513
Total returns from cattle--1.		1 545	1 046	1 864
Total returns at average rate ^{b/} --2.		1 545	788	2 330
Percent of average returns (% 1 is of 2)		100	133	80
Returns per \$100 feed	\$	\$ 154	\$ 204	\$ 123
Total pounds of milk produced		36 890	27 966	33 099
Total pounds of beef produced		8 569	5 231	11 930
Death loss: Pounds		424	248	630
Percent of total produced.		4.9	4.7	5.3
Pounds of milk per cow milked		6 588	5 593	5 339
Pounds of beef per cow in herd.		680	747	603
Total value of milk produced.	\$	\$ 610	\$ 506	\$ 634
Returns per 100 lb. milk produced		1.65	1.81	1.92
Price received per 100 lb. cattle sold.		10.53	8.21	9.69
Price paid per 100 lb. cattle bought.		12.13	9.61	11.24
Feed charge per 100 lb. beef ^{c/}		8.16	6.38	9.93
Amounts of feed per 100 lb. beef				
Grain--pounds		272	155	382
Protein and mineral feeds--pounds		17	12	16
Total concentrates--pounds.		289	167	398
Hay--pounds		465	502	467
Silage--pounds.		131	0	315
Pasture--pasture days		32	26	37
Pounds of protein and mineral feeds per 100 lb. concentrates		5.9	7.2	4.0

a/ Only farms having five or more cows per farm and whose operators kept complete feed and production records were used in these comparisons.

b/ See "Footnote b," Table 9.

c/ See "Footnote c," Table 11.

Dual-Purpose Cattle. The 12 herds of dual-purpose cattle repaid their owners well in 1940, 1941, and 1942. The four most profitable herds were fed much less grain than were the four least profitable herds. Dual-purpose cattle produced both beef and milk at a lower feed cost than did any other class of cattle except dairy cattle (Table 10 and 14). While Farm Bureau Farm Management Service records have revealed this advantage repeatedly from year to year, they have also shown that the price received for the beef sold from dual-purpose herds is always low compared with the price received for beef from good beef-cow herds and from purchased feeder cattle.

Table 14.--Feeder Cattle and Dairy and/or Beef Breeding Herd Enterprises^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms		53	18	17
Number of cows in herd.	_____	14.4	17.6	12.7
Number of cows milked	_____	5.1	6.4	4.3
Total animal units in herd.	_____	44.7	45.4	50.4
Percent of cattle units milked,	_____	11.4	14.1	8.5
Total feed to cattle--value	\$ _____	\$3 099	\$2 990	\$3 402
Total returns from cattle--1.	_____	4 228	4 654	4 007
Total returns at average rate ^{b/} --2.	_____	4 228	4 066	4 627
Percent of average returns (% 1 is of 2)		100	114	87
Returns per \$100 feed	\$ _____	\$ 136	\$ 156	\$ 118
Total pounds of milk produced	_____	35 257	48 156	27 455
Total pounds of beef produced	_____	27 494	27 434	28 089
Death loss: Pounds	_____	856	650	1 029
Percent of total produced.	_____	3.1	2.4	3.7
Pounds of milk per cow milked	_____	6 913	7 524	6 385
Total value of milk produced.	\$ _____	\$ 623	\$ 874	\$ 450
Returns per 100 lb. milk produced	_____	1.77	1.81	1.64
Price received per 100 lb. cattle sold.	_____	11.33	11.85	10.77
Price paid per 100 lb. cattle bought.	_____	11.05	10.54	11.46
Feed charge per 100 lb. beef ^{c/}	_____	9.99	9.27	11.03
Amounts of feed per 100 lb. beef				
Grain--pounds	_____	531	473	584
Protein and mineral feeds--pounds	_____	41	43	43
Total concentrates--pounds.	_____	572	516	627
Hay--pounds	_____	314	329	335
Silage--pounds.	_____	214	183	330
Pasture--pasture days	_____	18	19	18
Pounds of protein and mineral feeds per 100 lb. concentrates		7.2	8.3	6.9

a/ Only farms having five or more cows and producing 5000 or more pounds of cattle and whose operators kept complete feed and production records were used in these comparisons.

b/ See "Footnote b," Table 9.

c/ See "Footnote c," Table 11.

Mixed Cattle Enterprises. Cooperators who have two or more classes of cattle and keep only one account may compare their results in Table 14 with those of other cooperators who follow the same plan.

Table 15.--Sheep Enterprise^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
<u>Native flocks of sheep</u>				
Number of flocks.		24	8	8
Total feed to sheep--value.	\$ _____	\$ 268	\$ 146	\$ 263
Total returns from sheep--1	_____	412	280	304
Total returns at average rate ^{b/} --2.	_____	412	225	405
Percent of average returns (% 1 is of 2)		100	124	75
Returns per \$100 feed	\$ _____	\$ 154	\$ 192	\$ 116
Pounds of mutton and wool produced.	_____	3 404	2 333	2 556
Death loss: Pounds	_____	389	250	366
Percent of total produced.		11.4	10.7	14.3
Price received per 100 lb. sold	\$ _____	\$12.57	\$11.53	\$12.29
Feed charge per 100 lb. produced.	_____	7.88	6.24	10.27
<u>Amounts of feed per 100 lb. produced</u>				
Grain--pounds	_____	149	138	223
Protein and mineral feeds--pounds	_____	6	5	4
Total concentrates--pounds.	_____	155	143	227
Hay--pounds	_____	479	386	619
Silage--pounds.	_____	26	0	0
Pasture--pasture days	_____	50	42	71
Pounds of protein and mineral feeds per 100 lb. concentrates		3.7	3.7	1.6
<u>Feeder sheep bought</u>				
Number of flocks.		15	5	5
Total feed to sheep--value.	\$ _____	\$ 841	\$ 787	\$ 852
Total returns from sheep--1	_____	1 403	1 605	1 211
Total returns at average rate ^{b/} --2.	_____	1 403	1 314	1 423
Percent of average returns (% 1 is of 2)		100	122	85
Returns per \$100 feed	\$ _____	\$ 167	\$ 204	\$ 142
Pounds of mutton and wool produced.	_____	10 772	13 620	8 534
Death loss: Pounds	_____	1 064	1 675	577
Percent of total produced.		9.9	12.3	6.8
Price received per 100 lb. sold	\$ _____	\$10.50	\$10.60	\$10.50
Price paid per 100 lb. bought	_____	9.70	9.82	9.92
Feed charge per 100 lb. produced.	_____	7.80	5.78	9.98
<u>Amounts of feed per 100 lb. produced</u>				
Grain--pounds	_____	460	342	617
Protein and mineral feeds--pounds	_____	27	9	60
Total concentrates.	_____	487	351	677
Hay--pounds	_____	342	218	388
Silage--pounds.	_____	29	0	104
Pasture--pasture days	_____	11	9	12
Pounds of protein and mineral feeds per 100 lb. concentrates		5.6	2.6	8.9

a/ Only farms producing 1000 or more pounds of mutton and wool were used in these comparisons.

b/ See "Footnote b," Table 9.

Table 16.--Poultry Enterprise^{a/}

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of flocks		97	32	32
Total feed to poultry	\$ _____	\$ 392	\$ 339	\$ 326
Total returns from poultry--1	_____	777	838	502
Total returns at average rate ^{b/} --2.	_____	777	671	645
Percent of average returns (% 1 is of 2)	_____	100	125	78
Returns per \$100 feed	\$ _____	\$ 198	\$ 247	\$ 154
Average number of hens kept	_____	175	177	139
Number of eggs produced per hen	_____	145	161	119
Total returns per hen	\$ _____	\$4.44	\$4.73	\$3.61
Total feed cost per hen	_____	2.24	1.92	2.35
Average price of eggs per dozen	_____	.26	.27	.25
Percent of eggs laid in Oct., Nov., Dec..	_____	27	29	23
Amounts of feed per hen	_____			
Grain--pounds	_____	98	80	112
Protein, mineral, and mixed feeds--lb..	_____	37	37	32
Total concentrates--pounds	_____	135	117	144
Pounds of protein, mineral, and mixed feeds per 100 pounds of feed	_____	27.4	31.6	22.2

a/ Farms were divided into groups according to the returns per \$100 worth of feed fed to poultry. Only flocks having 50 or more hens were used in this comparison.

b/ See "Footnote b," Table 9.

Sheep. Most of the native flocks of sheep paid well for their feed at the prices charged, especially since more than 75 percent of their feed consisted of hay and pasture which have little or no value except as fed to livestock.

Feeder sheep, like feeder cattle, brought enough to pay for their feed, labor, and other costs of production, plus a little profit. A few droves did very well, while others lost money.

Poultry. Responding to the demands of the wartime program and to the better price of eggs, Farm Bureau Farm Management Service cooperators stepped up their 1942 egg production by 333 percent over that of 1940. Their poultry was increased 15 hens per flock, and the flocks increased egg production four eggs per hen for 430 farms on which comparisons were made. Compared with the one-third least profitable flocks, the one-third most profitable flocks produced 42 more eggs per hen.

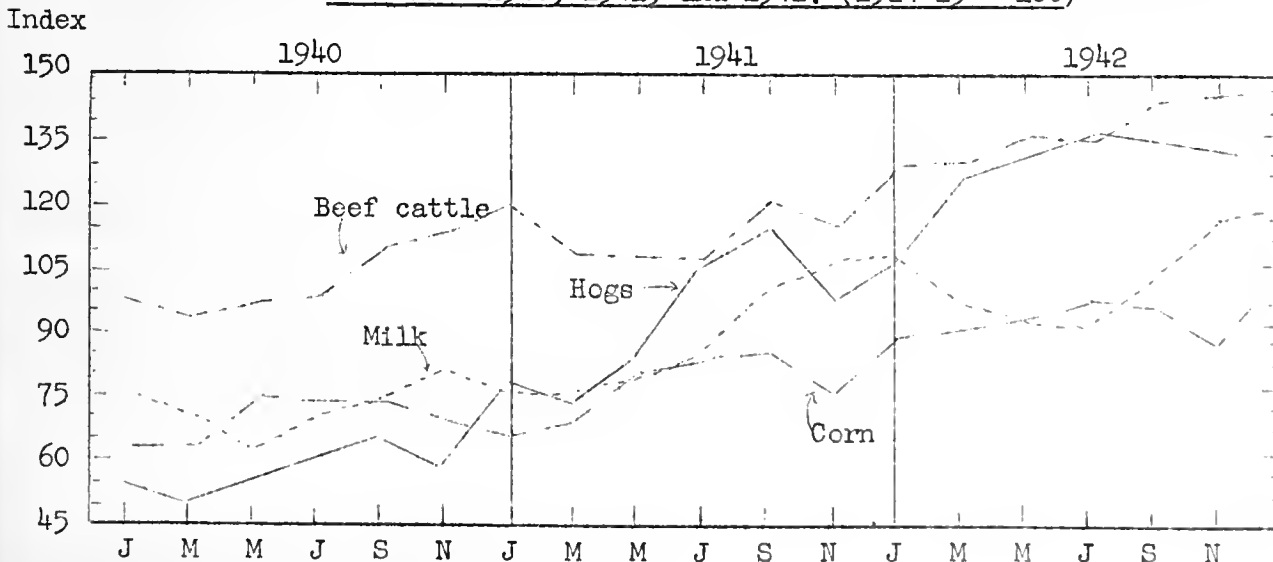
Influence of Price on Farm Earnings

Price of products sold is of course one of the important factors that affect farm earnings. Usually each cooperator will find that production costs are much more effective in making incomes high or low when compared with other farms than are the prices of products sold. If his prices are consistently low from year to year, each cooperator may well study the reasons for such low prices. The amounts and prices of most of the products sold during 1940, 1941, and 1942 are shown in Table 17.

Table 17.--Amounts and Prices of Some Products Sold

Item	Your farm	All 220 farms	44 farms with high returns on capital	44 farms with low returns on capital
<u>Amounts of products sold</u>				
Corn--bushels	_____	3 463	3 355	3 118
Oats--bushels	_____	1 033	850	942
Wheat--bushels,	_____	180	210	99
Soybeans--bushels	_____	526	758	394
Beef--pounds.	_____	28 054	28 463	33 031
Pork--pounds.	_____	28 755	51 232	19 900
Mutton and wool--pounds	_____	6 059	8 888	4 702
Milk--pounds produced	_____	45 704	39 734	37 449
Eggs--dozens,	_____	1 353	1 444	1 183
<u>Prices received</u>				
Corn--per bushel.	\$ _____	\$.67	\$.66	\$.67
Oats--per bushel.	_____	.40	.39	.42
Wheat--per bushel	_____	.91	.92	.90
Soybeans--per bushel.	_____	1.32	1.30	1.29
Beef--per 100 lb.	_____	11.30	11.73	10.86
Pork--per 100 lb.	_____	9.65	9.63	9.54
Mutton and wool--per 100 lb.. . . .	_____	10.51	10.56	10.59
Milk--per 100 lb.	_____	1.91	1.91	1.76
Eggs--per dozen	_____	.26	.26	.25

Monthly Price Indices of Corn, Beef Cattle, Hogs and Whole Milk for The Years 1940, 1941, and 1942. (1924-29 = 100)



Labor and Horse and Machinery Costs

Labor Costs. The average labor costs of \$1,377 per farm on the 44 farms with the highest earnings constituted only 92 percent of the \$1,490 average labor costs on all the farms requiring the same amount of work on crops and livestock. On the other hand, labor costs were \$139 (10 percent) higher on the 44 least profitable farms than on all the farms with similar labor requirements.

Maximum wartime farm production during a time of acute labor shortage calls for the most effective use of all available labor. That the effective use of labor also brings the most profit to the farmer is evidenced by the fact that the gross earnings per man on the 44 most profitable farms were 23 percent higher than the average gross earnings for all farms. Similar returns for the 44 least profitable farms were 21 percent less than the average. Most of this advantage of the most profitable group of farms was due to higher crop yields and higher livestock returns for feed fed.

Horse and machinery costs. Low power and machinery costs for the amount of work done increased the net farm earnings on many farms. The average cost of \$1,236 per farm on the 44 most profitable farms was \$83 (6 percent) less than the average cost on farms having about the same amount of work on crops and livestock. The cost on the 44 least profitable farms was \$128 (10 percent) more than the average of similar farms.

The standard days of man labor required for the production of crops and livestock, as shown in Table 18, are based on many years of complete cost studies conducted by the Department of Agricultural Economics. Estimates for uncommon crops were made by applying the same figure used for similar common crops. These standard requirements were applied to the acres of crops and the amounts of livestock on each farm in order to calculate the total days of productive labor for the farm.

