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1983 59th 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

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SOURCE OF DATA

This report is based on data obtained from farm business records on 7,977 Illinois farms. It is the 59th 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 (FBFM) Association.

At present, about one out of every five commercial farms in Illinois of over 500 acres is enrolled in this service. The service has grown steadily. In 1984, 10 associations in 102 counties are being served by 70 full-time field staff. Participation in this farm-business analysis program is voluntary, and cooperating farmers pay a fee for the educational services.

The program's development since 1940 is shown below.

Year	Associa- tions	Counties partici- pating	Field staff 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
1983	10	102	70	7,977

Estimates for 1983 indicate that 86 percent of the 7,977 farms covered in this report are larger than 240 acres. For the most part, this 86 percent falls within the size of business that includes farms selling \$40,000 or more of farm products a year. In the 1982 Census of Agriculture, farms selling \$40,000 or more accounted for 89 percent of all sales from Illinois farms.

The segment of Illinois agriculture that includes farms with more than 180 acres is often referred to as "commercial farming." In 1982, there were 48,568 farms in Illinois with more than 180 acres and with sales of \$10,000 or more. The figures that follow, taken from the 1982 Census of Agriculture, show that these farms represented 73 percent of the 66,958 farms larger than 50 acres and produced more than 97 percent of the agricultural products sold from Illinois farms.

Acres per farm	Percent of total farms over 50 acres	Percent of census farms enrolled in FBFM	Number of farms enrolled in FBFM
180-499.....	45.8	10.3	3,148
500-999.....	20.7	19.8	2,738
1,000-1,999	5.4	20.7	744
2,000+	0.7	16.6	79

Although most of the 1983 record-keeping farms covered in this report are within the two smaller-size groups, the figures show that they are not distributed

proportionately among the groups. There were 4,073 farms with more than 1,000 acres in 1983. About a fifth of these farms (20.2 percent) were enrolled in the Illinois FBFM Association. Of the 13,837 farms in the group having 500 to 999 acres, 19.8 percent also participated in the farm record program. Only about 5 percent of the farms enrolled had fewer than 160 acres. The average size of all farms enrolled in 1983 was 583 acres, compared with an average of 284 acres for all Illinois farms.

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 analysis of a farm business involves a careful study of past performance to detect problems and strengths in the farming operation. Also involved is the process of planning and developing future operations to realize the full potential of the land, labor, and capital resources available and to improve the 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 to develop plans for future farming operations. This report summarizes the information so that specialists involved in agricultural extension, research, teaching, and agribusiness activities may use the data to help them perform their duties effectively. The definition of terms and accounting measures on the following page will be of assistance in using the data.

The first part of the report (Tables 2 to 7) summarizes recent changes in farm income on Illinois farms. It also identifies economic forces and factors that contribute to these changing trends. Some data used in the text are drawn from previous issues of this report.

The second section (Tables 8 to 18) presents data on the livestock enterprise. The comprehensive and detailed information contained in this section is a valuable resource for anyone interested in livestock production. Because part 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 some farming operations.

The third section (Tables 19 to 27a) reports costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern, central, and southern Illinois. It also reports on the 25 percent of grain farms that received the highest return to management and the 25 percent that received the lowest return, and on two-man (21 to 27 months of labor) and three-man (31 to 39 months of labor) hog and beef farms.

DEFINITION OF TERMS AND ACCOUNTING METHODS

Soil-productivity rating

This rating 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 Illinois Extension Circular 1156, *Soil Productivity in Illinois*. New land values were assigned in 1980. The change in land values represents an accounting adjustment to bring land values to current market levels.

Hay equivalents, tons

To get the equivalents, we took the total of 1.0 × pounds of hay, 0.45 × pounds of hay silage, 0.33 × pounds of corn silage, and 24 × pasture-days per feed unit, multiplied by the total feed units per cow, and divided by 2,000.

Type of farm

Sampling technique: Data from all records certified for analysis by field staff were aggregated by size (acres or number of cows), type of organization, value of the feed fed, and soil-productivity rating. Electronic data-processing was used to summarize the data.

Grain farms: Farms where the value of the feed fed was *less* than 40 percent of the crop returns and where value of feed fed to dairy or poultry was not more than a sixth of the crop returns. Since 1973, farms with livestock have been essentially excluded from the sample of grain farms in northern and central Illinois in Table 19; since 1978, from the grain-farm sample in Table 20; and since 1982 from the grain-farm sample in Table 4.

Hog or beef farms: Farms on which the value of feed fed was *more* than 40 percent of the crop returns and either hog or beef-cattle enterprises received more than half of the value of feed fed.

Dairy or poultry farms: Farms where the value of feed fed was *more* than 40 percent of the crop returns and either the dairy or the poultry enter-

prises received *more* than one-third of the value of the feed fed.

Cost items

Value of feed fed includes on-the-farm grains with the following average prices per bushel: corn, \$3.06; oats, \$1.91; and wheat, \$3.33. Commercial feeds were priced at actual cost, hay and silage at farm values, and pasture at 35 cents per animal unit per pasture-day. A pasture-day represents an intake of approximately 20 to 25 pounds of dry matter, defined as 16 pounds of total digestible nutrients (TDN) from the pasture used.

Cash operating expenses include the annual cash outlays for these nondepreciable items: fertilizer; pesticides; seeds (including homegrown seeds); machinery repairs; machine hire; fuel and oil; the farm share of electricity, telephone, and auto expenses; building repairs; drying and storage; hired labor; livestock expenses; taxes; insurance; and miscellaneous expenses. Purchased feed and livestock are not included because they have been deducted from gross receipts in computing the value of farm production. The interest paid is not included because an interest charge is made on the total farm investment.

