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1973

49th annual

SUMMARY OF ILLINOIS FARM BUSINESS RECORDS



Commercial Farms:

PRODUCTION
COSTS
INCOME
INVESTMENTS

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
COLLEGE OF AGRICULTURE
COOPERATIVE EXTENSION SERVICE
CIRCULAR 1097

Source of Data

This report is based on data obtained from farm business records on 7,036 Illinois farms. It is the 49th in a series of annual summaries of such records obtained from farmers cooperating with the University of Illinois Cooperative Extension Service, the Department of Agricultural Economics, and the Illinois Farm Business Farm Management Association.

At present about 1 out of every 4 commercial farmers with \$40,000 or more of gross sales in Illinois is enrolled in this service. The service has grown steadily, and in 1974 there are 10 associations in 102 counties served by 45 full-time fieldmen. Participation in this farm business analysis program is voluntary, and cooperating farmers pay a fee for the educational services received.

The development since 1940 is shown by the following figures:

Year	Associa- tions	Counties partici- pating	Fieldmen employed	Farmers enrolled
1940.....	3	23	3	680
1950.....	8	59	15	2,760
1960.....	10	100	33	5,494
1970.....	10	102	42	6,553
1973.....	10	102	45	6,835

Over 85 percent of the 6,835 farms in this report fall within the size of business of Economic Class I and II as defined in the 1969 Census of Agriculture. These two classes include farms selling \$20,000 or more of farm products a year.

The segment of Illinois agriculture that includes farms with more than \$10,000 in sales per farm is often referred to as "commercial farming." In 1969, there were 67,586 farms in Illinois with more than \$10,000

of product sales. The figures that follow, taken from the 1969 Census of Agriculture, show these farms represented 55 percent of the total number of farms and produced 92 percent of the agricultural products sold from Illinois farms.

Sales per farm (thousands of dollars)	Percent of total value of agricultural production	Percent of total farms	Percent of census farms enrolled in FBFM	Number of farms enrolled in FBFM
80 and over.....	22.8	3.4	31.2	1,324
40 to 79.....	27.0	10.0	21.4	2,663
20 to 39.....	28.1	20.9	6.6	1,718
10 to 19.....	14.0	20.3	1.4	374

Although the record-keeping farms in this report are largely within the first three sales-per-farm classes, the figures above show they are not proportionately distributed among the groups. There were 4,253 Illinois farms identified with more than \$80,000 in sales. Nearly one-third (31.2 percent) of these farms were enrolled in the Illinois Farm Business Farm Management Association. Of the 12,377 farms that sold from \$40,000 to \$79,999 of products, 21.4 percent participated in the farm record program. Only 4 percent of the farms with sales ranging from \$10,000 to \$40,000 were enrolled.

The data presented in this report are group averages identified by size of business, type of farm, and quality of soil found on the farm. Where segments of Illinois agriculture are identified by these criteria, the data from record-keeping farms may be used with reasonable confidence, even though the record-keeping farms as a group do not represent a cross-section of all commercial farms in the state.

Uses for This Report

The management of a modern commercial farm involves decision-making in the application of technology, the choice of a proper combination of crop and livestock enterprises, and effective business administration of the farming operations. A basic farm business analysis involves a careful study of past performance to detect problem areas and strengths in the farming operation. Also involved is the process of planning and developing future operations to attain the full potential of the land, labor, and capital resources available and to improve economic efficiency of the farm business.

The farm business summaries contained in this report are used by individual farmers to analyze their business operations and as a basis on which to develop plans for future farming operations. This report summarizes the information so that specialists working in agricultural extension, research, teaching, and agribusiness activities may use the data to assist them in the effective performance of their duties.

The data are presented in three sections. In the first part of the report (Tables 1 to 5) recent changes in farm income on Illinois farms are summarized. Economic forces and factors that contribute to these changing trends are identified.

In the second section, detailed livestock enterprise data are presented. These data (Tables 6 to 15) provide comprehensive and detailed information for use as resource data by all who are interested in livestock production. Because a large proportion of the feed grains and roughages produced on Illinois farms is marketed through livestock, the margins of income from livestock enterprises are important in interpreting the economic results of farming operations.

The third section (Tables 16 to 20a) reports costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern and southern Illinois. The definitions of terms and accounting measures that precede these tables will aid in using the data.

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SUMMARY OF ILLINOIS FARM BUSINESS RECORDS, 1973

Farm business trends in 1973

Illinois agriculture is based largely on crop production, especially the corn and soybean crops. The total value of corn and soybeans produced on Illinois farms in 1972 was 20 percent of the total United States production for these crops. It was also 52 percent of the total cash farm income in Illinois from all farm commodities and 90 percent of the cash income from all crops sold by Illinois farmers. The cash contribution from soybeans surpassed that from corn for the first time in 1972.

Crops. Year-to-year variations in net farm income are related to crop yields and grain prices. In 1973 grain prices were extremely variable and were more important than the change in crop yields as a determinant of net farm income. Prices received for corn and soybeans averaged 30 to 40 percent higher than 1972 (Table 15). The Illinois all-crop production index, at 158 percent of its 1957-59 base, was unchanged from the record high index established in 1971 and 1972. Yields of all crops were below the 1972 yields, but increased crop acreage kept the production index at the same level in spite of the lower yields.

In 1973 the state had above normal temperatures and 10 to 20 inches above normal annual precipitation. Far western and southern areas of the state had more than 20 inches above normal precipitation. May was wet and cold, June wet and warm, July wet and cold, and August dry and hot, with a heat wave engulfing the state for the last part of August and first part of September.

Dry conditions following harvest resulted in above normal amounts of fall plowing and fertilizer applications for the 1974 crop. This combined with the adverse fall weather one year earlier resulted in more than one year's expenditures for fuel and fertilizer being recorded in the 1973 record.

Corn yields for the state in 1973, as recorded by the Illinois Crop Reporting Service, were 103 bushels per acre, compared to the record high of 110 bushels per acre in 1972. Soybean yields were 32 bushels per acre, 3 bushels per acre lower than the record high yield of 1972. Acreage harvested for corn was up 5 percent from 1972, while soybean acreage was up 23 percent.

Livestock. A second major determinant of change in farm income is the price farmers receive for livestock and livestock products. Market prices received by farm record keepers in 1973 were extremely variable depending on the time of year that the livestock were sold. Market prices received for hogs averaged 51% higher than 1972, 26% higher for fed cattle, 18% higher for milk, and 89% higher for eggs. The annual

increases in average market prices received in 1973 were record highs for all enterprises except dairy—the second year for such increases. The past two years have been an unusual period—one in which prices increased faster than the cost of production.

Labor and management earnings

The 1971-73 average operator's share of labor and management earnings from all record-keeping farms north of a line from Mattoon to Alton (northern and central Illinois) was \$23,266 per farm. Operators on 1,730 grain and hog farms in this area and south of a line from Kankakee to Moline (central Illinois) had a three-year average earnings of \$25,813 (Table 1). The smaller sizes of farms and variable soil quality in northern Illinois contributed to lower earnings from crops. These farms had lower crop yields and averaged 388 tillable acres per farm compared with 481 tillable acres on central Illinois farms. There was considerable variation in these earnings depending on location and type of farm. Data for southern Illinois is for 1973

Table 1.—Operator's Share of Labor and Management Earnings by Size and Type of Farm (1971-73 Average)^d

	Number of Acres per Farm			
	Under 340	340-649	650+	All
NORTHERN ILLINOIS				
Acres of tillable land	214	434	800	388
Labor and management earnings by type of farm				
Grain	\$10,454	\$19,578	\$33,842	\$19,861
Hog	18,341	26,596	...	21,849
Beef ^c	10,410	18,351	31,368	17,410
Dairy ^e	8,885	14,849	...	10,706
All	11,686	19,907	33,150	18,035
CENTRAL ILLINOIS				
Acres of tillable land	242	447	812	481
Labor and management earnings by type of farm				
Grain (86-100 SPR) ^a	\$14,294	\$23,341	\$41,401	\$26,235
Grain (56-85 SPR) ^b	12,264	20,695	35,891	23,293
Hog	22,874	35,458	...	30,443
All	16,140	24,409	39,259	25,813
SOUTHERN ILLINOIS				
Acres of tillable land	234	438	789	454
Labor and management earnings by type of farm ^d				
Grain	\$23,296	\$30,616	\$51,972	\$36,708
Hog	32,162	55,905	...	47,989
Dairy	21,904	32,502	...	24,380
All	25,084	37,758	51,972	37,311

^a Highly productive soils.
^b Heavy till and transition soils.
^c Includes central Illinois.
^d 1973 average only for southern Illinois.
 SPR: soil productivity rating.

only, since the previous two years of data were not available. Earnings were at record high levels in 1973.

These earnings (salary) for the operator of the farm — whether tenant, part-owner, or owner-operator — were for the labor and management performed by the operator. They included the operator's gross sales and net change in inventory reduced by all expenses for items purchased, including interest paid; a charge for the unpaid family labor used; a 7-percent interest charge on equity in assets other than land; and a 5-percent charge on equity in land. These record-keeping farms are larger in size than the average size of all farms in the area. The earnings do not include the rental value of dwellings on rented farms or income from nonfarm sources.

Income changes on Illinois farms

Comparative costs and returns between years and among major types of farming in northern and southern Illinois are reported in Tables 3 to 5. The separation of farms into northern and southern Illinois is based on soil-type regions, and divides the state approximately on an east-west line from Mattoon to Alton. The sample of farms ranged between 340 and 499 acres in size for grain, hog, and beef farms, and averaged about 417 acres. The dairy farms ranged between 260 and 339 acres in size, and averaged 298 acres. Labor available on farms of this size averaged 15 months on grain farms, 19 months on hog and beef farms, and 21 months on dairy farms. The data in these tables are presented as if the farms were all owner-operated. Landlord and tenant shares of the business were combined where farms were leased.

Size of farm, type of farm, quality of soil, and managerial inputs were held reasonably constant over time by the sampling procedure used in selecting farms within each type of farm. Variations among 1972, 1973, and the 5-year average are due to changes in farm prices and costs, weather, and internal farming adjustments made within each system of farming. The data in these tables are particularly helpful for evaluating changes in farm costs and returns within a particular size and type of farm, and in making comparisons between types of farming. The data do not reflect overall farming adjustments resulting from farm enlargement or major changes in resource use.

The farm and family earnings measure includes returns to the farm family for all unpaid labor, interest on invested capital, and managerial inputs used in farming. Changes in value of farm inventories and value of farm products consumed are included as income. Farm and family earnings are calculated by accounting methods that are generally comparable to the accrual method of calculating taxable farm income for the federal income tax. Important differences in accrual income tax accounting methods are the provision for capital gains on livestock sales and the inclusion of interest paid as a farm expense.

The farm and family earnings figure is the amount available from the farm business to pay for living costs, income and social security taxes, interest, debt repayment, new investments, and to increase savings. Purchases of new capital investments for the farm business have been included with total cash expenditures. Although the cash balance figure reflects the cash position of the farm business, it is influenced by purchases and sales of feed and livestock and by changes in liabilities and borrowed funds.

The investment per farm is established as of January 1 of each year. Physical quantities of grain and livestock are valued at farm market prices. Machinery, buildings, and soil fertility are valued at remaining capital cost (original cost less depreciation charged to date). Land is priced at current values. A basic value is established for each farm, based on a soil-productivity rating, and is adjusted to a current value each year by using the March index of land prices in Illinois. All soil-productivity ratings were revised in 1971 to reflect a basic level of management as outlined in University of Illinois Cooperative Extension Service Circular 1016, Productivity of Illinois Soils, and new land values were assigned. The change in land values represents an accounting adjustment to bring land values to current market levels. The land value index for 1973, using a base earning value of 1970 = 100, was 121. This was 15 percent higher than the index used in 1972.

Northern Illinois farms

Grain farms. Farm and family earnings on northern Illinois grain farms (340-499 acres) in 1973 averaged \$67,277 with operator and landlord shares combined (see Table 3). This is \$28,849 above 1972 earnings. Crop yields were lower but prices boosted crop values. Cash operating expenses were up 21% from 1972. The management returns in 1973 were three times the 1969-73 average. This is the most common size and type of farm in the record-keeping program.

Corn and soybeans are the major crops produced on these farms. A comparison of the 1973 cost per acre to grow corn and soybeans with the 1970-73 average cost is shown in Table 2. In 1973, these costs averaged \$167 per acre for corn and \$143 per acre for soybeans. Costs have been increasing about \$12 per acre each year. About half of this increase has been in the higher interest charge on land, while the remainder was in chemical, seed, labor, and machinery costs. The increase in per-acre corn yields has been important in holding down the increase in cost per bushel of corn produced.

The soil-fertility cost for soybeans was allocated on the basis of P, K, and lime removals, with the residual cost allocated to corn. The seed, crop, and drying expenses included seed, herbicides, insecticides, and drying fuel purchased, plus the cost of commercial dry-

Table 2. — Average Cost per Tillable Acre To Grow Corn and Soybeans on 411 Central Illinois Farms With No Livestock

	Corn		Soybeans	
	1970-73 average	1973	1970-73 average	1973
Acres grown per farm.....	267	263	215	279
Yield per acre (bu.).....	124	130	42	40
Variable costs				
Soil fertility.....	\$ 19	\$ 26 ^a	\$ 8	\$ 9
Seed, crop, and drying....	14	15	13	17
Repairs, fuel, and hire....	14	14	10	12
Total, variable costs.....	\$ 47	\$ 55	\$ 31	\$ 38
Other costs				
Labor.....	\$ 17	\$ 18	\$ 17	\$ 18
Buildings and storage....	5	5	3	3
Machinery depreciation..	14	15	12	13
Taxes.....	11	12	11	12
Interest (bare land).....	34	43	34	43
Interest (nonland).....	12	14	9	11
Overhead.....	4	5	4	5
Total, other costs.....	\$ 97	\$112	\$ 90	\$105
Total, all costs.....	\$144	\$167	\$121	\$143
Cost per bushel.....	\$ 1.16	\$ 1.28	\$ 2.89	\$ 3.57

^a Some farmers applied and paid for more than one year's supply in 1973.

ing and storage, and the estimated value of home-raised seed used. Total unpaid labor charge was based on the labor available. The interest charge on bare land was based on a value of \$860 per acre. The nonland interest rate was 7 percent of the inventory value of crops on hand and the remaining capital cost of machinery and buildings.

Hog farms. Farm and family earnings on northern Illinois hog farms (340-499 acres) in 1973 averaged \$83,166 with operator and landlord shares combined (Table 3). This is \$34,636 above the 1972 earnings. Most of this increase resulted from the \$13.42 higher average price for all hogs sold and the higher price for all grain and feed crops inventoried at the end of the year. Crop yields were slightly lower than the previous year.