Table 18.--Standards for Calculating Days of Productive Labor on Crops and Productive Livestock

<u>Kind of crop or livestock</u>	<u>Days of labor required</u>
Corn	.86 per acre
Oats (threshed basis)	.64 per acre
Winter wheat (combined basis)	.37 per acre
Spring wheat (threshed)	.64 per acre
Barley (threshed)	.64 per acre
Soybeans for grain (combined)	.42 per acre
Alfalfa	1.27 per acre
Clover or mixed hay	.84 per acre
Timothy	.84 per acre
Soybean hay	1.50 per acre
Cattle other than cows milked	2.00 per animal unit ^{a/}
Cows milked	12.00 per cow
Hogs	.28 per 100 pounds
Sheep	3.48 per animal unit ^{a/}
Hens	28.47 per 100 hens

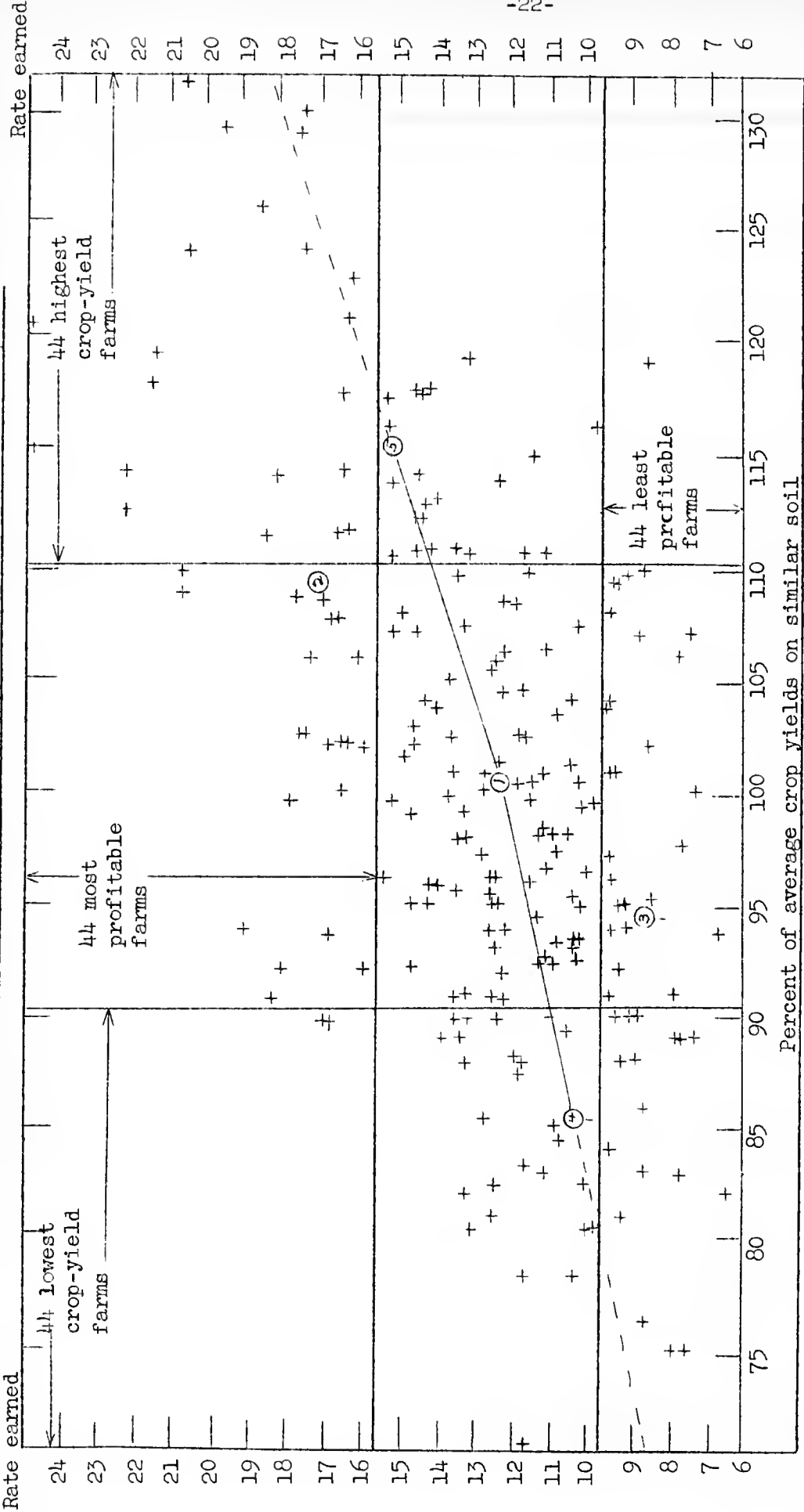
^{a/} An animal unit consists of one mature cow, two heifer calves or yearlings, 1,000 pounds liveweight of feeder cattle, five to six ewes, and 10 to 20 lambs.

Table 19.--Labor, Horse and Machinery, and Miscellaneous Costs

Item	Your farm	All 220 farms	44 farms with high returns on capital	44 farms with low returns on capital
Days of productive work^{a/}				
On crops	_____	153	143	150
On livestock	_____	250	299	216
Total days of productive work	_____	403	442	366
Labor cost				
Gross earnings per man--1	\$ _____	\$5 520	\$6 774	\$4 381
Average earnings of all farms--2.	_____	5 520	5 520	5 520
Percent of average (% 1 is of 2).	_____	100	123	79
Average number of men for 12 months	_____	1.91	1.84	1.96
Days of productive work per man	_____	211	240	187
Labor charge per month of labor	\$ _____	\$62.79	\$62.31	\$63.40
Total labor cost ^{b/} --1	_____	1 438	1 377	1 490
Labor cost at normal rate ^{c/} --2.	_____	1 438	1 490	1 351
Percent of normal cost (% 1 is of 2).	_____	100	92	110
Horse and machinery cost				
Average number of work horses	_____	2.9	2.6	3.0
Feed cost per workable horse.	\$ _____	\$ 46	\$ 48	\$ 45
Total horse and machinery cost ^{d/} --1	_____	1 280	1 236	1 378
Cost at normal rate ^{e/} --2.	_____	1 280	1 319	1 250
Percent of normal cost (% 1 is of 2).	_____	100	94	110
Expenses and net decreases				
Auto--only farm share	\$ _____	\$ 148	\$ 141	\$ 160
Truck	_____	91	94	103
Tractor	_____	339	309	356
Other machinery--all farms.	_____	545	560	590
Income from use of machinery.	_____	125	113	112
Selected items of expense per acre				
Farm improvements	\$ _____	\$ 1.65	\$ 1.53	\$ 1.87
Limestone and rock phosphate.	(_____)	(.29)	(.28)	(.28)
Machinery and equipment	_____	3.67	3.87	4.06
Automobile.	_____	.56	.57	.62
Livestock expense	_____	.36	.43	.32
Hired and home labor.	_____	5.50	5.61	5.83
Taxes--land and personal.	_____	1.70	1.77	1.73
Miscellaneous	_____	.25	.29	.27
Feed, grain, seed, livestock decreases.	_____	.06	.04	.10
Total expenses per acre	_____	13.75	14.11	14.80

- a/ A day of work (or a productive man-work unit) is the amount of work done on crops and livestock by the average farm laborer in one ten-hour day (Table 18).
- b/ Labor cost includes the amount paid for hired labor, the value of family labor not paid for in cash, and the value of the operator's labor figured at the common rate of wages paid to good married men workers.
- c/ The labor cost at normal rate for any farm is the average labor cost for all the farms which require about the same amount of work on crops and livestock as the farm that is being considered.
- d/ Horse cost includes depreciation and feed costs, Machinery cost includes the cost of depreciation, fuel, supplies, and repairs.
- e/ The horse and machinery cost at normal rate for any farm is the average horse and machinery cost for all the farms which require about the same amount of work on crops and livestock as the farm that is being considered, and which receive little or no income from custom work.

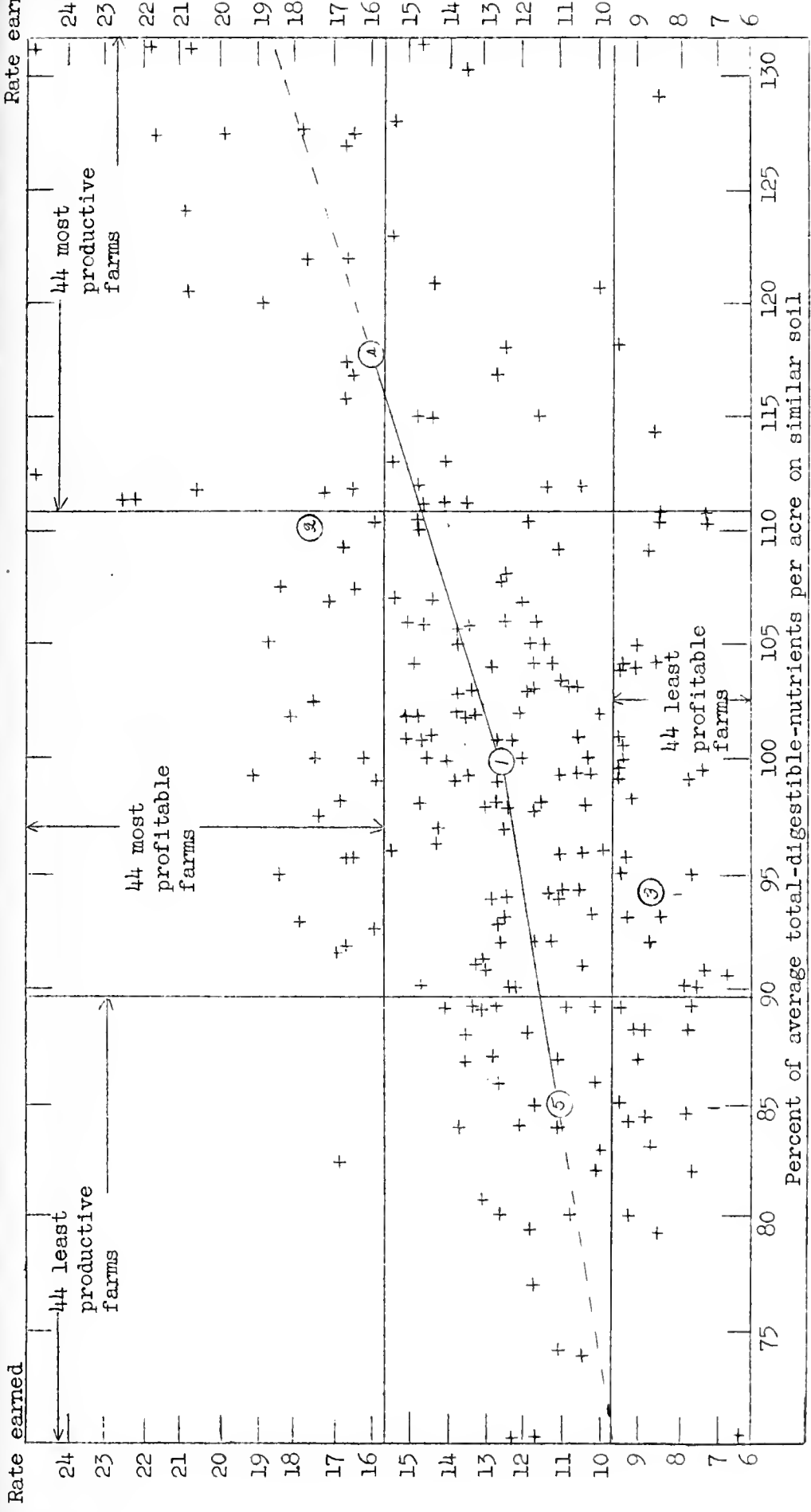
Chart 1.--Crop Yields as Related to the Rate Earned on the Total Farm Capital^{a/}



a/ Each sign (+) represents a farm, as the farms are distributed from the left to the right of the chart according to the percent of average crop yields on similar soil and from the bottom to the top according to the rate earned on the total farm capital.

- ① Average of all 220 farms.
- ② Average of 44 most profitable farms which had about 109 percent of average crop yields on similar soil.
- ③ Average of 44 least profitable farms which had about 94 percent of average crop yields on similar soil.
- ④ Average of 44 lowest crop-yield farms which earned about 10.5 percent on their total farm capital.
- ⑤ Average of 44 highest crop-yield farms which earned about 15.5 percent on their total farm capital.

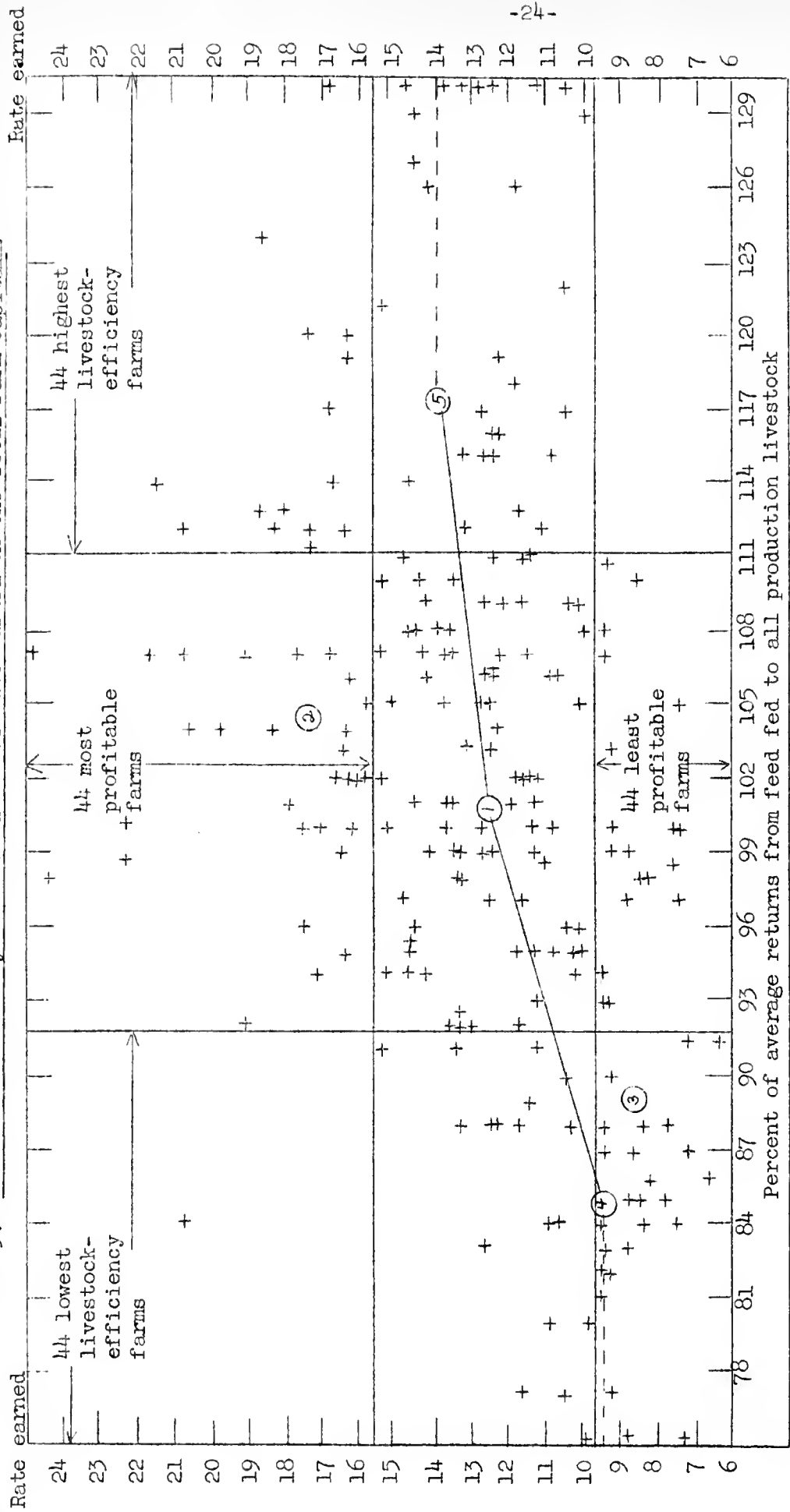
Chart 2.--Total Digestible Nutrients per Acre as Related to the Rate Earned on the Total Farm Capital



a/ Each sign (+) represents a farm, as the farms were distributed from the left to the right of the chart according to the percent of average total-digestible-nutrients per acre on similar soil and from the bottom to the top according to the rate earned on the total farm capital.

- ① Average of all 220 farms.
- ② Average of 44 most profitable farms which had about 110 percent of average total-digestible-nutrients per acre.
- ③ Average of 44 least profitable farms which had about 94 percent of average total-digestible-nutrients per acre.
- ④ Average of 44 farms with the most digestible nutrients per acre, which earned about 16.0 percent on their total farm capital.
- ⑤ Average of 44 farms with the least digestible nutrients per acre, which earned about 11.0 percent on their total farm capital.

Chart 3.--Livestock Efficiency as Related to the Rate Earned on the Total Farm Capital



a/ The signs(+) represent farms distributed on the chart from left to right according to the percent of average returns from all productive livestock and from bottom to top according to the rate earned on the total farm capital.

- ① Average of all 220 farms.
- ② Average of 44 most profitable farms with about 104 percent of average returns from feed fed to productive livestock
- ③ Average of 44 least profitable farms with about 89 percent of average returns from feed fed to productive livestock
- ④ Average of 44 farms with the least profitable livestock. They earned an average of about 9.5 percent on their capital.
- ⑤ Average of 44 farms with the most profitable livestock. They earned an average of about 14.0 percent on their capital.

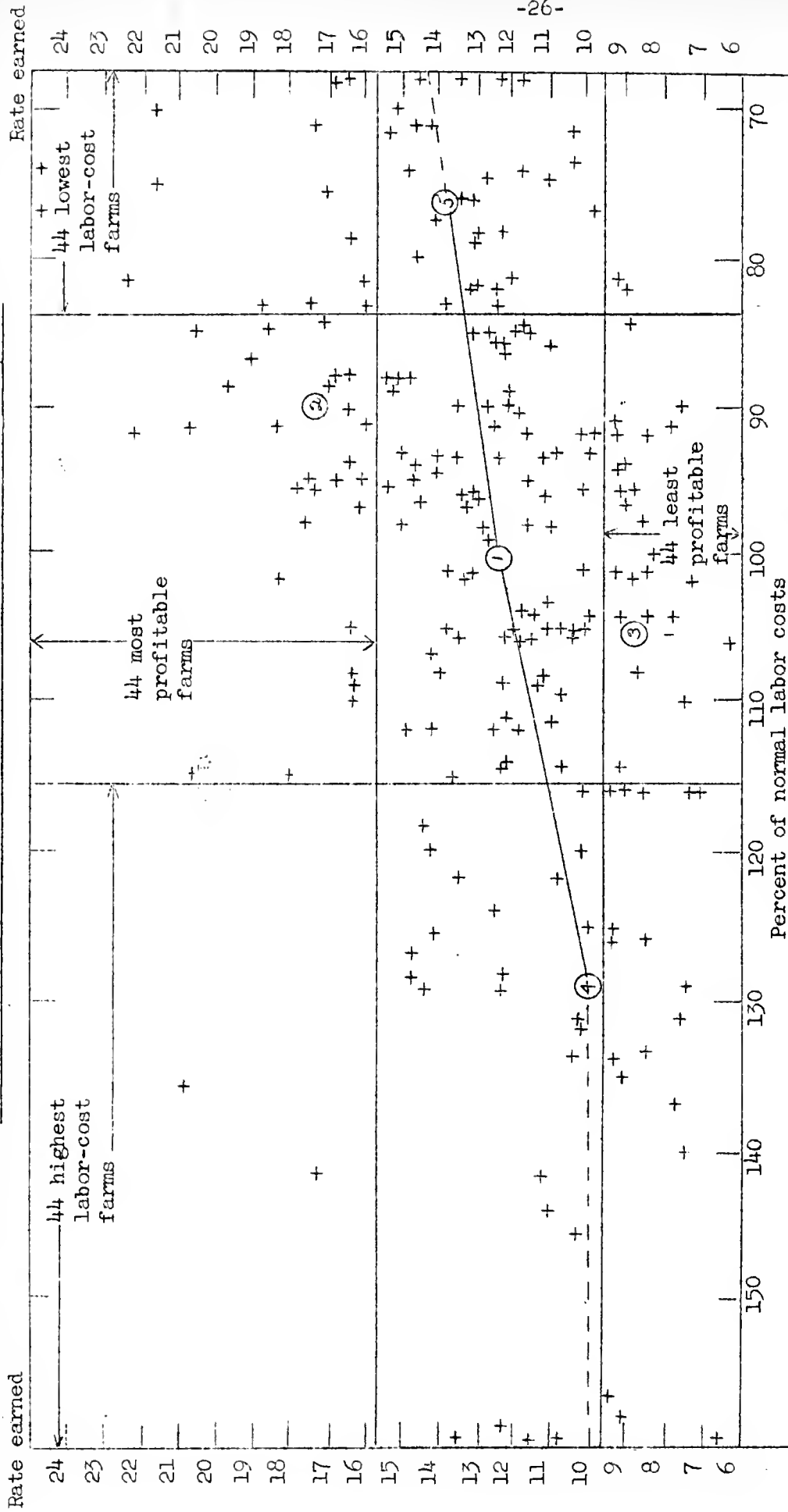
Chart 4.--Sources of Farm Income as Related to the Rate Earned on the Total Capital^{a/}

Rate earned	26 farms	50 farms	38 farms	17 farms	6 farms	43 farms	40 farms	Rate earned
24			++					24
23			+					23
22		+	++					22
21			++					21
20	+		++				+	20
19			+			++		19
18		++	++		+	++	++	18
17	+	++	++		++	++	++	17
16	+	++	++	+	++	++	++	16
15	+	++	++	++	++	++	++	15
14	++	++	++	++	++	++	++	14
13		++	++	++	++	++	++	13
12	++	++	++	++	++	++	++	12
11	++	++	++	++	++	++	++	11
10	++	++	++	++	++	++	++	10
9	++	++	++	++	++	++	++	9
8		++	++	++	++	++	++	8
7	++	++	++	++	++	++	++	7
6	++	++	++	++	++	++	++	6
	Grain 60% or more	Grain 40% to 59%	Hogs 40% or more	Cattle 40% or more	Dairy 40% or more	General livestock 60% or more	Mixed income	
	Grain farms			Livestock farms		General farms ^{b/}		
	Major source of income							

a/ Each sign (+) represents a farm, as farms were distributed into the seven columns according to the sources of income named at the bottoms of the columns, and from the bottom to the top according to the rate earned on the total farm capital. The double lines across each column indicate the average rate earned on the total farm capital of the average of the group.

b/ General farms have less than 40 percent of their income from any one source or have 40 percent or more from each of two sources. Mixed income farms have less than 60 percent of their income from livestock.

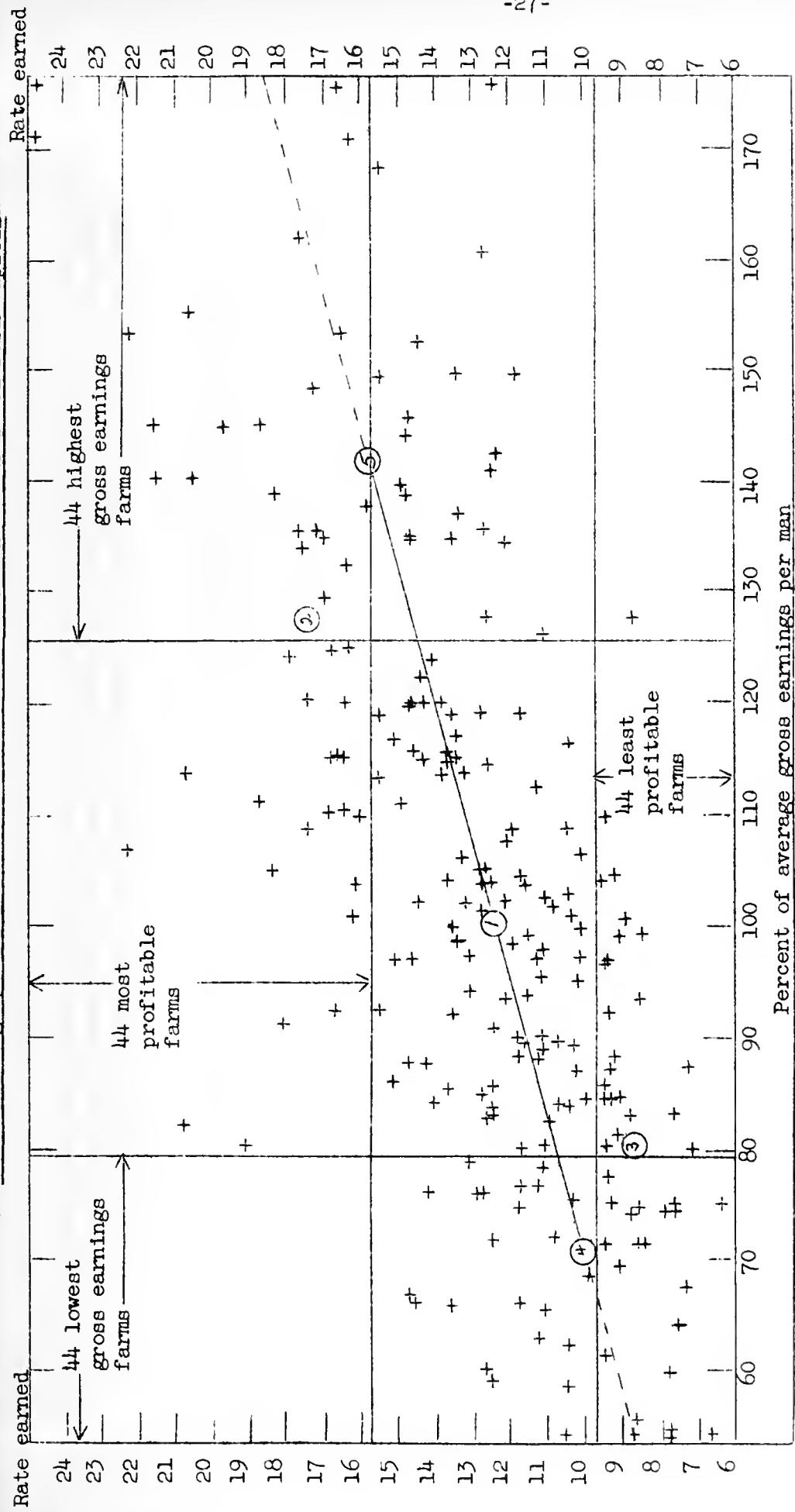
Chart 5.--Labor Cost as Related to the Rate Earned on the Total Farm Capital/a/



a/ Each sign (+) represents a farm, as the farms were distributed from the right to the left of the chart according to the percent of normal labor costs, and from the bottom to the top according to the rate earned on the total farm capital.

- ① Average of all 220 farms.
- ② Average of 44 most profitable farms which had about 90 percent of normal labor costs.
- ③ Average of 44 least profitable farms which had about 105 percent of normal labor costs.
- ④ Average of 44 farms with the highest labor costs which earned about 10.0 percent on their total farm capital.
- ⑤ Average of 44 farms with the lowest labor costs which earned about 14.0 percent on their total farm capital.

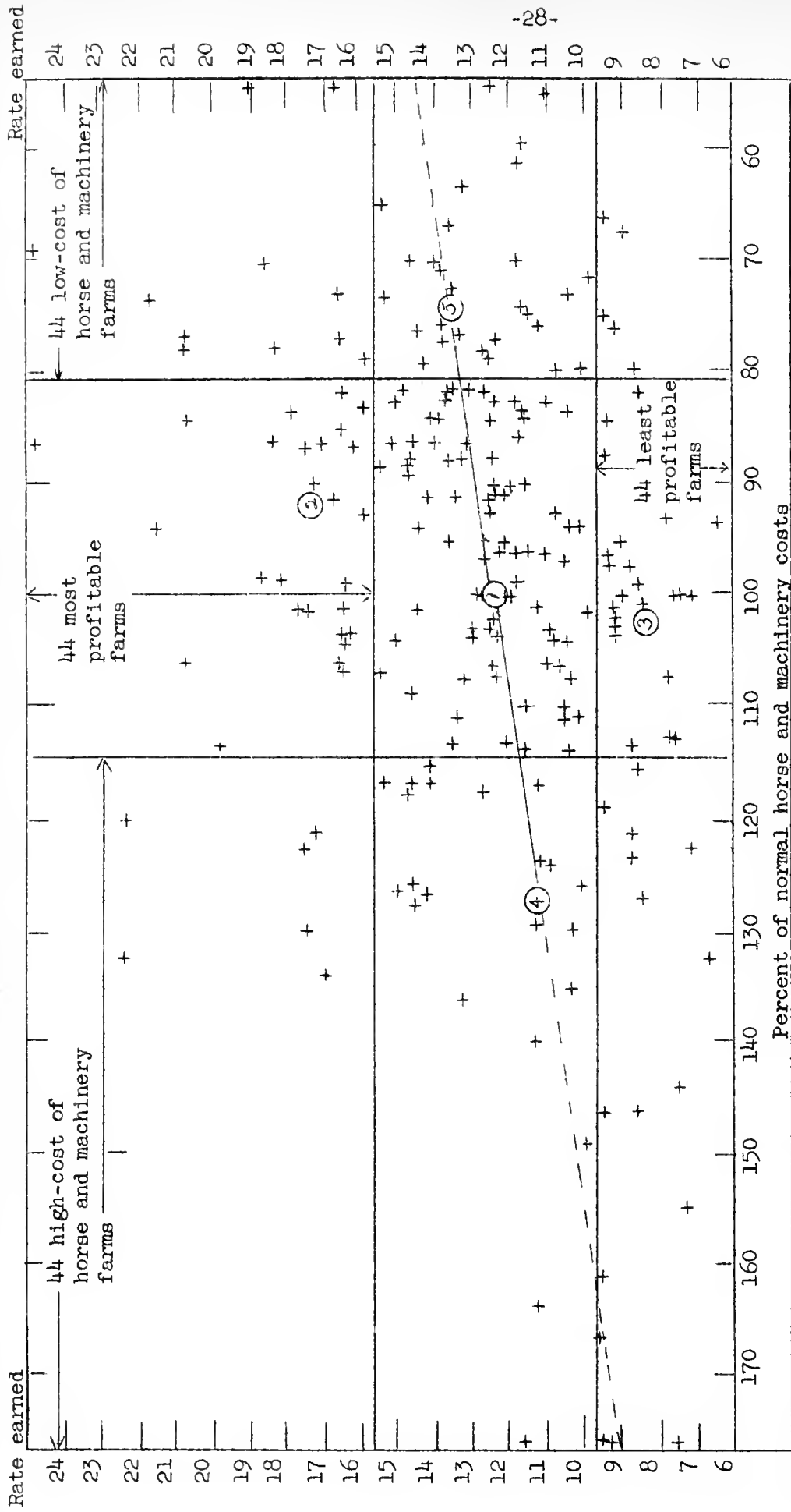
Chart 6.--Gross Earnings per Man as Related to the Rate Earned on the Total Farm Capital



a/ Each sign (+) represents a farm, as the farms were distributed from the left to the right of the chart according to the percent of average gross earnings per man, and from the bottom to the top according to the rate earned on the total farm capital.