The improved cash position on this type of farm resulted in a \$7,000 increase per farm in capital purchases over 1972. Cash operating expenses increased 23 percent. These farms produced an average of 141 litters in 1973 compared with 145 in 1972. Returns on this type of farm have gone from a record low in 1970 to a record high in 1973. The 1969-73 average manage-

Table 3. — Average Selected Total Farm Items on 340- to 499-Acre Northern Illinois Grain, Hog, and Beef Farms

	Grain farms			Hog farms			Beef farms		
	1973	1972	1969-73 average	1973	1972	1969-73 average	1973	1972	1969-73 average
Number of farms.....	657	705	465	117	141	123	53	69	67
Total acres.....	421	421	418	409	408	408	402	404	405
Soil-productivity rating ^a	86	86	82	79	80	77	82	81	79
Total cash sales.....	\$84,285	\$65,511	\$59,655	\$144,425	\$102,307	\$95,567	\$198,798	\$151,674	\$146,832
Less purchased feed and livestock.....	9,390	7,518	6,856	48,940	31,974	30,587	134,227	93,142	91,818
Net cash sales.....	74,895	57,993	52,799	95,485	70,333	64,980	64,571	58,532	55,014
Inventory change.....	27,093	9,191	9,530	35,457	17,041	12,718	34,918	17,229	15,748
Farm products consumed.....	193	144	145	430	254	306	665	601	504
Value of farm production.....	102,181	67,328	62,474	131,372	87,628	78,004	100,154	76,362	71,266
Cash operating expenses.....	27,044	22,112	21,447	35,887	29,275	27,637	33,797	27,625	27,752
Annual depreciation.....	7,860	6,788	6,346	12,319	9,823	9,258	11,958	10,813	9,836
Farm and family earnings.....	67,277	38,428	34,681	83,166	48,530	41,109	54,399	37,924	33,678
Unpaid labor charge.....	7,164	6,519	5,933	7,986	7,320	6,750	7,639	7,032	6,452
Returns to capital and management.....	60,113	31,909	28,748	75,180	41,210	34,359	46,760	30,892	27,226
Interest charge on capital.....	21,445	18,666	16,170	22,254	18,957	16,747	27,209	23,240	20,628
Management returns.....	38,668	13,243	12,578	52,926	22,253	17,612	19,551	7,652	6,598
Total cash income ^b	84,660	65,890	59,906	144,636	102,612	95,986	199,310	152,540	147,229
Total cash expenditures ^b	49,587	39,030	36,222	105,756	74,361	70,736	190,934	136,355	133,170
Cash balances.....	35,073	26,860	23,684	38,880	28,251	25,250	8,376	16,185	14,059
FARM INVESTMENT									
Livestock inventory.....	\$ 9,363	\$ 8,699	\$ 7,542	\$ 42,877	\$ 32,323	\$31,066	\$ 99,281	\$75,483	\$ 69,320
Grain inventory.....	36,806	30,671	27,554	29,007	23,557	23,789	30,205	26,413	27,141
Remaining capital cost in									
Machinery and auto.....	17,283	15,686	15,654	21,400	19,190	19,832	21,262	21,989	20,849
Buildings and fence.....	17,813	16,892	16,911	34,892	31,315	29,071	44,757	38,057	38,111
Soil fertility.....	9	18	26	1	6	24	90	12	48
Value of land (current basis) ^a	315,106	272,573	265,667	265,629	230,199	226,433	270,338	238,056	238,816
Total farm investment.....	396,380	344,539	333,354	393,806	336,590	330,215	465,933	400,010	394,285

^a All soil productivity ratings were revised in 1971 to reflect basic level of management as outlined in University of Illinois Cooperative Extension Service Circular 1016. Productivity of Illinois Soils, and new land values were assigned. The change in land values represents an accounting adjustment to bring land values to current market levels.

^b Includes sales or purchases of capital items.

ment return of \$17,612 indicates this is one of the most profitable types of farms for this size of farm in Illinois.

Beef farms. Farm and family earnings on northern Illinois beef farms (340-499 acres) in 1973 averaged \$54,399 with operator and landlord shares combined (Table 3). This is \$16,476 above 1972 earnings and \$20,721 above the 1969-73 average.

Cash operating expenses increased 22 percent on these farms. Expenditures for feed and feeder livestock increased 44 percent as farmers continued to bid the higher returns from cattle sold into the prices paid for replacement feeders in a period of increasing feed costs. The results were lower net returns.

In 1973 this group of farms produced beef equivalent to 329 feeder cattle (500 pounds gain per head) and pork equivalent to 41 litters per farm. Management returns have been highly variable from year to year.

Table 4. — Average Selected Total Farm Items on 260- to 399-Acre Northern Illinois Dairy Farms

	1973	1972	1969-73 average
Number of farms.....	46	49	37
Total acres.....	295	293	294
Soil productivity rating ^a	72	71	72
Total cash sales.....	\$ 68,246	\$ 55,219	\$ 55,736
Less purchased feed and livestock.....	14,415	10,348	10,241
Net cash sales.....	53,831	44,871	45,495
Inventory change.....	10,389	5,035	4,484
Farm products consumed.....	648	441	472
Value of farm production.....	64,868	50,347	50,451
Cash operating expenses.....	24,570	20,238	21,010
Annual depreciation.....	8,276	7,080	7,270
Farm and family earnings.....	32,022	23,029	22,171
Unpaid labor charge.....	9,588	8,550	7,721
Returns to capital and management.....	22,434	14,479	14,450
Interest charge on capital.....	15,154	13,164	12,114
Management returns.....	7,280	1,315	2,336
Total cash income ^b	68,411	55,871	55,981
Total cash expenditures ^b	54,759	41,144	41,378
Cash balance.....	13,652	14,727	14,603
FARM INVESTMENT			
Livestock inventory.....	\$ 26,453	\$ 23,346	\$ 20,898
Grain inventory.....	16,388	13,439	15,420
Remaining capital cost in			
Machinery and auto.....	16,525	15,652	15,978
Buildings and fence.....	34,686	33,109	31,265
Soil fertility.....	7
Value of land (current basis) ^a ..	171,406	143,518	152,766
Total farm investment.....	265,458	229,064	236,334

^a See Table 3, footnote a.

^b Includes sales or purchases of capital items.

The higher crop prices in 1973 offset the lower returns from the feeding enterprise.

Dairy farms. Farm and family earnings on 300-acre northern Illinois dairy farms in 1973 averaged \$32,022 with operator and landlord shares combined (Table 4). This is \$8,993 above the 1972 earnings and \$9,851 above the average for the last five years.

Corn yields were down 6 bushels per acre due to excessive rainfall and poor harvest conditions. Higher prices for grain, milk, and beef more than offset the effect of lower corn yields and the 21-percent increase in cash operating expenses.

Southern Illinois farms

Grain farms. Farm and family earnings on southern Illinois grain farms (340-499 acres) averaged \$43,488 in 1973 with operator and landlord shares combined (see Table 5). This is \$16,076 above 1972 earnings. Corn yields were 14 bushels per acre lower, soybeans 2 bushels lower, and wheat 15 bushels lower than 1972.

A 30 to 50 percent increase in selling prices of grain and 50 to 70 percent increase for grain and livestock inventory prices at the end of the year more than offset the 18 percent higher cash operating expenses and lower crop yields.

Hog farms. Farm and family earnings on southern Illinois hog farms (340-499 acres) in 1973 averaged \$51,865 with operator and landlord shares combined (Table 5). This is 33 percent above the 1972 earnings and more than five times the record low 1970 earnings.

Corn yields per acre were 30 bushels lower, and soybean yields 10 bushels lower than 1972 due to excessive rainfall at planting time. Record high selling prices for hogs and increases in year-end inventory prices resulted in a 33-percent net increase in farm and family earnings over 1971. The 1969-73 average management return for hog farms now exceeds grain farms of the same size by \$3,794 or \$10.84 per tillable acre.

Dairy farms. Farm and family earnings on 300-acre southern Illinois dairy farms in 1973 averaged \$36,203 (Table 5). This is the third year of improved returns for these farms. Factors affecting other types of farms that also influenced dairy farm earnings included improved grain and beef prices and an 18-percent increase in milk prices.

Another important factor for increased earnings was the increase in average number of cows per farm in this sample from 43 in 1971 to 61 in 1973. The stable earnings on this type of farm have been important in counteracting the highly variable income that results from the lower quality of soils in this area of the state.

Table 5. — Average Selected Total Farm Items on 340- to 449-Acre Southern Illinois Grain and Hog Farms and 260- to 339-Acre Dairy Farms

	Grain farms			Hog farms			Dairy farms		
	1973	1972	1969-73 average	1973	1972	1969-73 average	1973	1972	1969-73 average
Number of farms.....	94	54	72	35	50	51	18	22	25
Total acres.....	421	405	414	416	422	417	307	314	300
Soil productivity rating ^a	60	62	50	56	61	48	59	59	47
Total cash sales.....	\$ 61,876	\$ 49,395	\$ 44,625	\$ 95,999	\$ 81,369	\$ 72,705	\$ 71,173	\$ 61,704	\$ 54,204
Less purchased feed and livestock....	9,062	6,628	6,095	33,275	26,045	24,547	19,027	12,201	11,296
Net cash sales.....	52,814	42,767	38,530	62,724	55,324	48,158	52,146	49,503	42,908
Inventory change.....	16,925	7,422	5,762	20,712	13,347	7,814	14,228	5,319	5,279
Farm products consumed.....	305	196	198	476	306	327	537	572	501
Value of farm production.....	70,044	50,385	44,490	83,912	68,977	56,299	66,911	55,394	48,688
Cash operating expenses.....	20,458	17,270	16,373	24,038	21,971	20,410	22,211	21,337	19,147
Annual depreciation.....	6,098	5,703	5,504	8,009	8,110	7,497	8,497	8,002	7,498
Farm and family earnings.....	43,488	27,412	22,613	51,865	38,896	28,392	36,203	26,055	22,043
Unpaid labor charge.....	7,413	5,958	5,708	8,288	7,063	6,537	10,120	7,254	7,094
Returns to capital and management...	36,075	21,454	16,905	43,577	31,833	21,855	26,083	18,801	14,949
Interest charge on capital.....	12,327	11,577	9,028	13,570	12,776	10,184	12,371	10,470	8,650
Management returns.....	23,748	9,877	7,877	30,007	19,057	11,671	13,712	8,331	6,299
Total cash income ^b	61,952	49,479	44,753	96,345	81,427	72,840	71,673	61,741	54,350
Total cash expenditures ^b	40,415	30,722	28,683	72,218	56,522	54,242	55,027	42,230	39,195
Cash balance.....	21,537	18,757	16,070	24,127	24,905	18,598	16,646	19,511	15,155
FARM INVESTMENT									
Livestock inventory.....	\$ 10,238	\$ 7,177	\$ 7,202	\$ 25,906	\$ 21,869	\$ 20,235	\$ 26,992	\$ 24,395	\$ 19,202
Grain inventory.....	18,043	15,760	13,470	26,336	16,170	18,019	13,563	11,459	11,028
Remaining capital cost in									
Machinery and auto.....	13,313	13,799	23,303	31,562	21,040	34,192	21,637	17,970	39,067
Buildings and fence.....	7,404	8,996			13,016		21,967	19,361	
Soil fertility.....	15	36			31		7	8	
Value of land (current basis) ^a	177,926	167,473	137,860	154,024	154,581	122,679	129,579	106,924	92,600
Total farm investment.....	226,939	213,241	181,835	237,859	226,682	195,145	213,745	180,117	161,897

^a See Table 3, footnote a.

^b Includes sales or purchases of capital items.

LIVESTOCK ENTERPRISES

Table 6 shows the returns per \$100 feed fed to various livestock enterprises and the price of corn during each of the past 15 years. Fifteen-year and five-year averages are also shown. The difference between the average return figure and \$100 feed cost represents the margin available to pay labor, depreciation on equipment, cash expenses other than feed, and interest on investment, and also to provide for profit.

The margin needed to cover nonfeed costs varies with the kind of livestock and depends on the proportion of total production costs represented by feed. The 15-year averages (1959-73) represent the approximate level of returns at which farmers have been willing to maintain livestock production. This average may not represent break-even returns on all farms because some farmers may discount market prices for some resources used in producing livestock. If a farmer already has facilities for livestock, he need only cover operating costs to continue production. However, when he views livestock production as a new or long-run

enterprise, he hopes to cover all costs — fixed and variable — or he may not undertake the enterprise.

As individual farmers try to increase profits, they tend to curtail livestock production when returns per \$100 of feed fed are below the 15-year average. This tendency on the part of producers causes supplies of livestock products to fluctuate.

Feeder-cattle returns vary greatly from year to year. Long-run average returns shown here indicate that the cattle-feeding business is barely paying average market rates for all resources used (Table 7). Above-average skills are needed in buying, selling, and feeding to meet competition of other uses for time and money on farms feeding cattle. It is difficult to identify cyclic income movements over a 15-year period in the beef-cattle industry because it is more complex and adjusts more slowly than other livestock enterprises.

Dairy- and beef-herd enterprise 10-year average returns above cost of feed are below the margin needed to cover all nonfeed costs (Table 7). The implication

Table 6. — Returns per \$100 Feed Fed to Different Classes of Livestock

Year	Beef-cow herds	Dairy-cow herds	Feeder cattle bought	Native sheep raised	Feeder pigs	Hogs	Poultry	Yearly price of corn
<i>Dollars</i>								
1959	147	191	112	102	92	114	123	1.10
1960	129	200	117	108	143	164	157	1.03
1961	139	196	116	110	132	164	150	1.01
1962	149	190	148	126	129	159	144	.98
1963	117	171	88	126	108	131	141	1.11
1964	107	174	112	124	122	142	141	1.12
1965	127	174	151	143	176	210	143	1.15
1966	132	190	117	129	140	178	168	1.23
1967	138	199	119	117	123	154	128	1.17
1968	156	210	142	133	134	170	167	1.02
1969	162	205	152	146	171	212	203	1.14
1970	150	199	118	128	104	142	186	1.26
1971	180	200	156	122	122	150	135	1.27
1972	208	212	161	134	171	214	134	1.16
1973	184	177	120	123	161	192	151	2.00
Averages								
1959-73	148	193	129	125	135	166	151	1.18
1959-63	136	190	116	114	121	146	143	1.05
1964-68	132	189	128	129	139	171	149	1.14
1969-73	177	199	141	131	146	182	162	1.37

Table 7. — Variations in Returns to Livestock Enterprise Units, 1964-73

Year	Hogs (lit- ters)	Feeder pigs (175-lb. gain)	Feeder cattle (500-lb. gain)	Dairy cattle (cow)	Beef herd (cow) ^a	Poultry laying flock (hen)
<i>Returns above cost of feed and purchased animals</i>						
1964.....	\$ 76	\$ 3.71	\$11	\$208	\$ 8	\$1.63
1965.....	204	14.84	47	216	30	1.71
1966.....	162	8.20	17	292	39	2.75
1967.....	107	4.29	18	314	43	1.28
1968.....	127	6.19	39	350	60	2.26
1969.....	217	14.25	50	361	70	3.03
1970.....	86	.88	19	370	58	2.73
1971.....	106	5.05	61	389	87	1.10
1972.....	242	14.51	64	446	123	1.05
1973.....	322	22.31	35	438	128	2.61
Averages						
1964-73—ten years.....	\$165	9.42	36	338	65	2.02
1964-68—five years.....	\$135	7.45	26	276	36	1.93
1969-73—five years.....	\$195	11.40	46	401	93	2.10
Nonfeed costs						
Direct cash ^b	29	1.40	9	90	13	.40
Other ^c	99	4.50	29	330	83	1.65
Total nonfeed ^c	\$128	5.90	38	420	96	2.05

^a The feed cost for beef herds includes up to \$40 of hay equivalent from salvage roughage.