- ① Average of all 220 farms.
- ② Average of 44 most profitable farms which had about 127 percent of average gross earnings per man.
- ③ Average of 44 least profitable farms which had about 80 percent of average gross earnings per man.
- ④ Average of 44 farms having the lowest gross earnings per man, which earned about 10.0 percent on their total farm capital.
- ⑤ Average of 44 farms having the highest gross earnings per man, which earned about 15.7 percent on their total farm capital.

Chart 7.--Horse and Machinery Costs as Related to the Rate Earned on the Total Farm Capital



a/ Each sign (+) represents a farm, as the farms were distributed from the right to the left of the chart according to the percent of normal horse and machinery costs, and from the bottom to the top according to the rate earned on the total farm capital.

① Average of all 220 farms.

② Average of 44 most profitable farms which had about 92 percent of normal horse and machinery costs.

③ Average of 44 least profitable farms which had about 103 percent of normal horse and machinery costs.

④ Average of 44 farms with the highest horse and machinery costs, which earned about 11.2 percent on their total farm capital.

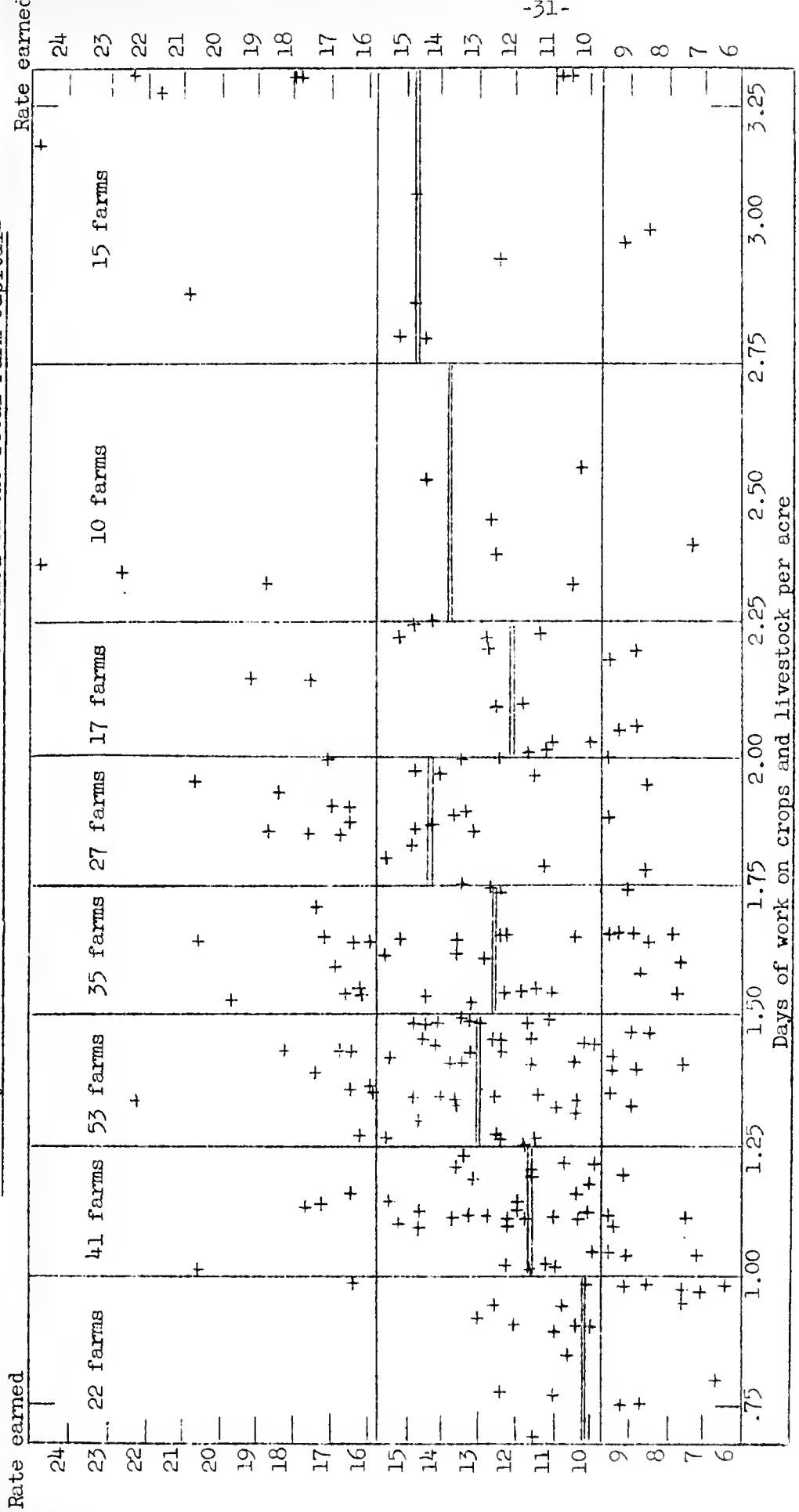
⑤ Average of 44 farms with the lowest horse and machinery costs, which earned about 13.6 percent on their total farm capital.

Chart 3.--Number of Above-Average Factors as Related to the Rate Earned on the Total Farm Capital^{a/}

Rate earned	11 farms	51 farms	69 farms	65 farms	24 farms	Rate earned
24				+		24
23						23
22			+	+		22
21			+		+	21
20			+	+	+	20
19			+			19
18			+	+	+	18
17			+	+	+	17
16		+	+	+	+	16
15				+	+	15
14		+	+	+	+	14
13		+	+	+	+	13
12		+	+	+	+	12
11	+	+	+	+	+	11
10	+	+	+	+	+	10
9	+	+	+	+	+	9
8	+	+	+	+	+	8
7	+	+	+	+	+	7
6	+	+	+	+	+	6
	None	One	Two	Three	Four	
	Number of above-average factors					

a/ Each sign (+) represents a farm, as farms were distributed into the five columns according to the number of four efficiency factors in which the farm ranked above average, and from the bottom to the top of the chart according to the rate earned on the total farm capital. The double lines across each column indicate the group average rate earned on the total farm capital. The four efficiency factors considered were crop yields, livestock efficiency, labor costs, and horse and machinery costs.

Chart 10.--Intensity of Business as Related to the Rate Earned on the Total Farm Capital^{a/}



^{a/} Each sign (+) represents a farm as farms were distributed from the left to the right of the chart according to the intensity of business as measured by the days of work on crops and livestock per acre of the farm, and from the bottom to the top according to the rate earned on the total farm capital. The double lines across each column indicate the average rate earned on the total farm capital of the average of the group.

Table 20.--County Averages of Some Factors That Affect Farm Earnings

Item	Your farm	All 220 farms	Livingston County	McLean County	Tazewell County	Woodford County	Ford County
Net earnings on the total business on all farms--Number of farms		220	55	49	57	51	8
Rate earned on capital--percent		12.8	11.6	13.2	13.8	12.2	13.3
Labor and management earnings	\$	\$4 804	\$3 816	\$6 217	\$4 833	\$4 390	\$5 372
Net earnings on rented farms--number of rented farms		102	25	27	28	17	5
Tenant's labor and management earnings. Landlord's rate earned on capital--percent.	\$	\$4 060	\$3 055	\$5 528	\$3 890	\$3 386	\$4 391
Gross earnings factors		7.6	7.1	7.9	7.4	7.8	7.3
Digestible nutrients per acre--percent of average on similar soil		100	93	95	105	101	97
Gross earnings per man--percent of average.		100	97	114	99	99	103
Crop yields							
Corn--bushels per acre		66	61	65	69	69	62
Oats--bushels per acre.		52	55	53	48	51	54
Wheat--bushels per acre		23	25	23	23	21	24
Soybeans--bushels per acre.		23	21	25	26	22	19
All grain crops--percent of average . Livestock returns--percent of average from same amount of feed		100	93	99	100	99	93
Cattle.		100	101	99	108	96	96
Hogs.		100	103	98	102	102	104
Sheep		100	91	108	113	103	100
Poultry		100	104	97	96	97	108
All livestock		100	102	99	104	99	101
Costs--percent of normal							
Labor		100	98	98	105	101	100
Horses and machinery.		100	98	99	100	94	97
Organization of farm							
Size of business--estimated days of work		403	340	494	382	396	464
Size of farm--total acres		266	234	325	247	256	322
Percent of farm tillable.		90	92	92	86	89	94
Percent of tillable land in biennial and perennial legumes.		23	22	21	23	24	26
Feed per acre to productive livestock . \$		\$15.25	\$11.80	\$17.45	\$14.97	\$16.66	\$13.25

By E. L. Sauer and H. C. M. Case^{2/}

This report for the year 1942 is based on farm account records of cooperators in Madison county who are operating their farms in accordance with a planned program of soil conservation and erosion control and on the records of neighboring farmers who do not operate their farms under a planned soil conservation program. Because of the wartime emergency, this report has been kept brief and the data have been summarized in nine tables.

A comparison of the investments, cash receipts, cash expenses, and earnings of conservation cooperating and nonconservation cooperating farms is presented in Table 1, and an analysis of the farm businesses of the two groups is shown in Table 2. A slightly smaller proportion of the tillable land of the conservation cooperating farms than of the nonconservation farms was in crops, and a slightly larger proportion was in soil-building legumes and in hay and pasture. Because the conservation farmers followed soil conservation practices, used more manure, limestone, and phosphate, and used their cropland more nearly in accordance with its capabilities, their average crop yields were higher than those of the nonconservation farmers. These men also increased their livestock production more than did the nonconservation farmers; fed more livestock, particularly of the roughage-consuming classes; and produced more milk and meat per farm and per acre. An analysis of the individual livestock enterprises is presented in Tables 5 to 9. Even though the volume of production was large on the conservation farms, horse and machinery costs and man-labor costs per crop acre, as well as total farm expenses per acre, were lower on these farms than on the nonconservation farms.

A comparison of the adjustments made by the operators of conservation cooperating and nonconservation farms in gearing to wartime production is presented in Table 3. Grain production decreased on both groups of farms, but relatively more on the nonconservation group. The wet, unfavorable growing season resulted in a poor wheat crop and low yields of all small grains. Meat production per acre increased on the conservation cooperating farms, but did not change on the nonconservation group. Milk production per farm and per acre increased on the conservation farms and declined on the latter group, whereas milk production per cow declined on both groups of farms.

Table 4 shows that contour-farming with terraces, contour-farming with buffer strips, strip-cropping, or contour-farming the entire field with the same crop (grass waterways are used in each instance) generally increases yields of crops needed for food and feed, as well as aids in controlling erosion.

A study of the results of the planned soil conservation program shows that it contributed materially toward increasing production on the conservation cooperating farms in order to meet wartime needs, as well as aided in conserving the soil and keeping it in shape for continued high production. The farm account records of these two groups of farmers offer ample proof that farmers in general can contribute most to increased production, and can also secure the most profitable farming returns, by following a sound, well-planned soil and water conservation and erosion-control program, which includes utilizing roughages and concentrates through efficient livestock production.

^{1/} The Department of Agricultural Economics, University of Illinois, College of Agriculture, the Madison County Farm Bureau, and the Soil Conservation Service, U. S. Department of Agriculture, cooperated in this study.

^{2/} T. W. May, Farm Adviser in Madison County, cooperated in the organization and supervision of the farm account record study.

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Table 1.--Investments, Cash Income, Cash Expenses, and Earnings, Soil Conservation Cooperating and Nonconservation Cooperating Farms, Madison County, Illinois, 1942

Item	Your farm	41 conservation farms	24 nonconservation farms
Capital Investments			
Land- - - - -	\$ _____	\$ 10 374	\$ 8 568
Farm improvements - - - - -	_____	3 253	2 433
Livestock - - - - -	_____	2 729	2 182
Feed and grain- - - - -	_____	2 379	1 867
Machinery and equipment - - - - -	_____	2 328	1 875
Total- - - - -	\$ _____	\$ 21 063	\$ 16 925
Cash Receipts			
Farm improvements - - - - -	\$ _____	\$ 9	\$ 1
Horses- - - - -	_____	20	49
Productive livestock: Cattle- - - - -	_____	1 200	852
Dairy sales - - - - -	_____	2 506	1 720
Hogs- - - - -	_____	1 428	1 043
Sheep - - - - -	_____	22	--
Poultry - - - - -	_____	132	149
Egg sales - - - - -	_____	433	410
Total productive livestock - - - - -	(_____)	(5 721)	(4 174)
Feed and grain- - - - -	_____	1 320	791
Machinery and equipment - - - - -	_____	236	111
Automobile (farm share) - - - - -	_____	11	16
AAA payments- - - - -	_____	271	197
Labor off farm- - - - -	_____	8	3
Miscellaneous - - - - -	_____	52	45
Total- - - - -	\$ _____	\$ 7 648	\$ 5 387
Cash Expenses			
Farm improvements - - - - -	\$ _____	\$ 526	\$ 275
Horses- - - - -	_____	30	24
Productive livestock: Cattle- - - - -	_____	512	336
Hogs- - - - -	_____	89	37
Sheep - - - - -	_____	8	--
Poultry - - - - -	_____	41	37
Total productive livestock - - - - -	(_____)	(650)	(410)
Feed and grain purchases- - - - -	_____	1 098	821
Seed purchases and crop expense - - - - -	_____	174	117
Machinery and equipment - - - - -	_____	1 097	858
Automobile (farm share) - - - - -	_____	123	145
Livestock expense - - - - -	_____	74	62
Hired labor - - - - -	_____	340	315
Taxes - - - - -	_____	194	153
Miscellaneous - - - - -	_____	31	34
Total- - - - -	\$ _____	\$ 4 337	\$ 3 214
Summary			
Cash balance- - - - -	\$ _____	\$ 3 311	\$ 2 173
Farm products used in household - - - - -	_____	311	329
Total inventory change- - - - -	_____	585	241
Receipts less expenses- - - - -	\$ _____	\$ 4 207	\$ 2 743
Total unpaid labor- - - - -	_____	1 255	1 200
Returns for capital and management- - - - -	\$ _____	\$ 2 952	\$ 1 543
Rate earned on investment - - - - -	_____ %	14.0%	9.1%

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 DIVISION OF THE PHYSICAL SCIENCES
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FROM
 DR. [Name]
 DEPARTMENT OF CHEMISTRY
 UNIVERSITY OF CHICAGO
 CHICAGO, ILLINOIS

RE: [Subject]

[Detailed text of the letter, including a description of the work and any findings.]

[Additional text, possibly a list of references or a summary of the work.]

[Closing text, including a signature and any administrative notes.]

Table 2.--Factors Helping to Analyze the Farm Business, Soil Conservation Cooperating and Nonconservation Cooperating Farms, Madison County, Illinois, 1942

Item	Your farm	41 conserva- tion farms	24 nonconser- vation farms
Acres in farm- - - - -	_____	185	151
Acres in crops - - - - -	_____	117	97
Gross receipts per acre- - - - -	\$ _____	\$ 35.38	\$ 31.78
Total expense per acre - - - - -	_____	19.42	21.57
Net receipts per acre- - - - -	\$ _____	\$ 15.96	\$ 10.21
Investments			
Value of land per acre - - - - -	\$ _____	\$ 56	\$ 57
Value of improvements per acre - - - - -	_____	18	16
Total investments per acre - - - - -	_____	114	112
Land Use			
Percent of land area tillable- - - - -	_____	82	79
Percent of tillable land in crops- - - - -	_____	77	81
Percent of tillable land in:			
Corn - - - - -	_____	21	23
Oats - - - - -	_____	10	10
Wheat- - - - -	_____	16	20
Soybeans - - - - -	_____	6	1
Other crops- - - - -	_____	9	10
Legume hay and pasture - - - - -	_____	27	26
Nonlegume hay and pasture- - - - -	_____	11	10
Soil-building legumes ^{a/} - - - - -	_____	32	26
Crop Yields			
Corn, bu.- - - - -	_____	49	42
Oats, bu.- - - - -	_____	33	34
Wheat, bu.- - - - -	_____	15	13
Soybeans, bu.- - - - -	_____	19	14
Crop-yield index ^{b/} - - - - -	_____	103	92
Livestock Factors			
Value of feed fed productive l.s.- - - - -	\$ _____	\$ 2 912	\$ 2 222
Returns per \$100 feed fed productive l.s.	_____	195	190
Number of cows milked- - - - -	_____	13.1	10.8
Dairy returns per cow milked - - - - -	\$ _____	\$ 196	\$ 165
Pounds of 3.5 milk per cow - - - - -	_____	8 417	7 211
Number of litters farrowed - - - - -	_____	9.9	8.1
Number of pigs weaned per litter - - - - -	_____	6.6	5.8
Returns per litter farrowed- - - - -	\$ _____	\$ 163	\$ 144
Eggs produced per hen- - - - -	_____	123	134
Poultry returns per hen- - - - -	\$ _____	\$ 4.06	\$ 4.38
Pounds of beef produced per farm - - - - -	_____	7 306	5 706
Pounds of pork produced per farm - - - - -	_____	11 777	7 998
Pounds of mutton produced per farm - - - - -	_____	156	--
Total lb. meat produced per acre- - - - -	_____	104	91
Pounds of 3.5 milk produced per acre - - - - -	_____	596	515
Expense Factors			
Horse and mach. cost per crop acre - - - - -	\$ _____	\$ 8.77	\$ 9.72
Man labor cost per crop acre - - - - -	_____	13.37	15.50
Purchases of limestone, phosphate, and fertilizer - - - - -	\$ _____	\$ 97.00	\$ 59.00

a/ Includes all biennial and perennial legumes and also soybeans and first-year sweet clover plowed under as a green manure crop.

b/ Average crop yields for all the 65 farm account-keeping farms in Madison county in 1942 equal 100.

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Table 3.--Wartime Production Adjustments, Soil Conservation Cooperating and Nonconservation Cooperating Farms, Madison County, Illinois^{a/}

Item	1941	1942	Percent of change
<u>Soil Conservation Cooperating Farms</u>			
Tons of grain produced per farm - - -	69.6	64.9	-6.8
Lb. beef produced per farm- - - - -	5 189	7 306	40.8
Lb. pork produced per farm- - - - -	10 632	11 777	10.8
Lb. mutton produced per farm- - - - -	232	156	-32.8
Total lb. meat produced per acre -	90	104	15.6
Lb. 3.5 milk produced per farm- - - -	102 613	110 268	7.4
Lb. 3.5 milk produced per acre- - - -	576	596	3.4
Lb. 3.5 milk produced per cow - - - -	8 635	8 417	-2.5
<u>Nonconservation Cooperating Farms</u>			
Tons of grain produced per farm - - -	63.0	47.4	-24.8
Lb. beef produced per farm- - - - -	4 877	5 706	17.0
Lb. pork produced per farm- - - - -	8 857	7 998	-9.7
Lb. mutton produced per farm- - - - -	28	0	--
Total lb. meat produced per acre -	91	91	--
Lb. 3.5 milk produced per farm- - - -	79 967	77 874	-2.6
Lb. 3.5 milk produced per acre- - - -	530	515	-3.0
Lb. 3.5 milk produced per cow - - - -	7 625	7 211	-5.5

^{a/} The figures for 1941 and 1942 are for identical conservation and nonconservation farms.

Table 4.--Average Per Acre Yields on the Contour and Not on the Contour, All Account-Keeping Farms, Madison County, Illinois, 1942

Item	On contour	Not on contour
<u>Corn:</u>		
Total acres- - - - -	471	1 621
Yield, bu. per acre- - - - -	50.9	45.8
<u>Soybeans:</u>		
Total acres- - - - -	124	294
Yield, bu. per acre- - - - -	25.3	18.9
<u>Oats:</u>		
Total acres- - - - -	199	808
Yield, bu. per acre- - - - -	29.2	32.2
<u>Winter Barley:</u>		
Total acres- - - - -	87	225
Yield, bu. per acre- - - - -	22.7	15.3
<u>Wheat:</u>		
Total acres- - - - -	350	1 538
Yield, bu. per acre- - - - -	16.2	13.4

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Table 5.--Dairy Enterprise, Madison County, Illinois, 1942

Item	Your farm	Average of 30 best farms ^{a/}	Average of 30 poorest farms ^{a/}
Number of cows in herd- - - - -	_____	14.0	10.0
Number of animal units- - - - -	_____	19.6	17.1
Percent of cattle units milked- - - -	_____	71.4	58.5
Value of feed fed - - - - -	\$ _____	\$1 553	\$1 406
Dairy sales - - - - -	_____	2 958	1 420
Total returns from cattle- - - -	\$ _____	\$3 570	\$2 131
Returns per \$100 feed fed - - - - -	_____	230	152
Percent of total cattle returns from dairy sales- - - - -	_____	82.8	66.6
Pounds of 3.5 milk per cow- - - - -	_____	8 746	6 698
Dairy sales per 100 lb. milk produced	\$ _____	\$ 2.41	\$ 2.12
Feed cost per 100 lb. milk produced -	_____	1.27	1.75
Percent of total feed value that was:			
Grain - - - - -	_____	24.0	24.6
Protein supplement and minerals - -	_____	23.5	23.5
Total concentrates - - - - -	_____	47.5	48.1
Hay - - - - -	_____	28.7	29.6
Silage- - - - -	_____	11.8	10.2
Pasture - - - - -	_____	12.0	12.1
Total roughages- - - - -	_____	52.5	51.9

a/ Based on returns per \$100 feed fed.

Table 6.--Beef Enterprise, Madison County, Illinois, 1942

Item	Your farm	Average of 6 best farms ^{a/}	Average of 6 poorest farms ^{a/}
Number of animal units- - - - -	_____	24.9	21.2
Value of feed fed cattle- - - - -	\$ _____	\$1 565	\$1 319
Returns from beef - - - - -	_____	2 302	787
Total returns from cattle- - - -	\$ _____	\$2 627	\$1 466
Returns per \$100 feed fed cattle- - -	_____	168	111
Percent of total cattle returns from beef - - - - -	_____	87.6	53.7
Pounds of beef produced - - - - -	_____	14 762	5 597
Returns per 100 lb. produced- - - -	\$ _____	\$ 15.58	\$ 14.06
Feed cost per 100 lb. produced- - - -	_____	10.60	23.57
Percent of total feed value that was:			
Grain - - - - -	_____	53.8	32.3
Protein supplement and minerals - -	_____	11.8	9.9
Total concentrates - - - - -	_____	65.6	42.2
Hay - - - - -	_____	14.9	32.0
Silage- - - - -	_____	4.7	7.5
Pasture - - - - -	_____	14.8	18.3
Total roughages- - - - -	_____	34.4	57.8

a/ Based on returns per \$100 feed fed.

THE HISTORY OF THE UNITED STATES

CHAPTER I. THE DISCOVERY OF AMERICA

The discovery of America by Christopher Columbus in 1492 is one of the most important events in the history of the world. It opened up a new world of opportunity and led to the development of a new continent. Columbus's voyage was the first of many that would follow, as European powers sought to establish colonies and trade routes in the Americas.

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CHAPTER II. THE EARLY YEARS OF THE COLONIES

The early years of the colonies were marked by struggle and hardship. The settlers faced a harsh environment and often clashed with the Native Americans. Despite these challenges, the colonies grew and developed, laying the foundation for the United States.

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Table 7.--Hog Enterprise, Madison County, Illinois, 1942

Item	Your farm	Average of 22 best farms ^{a/}	Average of 21 poorest farms ^{a/}
Value of feed fed hogs- - - - -	\$ _____	\$ 774	\$ 926
Total returns from hogs- - - - -	\$ _____	\$1 934	\$1 443
Returns per \$100 feed fed - - - - -		250	156
Pounds of pork produced - - - - -		13 619	10 563
Returns per 100 lb. produced- - - - -	\$ _____	\$ 14.20	\$ 13.66
Feed cost per 100 lb. produced- - - - -		5.68	8.77
Number of litters farrowed- - - - -		10.5	8.3
Pigs weaned per litter- - - - -		6.2	6.3
Percent of feed value that was:			
Grain - - - - -		73.4	71.5
Protein supplement and minerals - - - - -		24.7	27.3
Hay and pasture - - - - -		1.9	1.2

a/ Based on returns per \$100 feed fed.

Table 8.--Sheep Enterprise, Madison County, Illinois, 1942

Item	Your farm	Average of 4 best farms ^{a/}	Average of 4 poorest farms ^{a/}
Number of animal units- - - - -		4.8	7.2
Value of feed fed sheep - - - - -	\$ _____	\$ 103	\$ 286
Total returns from sheep - - - - -	\$ _____	\$ 202	\$ 339
Returns per \$100 feed fed - - - - -		196	119
Pounds of lamb and mutton produced- - - - -		1 479	2 565
Returns per 100 lb. produced- - - - -	\$ _____	\$ 13.66	\$ 13.22
Feed cost per 100 lb. produced- - - - -		6.96	11.15
Percent of feed value that was:			
Concentrates- - - - -		13.6	19.9
Roughages - - - - -		86.4	80.1

a/ Based on returns per \$100 feed fed.

Table 9.--Poultry Enterprise, Madison County, Illinois, 1942

Item	Your farm	Average of 32 best farms ^{a/}	Average of 33 poorest farms ^{a/}
Value of feed fed poultry - - - - -	\$ _____	\$518	\$376
Total returns from poultry - - - - -	\$ _____	\$701	\$533
Returns per \$100 feed fed - - - - -		220	142
Average number of hens- - - - -		155	145
Eggs per hen- - - - -		147	110
Returns per hen - - - - -	\$ _____	\$ 4.52	\$ 3.68
Feed cost per hen - - - - -		2.05	2.59

a/ Based on returns per \$100 feed fed.

HCMC:S:WM
4/16/43

The first part of the document discusses the general principles of the project and the objectives that have been set. It is important to ensure that the project is well-planned and that the resources are allocated effectively. The following table provides a summary of the key findings and recommendations.

Category	Findings	Recommendations
Financial	The budget is well-managed and within the allocated funds.	Continue to monitor expenses closely and ensure transparency in reporting.
Operational	The project is progressing according to the schedule.	Identify potential risks early and develop contingency plans.
Human Resources	The team is well-coordinated and working effectively.	Provide ongoing training and support to the staff.
Communication	Regular communication is maintained with stakeholders.	Improve the frequency of updates and ensure clarity in all communications.

In conclusion, the project is on track and the team is committed to achieving the set objectives. It is essential to maintain the current level of communication and collaboration to ensure the successful completion of the project.

The second part of the document details the specific activities and tasks that have been completed. This section highlights the progress made and the challenges encountered. The following table outlines the key milestones and the status of the project.

Milestone	Status	Completion Date
Project Initiation	Completed	15/01/2024
Requirement Gathering	In Progress	30/01/2024
System Design	Not Started	15/02/2024
Development	Not Started	01/03/2024
Testing	Not Started	15/03/2024
Deployment	Not Started	01/04/2024

The progress made so far is significant, and the team is confident that the project will be completed on time and within budget. The next steps involve finalizing the design and beginning the development phase.

The final part of the document provides a summary of the overall project performance and the lessons learned. It is important to reflect on the successes and areas for improvement to ensure that future projects are more successful. The following table summarizes the key takeaways from the project.

Lesson Learned	Action Item
Clear communication is essential for project success.	Implement a structured communication plan.
Regular updates and reporting are crucial for stakeholder engagement.	Establish a regular reporting schedule.
Flexibility is key to handling unexpected challenges.	Develop a robust risk management strategy.
Strong team collaboration leads to better outcomes.	Encourage open communication and teamwork.

In summary, the project has been a valuable experience and has provided many insights into the complexities of project management. The team is grateful for the support and collaboration of all stakeholders and looks forward to future projects.

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SUMMARY OF FARM ACCOUNT RECORD STUDY ON THE ECONOMICS OF SOIL CONSERVATION,
STEPHENSON, JO DAVIESS, AND WINNEBAGO COUNTIES, ILLINOIS, 1942^{1/}

By E. L. Sauer and H. C. M. Case^{2/}

This report for the year 1942 is based on farm account records of cooperators who are operating their farms in accordance with a planned program of soil conservation and erosion control and on the records of neighboring farmers who do not operate their farms under a planned soil conservation program. Because of the war-time emergency, this report has been kept brief and the data have been summarized in four tables.

A comparison of the investments, cash receipts, cash expenses, and earnings of conservation cooperating and nonconservation cooperating farms is presented in Table 1, and an analysis of the farm businesses of the two groups is shown in Table 2. A larger proportion of the tillable land of the conservation cooperating farms than of the nonconservation farms was in soil-building legumes and in improved legume hay and pasture. Because the conservation farmers used their cropland more nearly in accordance with its capabilities, their average crop yields were higher than those of the nonconservation farmers. These men also increased their livestock production more than did the nonconservation farmers; fed more livestock, particularly of the roughage-consuming classes; and produced more milk and meat per farm and per acre. Horse and machinery costs and man-labor costs per crop acre, as well as total farm expenses per acre, were lower in relation to volume of production on conservation farms than on the nonconservation farms.

A comparison of the adjustments made by the operators of conservation cooperating and nonconservation farms in Stephenson County in gearing to wartime production is presented in Table 3. Grain production per farm increased relatively more on the nonconservation group. Meat production per acre increased approximately twice as much on the conservation cooperating farms as on the nonconservation group. Milk production per farm, per acre, and per cow increased relatively more on the conservation farms than on the latter group, largely as the result of the improved hay and pasture produced by conservation farming.

Table 4 shows that contour-farming with terraces, contour-farming with buffer strips, strip-cropping, or contour-farming the entire field with the same crop (grass waterways are used in each instance) generally increases yields of crops needed for food and feed, as well as aids in controlling erosion.

A study of the results of the planned soil conservation program shows that it contributed materially toward increasing production on the conservation cooperating farms in order to meet wartime needs, as well as aided in conserving the soil and keeping it in shape for continued high production. The farm account records of these two groups of farmers offer ample proof that farmers in general can contribute most to increased production, and can also secure the most profitable farming returns, by following a sound, well-planned soil and water conservation and erosion control program, which includes utilizing roughages and concentrates through efficient livestock production.

^{1/} The Department of Agricultural Economics, University of Illinois, College of Agriculture; the Stephenson, Jo Daviess, and Winnebago County Farm Bureaus; and the Soil Conservation Service, U.S. Department of Agriculture, cooperated in this study.