^b Includes veterinary costs, taxes on equipment and livestock, fuel and equipment repair costs, and other direct cash expenses, from Table 6, Farm Management Manual, January, 1974, AE-4342.

^c Estimates of annual non feed costs are based on enterprise cost studies of operative units in 1968-73.

Table 8. — Hog Enterprises, 1973

	All farms	Litters farrowed	
		10-49	200+
Number of farms.....	1,145	415	94
Average per farm			
Pounds of pork produced..	154,428	50,425	458,452
Total returns.....	\$ 66,406	\$21,453	\$196,735
Value of feed fed.....	\$ 34,447	\$11,209	\$100,064
Returns per \$100 feed fed..	\$ 192	\$ 191	\$ 196
Returns above feed per litter.....	\$ 322	\$ 341	\$ 310
Number of litters farrowed	99	30	311
Pigs farrowed per litter....	8.8	8.8	9.0
Pigs weaned per litter....	7.2	7.2	7.2
Number of pigs weaned...	709	215	2,233
Number that died after weaning.....	35	10	112
Death loss, percent of pounds produced.....	1.8	1.7	2.0
Weight per hog sold.....	232	234	228
Price received per 100 pounds.....	\$ 39.81	\$ 39.36	\$ 40.09
Feed cost per 100 pounds produced.....	\$ 22.31	\$ 22.23	\$ 21.83
Feed per 100 pounds produced			
Farm grains, lb.....	357	358	352
Commercial feed, lb....	83	82	85
Total concentrates, lb.	440	440	437
Pasture (pasture days)..	.3	.4	.1
Cost per 100 pounds of commercial feeds.....	\$ 11.36	\$ 11.47	\$ 10.83
Cost per 100 pounds of concentrates.....	\$ 5.04	\$ 5.02	\$ 4.98

is that these enterprises compete most favorably on farms where there are plentiful labor, capital, and management resources that have few alternative uses. In 1973 returns were considerably above the 10-year average returns above cost of feed and higher than the estimated nonfeed costs.

The cyclical pattern of hog production is more easily identified (Table 7). Returns tend to exceed the 10-year average for one or two years and then drop below the average for one or two years. The 10-year average hog return above all costs (both feed and non-feed) is \$37 per litter (\$165 minus \$128).

Raising livestock is becoming more competitive. Average profit margins are narrow. Nonetheless, large numbers of farmers are willing to stay in business as long as their returns cover only operating costs. Expansion plans involving large investments for new facilities should be based on estimated returns that are high enough to cover all costs. Fluctuations in livestock returns can involve a risk in low-return years.

Hog enterprises

The information in Table 8 is based on a sample of 1,145 farms farrowing 10 or more litters per year. Farms were omitted from the sample if the number

of hogs purchased exceeded 10 percent of the pigs weaned. This eliminated those farms with combined farrowing and feeder-pig operations from the sample. Feeder-pig enterprise information is included in Table 10. The average size of hog enterprises on all record-keeping farms has been increasing at the rate of about three litters per year, from 65 litters (477 pigs weaned) per farm in 1963 to 99 litters (709 pigs weaned) in 1973.

Returns per \$100 feed fed to hogs were \$192 in 1973. The 1973 average price received per 100 pounds of pork sold increased \$13.42 from 1972. Feed cost to produce 100 pounds of pork increased from \$13.20 in 1972 to \$22.31 in 1973. Feed conversion per 100 pounds of gain increased 14 pounds, from 426 pounds of concentrate in 1972 to 440 pounds in 1973. Higher corn and protein supplement prices accounted for the remainder of the feed-cost increase.

The 1973 hog-enterprise records reported in Table 8 were also sorted by the number of litters produced. One group farrowing between 10 and 49 litters averaged 30 litters, while the group farrowing 200 or more litters averaged 311 litters. Feed cost per 100 pounds of pork produced was 40 cents higher for the 30-litter group than the 311-litter group. There was no difference in feed conversion between the two groups, but the small producers paid about \$13 more per ton of commercial feeds. Prices received (net at the farm) for hogs sold by the larger producers were 73 cents higher than those received by the smaller producers.

The 10-year average return above feed cost per litter shown in Table 7 is \$165, which is \$157 below the 1973 returns. On the basis of detailed cost records, an average farmer with existing facilities would require returns above feed cost of \$128 per litter to pay for all nonfeed costs.

A substantial profit margin is required to compensate farms for the risk and detailed management involved in hog production compared with other uses

for the same resources. Large-scale hog production in modern confinement facilities requires large capital investments. The future recovery of the capital is uncertain and the salvage value of confinement hog facilities is low. Also, the acquisition of the managerial skills necessary for producing a large volume of hogs in confinement may discourage any rapid expansion of the large hog-producing units.

The data in Table 9 show a detailed breakdown of 1973 costs and returns for the hog enterprise on a selected group of specialized, commercial hog farms. The producers in this group represent a high level of management, using mostly confinement systems of hog production.

These enterprises averaged 446 litters per farm and weaned 7.2 pigs per litter. Total returns averaged \$41.59 and total costs \$30.18 per 100 pounds of pork produced.

Feed costs averaged \$20.52 per 100 pounds of pork produced, compared with the 1973 average of \$22.31 for all FBFM hog enterprises. Nonfeed costs averaged \$9.66 per 100 pounds of pork produced. Costs varied considerably among these farms.

Feeder-cattle and feeder-pig enterprises

Calendar-year operations for feeder-cattle and feeder-pig enterprises are presented in Table 10. These enterprise summaries involve weights and values on partly finished animals purchased in prior years as well as on animals purchased in the current year.

Pork produced per farm from feeder-pig enterprises was 84,680 pounds in 1973 (Table 10). In units of 175 pounds produced per head, this amounted to 484 head fed per farm in 1973, compared with 508 head in 1972.

Returns above the cost of feed and purchased animals shown in Table 7 for 1964 through 1973 averaged

Table 9. — Costs and Returns for the Sow and Litter Enterprise, Selected Commercial Hog Farms, 1973

	Per 100 pounds of pork produced	Per litter
Total returns.....	\$41.59	\$705
Feed costs.....	20.52	348
Returns above feed costs.....	\$21.07	\$357
Nonfeed costs		
Buildings.....	\$ 1.29	\$ 22
Machinery and equipment.....	2.23	38
Labor.....	2.93	50
Livestock expense.....	.81	14
Insurance and taxes.....	.34	6
Interest charge on all capital.....	1.89	32
Overhead.....	.17	2
Total nonfeed costs.....	\$ 9.66	\$164
Total all costs.....	\$30.18	\$512
Returns above all costs.....	\$11.41	\$193

Table 10. — Feeder-Cattle and Feeder-Pig Enterprises, 1973

	Feeder cattle	Feeder pigs
Number of farms.....	471	167
Average per farm		
Total pounds produced.....	98,559	84,680
Total returns.....	\$40,232	\$28,454
Value of feed fed.....	\$33,394	\$17,660
Returns per \$100 feed fed.....	\$ 120	\$ 161
Death loss, percent of pounds produced.....	3.0	2.4
Average weight purchased.....	571	52
Price paid per 100 pounds.....	\$ 51.95	\$ 68.27
Average weight sold.....	1,040	224
Price received per 100 pounds.....	\$ 44.11	\$ 40.35
Feed cost per 100 pounds produced.....	\$ 33.88	\$ 20.85
Feed per 100 pounds produced		
Grain, lb.....	636	334
Protein and mineral feeds, lb.....	58	79
Total concentrates, lb.....	695	414
Hay, lb.....	64	...
Silage, lb.....	949	...

\$9.42 per unit of 175 pounds of gain. This compares with the estimated return of \$5.90 required to cover all of the nonfeed costs.

Assuming a 500-pound unit of gain equals one head of feeder cattle, the 98,559 pounds of beef produced per farm in 1973 (Table 10) are equal to 197 head. This is an increase of 18 head from the 179 head of cattle fed per farm in 1971. Returns per \$100 feed fed for feeder-cattle enterprises were \$120 in 1973 compared with \$161 in 1972 and \$129 for the 15-year average (Table 6).

The price paid for feeders purchased was \$11.06 per 100 pounds higher in 1973 than in 1972, while the price received for cattle sold in 1973 was \$9.11 higher. Average weight purchased and sold remained steady at 571 and 1,040 pounds per head. The feed cost was \$33.88 per 100 pounds produced in 1973 compared with \$20.99 in 1972.

Concentrates used per 100 pounds of beef produced increased 31 pounds in 1973 while the pounds of hay used remained about steady at 64 pounds. The amount of silage used increased 120 pounds in 1973, resulting in the use of 2.1 times more silage in 1973 than in 1960. The end result of this shift has been increased production and utilization of crops from a fixed land resource. Mechanization of the silage-feeding operation has also reduced labor per unit of production.

These data do not show the wide variation in profits that exists among the cattle-feeding programs. Tables 6, 7, and 10 reflect the composite results of all types of feeder-cattle enterprises in Illinois as to quality and age of cattle fed. The data reported are heavily weighted with good-to-choice calves and yearlings as the predominant cattle-feeding systems. Many farmers are now feeding more than one drove of cattle each year to provide better utilization of fixed investments in mechanized feedlots.

Returns above cost of feed and purchased animals shown in Table 7 averaged \$36 for each head of feeder cattle gaining 500 pounds for the 10 years from 1964 through 1973. During this period, these returns have ranged from \$11 in 1964 to \$64 in 1972. In five of the past 10 years, returns above feed cost have been above the estimated \$38 per feeder required to pay for all nonfeed costs for the average cattle feeder.

The direct cash costs, exclusive of feed and interest costs, associated with cattle feeding average about \$9 per feeder. Returns above feed cost have exceeded these direct cash costs per head in all of the past 10 years.

A large but declining number of cattle feeders in Illinois are apparently willing to feed cattle if their return is sufficient to cover feed and cash costs but is short of paying average market rates for some of the fixed and farm overhead costs.

Farmers' values, goals, and attitudes have been important in maintaining production on the one hand, while the dictates of the market, technological change,

and shifts in basic supply and demand factors are causing the need for change on the other hand. The returns reflected in this average of all feeder-cattle enterprises would suggest that for cattle feeding to be profitable, farmers must produce the kind of beef the consumer wants at the lowest possible cost. Farmers considering expansion of this enterprise on farms where there are no nonmarketable feeds, unemployed labor, or fixed capital investments should budget carefully before they make new investments.

Dairy enterprises

The minimum size of herd included in this analysis was 10 milk cows. The average size of dairy herd on record-keeping farms has increased at the rate of about one cow per year since 1963.

Returns per \$100 of feed fed to dairy enterprises in 1973 were \$177 and averaged \$199 for the 1969-73 five-year period (Table 6). Milk prices increased 97 cents per hundredweight of milk sold, beef prices increased \$8.25 per 100 pounds of beef, and feed costs increased \$9.82 per production unit (1,000 pounds of

Table 11. — Dairy Cattle Enterprises, 1973

	All farms	Pasture days per animal unit	
		0	120 or more
Number of farms	366	175	61
Average per farm			
Number of cows in herd	47.9	50.0	35.8
Number of milk cows	47.8	50.0	34.7
Percent of milk cows dry	15.0	14.5	17.4
Animal units in herd	87	96	57
Pounds of beef produced	27,718	31,494	19,932
Total returns	\$48,505	\$53,300	\$32,530
Value of feed fed	\$27,259	\$30,276	\$17,718
Returns per \$100 feed fed	\$ 177	\$ 176	\$ 183
Returns above feed per milk cow	\$ 438	\$ 447	\$ 409
Total pounds of milk produced	570,100	626,300	382,400
Pounds of milk per milk cow	11,855	12,188	11,160
Pounds of butterfat per milk cow	483	465	457
Pounds of beef per cow in herd	543	594	474
Death loss, percent of pounds produced	9.9	9.0	10.8
Feed cost per unit ^a	32.17	32.16	30.45
Price received for			
100 lb. milk	\$ 6.49	\$ 6.47	\$ 6.38
100 lb. beef	\$ 37.44	\$ 36.92	\$ 37.14
Feed per unit of milk and beef ^a			
Grain, lb.	355	359	340
Protein and minerals, lb.	76	79	65
Total concentrates, lb.	432	438	406
Hay and dry roughage, lb.	280	261	326
Hay silage and soilage, lb.	564	452	103
Corn and other silage, lb.	786	830	570
Pasture (pasture days)	3		15
Pasture days per animal unit	38		155

^a 1,000 pounds of milk or 100 pounds of beef.

milk or 100 pounds of beef) in 1973 as compared with 1972.

Dairy farmers have reduced the amount of pasture and increased the amounts of grain and silage fed. Pasture days per unit (1,000 pounds of milk or 100 pounds of beef) remained at 15 days prior to 1959, but since 1960 have declined to 3 days in 1973.

The dairy herds in Table 11 were subdivided into two groups: herds with no pasture days per animal unit and herds with 120 days or more. Each year a few more farmers have been adopting the practice of feeding cows in drylot. Dairy herds with no direct grazing averaged 50 cows per farm compared with 35.8 cows per farm where a full pasture program was used.

The main difference among these two groups of dairy herds is the amount of land required per cow to produce roughage. When pasture and hay yields are figured at 150 pasture days and 3 tons per acre respectively, farms with drylot feeding required only 1.2 acres per cow to produce grass-legume forages, while farms with over 120 pasture days per animal unit used 2.5 acres. Additional roughage was obtained through the corn silage on the nongrazing farms.

Part of the additional cost of harvesting roughage to be fed in drylot is included in the price charged for feed. Farmers using the drylot system must relate the higher cost of labor and machinery to the increased returns that may result from the following factors: shifting land from pasture to grain crops; an increase in size of dairy herd with fixed acres of hay and pasture; or higher production per cow.