^{2/} V. J. Banter, H. E. Kearns, and H. R. Brunne Meyer, Farm Advisers in Stephenson, Jo Daviess, and Winnebago counties, respectively, cooperated in the organization and supervision of the farm account record study.

Table 1.--Investments, Cash Receipts, Cash Expenses, and Earnings, Soil Conservation Cooperating and Nonconservation Cooperating Farms, Stephenson, Jo Daviess and Winnebago Counties, Illinois 1942

Item	Your farm	60 conser- vation farms	60 nonconser- vation farms
Capital Investments			
Land-----	\$ _____	\$13194	\$11620
Farm improvements-----	_____	5909	5353
Livestock-----	_____	5252	4088
Feed, grain and seeds-----	_____	2827	2364
Machinery and equipment-----	_____	2647	2265
Total-----	\$ _____	\$29829	\$25690
Cash Receipts			
Farm improvements-----	\$ _____	\$ 4	\$ 4
Horses-----	_____	17	35
Productive livestock: Cattle-----	_____	3133	1676
Dairy sales-----	_____	2407	1893
Hogs-----	_____	4157	3090
Sheep-----	_____	247	96
Poultry-----	_____	148	116
Egg sales-----	_____	362	408
Total productive livestock-----	()	(10454)	(7279)
Feed, grain and seeds-----	_____	386	430
Machinery and equipment-----	_____	142	190
Automobile (farm share)-----	_____	137	19
AAA receipts-----	_____	187	130
Labor off farm-----	_____	34	23
Miscellaneous-----	_____	7	5
Total-----	\$ _____	\$11268	\$ 8115
Cash Expenses			
Farm improvements-----	\$ _____	\$ 476	\$ 437
Horses-----	_____	24	33
Productive livestock: Cattle-----	_____	1500	830
Hogs-----	_____	156	208
Sheep-----	_____	57	4
Poultry-----	_____	51	47
Total productive livestock-----	()	(1764)	(1089)
Feed and grain purchases-----	_____	1597	978
Seed purchases and crop expense-----	_____	204	156
Machinery and equipment-----	_____	1013	1155
Automobile (farm Share)-----	_____	181	147
Livestock expense-----	_____	116	77
Hired labor-----	_____	577	399
Taxes-----	_____	242	218
Miscellaneous-----	_____	38	36
Total-----	\$ _____	\$ 6232	\$ 4725
Summary			
Cash balance-----	\$ _____	\$ 5037	\$ 3390
Farm products used in household-----	_____	341	296
Total inventory change-----	_____	1887	1290
Receipts less expenses-----	\$ _____	\$ 7265	\$ 4976
Total unpaid labor-----	_____	1125	1145
Returns for capital and management-----	\$ _____	\$ 6140	\$ 3831
Rate earned on investment-----	_____ %	20.6%	14.9%

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both manual and automated processes. The goal is to ensure that the data is as accurate and reliable as possible.

The third part of the document provides a detailed breakdown of the results. It shows that there has been a significant increase in sales over the period covered. This is attributed to several factors, including improved marketing strategies and better customer service.

Finally, the document concludes with a series of recommendations for future actions. It suggests that the company should continue to invest in its marketing efforts and focus on building long-term relationships with its customers.

Table 2.--Factors Helping to Analyze the Farm Business, Soil Conservation Cooperating and Nonconservation Cooperating Farms, Stephenson, Jo Daviess, and Winnebago Counties, Illinois, 1942

Item	Your farm	60 conservation farms	60 nonconservation farms
Acres in farm-----	_____	205	206
Acres in crops-----	_____	122	112
Gross receipts per acre-----	\$ _____	\$52.03	\$37.17
Total expense per acre-----	_____	22.08	18.54
Net receipts per acre-----	\$ _____	\$29.95	\$18.63
Investments			
Value of land per acre-----	\$ _____	\$ 64	\$ 56
Value of improvements per acre-----	_____	29	26
Total investments per acre-----	_____	145	125
Land Use			
Percent of land area tillable-----	_____	75	73
Percent of tillable land in crops---	_____	79	75
Percent of tillable land in:			
Corn-----	_____	29	27
Oats-----	_____	21	20
Soybeans-----	_____	3	3
Other crops-----	_____	6	6
Legume hay and pasture-----	_____	30	26
Nonlegume hay and pasture-----	_____	11	17
Soil-building legumes ^{a/} -----	_____	38	32
Crop Yields			
Corn, bu.-----	_____	75	66
Oats, bu.-----	_____	46	43
Barley, bu.-----	_____	27	32
Soybeans, bu.-----	_____	14	11
Crop-yield index ^{b/} -----	_____	104	96
Livestock Factors			
Value of feed fed productive l.s.---	\$ _____	\$ 5243	\$ 3861
Returns per \$100 feed fed prod. l.s.	_____	194	184
Number of cows milked-----	_____	16.8	14.6
Dairy returns per cow milked-----	\$ _____	\$ 148	\$ 135
Pounds of 3.5 milk per cow-----	_____	8186	6940
Number of litters farrowed-----	_____	19.5	13.9
Number of pigs weaned per litter---	_____	6.5	6.2
Returns per litter farrowed-----	\$ _____	\$ 241	\$ 228
Poultry returns per hen-----	_____	4.30	3.94
Pounds of beef produced per farm---	_____	17538	10283
Pounds of pork produced per farm---	_____	32931	21916
Pounds of mutton produced per farm--	_____	866	443
Total lb. meat produced per acre-	_____	250	159
Pounds of 3.5 milk produced per acre	_____	670	493
Expense Factors			
Horse and mach. cost per crop acre--	\$ _____	\$ 8.71	\$ 8.84
Man labor cost per crop acre-----	_____	13.97	13.80
Purchases of limestone, phosphate, and fertilizer-----	\$ _____	\$ 85	\$ 47

a/ Includes all biennial and perennial legumes and also soybeans and first-year sweet clover plowed under as a green manure crop.

b/ Average crop yields for all the 120 farm account-keeping farms in Stephenson, Jo Daviess, and Winnebago Counties in 1942 equal 100.

The following information was obtained from the records of the
 Department of the Interior, Bureau of Land Management, regarding
 the acquisition of the land described herein:
 The land was acquired by the United States Government
 under the provisions of the Act of March 3, 1879,
 entitled "An Act to provide for the disposal of
 the public lands in the State of California,"
 and the Act of August 9, 1896, entitled "An Act
 to amend an Act approved March 3, 1879, entitled
 'An Act to provide for the disposal of the public
 lands in the State of California.'"

Table 3.--Wartime Production Adjustments, Soil Conservation Cooperating and Nonconservation Cooperating Farms, Stephenson County, Illinois^{a/}

Item	1941	1942	Percent of change
Soil Conservation Cooperating Farms			
Tons of grain produced per farm-----	94.3	98.7	4.9
Lb. beef produced per farm-----	12609	14755	17.0
Lb. pork produced per farm-----	23744	30214	27.2
Lb. mutton produced per farm-----	513	412	-19.7
Total lb. meat produced per acre---	221	267	20.8
Lb. 3.5 milk produced per farm-----	125068	137849	10.2
Lb. 3.5 milk produced per acre-----	750	810	8.0
Lb. 3.5 milk produced per cow-----	7966	8780	10.2
Nonconservation Cooperating Farms			
Tons of grain produced per farm-----	90.0	92.8	3.1
Lb. beef produced per farm-----	10018	9955	-.6
Lb. pork produced per farm-----	23666	24197	2.2
Lb. putton produced per farm-----	180	155	-13.9
Total lb. meat produced per acre---	203	222	9.4
Lb. 3.5 milk produced per farm-----	113132	122258	8.1
Lb. 3.5 milk produced per acre-----	678	732	7.6
Lb. 3.5 milk produced per cow-----	7252	7594	4.7

a/ The figures for 1941 and 1942 are for identical conservation and nonconservation farms in Stephenson County. Similar production data were not available for Jo Daviess and Winnebago counties for 1941.

Table 4.--Average Per Acre Yields on the Contour and Not on the Contour, All Account-Keeping Farms, Stephenson, Jo Daviess and Winnebago Counties, Illinois, 1942

Item	On contour	Not on contour
Corn:		
Total acres-----	2037	4197
Yield, bu. per acre-----	77.2	70.4
Soybeans:		
Total acres-----	104	451
Yield, bu. per acre-----	17.2	14.2
Oats:		
Total acres-----	1230	3808
Yield, bu. per acre-----	49.5	44.4
Barley:		
Total acres-----	188	407
Yield, bu. per acre-----	32.8	30.0
Wheat:		
Total acres-----	21	55
Yield, bu. per acre-----	24.4	18.6

1911

The first part of the report deals with the general conditions of the country, and the second part with the details of the various districts. The first part is divided into two sections, the first of which deals with the general conditions of the country, and the second with the details of the various districts. The second part is divided into three sections, the first of which deals with the details of the various districts, the second with the details of the various districts, and the third with the details of the various districts.

The third part of the report deals with the details of the various districts, and the fourth part with the details of the various districts. The third part is divided into three sections, the first of which deals with the details of the various districts, the second with the details of the various districts, and the third with the details of the various districts. The fourth part is divided into three sections, the first of which deals with the details of the various districts, the second with the details of the various districts, and the third with the details of the various districts.

By E. L. Sauer and H. C. M. Case^{2/}

This report for the year 1942 is based on farm account records of cooperators in McLean County who are operating their farms in accordance with a planned program of soil conservation and erosion control and on the records of neighboring farmers who do not operate their farms under a planned soil conservation program. Because of the wartime emergency, this report has been kept brief and the data have been summarized in four tables.

A comparison of the investments, cash receipts, cash expenses, and earnings of conservation cooperating and nonconservation cooperating farms is presented in Table 1, and an analysis of the farm businesses of the two groups is shown in Table 2. A larger proportion of the tillable land of the conservation cooperating farms than of the nonconservation farms was in soybeans for grain, and a slightly larger proportion was in soil-building legumes. Because the conservation farmers followed soil conservation practices, used more manure, limestone, and phosphate, and used their cropland more nearly in accordance with its capabilities, their average crop yields were higher than those of the nonconservation farmers. These men also increased their livestock production more than did the nonconservation farmers; fed more livestock, particularly hogs and beef cattle; and produced more meat per farm and per acre. Even though the volume of production was large on the conservation farms, horse and machinery costs and man-labor costs per crop acre were lower on these farms than on the nonconservation farms. Total farm expenses per acre were 9 percent higher on the conservation than on the nonconservation farms, whereas the volume of meat and milk produced per acre was 74 percent higher.

A comparison of the adjustments made by the operators of conservation cooperating and nonconservation cooperating farms in gearing to wartime production is presented in Table 3. Grain production decreased on both groups of farms as a result of the wet, unfavorable harvesting season. A considerable acreage of the soybean crop remained unharvested in the fields at the time the records were secured. Meat production per acre increased on the conservation cooperating farms and decreased on the nonconservation group. Milk production per farm and per acre was relatively small on both groups of farms and decreased relatively more on the conservation farms.

Table 4 shows that contour-farming with terraces, contour-farming with buffer strips, strip-cropping, or contour-farming the entire field with the same crop (grass waterways are used in each instance) generally increases yields of crops needed for food and feed, as well as aids in controlling erosion.

A study of the results of the planned soil conservation program shows that it contributed materially toward increasing production on the conservation cooperating farms in order to meet wartime needs, in addition to helping to conserve the soil and keep it in shape for continued high production. The farm account records of these two groups of farmers offer ample proof that farmers in general can contribute most to increased production, and can also secure the most profitable farming returns, by following a sound, well-planned soil and water conservation and erosion-control program, which includes utilizing roughages and concentrates through efficient livestock production.

^{1/} The Department of Agricultural Economics, University of Illinois, College of Agriculture, and the Soil Conservation Service, U. S. Department of Agriculture, cooperated in this study.

^{2/} C. C. Morgan, Conservationist for the McLean County Soil Conservation District, cooperated in the organization and supervision of the farm account record study.

MEMORANDUM FOR THE DIRECTOR, FBI

Reference is made to the report of the [redacted] dated [redacted] and the report of the [redacted] dated [redacted].

The [redacted] has advised that [redacted] has been identified as a [redacted] of the [redacted] and is currently residing at [redacted].

It is noted that [redacted] has been identified as a [redacted] of the [redacted] and is currently residing at [redacted].

The [redacted] has advised that [redacted] has been identified as a [redacted] of the [redacted] and is currently residing at [redacted].

The [redacted] has advised that [redacted] has been identified as a [redacted] of the [redacted] and is currently residing at [redacted].

The [redacted] has advised that [redacted] has been identified as a [redacted] of the [redacted] and is currently residing at [redacted].

The [redacted] has advised that [redacted] has been identified as a [redacted] of the [redacted] and is currently residing at [redacted].

Table 1.--Investments, Cash Income, Cash Expenses, and Earnings, Soil Conservation Cooperating and Nonconservation Cooperating Farms, McLean County, Illinois, 1942

Item	Your farm	33 conservation farms	12 nonconservation farms
Capital Investments			
Land- - - - -	\$ _____	\$23776	\$16771
Farm improvements - - - - -	_____	4638	4770
Livestock - - - - -	_____	4037	2088
Feed and grain- - - - -	_____	4287	3335
Machinery and equipment - - - - -	_____	2455	1635
Total- - - - -	\$ _____	\$39193	\$28599
Cash Receipts			
Farm improvements - - - - -	\$ _____	\$ --	\$ --
Horses- - - - -	_____	37	23
Productive livestock: Cattle- - -	_____	2599	699
Dairy sales	_____	446	585
Hogs- - - - -	_____	3292	1345
Sheep - - - - -	_____	95	36
Poultry - - - - -	_____	184	234
Egg sales - - - - -	_____	226	204
Total productive livestock - - -	(_____)	(6842)	(3103)
Feed and grain- - - - -	_____	3583	3416
Machinery and equipment - - - - -	_____	216	60
Automobile (farm share) - - - - -	_____	15	8
AAA payments- - - - -	_____	551	254
Labor off farm- - - - -	_____	26	--
Miscellaneous - - - - -	_____	12	1
Total- - - - -	\$ _____	\$11282	\$ 6865
Cash Expenses			
Farm improvements - - - - -	\$ _____	\$ 513	\$ 259
Horses- - - - -	_____	40	29
Productive livestock: Cattle- - -	_____	1016	195
Hogs- - - - -	_____	90	157
Sheep - - - - -	_____	22	2
Poultry - - - - -	_____	47	59
Total productive livestock - - -	(_____)	(1175)	(413)
Feed and grain purchases- - - - -	_____	1342	591
Seed purchases and crop expense - - - - -	_____	225	148
Machinery and equipment - - - - -	_____	1262	944
Automobile (farm share) - - - - -	_____	176	132
Livestock expense - - - - -	_____	104	55
Hired labor - - - - -	_____	578	180
Taxes - - - - -	_____	376	303
Miscellaneous - - - - -	_____	42	34
Total- - - - -	\$ _____	\$ 5833	\$ 3088
Summary			
Cash balance- - - - -	\$ _____	\$ 5449	\$ 3776
Farm products used in household - - - - -	_____	309	273
Total inventory change- - - - -	_____	1197	-199
Receipts less expenses- - - - -	\$ _____	\$ 6955	\$ 3850
Total unpaid labor- - - - -	_____	1009	1219
Returns for capital and management	\$ _____	\$ 5946	\$ 3850
Rate earned on investment - - - - -	_____ %	15.2%	9.2%