Returns above cost of feed were \$438 per cow in 1973 (Table 11). This compares with the 10-year average of \$338 (Table 7). The returns above feed cost required to pay for all nonfeed costs are estimated to be about \$420 per cow. Detailed cost studies indicate that feed represents about 50 percent of the total cost of the dairy enterprise while labor and capital represents the other costs.

Dairy returns above feed cost averaged \$401 per cow for the five-year period 1969 through 1973. These returns have been among the highest on record and are slightly below the estimated return necessary to pay cash expenses and market prices for all feed, labor, depreciation, and interest on investment. The continual decline in cow numbers and government marketing program policies has helped dairy herds provide returns competitive with those from other uses for feed, labor, and capital. As dairy herds become larger, there is greater need for the dairy enterprise to be managed as a profit-making business.

Beef-cow herds

The minimum size of a beef-cow herd included in Table 12 was 10 or more cows. Farms with combinations of cow herds and purchased feeder cattle were not included. In addition to all farms, Table 12 shows an analysis of cow herds where calves were sold at

Table 12. — Beef-Cow Enterprises, 1973

	All farms	Calves sold	Calves fed out
Number of farms.....	565	301	204
Average per farm			
Number of cows in herd....	40	41	37
Animal units in herd.....	62	68	55
Total pounds produced....	22,617	19,881	26,165
Total returns.....	\$11,219	\$ 9,996	\$12,723
Value of feed fed.....	\$ 6,086	\$ 5,130	\$ 7,373
Returns per \$100 feed fed... \$	184	194	172
Pounds of beef per cow in herd	565	484	707
Pounds of death loss.....	1,444	1,411	1,439
Percent of pounds produced	6.3	7.1	5.5
Feed cost per unit ^a	\$ 26.90	\$ 25.80	\$ 28.17
Price received per 100 pounds	\$ 43.07	\$ 42.98	\$ 42.73
Feed per unit of milk and beef ^a			
Grain, lb.....	215	131	304
Protein and mineral feeds, lb.....	37	36	39
Total concentrates, lb....	253	168	344
Hay and dry roughage, lb....	486	523	458
Hay silage, lb.....	70	60	38
Corn and other silage, lb....	265	281	252
Pasture (pasture days).....	44	52	36

^a 1,000 pounds of milk or 100 pounds of beef.

weaning time, comparing them with those where calves were finished to slaughter weights. For the period 1956 to 1969, the average size of cow herd on all farms has ranged from 25 to 30 cows. Since 1969 the average herd has grown at the rate of about two cows per year to an average size of 40 cows per herd in 1973. Most Illinois farmers who maintain a beef-cow herd do so as a supplemental enterprise to market nonsalable feeds and labor.

Returns per \$100 feed fed to beef-cow herds in 1973 averaged \$184, down \$24 from 1972. Returns for the five-year period, 1969 to 1973, averaged \$177, which was \$29 above the 15-year average (Table 6). Beef prices in 1973 averaged \$43.07 compared with \$34.62 in 1972, while feed costs increased from \$18.75 to \$26.90.

In 1973 farms that sold calves received \$119 per cow above value of feed fed, and farms that fed out calves and then sold at slaughter weights received \$145 per cow above value of feed fed. The \$26 additional return per cow for the herds where calves were fed out in 1973 is for the added costs of labor, buildings, and capital required to feed out calves. The added return for feeding out calves over selling calves at weaning has averaged \$15 per cow for the period 1969 to 1973.

Poultry enterprises

The minimum size of flock included in Table 13 is 200 hens. Table 13 shows an analysis of poultry flocks ranging in size from 200 to 999 hens and of flocks with over 2,000 hens. The smaller farm flocks averaged 417 hens and the larger commercial flocks 8,132 hens.

Poultry in Illinois is rapidly being concentrated in fewer but larger, specialized commercial flocks.

Farms with over 2,000 hens used 5.5 pounds of feed concentrates per dozen eggs produced or per 1.5 pounds of weight produced. For 1973 the feed cost per dozen eggs was 31 cents compared with 15 cents in 1972. Egg prices increased from 27 cents in 1972 to 51 cents in 1973.

Flocks with over 2,000 hens had returns above feed costs per hen of \$2.61 in 1973 compared with the 10-year average of \$2.02 (Table 7).

Table 13. — Poultry Enterprises, 1973

	Number of hens per farm	
	200-999	2,000 and over
Number of farms.....	28	15
Average per farm		
Pounds of poultry produced.....	561	5,910
Total returns from poultry.....	\$2,948	\$63,601
Total value of feed fed.....	\$2,578	\$41,912
Returns above feed cost per hen.....	\$.88	\$ 2.61
Returns per \$100 feed fed.....	\$ 114	\$ 151
Average number of hens.....	417	8,132
Eggs produced per hen.....	190	206
Percent production.....	52.1	56.4
Feed units ^a	6,977	143,539
Feed cost per unit ^a	\$.37	\$.31
Pounds of concentrates per feed unit ^a	6.4	5.5
Cost per 100 pounds of concentrates....	\$ 5.83	\$ 5.67
Price per dozen eggs sold.....	\$.50	\$.51

^a One dozen eggs or 1.5 pounds of weight produced.

Sheep enterprises

Sheep production is a minor enterprise on Illinois record-keeping farms. The minimum size of enterprise in Table 14 is three animal units. One animal unit of sheep is defined as 750 pounds of liveweight. Returns per \$100 feed fed in 1973 were \$123 for native flocks. Pounds of wool and mutton produced per farm have remained fairly constant for the past 10 years. Most Illinois farmers who keep sheep do so as a supplemental enterprise to market nonsalable feeds and labor.

Table 14. — Sheep Enterprises, 1973

	Native flocks
Number of farms.....	124
Average per farm	
Pounds of wool and mutton produced.....	3,291
Total returns.....	\$1,112
Value of feed fed.....	\$ 902
Returns per \$100 feed fed.....	\$ 123
Percent lamb crop.....	109
Pounds of death loss.....	553
Death loss, percent of pounds produced.....	16.8
Feed cost per 100 pounds produced.....	\$ 27.41
Price received per 100 pounds.....	\$ 33.10
Feed per 100 pounds produced	
Concentrates, lb.....	333
Hay, lb.....	486
Silage, lb.....	21
Pasture (pasture days).....	44

DEFINITION OF TERMS AND ACCOUNTING METHODS

Soil-productivity rating

This is an average index representing the inherent productivity of all tillable land on the farm. Individual soil types on each farm are assigned an index ranging downward from 100. All ratings were revised in 1971 to reflect a basic level of management as outlined in University of Illinois Cooperative Extension Service Circular 1016, Productivity of Illinois Soils, and new land values were assigned. The change in land values represents an accounting adjustment to bring land values to current market levels.

Type of farm

Sampling technique. Data from all records certified for analysis by fieldmen were aggregated by size (acres), type of organization, and soil productivity rating. Electronic data processing was used to summarize the data.

Grain farms. Farms where the value of feed fed was less than one-half of the feed and grain returns and where value of feed fed to dairy or poultry was

not more than one-sixth of the feed and grain returns. In 1973 the sample of Northern Illinois grain farms with SPR 86-100 in Table 16 excludes farms with livestock.

Hog or beef farms. Farms where the value of feed fed was more than one-half of the feed and grain returns and either hog or beef-cattle enterprises received more than one-half of the value of feed fed.

Dairy or poultry farms. Farms where the value of feed fed was more than one-half of feed and grain returns and either dairy or poultry enterprises received more than one-third of the value of feed fed.

Cost items

Value of feed fed. Includes on-the-farm grains with the following average prices per bushel: corn, \$2.00; oats, 96 cents; barley, \$1.60; soybeans, \$6.64; rye, \$1.66; wheat, \$3.21. Commercial feeds were priced at actual cost, hay and silage at farm values, and pasture at 18 cents per animal unit pasture day. A pasture day represents an intake of approximately 20 to 25

**Table 15. — Average Prices Received and Paid
by Farm Record Keepers**

	1973		1972	
	Northern Illinois	Southern Illinois	Northern Illinois	Southern Illinois
Grain prices				
Corn sold.....	\$1.55	\$1.74	\$1.13	\$1.19
Soybeans sold.....	4.41	5.01	3.21	3.66
Wheat sold.....	(*)	3.13	1.56	1.33
Corn purchased.....	1.72	1.59	1.16	1.16
Oats purchased.....	.99	1.17	(*)	1.03
Livestock prices				
Hogs, all weights.....	\$39.81		\$26.39	
Fed cattle, all weights..	44.11		35.00	
Feeder cattle, all weights, prices paid..	51.95		40.89	
Dairy cattle, all weights	37.44		29.19	
Sheep, all weights.....	33.10		27.27	
Milk.....	6.49		5.52	
Eggs.....	.51		.27	

* Not available.

pounds of dry matter. It has been defined as 16 pounds of total digestible nutrients (TDN) from pasture.

Cash operating expenses. Includes annual cash outlays for nondepreciable items of fertilizer, machinery repairs, machine hire, gas and oil, farm share of electricity, telephone, and auto, hired labor, seed and crop expenses, taxes, building repairs, livestock, insurance, and miscellaneous expenses. It does not include purchased feed and livestock since these have been deducted from gross receipts in computing the value of farm production. Interest paid is not included since an interest charge is made on the total farm investment.

Machinery and equipment. Includes depreciation, repairs, machine hire, gas and oil, and farm share of electricity, telephone, and auto.

Labor. Includes hired labor plus family and operator's labor charged in 1973 at \$575 a month.

Interest charge on capital. Interest charged at 7 percent on the January 1 inventory of remaining capital investment in grain, livestock, machinery and auto, buildings, and soil fertility, plus 5-percent interest on bare land priced at current land values.

Total nonfeed costs. Includes cash operating expenses, depreciation, and charges for unpaid labor and interest. Purchased feeds and livestock are omitted.

Value of land (current basis). A basic value on bare land is established for each farm according to the soil-productivity rating. This basic value is adjusted each year according to the index of land prices in Illinois as reported by the USDA.

Return items

Feed and grain returns. The sum of grain and feed sales, value of all feed fed (except milk), and change in value of feed and grain inventories less the value of feed purchased.

Value of farm production. Total cash sales of products and services, less purchased feed and livestock, plus change in inventory values of grain and livestock, plus value of farm products consumed.

Farm and family earnings. Value of farm production less cash operating expenses and depreciation. This figure includes the return to the farm and family for unpaid labor, interest on invested capital, and returns to management.

Labor and management earnings. Farm and family earnings less the value of family labor and interest charge on capital invested. This is the residual return to operator's labor and management efforts.

Capital and management earnings. Farm and family earnings less a charge for all unpaid labor.

Management returns. The residual surplus left after a charge for unpaid labor and an interest charge on capital are deducted from farm and family earnings.

Costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern and southern Illinois are reported in Tables 16 to 20a on pages 14 through 23.

Table 16. — Average Costs, Returns, and Financial Summary of Grain Farms by Size and Soil Rating, Northern Illinois, 1973^a

	GRAIN FARMS WITH SOIL RATING 86-100 (Minimum Livestock ^b)					GRAIN FARMS WITH SOIL RATING 56-85					
	260-339 75	340-499 189	500-649 150	650-799 64	800-949 41	950+ 46	260-339 117	340-499 273	500-649 221	650-799 106	800+ 153
Range in size (total acres)	260-339	340-499	500-649	650-799	800-949	950+	260-339	340-499	500-649	650-799	800+
Number of farms.....	75	189	150	64	41	46	117	273	221	106	153
Size of farm.....	299	426	564	710	862	1,260	305	420	571	718	1,053
Acres of tillable land.....	287	410	542	682	814	1,199	277	379	510	634	904
Soil rating on till. land.....	94	94	93	93	93	93	77	76	76	75	75
Beef produced, cwt.....	3	2	3	8	13	4	76	112	138	203	276
Pork produced, cwt.....	7	0	1	6	0	0	277	297	373	527	653
DOLLAR COSTS PER FARM											
Soil fertility.....	\$ 4,665	\$ 6,912	\$ 9,494	\$12,281	\$13,195	\$19,824	\$ 4,732	\$ 6,188	\$ 8,529	\$10,855	\$16,785
Buildings and fence.....	1,584	1,849	2,296	2,903	2,893	4,826	1,931	2,394	3,303	3,498	4,906
Machinery and equipment.....	9,471	12,572	16,418	20,216	23,514	35,694	10,818	13,138	16,586	19,946	27,431
Labor.....	7,399	8,211	9,364	11,721	13,149	17,651	8,132	8,305	9,661	11,435	15,666
Taxes.....	3,490	4,853	6,452	7,854	9,211	14,022	2,917	3,939	5,067	6,593	9,023
Seed and crop expenses.....	4,385	5,456	7,602	9,992	11,045	16,816	3,938	5,050	7,231	9,162	13,521
Livestock expense.....	36	44	62	102	63	562	377	467	528	696	1,088
Insurance and misc. exp.....	985	1,206	1,493	1,761	1,946	2,690	1,045	1,265	1,494	1,755	2,427
Interest on capital.....	16,001	22,794	29,981	37,289	44,320	64,670	14,301	19,307	25,532	30,709	43,608
Total non-feed costs.....	48,016	63,898	83,161	104,119	119,335	176,756	48,190	60,054	77,932	94,647	134,455
Total value of feed fed.....	61	82	122	227	282	191	9,099	10,338	13,048	18,170	23,264
DOLLAR RETURNS PER FARM											
Feed and grain returns.....	\$70,797	\$101,968	\$136,418	\$174,563	\$203,332	\$301,324	\$63,770	\$83,680	\$113,223	\$138,497	\$201,647
Livestk. ret. above feed.....	373	63	105	360	314	66	7,702	8,529	9,603	14,084	17,280
Custom work.....	753	983	1,615	2,002	1,989	3,979	441	796	1,102	1,216	1,669
Other cash income.....	906	1,083	1,827	1,561	2,124	2,790	1,296	1,284	1,546	1,708	2,469
Value of farm production.....	72,829	104,097	139,966	178,486	207,760	308,160	73,209	94,289	125,473	155,505	223,065
Management returns.....	24,813	40,199	56,804	74,367	88,425	131,404	25,018	34,235	47,541	60,858	88,610
Farm production per \$1.00 of non-feed costs.....	1.52	1.63	1.68	1.71	1.74	1.74	1.52	1.57	1.61	1.64	1.66
Farm production per man.....	67,853	86,244	100,921	105,185	110,398	124,028	62,373	77,275	88,808	92,913	100,777
FINANCIAL SUMMARY											
Cash sales.....	\$55,328	\$77,043	\$101,707	\$129,883	\$159,068	\$222,974	\$62,372	\$80,461	\$108,759	\$132,781	\$192,365
Sales of capital items.....	264	396	618	437	646	1,501	380	423	497	531	1,450
Total cash income.....	55,592	77,439	102,325	130,320	159,714	224,475	62,752	80,884	109,256	133,312	193,815
Purchased livestock.....	112	65	243	956	202	66	4,068	4,940	7,027	9,623	14,501
Purchased feed.....	256	516	728	3,066	3,719	1,132	4,154	4,530	5,909	8,223	15,865
Cash operating expenses.....	19,559	26,963	36,214	46,840	52,218	83,556	20,480	25,894	34,918	44,521	64,514
Purchase of capital items.....	7,756	11,801	16,670	22,228	24,862	36,489	10,726	13,663	16,641	19,743	31,001
Total cash expenditures.....	27,683	39,345	53,855	73,089	81,002	121,243	39,428	49,027	64,495	82,111	125,881
Cash balance.....	\$27,910	\$38,094	\$48,469	\$57,230	\$78,712	\$103,232	\$23,324	\$31,855	\$44,761	\$51,201	\$67,934
Inventory change.....	17,828	27,606	39,186	52,555	52,592	86,343	18,827	23,062	29,394	40,275	60,720
Capital change.....	1,903	4,134	6,297	9,847	9,711	16,033	4,150	5,507	6,135	7,733	12,757
Farm products consumed.....	41	29	44	70	21	41	233	235	256	296	346
Farm and family earnings.....	47,682	69,863	93,997	119,702	141,037	205,649	46,534	60,659	80,545	99,504	141,757
Labor and mgt. earnings.....	31,448	46,839	63,455	81,164	95,451	138,216	31,567	40,899	54,288	67,647	95,170
Capital and mgt. earnings.....	40,814	62,993	86,785	111,655	132,745	196,074	39,319	53,540	73,073	91,621	132,263
Capital and mgt. per acre..	136.40	147.95	153.98	157.29	154.08	155.56	129.13	127.55	128.06	127.62	125.60

a/ Variations in totals are due to rounding to the nearest dollar.

b/ Value of feed fed to livestock was less than one percent of feed and grain returns.

Table 16a. — Average Operating Costs, Investments, and Land Use of Grain Farms by Size and Soil Rating, Northern Illinois, 1973^a

	GRAIN FARMS WITH SOIL RATING 86-100 (Minimum Livestock ^b)					GRAIN FARMS WITH SOIL RATING 56-85				
	260-339 117	340-499 273	500-649 221	800-949 41	950+ 46	260-339 117	340-499 273	500-649 221	800-949 41	950+ 46
Range in size (total acres)	260-339	340-499	500-649	800-949	950+	260-339	340-499	500-649	800-949	950+
Number of farms	75	189	150	41	46	117	273	221	106	153
COSTS AND RETURNS PER TILLABLE ACRE										
Soil fertility	\$ 16.24	\$ 16.86	\$ 17.50	\$ 18.00	\$ 16.21	\$ 17.09	\$ 16.34	\$ 16.72	\$ 17.11	\$ 18.56
Buildings and fence	5.51	4.51	4.23	4.25	3.55	6.97	6.32	6.47	5.51	5.42
Machinery and equipment	32.98	30.68	30.27	29.63	28.89	39.09	34.70	32.52	31.45	30.34
Labor	25.76	20.03	17.26	17.18	16.15	29.38	21.94	18.94	18.03	17.33
Value of feed fed	.21	.20	.22	.33	.34	32.88	27.31	25.58	28.65	25.73
Feed and grain returns	246.57	248.84	251.52	255.88	249.86	230.45	221.08	222.01	218.39	223.07
Livestk. ret. above feed	1.29	.15	.19	.52	.38	27.83	22.53	18.82	22.20	19.11
Value of farm production	253.65	254.03	258.06	261.63	255.30	264.56	249.11	246.03	245.21	246.77
Total non-feed costs	167.23	155.94	153.33	152.62	146.65	174.15	158.66	152.81	149.25	148.75
Management returns	86.41	98.10	104.73	109.00	108.66	90.41	90.44	93.22	95.96	98.02
SELECTED COST ITEMS										
Fertilizer, annual	\$ 4,662	\$ 6,908	\$ 9,493	\$13,260	\$13,190	\$ 4,726	\$ 6,183	\$ 8,524	\$10,849	\$16,777
Building repairs	376	397	484	588	667	579	601	976	1,023	1,325
Building depreciation	1,207	1,453	1,812	2,315	2,226	1,352	1,793	2,327	2,475	3,582
Mach. and equip. deprec.	4,378	5,814	7,942	9,608	12,274	4,837	5,936	7,678	8,999	13,204
Mach. repairs, supplies	2,122	2,825	3,843	4,850	5,439	2,420	3,132	3,983	4,933	6,563
Machinery hire	766	895	912	1,203	1,012	880	1,012	1,103	1,657	1,632
Gasoline and oil	1,495	2,146	2,731	3,459	3,544	1,739	2,077	2,620	3,098	4,294
Unpaid labor charge	6,869	6,870	7,211	8,047	8,293	7,215	7,120	7,473	7,938	9,539
Hired labor charge	530	1,341	2,153	3,674	4,856	917	1,186	2,189	3,497	6,127
Total months of labor	12.9	14.5	16.6	20.4	22.6	14.1	14.6	17.0	20.1	26.6
Months of labor hired	.9	2.5	4.1	6.4	8.2	1.5	2.3	4.0	6.3	10.0
FARM INVESTMENT										
Livestock inventory	\$ 230	\$ 234	\$ 310	\$ 407	\$ 1,137	\$ 9,218	\$11,045	\$13,784	\$18,341	\$21,818
Grain inventory	28,773	43,273	58,483	70,543	89,530	23,679	32,236	44,530	48,209	69,911
Remaining capital cost in										
Machinery and auto	12,409	17,038	23,179	27,121	34,441	12,157	16,656	21,213	25,167	36,226
Buildings and fence	11,348	15,022	18,088	21,083	19,304	13,256	17,321	21,206	22,742	30,604
Soil fertility	7	5	3	70	12	11	15	12	8	9
Value of land (current)	246,150	350,083	459,531	578,858	684,199	204,367	277,964	369,593	453,920	645,963
Total farm investment	298,917	425,655	559,594	698,082	828,623	262,689	355,238	470,338	568,389	807,530
Total investment per acre	998.96	999.68	992.84	983.38	961.79	862.67	846.32	824.24	791.70	766.83
Machinery investment per tillable acre	43.22	41.58	42.73	39.75	42.32	43.93	44.00	41.59	39.68	40.07
PERCENT OF TILL. LAND IN										
Corn and corn silage	47.7	45.8	46.9	48.5	47.5	47.4	45.8	46.7	46.4	47.7
Soybeans	48.2	49.3	49.6	48.0	49.5	41.1	42.6	42.2	41.3	41.5
Wheat	.6	.8	.7	.5	.6	2.0	2.2	1.9	2.5	2.0
Other small grains	.1	.3	.1	.5	.3	1.6	1.7	1.0	1.2	.7
Diverted acres	1.3	1.0	.8	.7	1.1	1.1	1.7	2.1	2.2	2.1
All hay and pasture crops	.4	.4	.3	.3	.6	4.0	4.3	3.5	4.7	4.1
CROP YIELDS, bu. per acre										
Corn	122	124	127	130	126	110	109	111	112	114
Soybeans	40	39	40	40	38	36	36	36	36	36
Wheat	44	40	43	41	39	36	36	36	40	39
Oats	70	56	58	57	56	53	52	49	50	50

^a/ Variations in totals are due to rounding to the nearest dollar.

^b/ Value of feed fed to livestock was less than one percent of feed and grain returns.

Table 17. — Average Costs, Returns, and Financial Summary of Hog Farms by Size and Soil Rating, Northern Illinois, 1973*

	HOG FARMS WITH SOIL RATING 86-100					HOG FARMS WITH SOIL RATING 56-85				
	0-179 26	180-259 26	260-339 26	340-499 32	500+ 18	0-197 25	180-259 41	260-339 69	340-499 85	500+ 104
Range in size (total acres)....	151	222	311	406	783	122	228	301	410	702
Number of farms.....	143	206	282	366	655	105	190	246	330	515
Size of farm.....	92	92	92	92	92	76	74	74	75	72
Acres of tillable land.....	44	53	215	145	740	150	167	189	285	445
Soil rating on till. land.....	1,350	1,755	2,332	2,952	3,984	1,804	1,701	1,942	2,262	3,059
Beef produced, cwt.....										
Pork produced, cwt.....										
DOLLAR COSTS PER FARM										
Soil fertility.....	\$ 2,584	\$ 3,641	\$ 4,937	\$ 5,777	\$12,066	\$ 1,958	\$ 3,092	\$ 3,954	\$ 6,145	\$ 9,110
Buildings and fence.....	2,407	3,660	5,158	6,227	10,278	3,607	4,321	4,473	5,233	6,783
Machinery and equipment.....	8,692	11,373	16,504	19,451	29,130	9,225	11,362	12,794	17,828	23,408
Labor.....	7,512	9,357	11,437	14,517	17,066	8,644	8,600	9,600	11,458	15,555
Taxes.....	1,775	2,651	3,534	4,585	8,194	1,131	2,002	2,345	3,426	4,764
Seed and crop expenses.....	2,454	3,473	5,365	6,201	11,829	2,048	3,140	3,996	5,915	8,723
Livestock expense.....	1,187	1,516	3,048	3,041	4,484	1,593	1,541	2,520	2,569	2,569
Insurance and misc. expense.....	930	1,014	1,402	1,832	2,557	913	1,059	1,243	1,445	2,221
Interest on capital.....	2,005	14,111	20,403	25,952	43,360	8,839	12,999	14,958	20,892	30,174
Total non-feed costs.....	37,446	50,798	71,789	87,483	138,965	38,306	48,169	54,605	74,870	103,307
Total value of feed fed.....	32,878	39,551	59,467	74,185	113,311	44,822	43,375	52,889	62,803	84,882
DOLLAR RETURNS PER FARM										
Feed and grain returns.....	\$34,061	\$51,259	\$68,328	\$95,593	\$154,633	\$24,437	\$41,691	\$50,572	\$70,879	\$106,736
Livestock return above feed.....	27,311	36,797	48,276	56,920	74,022	40,022	37,175	38,898	49,818	66,453
Custom work.....	288	503	609	299	1,129	142	371	216	308	643
Other cash income.....	735	998	1,709	1,347	1,669	971	1,427	1,194	1,788	1,971
Value of farm production.....	62,396	89,557	118,921	154,159	231,452	65,571	80,363	90,880	122,793	175,810
Management returns.....	24,950	38,759	47,133	66,676	92,488	27,265	32,195	36,275	47,924	72,503
Farm production per \$1.00 of non-feed costs.....	1.67	1.76	1.66	1.76	1.67	1.71	1.67	1.66	1.64	1.70
Farm production per man.....	56,510	65,591	69,783	79,172	93,551	50,857	49,454	64,775	72,722	85,218
FINANCIAL SUMMARY										
Cash sales.....	\$70,250	\$93,709	\$136,657	\$156,528	\$272,839	\$86,654	\$97,367	\$110,337	\$139,869	\$188,490
Sales of capital items.....	280	800	352	214	394	304	126	263	209	502
Total cash income.....	70,531	94,509	137,012	156,743	273,233	86,958	97,493	110,601	140,078	188,992
Purchased livestock.....	4,846	4,961	19,796	9,465	55,867	6,792	12,451	14,322	17,552	19,167
Purchased feed.....	16,610	21,540	30,755	36,181	52,953	33,962	24,692	33,226	32,629	42,579
Cash operating expenses.....	15,342	21,915	31,908	40,693	67,257	16,557	20,591	24,103	34,078	49,221
Purchase of capital items.....	7,939	13,297	15,778	19,453	31,593	15,198	13,282	17,196	21,484	28,596
Total cash expenditures.....	44,736	61,713	98,236	105,792	161,670	55,509	71,015	89,347	105,742	139,563
Cash balance.....	\$25,794	\$32,795	\$38,775	\$50,921	\$59,562	\$14,448	\$26,478	\$21,253	\$34,335	\$49,428
Inventory change.....	13,373	22,236	32,503	42,866	69,795	19,417	19,790	27,534	32,668	48,561
Capital change.....	2,139	5,342	5,046	5,953	14,141	8,524	5,216	9,296	9,321	12,580
Farm products consumed.....	228	113	312	410	639	254	349	457	437	506
Farm and family earnings.....	41,534	60,487	76,636	100,180	144,136	42,643	51,833	58,540	76,160	111,075
Labor and mgt. earnings.....	31,585	45,547	53,988	73,056	98,924	33,322	38,512	42,675	54,477	79,004
Capital and mgt. earnings.....	34,856	52,870	67,536	92,528	135,848	36,103	45,194	51,233	68,823	102,677
Capital and mgt. per acre.....	230.95	238.03	216.94	227.92	173.50	294.77	198.43	170.49	167.85	146.32

* Variations in totals are due to rounding to the nearest dollar.