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Table 2.--Factors Helping to Analyze the Farm Business, Soil Conservation Cooperating and Nonconservation Cooperating Farms, McLean County, Illinois, 1942

Item	Your farm	33 conserva- tion farms	12 nonconser- vation farms
Acres in farm- - - - -	_____	226	177
Acres in crops - - - - -	_____	174	133
Gross receipts per acre- - - - -	\$ _____	\$45.38	\$32.44
Total expense per acre - - - - -	_____	19.09	17.54
Net receipts per acre- - - - -	\$ _____	\$26.29	\$14.90
<u>Investments</u>			
Value of land per acre - - - - -	\$ _____	\$ 105	\$ 95
Value of improvements per acre - - -	_____	21	27
Total investments per acre - - - - -	_____	173	162
<u>Land Use</u>			
Percent of land area tillable- - - - -	_____	92	95
Percent of tillable land in crops- - -	_____	83	79
Percent of tillable land in:			
Corn - - - - -	_____	38	39
Oats - - - - -	_____	19	24
Soybeans - - - - -	_____	15	6
Other crops- - - - -	_____	2	3
Legume hay and pasture - - - - -	_____	18	15
Nonlegume hay and pasture- - - - -	_____	8	13
Soil-building legumes ^{a/} - - - - -	_____	18	15
<u>Crop Yields</u>			
Corn, bu.- - - - -	_____	66	55
Oats, bu.- - - - -	_____	43	37
Soybeans, bu.- - - - -	_____	20	23
Crop-yield index ^{b/} - - - - -	_____	105	94
<u>Livestock Factors</u>			
Value of feed fed productive l.s.- - -	\$ _____	\$ 3843	\$ 1912
Returns per \$100 feed fed productive l.s.	_____	164	160
Number of cows milked- - - - -	_____	5.7	6.8
Dairy returns per cow milked - - - -	\$ _____	\$ 95	\$ 100
Pounds of 3.5 milk per cow - - - - -	_____	5583	5847
Number of litters farrowed - - - - -	_____	18.6	7.7
Number of pigs weaned per litter - - -	_____	6.2	6.5
Returns per litter farrowed- - - - -	\$ _____	\$ 199	\$ 189
Poultry returns per hen- - - - -	\$ _____	\$ 4.27	\$ 4.56
Pounds of beef produced per farm - - -	_____	10388	3751
Pounds of pork produced per farm - - -	_____	25975	9911
Pounds of mutton produced per farm - -	_____	505	198
Total lb. meat produced per acre-	_____	163	79
Pounds of 3.5 milk produced per acre	_____	141	225
<u>Expense Factors</u>			
Horse and mach. cost per crop acre -	\$ _____	\$ 6.79	\$ 7.04
Man labor cost per crop acre - - - -	_____	9.05	10.53
Purchases ^{a/} of limestone, phosphate, and fertilizer - - - - -	\$ _____	\$ 152	\$ 56

a/ Includes all biennial and perennial legumes and also soybeans and first-year sweet clover plowed under as a green manure crop.

b/ Average crop yields for all the 45 farm account-keeping farms in McLean County in 1942 equal 100.

Table 3.--Wartime Production Adjustments, Soil Conservation Cooperating and Nonconservation Cooperating Farms, McLean County, Illinois^{a/}

Item	1941	1942	Percent of change
Soil Conservation Cooperating Farms			
Tons of grain produced per farm - - - -	195.8	194.2	-.8
Lb. beef produced per farm- - - - -	13605	10388	-23.6
Lb. pork produced per farm - - - - -	19856	25975	30.8
Lb. mutton produced per farm- - - - -	668	505	-24.4
Total lb. meat produced per acre - -	149	163	9.4
Lb. 3.5 milk produced per farm- - - - -	37755	31823	-15.7
Lb. 3.5 milk produced per acre- - - - -	165	141	-14.5
Lb. 3.5 milk produced per cow - - - - -	6399	5583	-12.8
Nonconservation Cooperating Farms			
Tons of grain produced per farm - - - -	136.1	134.7	-1.0
Lb. beef produced per farm- - - - -	5421	3751	-30.8
Lb. pork produced per farm- - - - -	8971	9910	10.5
Lb. mutton produced per farm- - - - -	286	198	-30.8
Total lb. meat produced per acre - -	82	79	-3.7
Lb. 3.5 milk produced per farm- - - - -	43450	39754	-8.5
Lb. 3.5 milk produced per acre- - - - -	243	225	-7.4
Lb. 3.5 milk produced per cow - - - - -	6685	5846	-12.6

a/ The figures for 1941 and 1942 are for identical conservation and nonconservation farms.

Table 4.--Average Per Acre Yields on the Contour and Not on the Contour, on the Same Farms, McLean County, Illinois, 1942

Item	On contour	Not on contour
Corn (10 farms):		
Total acres- - - - -	188	513
Yield, bu. per acre- - -	75.2	60.7
Soybeans (3 farms):		
Total acres- - - - -	39	85
Yield, bu. per acre- - -	24.9	23.6
Oats (4 farms):		
Total acres- - - - -	76	124
Yield, bu. per acre- - -	35.5	33.1

SUMMARY OF FARM ACCOUNT RECORD STUDY ON THE ECONOMICS OF SOIL CONSERVATION,
ST. CLAIR COUNTY, ILLINOIS, 1942^{1/}

By E. L. Sauer and H. C. M. Case^{2/}

This report for the year 1942 is based on farm account records of cooperators in the St. Clair County (Shiloh-0'Fallon) Soil Conservation District who are operating their farms in accordance with a planned program of soil conservation and erosion control and on the records of neighboring farmers who do not operate their farms under a planned soil conservation program. Because of the wartime emergency, this report has been kept brief and the data have been summarized in only four tables.

A comparison of the investments, cash receipts, cash expenses, and earnings of conservation cooperating and nonconservation cooperating farms is presented in Table 1, and an analysis of the farm businesses of the two groups of farms is shown in Table 2. A smaller proportion of the tillable land of the conservation cooperating farms than of the nonconservation farms was in crops, and a larger proportion was in hay and pasture and in soil-building legumes. Because the conservation farmers used their cropland more nearly in accordance with its capabilities, used more manure, limestone, and phosphate, and followed soil conservation practices, their average crop yields were higher than those of the nonconservation farmers. The conservation farmers also increased their livestock production more than did the other group of farmers; fed more livestock, particularly of the roughage-consuming classes; and produced more milk and meat per farm and per acre. As a result of the larger volume of livestock production on these farms, horse and machinery costs and man-labor costs per crop acre also were higher. Total farm expenses were 16 percent higher, and the volume of meat and milk production was 33 percent higher than that of the nonconservation farms.

A comparison of the adjustments to wartime production made by conservation cooperating and nonconservation cooperating farms is presented in Table 3. Grain production decreased on both groups of farms because of the wet, unfavorable season, which resulted in a poor wheat crop and low yields of all small grains. Meat production per acre increased slightly more on the conservation cooperating farms than on the nonconservation farms; milk production increased materially on the conservation farms and declined materially on the latter group of farms.

Table 4 shows that contour-farming with terraces, contour-farming with buffer strips, strip-cropping, or contour-farming the entire field with the same crop (grass waterways are used in each instance) generally increases yields of crops needed for food and feed, as well as aids in controlling erosion.

A study of the results of the planned soil conservation program shows that it contributed materially toward increasing production in order to meet wartime needs, as well as aided in conserving soil and keeping it in shape for continued high production. The farm account records offer ample proof that farmers can contribute most to increased production, and also secure most profitable farming returns, by following a sound, well-planned soil and water conservation and erosion control program, which includes utilizing roughages and concentrates through efficient livestock production.

^{1/} The Department of Agricultural Economics, University of Illinois College of Agriculture, the St. Clair County Farm Bureau, and the Soil Conservation Service, U. S. Department of Agriculture, cooperated in this study.

^{2/} B. W. Tillman, St. Clair County Farm Adviser, cooperated in the organization and supervision of the study.

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Table 1.--Investments, Cash Receipts, Cash Expenses, and Earnings, Soil Conservation Cooperating and Nonconservation Cooperating Farms, St. Clair County, Illinois, 1942

Item	Your farm	16 conservation farms	16 nonconservation farms
Capital Investments			
Land-----	\$ _____	\$13 322	\$12 781
Farm improvements-----	_____	4 555	3 172
Livestock-----	_____	3 165	1 894
Feed and grain-----	_____	2 949	1 786
Machinery and equipment-----	_____	2 705	2 328
Total-----	\$ _____	\$26 696	\$21 961
Cash Receipts			
Farm improvements-----	\$ _____	\$ --	\$ 7
Horses-----	_____	95	13
Productive livestock: Cattle-----	_____	1 315	433
Dairy sales-----	_____	1 728	1 055
Hogs-----	_____	1 780	1 807
Sheep-----	_____	61	--
Poultry-----	_____	149	230
Egg sales-----	_____	456	607
Total productive livestock-----	()	(5 489)	(4 132)
Feed and grain-----	_____	1 283	1 274
Machinery and equipment-----	_____	87	62
Automobile (farm share)-----	_____	24	5
AAA payments-----	_____	222	166
Labor off farm-----	_____	8	7
Miscellaneous-----	_____	33	6
Total-----	\$ _____	\$ 7 241	\$ 5 672
Cash Expenses			
Farm improvements-----	\$ _____	\$ 390	\$ 301
Horses-----	_____	93	29
Productive livestock: Cattle-----	_____	505	144
Hogs-----	_____	134	49
Sheep-----	_____	2	--
Poultry-----	_____	45	59
Total productive livestock-----	()	(686)	(252)
Feed and grain purchases-----	_____	902	1 107
Seed purchases and crop expense-----	_____	209	203
Machinery and equipment-----	_____	956	1 031
Automobile (farm share)-----	_____	129	71
Livestock expense-----	_____	101	64
Hired labor-----	_____	423	350
Taxes-----	_____	248	224
Miscellaneous-----	_____	35	30
Total-----	\$ _____	\$ 4 172	\$ 3 662
Summary			
Cash balance-----	\$ _____	\$ 3 069	\$ 2 010
Farm products used in household-----	_____	415	433
Total inventory change-----	_____	30	1 161
Receipts less expenses-----	\$ _____	\$ 3 514	\$ 3 604
Total unpaid labor-----	_____	1 249	1 376
Returns for capital and management-----	\$ _____	\$ 2 265	\$ 2 228
Rate earned on investment-----	_____ %	8.5%	10.1%

Table 2.--Factors Helping to Analyze the Farm Business, Soil Conservation Cooperating and Nonconservation Cooperating Farms, St. Clair County, Illinois, 1942

Items	Your farm	16 conser- vation farms	16 nonconser- vation farms
Acres in farm-----	_____	212	218
Acres in crops-----	_____	127	136
Gross receipts per acre-----	\$ _____	\$ 29.79	\$ 26.66
Total expense per acre-----	_____	19.11	16.46
Net receipts per acre-----	\$ _____	\$ 10.68	\$ 10.20
Investments			
Value of land per acre-----	\$ _____	\$ 63	\$ 58
Value of improvements per acre-----	_____	21	15
Total investments per acre-----	_____	126	101
Land Use			
Percent of land area tillable-----	_____	84	78
Percent of tillable land in crops---	_____	71	79
Percent of tillable land in:			
Corn-----	_____	19	21
Oats-----	_____	11	13
Wheat-----	_____	13	23
Soybeans-----	_____	9	7
Other crops-----	_____	11	12
Legume hay and pasture-----	_____	29	17
Nonlegume hay and pasture-----	_____	8	7
Soil-building legumes ^{a/} -----	_____	30	22
Crop Yields			
Corn, bu.-----	_____	50	44
Oats, bu.-----	_____	30	26
Wheat, bu.-----	_____	14	15
Soybeans, bu.-----	_____	16	14
Crop-yield index ^{b/} -----	_____	103	97
Livestock Factors			
Value of feed fed productive l.s.---	\$ _____	\$ 2 663	\$ 2 360
Returns per \$100 feed fed prod. l.s.	_____	210	204
Number of cows milked-----	_____	10.5	9.0
Dairy returns per cow milked-----	\$ _____	\$ 172	\$ 128
Pounds of 3.5 milk per cow-----	_____	7 737	4 533
Number of litters farrowed-----	_____	9.0	10.9
Number of pigs weaned per litter---	_____	6.6	6.1
Returns per litter farrowed-----	\$ _____	\$ 228	\$ 200
Poultry returns per hen-----	_____	4.34	4.28
Pounds of beef produced per farm---	_____	8 021	33405
Pounds of pork produced per farm---	_____	14 864	13 787
Pounds of mutton produced per farm--	_____	511	--
Total lb. meat produced per acre--	_____	110	79
Pounds of 3.5 milk produced per acre	_____	383	187
Expense Factors			
Horse and mach. cost per crop acre--	\$ _____	\$ 10.15	\$ 8.18
Man labor cost per crop acre-----	_____	13.04	12.69
Purchases of limestone, phosphate, and fertilizer-----	\$ _____	\$ 92	\$ 39

a/ Includes all biennial and perennial legumes and also soybeans and first-year sweet clover plowed under as a green manure crop.

b/ Average crop yields for all the 32 farm account-keeping farms in St. Clair County in 1942 equal 100.

Table 3.--Wartime Production Adjustments, Soil Conservation Cooperating and Nonconservation Cooperating Farms, St. Clair County, Illinois^{a/}

Item	1941	1942	Percent of change
<u>Soil Conservation Cooperating Farms</u>			
Tons of grain produced per farm-----	87	69	-20.4
Lb. beef produced per farm-----	7 300	8 021	9.9
Lb. pork produced per farm-----	13 235	14 864	12.3
Lb. mutton produced per farm-----	525	511	-2.7
Total lb. meat produced per acre-----	99	110	10.6
Lb. 3.5 milk produced per farm-----	75 780	81 240	7.2
Lb. 3.5 milk produced per acre-----	358	383	7.0
<u>Nonconservation Cooperating Farms</u>			
Tons of grain produced per farm-----	97	78	-19.4
Lb. beef produced per farm-----	3 605	3 405	-5.5
Lb. pork produced per farm-----	12 518	13 787	10.1
Lb. mutton produced per farm-----	0	0	--
Total lb. meat produced per acre-----	73	79	8.2
Lb. 3.5 milk produced per farm-----	58 628	40 793	-30.4
Lb. 3.5 milk produced per acre-----	265	187	-29.4

a/ The figures for 1941 and 1942 are for identical conservation and non-conservation farms.