Table 17a. — Average Operating Costs, Investments, and Land Use of Hog Farms by Size and Soil Rating, Northern Illinois, 1973^a

	HOG FARMS WITH SOIL RATING 86-100					HOG FARMS WITH SOIL RATING 56-85				
	0-179 26	180-259 26	260-339 26	340-499 32	500+ 18	0-179 25	180-259 41	260-339 69	340-499 85	500+ 104
Range in size (total acres).....										
Number of farms.....										
COSTS AND RETURNS PER TILLABLE ACRE										
Soil fertility.....	\$ 18.12	\$ 17.71	\$ 17.51	\$ 15.79	\$ 18.40	\$ 18.67	\$ 16.27	\$ 16.05	\$ 18.61	\$ 17.67
Buildings and fence.....	16.89	17.81	18.29	17.03	15.68	34.40	22.74	16.94	15.84	13.16
Machinery and equipment.....	60.99	55.34	58.54	53.19	44.44	87.98	59.81	51.94	53.99	45.41
Labor.....	52.71	45.53	40.56	39.70	26.03	82.45	45.27	38.97	34.70	30.17
Value of feed fed.....	230.72	192.46	210.93	202.88	172.87	427.52	228.34	214.74	190.21	164.68
Feed and grain returns.....	239.02	249.43	242.36	261.42	235.92	233.08	219.48	205.33	214.67	207.09
Livestock return above feed	191.65	179.05	171.23	155.66	112.93	381.74	195.71	157.93	150.88	128.93
Value of farm production.....	437.86	435.79	421.82	421.59	353.12	625.44	423.07	368.99	371.90	341.11
Total non-feed costs.....	262.78	247.19	254.64	239.25	212.02	365.38	253.59	221.71	226.76	200.44
Management returns.....	175.08	188.60	167.18	182.34	141.10	260.06	169.48	147.28	145.14	140.67
SELECTED COST ITEMS										
Fertilizer, annual.....	\$ 2,582	\$ 3,637	\$ 4,937	\$ 5,777	\$ 12,066	\$ 1,958	\$ 3,089	\$ 3,954	\$ 6,144	\$ 9,104
Building repairs.....	641	1,086	1,321	1,282	3,237	1,094	1,174	1,243	1,299	2,068
Building depreciation.....	1,767	2,575	3,838	4,945	7,041	2,513	3,147	2,930	3,934	4,715
Mach. and equip. depreciation.....	3,752	4,576	6,539	8,341	13,018	3,858	4,790	5,308	8,019	10,793
Machinery, repairs, supplies.....	1,691	3,078	4,414	4,942	7,151	1,972	2,820	3,208	4,136	5,988
Machinery hire.....	875	927	1,428	1,508	1,992	1,122	931	1,538	1,511	1,576
Gasoline and oil.....	1,236	1,553	2,599	2,798	4,096	1,122	1,485	1,607	2,562	3,208
Unpaid labor charge.....	6,679	7,617	9,100	7,652	8,289	6,540	6,640	7,307	7,938	8,399
Hired labor charge.....	833	1,740	2,337	6,864	8,777	2,104	1,960	2,293	3,521	7,156
Total months of labor.....	13.3	16.4	20.5	23.4	29.7	15.5	15.7	16.8	20.3	24.8
Months of labor hired.....	1.6	3.1	4.6	9.9	15.2	3.9	3.8	3.9	6.2	9.9
FARM INVESTMENT										
Livestock inventory.....	\$16,135	\$22,097	\$36,874	\$44,508	\$75,529	\$25,740	\$30,311	\$31,298	\$42,262	\$61,231
Grain inventory.....	14,033	18,420	27,007	34,718	46,817	12,156	18,119	18,970	26,857	37,802
Remaining capital cost in										
Machinery and auto.....	9,232	12,704	18,080	22,835	33,795	10,913	12,432	14,395	20,860	28,902
Buildings and fence.....	14,146	21,211	35,484	41,382	66,175	19,316	24,687	22,061	32,449	41,318
Soil fertility.....	4	4	0	0	0	0	3	0	2	11
Value of land (current).....	123,135	178,015	243,642	316,218	555,963	81,397	140,205	177,753	246,583	366,504
Total farm investment.....	176,685	252,451	361,087	459,660	778,279	149,522	225,758	264,477	369,014	535,768
Total investment per acre.....	1,170.69	1,136.57	1,159.90	1,132.25	993.97	1,220.78	991.22	880.10	899.95	763.48
Machinery investment per tillable acre.....	64.78	61.81	64.12	62.44	51.56	104.08	65.44	58.44	63.17	56.07
PERCENT OF TILLABLE LAND IN										
Corn and corn silage.....	63.5	57.5	55.3	58.3	52.9	63.5	61.9	54.5	56.3	52.1
Soybeans.....	16.1	25.8	30.0	29.9	32.0	10.2	16.5	20.1	22.1	25.8
Wheat.....	.3	.8	.5	1.0	1.1	1.1	.9	1.5	1.8	2.7
Other small grains.....	8.8	5.7	5.6	3.6	1.9	6.0	7.6	5.3	4.2	2.6
Diverted acres.....	1.4	.9	.9	1.1	1.6	2.6	1.0	2.8	1.8	2.7
All hay and pasture crops.....	8.1	7.9	6.4	5.9	7.3	16.3	12.6	13.8	11.7	10.9
CROP YIELDS, bu. per acre										
Corn.....	109	116	115	121	118	100	102	104	106	105
Soybeans.....	42	39	38	39	38	38	35	33	37	35
Wheat.....	52	43	48	40	43	54	37	36	39	36
Oats.....	56	61	54	63	59	46	41	43	49	43

^a Variations in totals are due to rounding to the nearest dollar.

Table 18. — Average Costs, Returns, and Financial Summary of Grain and Hog Farms by Size and Soil Rating, Southern Illinois, 1973^a

	GRAIN FARMS WITH SOIL RATING 36-85					HOG FARMS WITH SOIL RATING 36-85					
	180-259 21	260-339 32	340-499 93	500-649 73	650-799 64	800+ 63	0-179 10	180-259 15	260-339 16	340-499 35	500+ 45
Range in size (total acres)	180-259	260-339	340-499	500-649	650-799	800+	0-179	180-259	260-339	340-499	500+
Number of farms	21	32	93	73	64	63	10	15	16	35	45
Size of farm	221	307	420	566	726	1,143	133	228	293	416	755
Acres of tillable land	210	279	362	490	626	968	117	194	234	338	609
Soil rating on till. land	61	61	60	59	58	60	61	57	57	56	56
Beef produced, cwt.	62	111	103	97	118	162	30	73	114	143	226
Pork produced, cwt.	263	283	345	402	517	539	1,581	1,144	1,675	1,568	3,134
DOLLAR COSTS PER FARM											
Soil fertility	\$ 3,023	\$ 3,745	\$ 5,161	\$ 7,176	\$ 8,976	\$14,521	\$ 2,022	\$ 3,024	\$ 3,743	\$ 5,818	\$12,053
Buildings and fence	1,072	1,609	1,595	1,880	3,077	3,775	2,471	2,336	3,591	2,902	6,352
Machinery and equipment	7,324	9,597	11,179	13,307	18,346	24,966	8,028	9,947	10,209	13,298	23,051
Labor	7,324	7,908	8,449	8,779	11,867	15,055	9,682	7,775	10,462	9,563	16,848
Taxes	1,338	1,813	2,176	2,735	3,492	5,481	1,055	1,544	1,604	2,062	3,460
Seed and crop expenses	1,879	3,715	4,142	5,876	8,211	12,075	1,407	2,249	2,960	4,621	8,525
Livestock expense	154	458	374	329	517	703	1,368	802	842	1,118	2,112
Insurance and misc. exp.	617	731	851	907	1,393	1,703	540	603	913	953	1,799
Interest on capital	7,735	10,113	12,227	15,985	20,283	31,977	6,255	7,869	10,330	13,570	23,823
Total non-feed costs	30,463	39,609	46,152	56,973	76,162	110,256	32,826	36,148	44,654	53,905	98,024
Total value of feed fed	7,392	9,947	11,303	11,598	15,312	17,664	35,552	29,843	44,585	41,549	78,094
DOLLAR RETURNS PER FARM											
Feed and grain returns	\$34,855	\$49,495	\$59,415	\$81,021	\$103,573	\$154,001	\$23,048	\$28,419	\$33,412	\$50,988	\$96,198
Livestock return above feed	7,045	9,239	8,891	10,654	13,439	13,425	36,160	24,658	31,471	31,656	66,808
Custom work	479	427	506	619	574	1,080	18	655	44	281	512
Other cash income	582	696	1,062	937	1,647	2,086	626	1,678	848	988	2,032
Value of farm production	42,961	59,857	69,875	93,231	119,233	170,591	59,852	55,410	65,774	83,913	165,549
Management returns	12,498	20,168	23,722	36,258	43,071	60,335	27,026	19,262	21,120	30,008	67,526
Farm production per \$1.00 of non-feed cost	1.41	1.51	1.51	1.64	1.57	1.55	1.82	1.53	1.47	1.56	1.69
Farm production per man	40,171	51,158	56,593	70,613	66,260	79,053	44,749	48,892	43,667	58,545	71,125
FINANCIAL SUMMARY											
Cash sales	\$40,502	\$52,556	\$61,848	\$82,845	\$102,639	\$153,046	\$79,760	\$66,542	\$87,433	\$95,999	\$184,875
Sales of capital items	0	75	77	453	170	538	38	67	122	346	377
Total cash income	40,502	52,632	61,925	83,298	102,809	153,584	79,798	66,609	87,555	96,345	185,253
Purchased livestock	2,944	5,032	4,143	5,359	4,997	9,148	6,210	4,926	7,829	10,903	13,972
Purchased feed	2,923	5,121	5,017	5,657	7,359	10,555	25,877	17,503	28,497	22,372	42,422
Cash operating expenses	11,605	17,175	20,418	26,234	36,604	53,457	13,767	16,369	19,323	24,038	49,925
Purchase of capital items	6,741	9,970	10,736	13,087	21,041	26,028	8,741	9,281	14,571	14,905	26,638
Total cash expenditures	24,213	37,297	40,314	50,336	70,001	99,189	54,596	46,079	70,220	72,218	132,956
Cash balance	16,289	15,334	21,610	32,961	32,807	54,395	25,201	18,530	17,334	24,127	52,296
Inventory change	8,153	17,076	16,876	21,114	28,603	36,897	11,987	10,844	14,461	20,712	36,619
Capital change	2,710	4,860	4,558	5,352	10,382	11,141	3,432	3,935	7,631	6,550	12,214
Farm products consumed	173	378	310	254	329	351	192	453	206	476	449
Farm and family earnings	27,325	37,648	43,350	59,682	72,121	102,784	40,812	33,763	39,633	51,865	101,577
Labor and mgt. earnings	18,987	26,942	30,403	42,844	49,845	67,208	33,926	25,472	27,841	35,508	74,183
Capital and mgt. earnings	20,233	30,281	35,949	52,208	63,336	92,531	33,281	27,131	31,450	43,578	91,349
Capital and management earnings per acre	91.46	98.61	85.59	92.21	87.29	80.95	249.67	118.79	107.45	104.75	121.07

a/ Variations in totals are due to rounding to the nearest dollar.

Table 18a. — Average Operating Costs, Investments, and Land Use of Grain and Hog Farms by Size and Soil Rating, Southern Illinois, 1973*

	GRAIN FARMS WITH SOIL RATING 36-85						HOG FARMS WITH SOIL RATING 36-85					
	180-259 21	260-339 32	340-499 93	500-649 73	650-799 64	800+ 63	0-179 10	180-259 15	260-339 16	340-499 35	500+ 45	
Range in size (total acres)	180-259	260-339	340-499	500-649	650-799	800+	0-179	180-259	260-339	340-499	500+	
Number of farms.....	21	32	93	73	64	63	10	15	16	35	45	
COSTS AND RETURNS PER TILLABLE ACRE												
Soil fertility.....	\$ 14.36	\$ 13.42	\$ 14.27	\$ 14.63	\$ 14.33	\$ 14.99	\$ 17.29	\$ 15.61	\$ 16.00	\$ 17.23	\$ 19.78	
Buildings and fence.....	5.09	5.76	4.41	3.83	4.91	3.89	21.14	12.06	15.35	8.59	10.42	
Machinery and equipment.....	34.79	34.40	30.91	27.13	29.30	25.78	68.67	51.36	43.65	39.39	37.84	
Labor.....	34.79	28.35	23.36	17.89	18.95	15.54	82.82	40.14	44.73	28.33	27.66	
Value of feed fed.....	35.12	35.65	31.26	23.64	24.45	18.24	304.12	154.09	190.63	123.10	128.21	
Feed and grain returns	165.59	177.44	164.32	165.19	165.43	159.04	197.16	146.74	142.86	150.00	157.94	
Livestock return above feed	33.47	33.12	24.59	21.72	21.46	13.86	309.32	127.32	134.56	93.79	109.68	
Value of farm production.....	204.11	214.59	193.25	190.08	190.44	176.18	511.99	286.11	281.23	248.25	271.80	
Total non-feed costs.....	144.73	142.29	127.64	116.16	121.65	113.87	280.80	186.65	190.93	159.48	160.94	
Management returns.....	59.38	72.30	65.60	73.92	68.79	62.31	231.19	99.46	90.30	88.77	110.86	
SELECTED COST ITEMS												
Fertilizer, annual.....	\$ 3,017	\$ 3,743	\$ 5,151	\$ 7,161	\$ 8,960	\$14,505	\$ 2,022	\$ 3,017	\$ 3,743	\$ 5,793	\$11,996	
Building repairs.....	245	610	479	583	1,080	1,168	743	945	1,024	817	2,282	
Building depreciation.....	826	999	1,116	1,297	1,997	2,607	1,728	1,391	2,567	2,086	4,071	
Mach. and equip. deprec.....	3,199	4,035	4,975	5,970	8,477	11,725	3,544	3,881	4,251	5,898	9,919	
Mach. repairs, supplies.....	1,981	2,365	2,733	3,444	4,757	6,450	2,173	2,557	2,589	3,586	6,462	
Machinery hire.....	341	939	763	835	1,021	1,452	441	817	680	692	1,294	
Gasoline and oil.....	1,209	1,460	1,836	2,123	2,921	3,895	989	1,520	1,617	2,090	3,467	
Unpaid labor charge.....	7,092	7,367	7,406	7,473	8,785	10,473	7,533	6,632	8,183	8,288	10,229	
Hired labor charge.....	232	541	1,042	1,306	3,082	4,581	2,150	1,144	2,279	1,275	6,620	
Total months of labor.....	12.8	14.0	14.8	15.8	21.6	25.9	16.1	13.6	18.1	17.2	27.9	
Months of hired labor.....	.5	1.2	1.9	2.8	6.3	7.7	3.0	2.1	3.8	2.8	10.1	
FARM INVESTMENT												
Livestock inventory.....	\$ 6,808	\$ 9,483	\$10,349	\$11,219	\$13,161	\$18,622	\$17,878	\$18,679	\$23,853	\$25,906	\$44,992	
Grain inventory.....	12,491	14,265	17,935	23,010	28,637	48,114	8,248	10,022	16,777	26,336	32,599	
Remaining capital cost in												
Machinery and auto.....	9,139	10,950	13,267	18,479	23,458	33,674	9,265	10,552	13,740	17,536	30,640	
Buildings and fence.....	5,108	6,941	7,413	9,019	12,027	16,735	11,279	8,816	12,008	14,026	27,679	
Soil fertility.....	13	1	15	33	66	21	0	35	0	31	46	
Value of land (current).....	107,722	143,957	175,961	233,229	297,373	475,503	59,757	90,026	113,672	154,024	286,124	
Total farm investment.....	141,281	165,597	224,940	294,990	374,721	592,670	106,427	138,130	180,050	237,859	422,079	
Total investment per acre..	638.59	604.42	535.55	521.01	516.44	518.50	798.40	604.77	615.16	571.78	559.39	
Mach. invest./ till. acre..	43.42	39.25	36.69	37.67	37.46	34.77	79.25	54.48	58.75	51.95	50.30	
PERCENT OF TILLABLE LAND IN												
Corn and corn silage.....	33.3	31.6	29.3	28.8	31.7	29.2	46.6	39.4	42.8	36.8	36.7	
Soybeans.....	45.7	42.6	43.3	47.2	42.8	43.4	27.7	24.6	22.3	29.6	32.3	
Wheat.....	10.4	15.3	15.9	13.9	14.2	16.1	11.1	11.5	6.7	17.4	13.7	
Other small grains.....	.1	.0	.1	.1	.0	.0	.2	.1	.0	.0	.0	
Diverted acres.....	.7	1.3	2.1	2.0	3.0	2.5	1.5	5.8	1.7	2.5	3.1	
All hay and pasture crops..	7.2	4.2	6.0	4.7	4.7	2.9	10.3	12.8	13.9	7.0	8.2	
CROP YIELDS, bu. per acre												
Corn.....	94	96	92	98	92	93	100	92	76	82	85	
Soybeans.....	29	31	30	31	29	30	31	26	20	28	28	
Wheat.....	28	32	28	31	31	32	29	30	24	29	26	
Oats.....	40	0	11	46	70	38	73	38	0	0	0	

a/ Variations in totals are due to rounding to the nearest dollar.