Table 4.--Average Per Acre Yields on the Contour and Not on the Contour, All Account-Keeping Farms, St. Clair County, Illinois, 1942

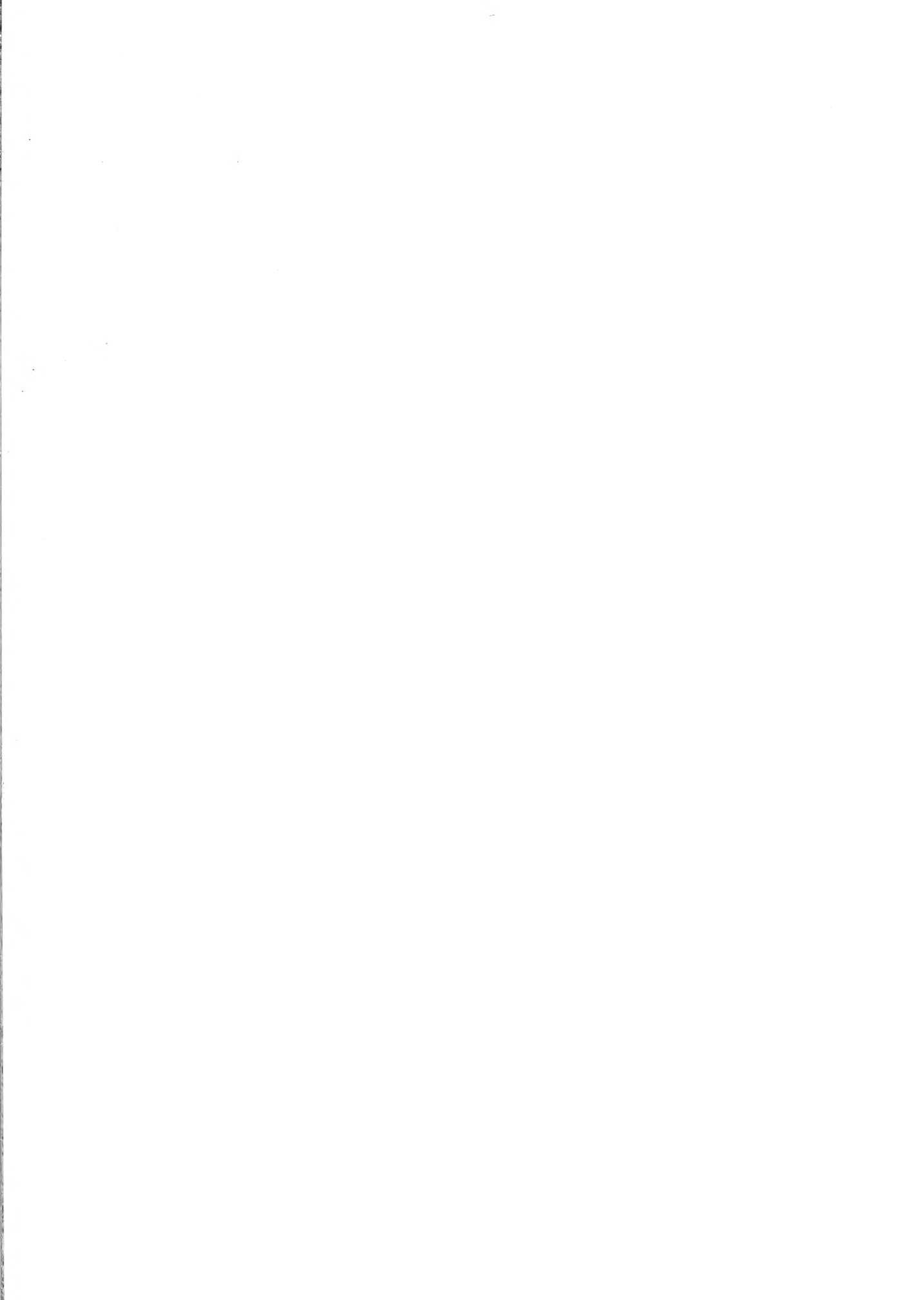
Item	On contour	Not on contour
<u>Corn:</u>		
Total acres-----	112	785
Yield, bu. per acre-----	54.8	45.3
<u>Soybeans:</u>		
Total acres-----	62	253
Yield, bu. per acre-----	27.2	16.3
<u>Oats:</u>		
Total acres-----	40	553
Yield, bu. per acre-----	28.5	29.0
<u>Winter Barley:</u>		
Total acres-----	25	238
Yield, bu. per acre-----	15.0	14.4
<u>Wheat:</u>		
Total acres-----	100	837
Yield, bu. per acre-----	14.9	14.5

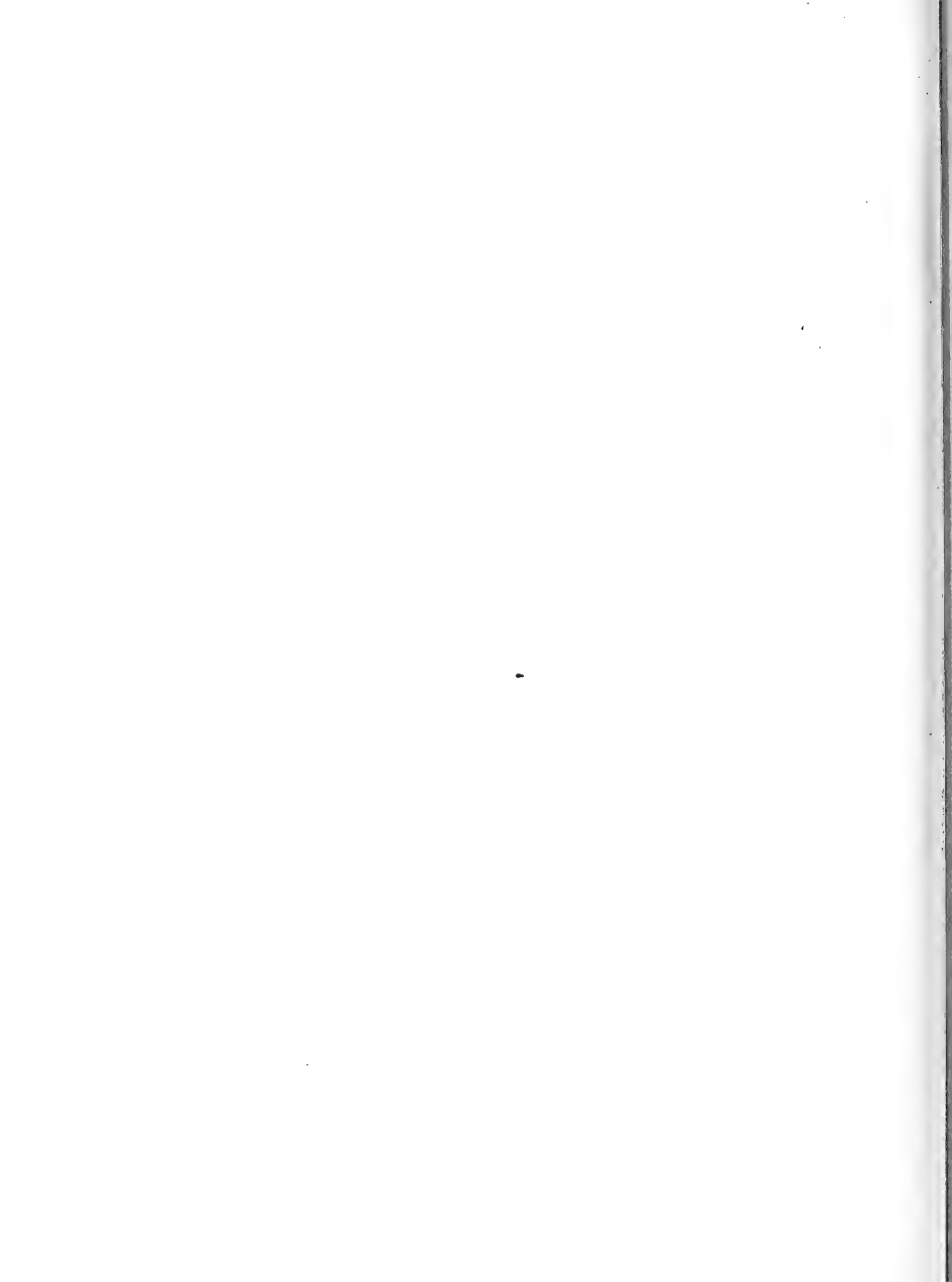
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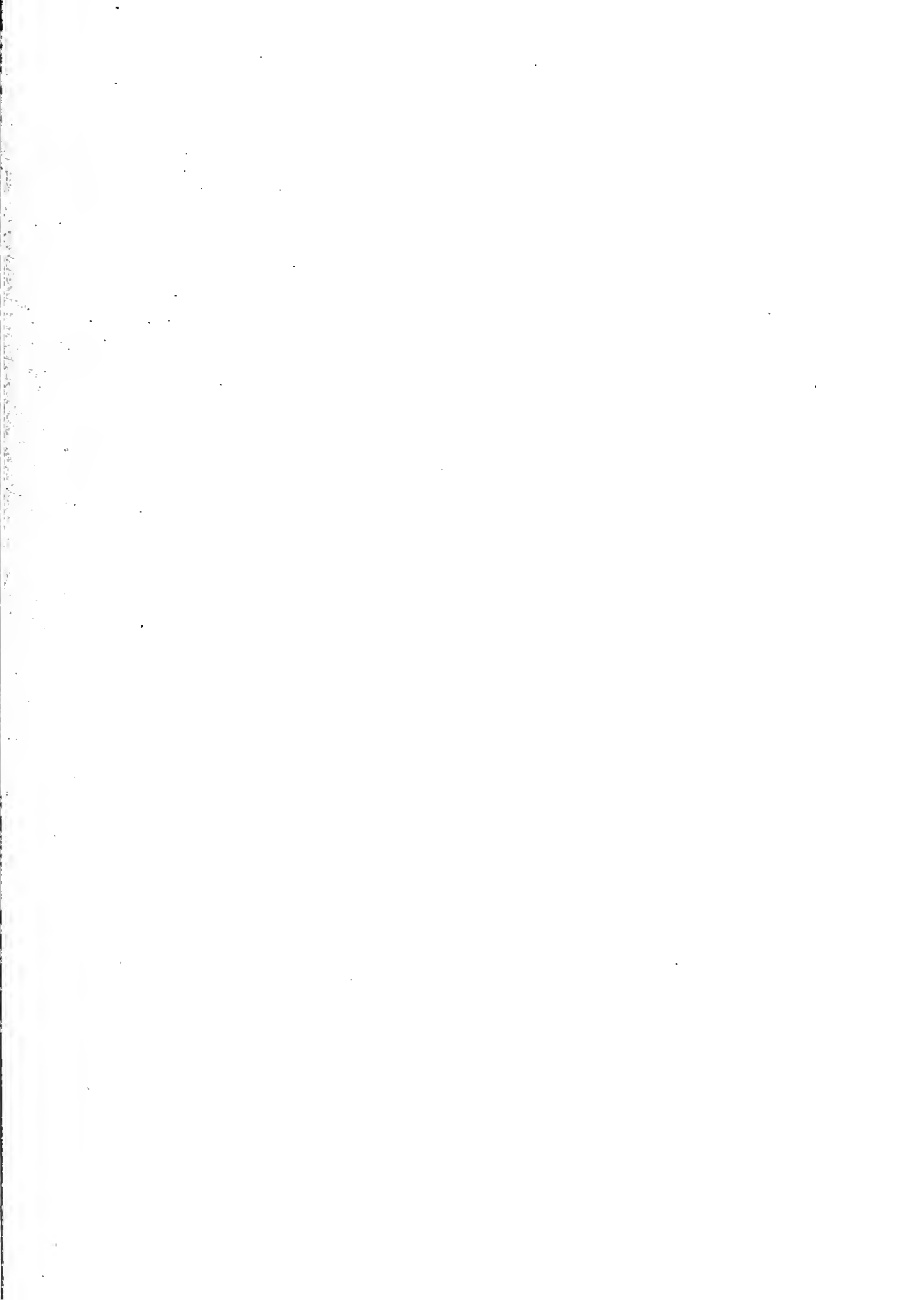
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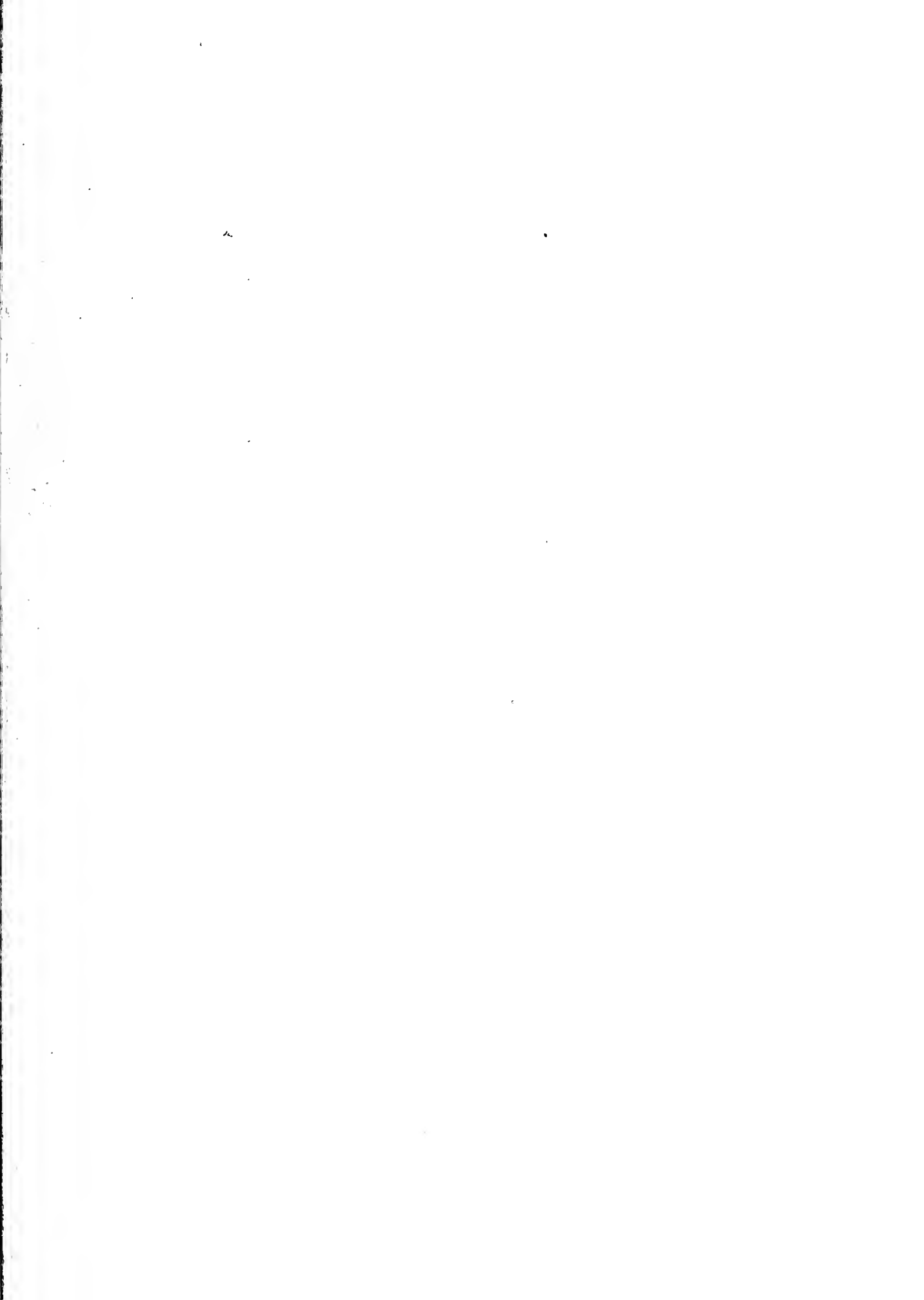
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