Table 19. — Average Costs, Returns, and Financial Summary of Dairy Farms by Size and Soil Rating, Northern and Southern Illinois, 1973^a

	DAIRY FARMS, NORTHERN ILLINOIS, WITH SOIL RATING OF 56-100				DAIRY FARMS, SOUTHERN ILLINOIS, WITH SOIL RATING OF 36-85			
	Under 180 40	180-259 60	260-339 46	340+ 52	Under 180 14	180-259 23	260-339 18	340+ 36
Range in size (total acres).....								
Number of farms.....	153	221	295	472	137	217	307	537
Size of farm.....	134	186	240	362	117	193	264	439
Acres of tillable land.....	76	74	72	70	62	59	59	60
Soil rating on tillable land.....	39	44	52	68	42	60	61	81
Dairy cows, number.....	94	206	153	348	121	22	82	144
Pork produced, cwt.....								
DOLLAR COSTS PER FARM								
Soil fertility.....	\$ 1,549	\$ 2,647	\$ 3,264	\$ 5,640	\$ 1,974	\$ 3,197	\$ 3,739	\$ 6,869
Buildings and fence.....	2,524	3,742	4,259	6,299	2,097	2,287	2,907	5,018
Machinery and equipment.....	8,934	11,429	13,138	18,727	10,073	11,748	13,607	20,110
Labor.....	9,213	10,392	12,123	14,486	10,677	12,170	12,219	17,219
Taxes.....	1,564	1,938	2,699	3,577	1,152	1,544	1,990	3,360
Seed and crop expenses.....	1,450	2,356	2,987	5,310	1,754	2,403	2,928	5,185
Livestock expense.....	2,086	2,458	2,865	3,576	1,842	2,243	2,553	3,520
Insurance and miscellaneous expense.....	833	962	1,100	1,467	696	796	885	1,152
Interest on capital.....	9,114	13,044	15,154	23,086	7,509	9,389	12,371	19,504
Total non-feed costs.....	37,267	48,968	57,588	82,168	37,774	45,777	53,199	81,936
Total value of feed fed.....	24,343	31,864	35,456	53,447	25,122	25,591	34,457	49,520
DOLLAR RETURNS PER FARM								
Feed and grain returns.....	\$21,881	\$32,662	\$38,604	\$63,814	\$19,626	\$30,402	\$40,205	\$70,495
Livestock return above feed.....	19,657	25,040	24,691	36,528	20,547	21,750	25,267	36,855
Custom work.....	299	270	270	579	118	313	191	265
Other cash income.....	937	1,189	1,303	2,042	796	930	1,248	1,481
Value of farm production.....	42,774	59,161	64,869	102,963	41,088	53,396	66,911	109,097
Management returns.....	5,507	10,192	7,281	20,794	3,314	7,619	13,712	27,161
Farm production per \$1.00 of non-feed cost	1.15	1.21	1.13	1.25	1.09	1.17	1.26	1.33
Farm production per man.....	31,184	38,107	36,231	47,776	24,893	30,518	37,618	44,228
FINANCIAL SUMMARY								
Cash sales.....	\$44,835	\$59,458	\$68,246	\$108,982	\$46,778	\$53,392	\$71,173	\$106,789
Sales of capital items.....	35	409	165	73	84	241	500	181
Total cash income.....	44,870	59,867	68,411	109,055	46,862	53,632	71,673	106,970
Purchased livestock.....	2,661	3,047	4,781	11,852	725	2,274	4,586	3,699
Purchased feed.....	8,519	10,083	9,634	15,412	11,185	8,245	14,441	19,711
Cash operating expenses.....	14,507	19,902	24,570	36,131	15,038	18,783	22,211	39,081
Purchase of capital items.....	7,123	12,014	15,773	22,633	7,498	8,974	13,789	19,050
Total cash expenditures.....	32,809	45,046	54,758	86,028	34,446	38,275	55,027	81,540
Cash balance.....	\$12,061	\$14,821	\$13,652	\$23,026	\$12,416	\$15,357	\$16,645	\$25,430
Inventory change.....	8,715	12,284	10,389	20,464	5,464	9,747	14,228	24,932
Capital change.....	1,513	4,285	7,333	9,481	1,223	1,804	4,792	6,203
Farm products consumed.....	404	548	648	782	755	775	537	768
Farm and family earnings.....	22,692	31,938	32,022	53,752	19,858	27,683	36,202	57,333
Labor and management earnings.....	12,328	17,049	14,143	27,672	10,214	14,419	20,612	33,820
Capital and management earnings.....	14,621	23,236	22,435	43,881	10,822	17,008	26,083	46,647
Capital and management earnings per acre..	95.50	105.05	76.17	92.96	79.04	78.35	85.05	86.79

a/ Variations in totals are due to rounding to the nearest dollar.

Table 19a. — Average Operating Costs, Investments, and Land Use of Dairy Farms by Size and Soil Rating, Northern and Southern Illinois, 1973^a

	DAIRY FARMS, NORTHERN ILLINOIS, WITH SOIL RATING OF 56-100				DAIRY FARMS, SOUTHERN ILLINOIS, WITH SOIL RATING OF 36-85			
	Under 180 40	180-259 60	260-339 46	340+ 52	Under 180 14	180-259 23	260-339 18	340+ 36
Range in size (total acres).....								
Number of farms.....								
COSTS AND RETURNS PER TILLABLE ACRE								
Soil fertility.....	\$ 11.57	\$ 14.20	\$ 13.62	\$ 15.57	\$ 16.94	\$ 16.57	\$ 14.18	\$ 15.64
Buildings and fence.....	18.84	20.07	17.77	17.39	18.00	11.85	11.02	11.43
Machinery and equipment.....	66.72	61.31	54.83	51.72	86.46	60.89	51.61	45.81
Labor.....	68.80	55.75	50.59	40.00	91.64	63.08	46.35	39.22
Value of feed fed.....	181.80	170.94	147.97	147.62	215.63	132.65	130.71	112.81
Feed and grain returns.....	163.41	175.22	161.11	176.25	168.46	157.59	152.51	160.60
Livestock return above feed.....	146.80	134.33	103.04	100.88	176.37	112.74	95.84	83.96
Value of farm production.....	319.44	317.38	270.72	284.38	352.68	276.78	253.82	248.54
Total non-feed costs.....	278.32	262.70	240.34	226.95	324.24	237.29	201.81	186.67
Management returns.....	41.12	54.68	30.38	57.43	28.44	39.49	52.01	61.87
SELECTED COST ITEMS								
Fertilizer, annual.....	\$ 1,546	\$ 2,647	\$ 3,264	\$ 5,640	\$ 1,974	\$ 3,196	\$ 3,732	\$ 6,832
Building repairs.....	676	1,157	998	1,490	442	603	780	1,358
Building depreciation.....	1,848	2,585	3,261	4,809	1,656	1,684	2,127	3,660
Machinery and equipment depreciation.....	3,724	4,736	5,015	8,270	4,536	5,244	6,363	8,969
Machinery repairs, supplies.....	1,909	2,718	3,526	4,461	2,464	2,791	3,255	5,413
Machinery hire.....	795	964	1,178	1,393	803	820	1,036	1,213
Gasoline and oil.....	1,287	1,545	1,873	2,573	1,311	1,604	1,738	2,868
Unpaid labor charge.....	8,072	8,702	9,588	9,872	9,036	10,675	10,120	10,685
Hired labor charge.....	1,141	1,691	2,536	4,614	1,642	1,495	2,099	6,534
Total months of labor.....	16.5	18.6	21.5	25.9	19.8	21.0	21.3	29.6
Months of labor hired.....	2.4	3.5	4.8	8.7	4.1	2.4	3.7	11.0
FARM INVESTMENT								
Livestock inventory.....	\$18,541	\$22,907	\$26,453	\$42,262	\$20,497	\$21,608	\$26,992	\$39,742
Grain inventory.....	9,602	13,780	16,388	25,215	7,972	11,299	13,563	21,689
Remaining capital cost in								
Machinery and auto.....	11,980	16,342	16,525	28,458	16,547	16,302	21,637	32,883
Buildings and fence.....	21,248	36,337	34,686	53,886	15,543	15,829	21,967	31,404
Soil fertility.....	13	0	0	0	0	1	7	71
Value of land (current).....	26,346	135,160	171,406	251,977	65,386	26,732	129,579	213,970
Total farm investment.....	157,730	225,127	265,459	401,799	125,945	161,771	213,746	339,759
Total investment per acre.....	1,030.23	1,017.75	901.32	851.16	919.78	745.18	696.99	632.14
Machinery investment per tillable acre.....	89.46	87.67	68.96	78.60	142.03	84.50	82.07	74.91
PERCENT OF TILLABLE LAND IN								
Corn and corn silage.....	46.7	46.7	47.2	50.7	52.2	46.0	38.4	36.1
Soybeans.....	5.7	8.1	7.4	9.2	6.2	13.7	22.1	26.2
Wheat.....	1.1	.2	.0	1.2	9.1	10.2	10.0	14.0
Other small grains.....	10.1	10.3	8.8	6.9	.0	.5	.0	.2
Diverted acres.....	1.1	1.7	1.8	2.6	.0	.8	1.6	2.2
All hay and pasture crops.....	34.2	31.1	31.2	28.4	31.5	23.9	23.0	18.2
CROP YIELDS, bu. per acre								
Corn.....	97	98	95	99	86	77	77	84
Soybeans.....	32	34	29	33	22	31	30	29
Wheat.....	46	23	0	34	25	25	29	31
Oats.....	43	47	41	43	0	15	0	52

a/ Variations in totals are due to rounding to the nearest dollar.

Table 20. — Average Costs, Returns, and Financial Summary of Beef Cattle and Poultry Farms by Size and Soil Rating, Northern and Southern Illinois, 1973^a

	BEEF-CATTLE FARMS, NORTHERN ILLINOIS SOIL RATING 56-100				BEEF-CATTLE FARMS, SOUTHERN ILLINOIS SOIL RATING 36-85				POULTRY FARMS, NORTHERN ILLINOIS SOIL RATING 56-100				
	180-259 29	260-339 37	340-499 53	500-649 34	650+ 45	Under 500 9	500+ 6	500+ 6	500+ 6	500+ 6	500+ 6	500+ 6	500+ 6
Range in size.....	180-259	260-339	340-499	500-649	650+	Under 500	500+	500+	500+	500+	500+	500+	500+
Number of farms.....	29	37	53	34	45	9	6	6	6	6	6	6	6
Size of farm.....	228	297	402	559	901	351	920	920	920	920	920	920	920
Acres of tillable land.....	196	266	340	489	723	252	487	487	487	487	487	487	487
Soil rating on tillable land.....	79	81	82	81	80	58	51	51	51	51	51	51	51
Dairy cows, number.....	0	2	0	0	1	0	0	0	0	0	0	0	0
Hens, number.....	1	38	4	7	0	0	0	0	0	0	0	0	0
Beef produced, cwt.....	1,007	1,262	1,695	2,365	3,183	798	1,044	1,044	1,044	1,044	1,044	1,044	1,044
Pork produced, cwt.....	479	491	514	683	870	386	209	209	209	209	209	209	209
DOLLAR COSTS PER FARM													
Soil fertility.....	\$ 3,910	\$ 4,552	\$ 6,530	\$ 9,214	\$15,248	\$ 5,757	\$ 6,316	\$ 6,316	\$ 6,316	\$ 6,316	\$ 6,316	\$ 6,316	\$ 6,316
Buildings and fence.....	3,692	3,671	6,027	7,434	8,526	3,191	3,515	3,515	3,515	3,515	3,515	3,515	3,515
Machinery and equipment.....	11,038	13,127	16,553	22,407	31,443	13,400	14,165	14,165	14,165	14,165	14,165	14,165	14,165
Labor.....	7,941	8,961	10,614	13,319	17,707	10,423	13,861	13,861	13,861	13,861	13,861	13,861	13,861
Taxes.....	2,431	3,317	4,214	5,510	8,358	1,745	3,147	3,147	3,147	3,147	3,147	3,147	3,147
Seed and crop expenses.....	3,165	4,044	5,479	8,737	12,829	2,868	4,019	4,019	4,019	4,019	4,019	4,019	4,019
Livestock expense.....	1,489	1,302	2,111	2,553	4,647	1,078	1,408	1,408	1,408	1,408	1,408	1,408	1,408
Insurance and miscellaneous expense.....	1,409	1,211	1,866	1,748	2,715	907	961	961	961	961	961	961	961
Interest on capital.....	15,695	20,059	27,209	37,460	54,379	12,963	18,792	18,792	18,792	18,792	18,792	18,792	18,792
Total non-feed costs.....	50,457	60,244	80,603	108,022	155,851	52,332	66,184	66,184	66,184	66,184	66,184	66,184	66,184
Total value of feed fed.....	44,294	52,379	72,231	92,127	130,118	36,019	38,255	38,255	38,255	38,255	38,255	38,255	38,255
DOLLAR RETURNS PER FARM													
Feed and grain returns.....	\$45,539	\$59,474	\$77,577	\$114,178	\$166,382	\$48,895	\$51,624	\$51,624	\$51,624	\$51,624	\$51,624	\$51,624	\$51,624
Livestock return above feed.....	15,830	16,578	20,010	24,052	37,646	16,003	16,341	16,341	16,341	16,341	16,341	16,341	16,341
Custom work.....	257	565	774	911	1,819	300	195	195	195	195	195	195	195
Other cash income.....	1,316	1,281	1,792	1,948	2,366	818	1,531	1,531	1,531	1,531	1,531	1,531	1,531
Value of farm production.....	62,942	77,898	100,153	141,089	208,213	66,016	69,691	69,691	69,691	69,691	69,691	69,691	69,691
Management returns.....	12,485	17,654	19,551	33,067	52,362	13,684	3,507	3,507	3,507	3,507	3,507	3,507	3,507
Farm production per \$1.00 non-feed costs.....	1.25	1.29	1.24	1.31	1.34	1.26	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Farm production per man.....	54,406	59,052	62,059	72,444	82,837	47,436	33,186	33,186	33,186	33,186	33,186	33,186	33,186
FINANCIAL SUMMARY													
Cash sales.....	\$126,260	\$143,653	\$198,798	\$261,567	\$376,459	\$92,146	\$104,772	\$104,772	\$104,772	\$104,772	\$104,772	\$104,772	\$104,772
Sales of capital items.....	147	193	513	853	955	0	83	83	83	83	83	83	83
Total cash income.....	126,407	143,846	199,310	262,419	377,414	92,146	104,855	104,855	104,855	104,855	104,855	104,855	104,855
Purchased livestock.....	62,353	66,381	109,720	136,748	187,318	45,045	43,692	43,692	43,692	43,692	43,692	43,692	43,692
Purchased feed.....	16,336	16,881	24,507	25,104	45,066	11,924	9,693	9,693	9,693	9,693	9,693	9,693	9,693
Cash operating expenses.....	20,708	23,968	33,797	45,832	71,483	23,962	31,183	31,183	31,183	31,183	31,183	31,183	31,183
Purchase of capital items.....	9,485	11,387	22,909	25,368	39,887	9,010	9,915	9,915	9,915	9,915	9,915	9,915	9,915
Total cash expenditures.....	108,882	118,617	190,934	233,052	343,754	89,941	94,483	94,483	94,483	94,483	94,483	94,483	94,483
Cash balance.....	\$17,524	\$25,228	\$ 8,376	\$29,367	\$33,660	\$ 2,205	\$10,372	\$10,372	\$10,372	\$10,372	\$10,372	\$10,372	\$10,372
Inventory change.....	14,995	16,938	34,919	40,505	63,300	30,356	17,887	17,887	17,887	17,887	17,887	17,887	17,887
Capital change.....	2,273	2,586	10,439	8,454	18,334	1,340	1,769	1,769	1,769	1,769	1,769	1,769	1,769
Farm products consumed.....	377	569	664	869	838	483	417	417	417	417	417	417	417
Farm and family earnings.....	35,168	45,322	54,397	79,196	116,132	34,384	30,145	30,145	30,145	30,145	30,145	30,145	30,145
Labor and management earnings.....	19,107	24,212	26,266	39,840	59,230	20,457	10,407	10,407	10,407	10,407	10,407	10,407	10,407
Capital and management earnings.....	28,180	37,713	46,759	70,527	106,741	26,648	22,299	22,299	22,299	22,299	22,299	22,299	22,299
Capital and management earnings per acre.....	123.75	126.98	116.40	126.11	118.46	75.92	21.63	21.63	21.63	21.63	21.63	21.63	21.63

a/ Variations in totals are due to rounding to the nearest dollar.

Table 20a. — Average Operating Costs, Investments, and Land Use of Beef Cattle and Poultry Farms by Size and Soil Rating, Northern and Southern Illinois, 1973^a

	BEEF-CATTLE FARMS, NORTHERN ILLINOIS SOIL RATING 56-100					BEEF-CATTLE FARMS, SOUTHERN ILLINOIS SOIL RATING 36-85		POULTRY FARMS, NORTHERN ILLINOIS SOIL RATING 56-100	
	180-259 29	260-339 37	340-499 53	500-649 34	650+ 45	Under 500 9	500+ 6	All 11	
Range in size.....									
Number of farms.....									
COSTS AND RETURNS PER TILLABLE ACRE									
Soil fertility.....	\$ 19.97	\$ 17.13	\$ 19.19	\$ 18.83	\$ 21.09	\$ 22.85	\$ 12.99	\$ 14.77	
Buildings and fence.....	18.86	13.81	17.71	15.19	11.79	12.66	7.21	21.12	
Machinery and equipment.....	56.38	49.40	48.65	45.06	43.50	53.17	29.09	79.99	
Labor.....	40.56	33.72	31.19	27.22	24.49	41.36	28.46	64.81	
Value of feed fed.....	226.26	197.13	212.30	188.33	180.02	142.93	78.49	346.77	
Feed and grain returns.....	232.62	223.83	228.01	233.40	230.20	194.03	106.00	206.00	
Livestock return above feed.....	80.86	62.39	58.81	49.16	52.08	63.50	33.55	182.50	
Value of farm production.....	321.52	293.17	294.37	288.42	288.08	261.97	143.10	396.79	
Total non-feed costs.....	257.75	226.74	236.91	220.82	215.63	207.67	135.90	296.68	
Management returns.....	63.77	66.44	57.46	67.59	72.44	54.30	7.20	100.11	
SELECTED COST ITEMS									
Fertilizer, annual.....	\$ 3,905	\$ 4,544	\$ 6,473	\$ 9,214	\$15,248	\$ 5,755	\$ 6,316	\$ 3,713	
Building repairs.....	1,386	901	1,687	1,928	2,234	1,021	1,347	1,265	
Building depreciation.....	2,306	2,770	4,340	5,506	6,292	2,170	2,168	4,043	
Machinery and equipment depreciation.....	4,754	5,830	7,561	10,555	14,305	5,498	5,895	10,373	
Machinery repairs, supplies.....	2,668	3,283	3,966	5,594	7,647	4,003	3,878	4,097	
Machinery hire.....	1,205	1,002	1,453	1,369	2,963	958	1,323	837	
Gasoline and oil.....	1,440	1,776	2,239	3,034	4,484	1,964	1,971	2,108	
Unpaid labor charge.....	6,989	7,610	7,639	8,669	9,392	7,737	8,146	8,155	
Hired labor charge.....	952.	1,351	2,976	4,650	8,315	2,687	5,715	8,133	
Total months of labor.....	13.9	15.8	19.4	23.4	30.2	16.7	25.2	22.2	
Months of labor hired.....	1.7	2.6	6.1	8.3	13.8	3.2	11.0	8.0	
FARM INVESTMENT									
Livestock inventory.....	58,451	63,900	99,281	121,808	181,913	40,742	60,710	22,226	
Grain inventory.....	20,358	26,351	30,205	46,033	61,837	16,800	21,312	19,914	
Remaining capital cost in									
Machinery and auto.....	12,558	18,300	21,262	31,655	42,206	17,038	15,083	26,874	
Buildings and fence.....	22,749	29,911	44,757	58,827	71,726	17,342	17,086	33,189	
Soil fertility.....	1	43	90	0	0	--	--	0	
Value of land (current).....	154,143	207,271	270,338	387,555	586,824	130,571	215,983	204,094	
Total farm investment.....	268,260	345,776	465,933	645,879	944,506	222,495	330,173	306,296	
Total investment per acre.....	1,178.00	1,164.23	1,159.90	1,154.93	1,048.18	633.89	358.88	1,137.49	
Machinery investment per tillable acre.....	64.14	68.87	62.49	64.71	58.39	67.61	30.97	106.95	
PERCENT OF TILLABLE LAND IN									
Corn and corn silage.....	63.6	62.1	65.2	65.9	67.4	44.3	29.8	49.0	
Soybeans.....	10.7	12.2	12.3	16.1	13.7	21.4	14.3	35.8	
Wheat.....	.1	.1	.2	1.2	.7	14.7	6.5	1.4	
Other small grains.....	6.1	5.8	4.4	3.9	2.5	0	.3	3.4	
Diverted acres.....	2.6	1.7	2.5	1.3	2.0	1.2	3.5	1.4	
All hay and pasture crops.....	13.5	14.8	14.0	10.0	11.5	16.9	27.6	1.9	
CROP YIELDS, bu. per acre									
Corn.....	106	101	104	104	107	92	77	101	
Soybeans.....	39	39	37	36	35	29	22	37	
Wheat.....	51	53	48	44	41	27	20	18	
Oats.....	46	53	55	50	56	0	50	44	

a/ Variations in totals are due to rounding to the nearest dollar.

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767

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663

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1,293

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336

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839

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487

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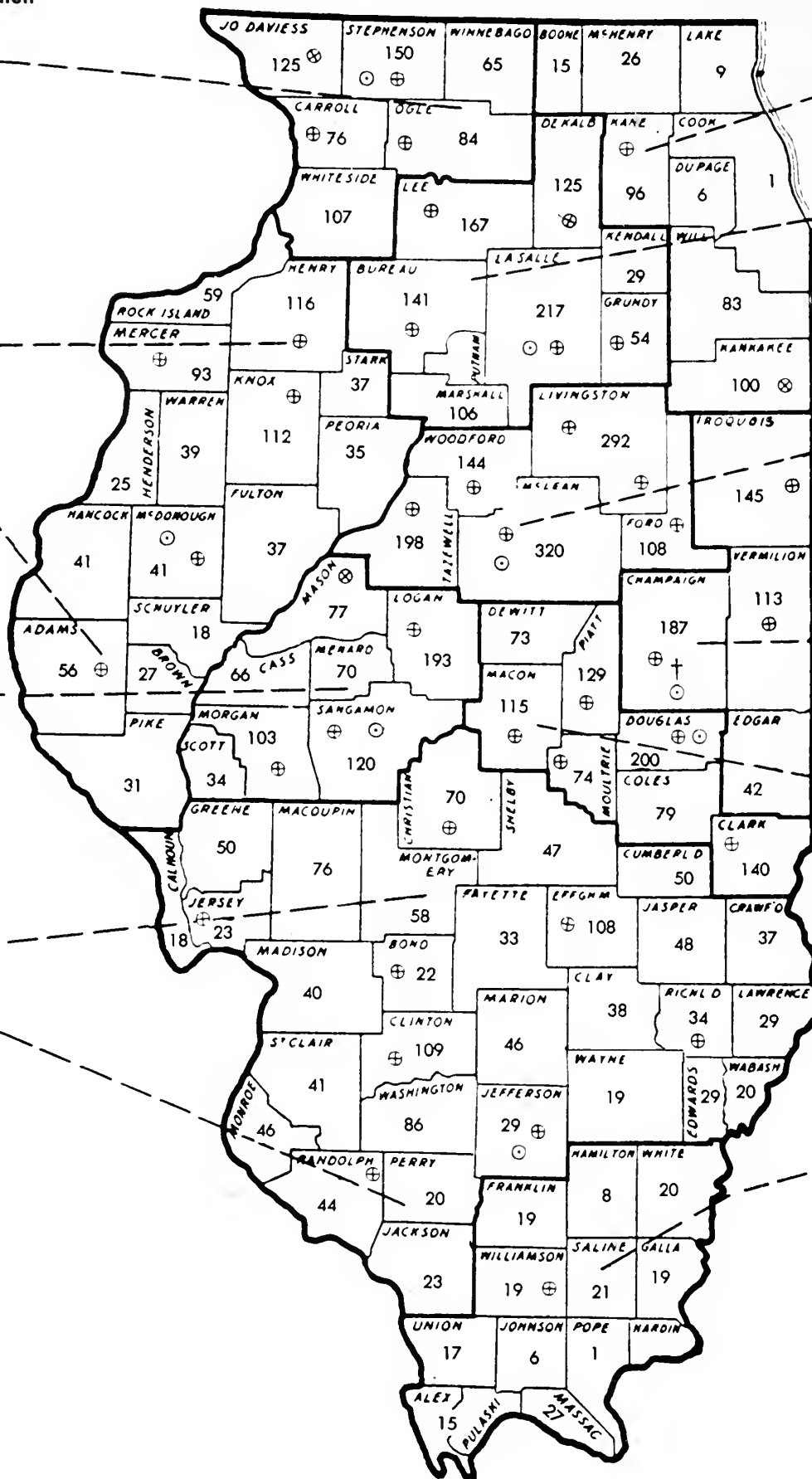
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172

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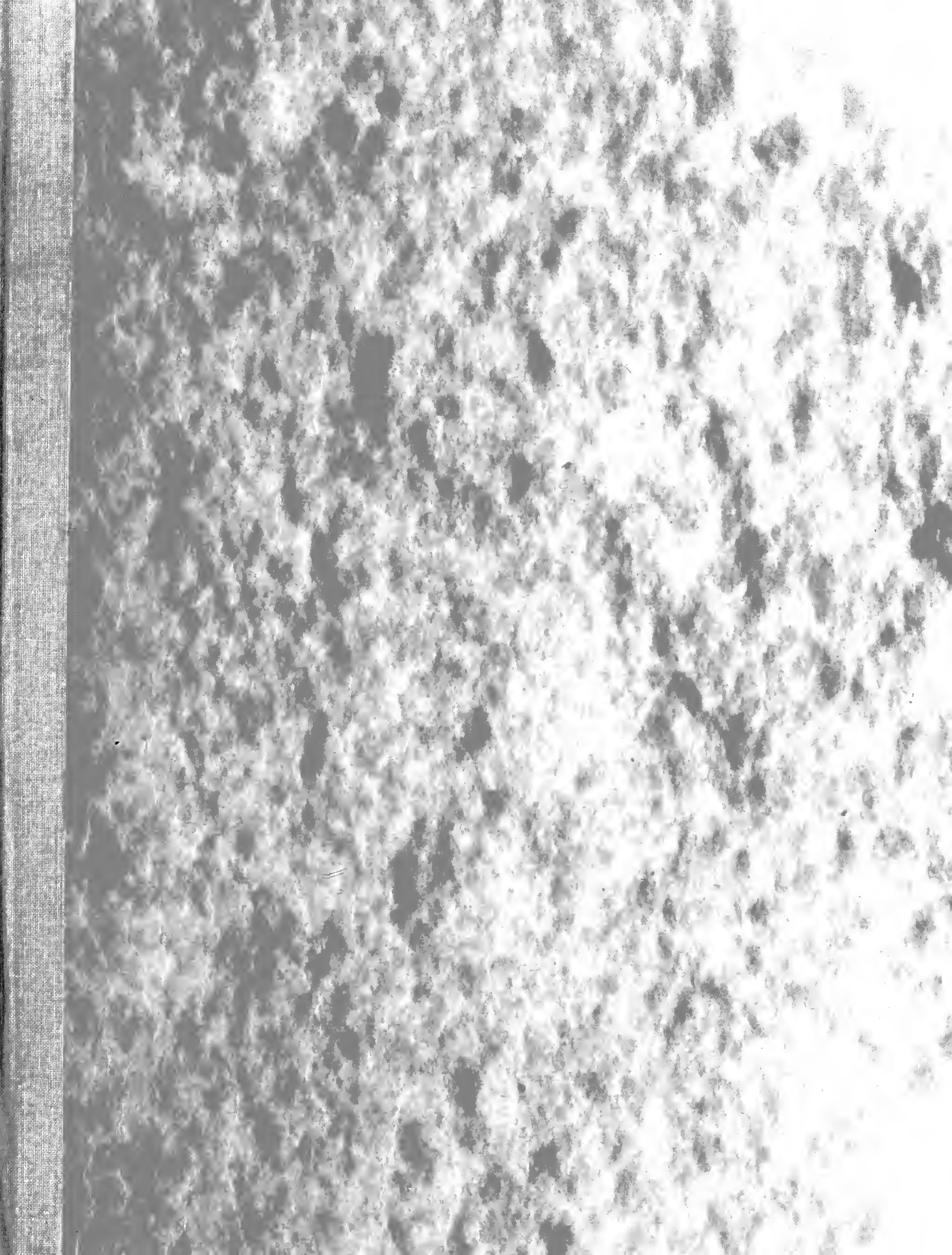
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