Machinery and equipment include depreciation, repairs, machine hire, fuel and oil, and the farm share of electricity, telephone, and auto.

Labor includes hired labor plus family and operator's labor charged in 1983 at \$1,100 a month.

Interest on nonland capital covers the interest charged at 12 percent on the sum of one-half the average of the January 1 and December 31 inventory value of grain plus the average of the January 1 and December 31 inventory of remaining capital investment in livestock, machinery and auto, buildings, and soil fertility plus *one-half* the cash-operating expense, exclusive of interest paid. In Tables 4, 6, and 7 this charge is combined with the land charge-net rent and labeled interest charge on capital. The average interest paid per farm by farm operators was \$16,627. Details on operator and landlord shares of expenses and income are published annually in research reports by the Department of Agricultural Economics.

Land charge-net rent is the bare land priced at current land values × 3.2 percent to reflect landlord net rents received.

Total nonfeed costs include cash-operating expenses, adjustments for accrued expenses and farm-produced inputs, depreciation, and charges for unpaid labor and interest including land charge. 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 February index of land prices in Illinois as reported by the USDA. The

land value index for 1983, using a base earning value of 1979 = 100, was 94.

Return items

Crop returns. This is the sum of grain, seed and feed sales, value of homegrown seed used, the value of all feed fed (except milk), and the change in value for feed and grain inventories, less the value of feed purchased.

Value of farm production. The total is for cash and accrued value of sales of products and services, less the cost of purchased feed and livestock, plus the change in inventory values for grain and livestock, plus the value of farm products used.

Net farm income. Value of farm production, less total operating expenses and depreciation, plus gain or loss on machinery or buildings sold and cost basis adjustment when electing the 10 percent investment credit for income tax reporting. This figure includes the return to the farm and family for unpaid labor, the interest on invested capital, and the returns to management. Before 1980, this item was identified as farm and family earnings or net farm earnings.

Labor and management income per operator. This is total net farm income, less the value of family labor and the interest (including net rent) charged on capital invested. This figure as the residual return to all unpaid operator's labor and management efforts is then divided by months of unpaid operator labor and multiplied by 12 to reflect income for one operator on multiple-operator farms.

Capital and management earnings are net farm income, less a charge for all unpaid labor.

Management return is the residual surplus left after a charge for unpaid labor and the interest or land charge on capital are deducted from net farm income.

Rate earned on investment. Capital and management earnings (interest on all capital and land charge plus management returns) per \$100 of the total farm investment.

RECENT CHANGES IN INCOME ON ILLINOIS FARMS

Farm business trends in 1983

Illinois agriculture is based largely on crop production, especially corn and soybeans. In 1983, Illinois ranked second in the nation in the production of corn and soybeans. The total value of corn and soybeans produced on Illinois farms was 16 percent of the total U.S. production for these crops. In 1982, the total value was 62 percent of the total cash receipts in Illinois from all crops and livestock and 91 percent of the cash receipts from all crops sold by Illinois farmers.

Crops. Year-to-year variations in net income are related to crop yields, grain prices, and acres in high cash-value crops. In 1983, the average corn yield for Illinois was 80 bushels per acre, down 40 percent from last year's record yield of 133 bushels per acre. This was the lowest yield since 1970. Record-keeping farms averaged 81 bushels per acre in 1983, compared with 138 bushels in 1982. Soybean yields were 29 bushels per acre in 1983 compared with 39 in 1982. Crop yields on the 7,977 record-keeping farms covered in this report averaged only a bushel or so above the average for all Illinois farms reported by the Illinois Crop Reporting Service.

The prices received for all soybeans sold during the year averaged 45 to 51 cents per bushel above 1982 prices, depending on location in the state (Table 1). Corn prices received in 1983 averaged 27 to 32 cents more than in 1982. Wheat sold for 9 to 12 cents more per bushel during the year. Positive marketing margins on old-crop corn and soybeans inventoried at the beginning of the year averaged about 50 cents for corn and 90 cents for soybeans. Year-end new crop corn and soybean inventory prices were 35 to 40 percent above the previous year's inventory prices.

The most significant factors affecting 1983 crop yields and prices were the drought and the government acreage-reduction programs. The Illinois 1983 All Crop Production Index, at 65.1 percent of its 1977 base, was down 44 percent from the 1982 high index level of 116.7. Participation in the government acreage reserve and PIK programs contributed to reductions of 31 percent in acreages of corn harvested for grain and 7 percent in acreages of wheat for harvest. Soybean acreage was also reduced 5 percent from the previous year.

Table 1. Average Prices Received and Paid by Farm Record Keepers

	1983		1982	
	Northern Illinois	Southern Illinois	Northern Illinois	Southern Illinois
Grain prices per bushel				
Purchased — corn	...	...	\$2.39	\$2.39
Sold — corn	\$2.77	\$2.78	2.50	2.46
soybeans	6.48	6.33	5.97	5.88
wheat	3.40	3.38	3.28	3.29
Livestock prices per cwt.				
Hogs, all weights	\$46.27		\$53.96	
Fed cattle, all weights	61.11		61.94	
Feeder cattle, all weights, prices paid	60.00		61.65	
Dairy cattle, all weights	45.62		49.62	
Sheep and wool, all weights	44.94		48.00	
Milk per cwt.	12.63		12.92	
Eggs per dozen	.60		.48	

^a Not available.

Corn planting for the 1983 crop started slowly because cool, wet weather delayed spring fieldwork. Planting was not complete until mid-June. By mid-July the weather conditions had changed to hot and dry. This weather pattern put the crop under considerable stress and adversely affected pollination, especially in the southern two-thirds of the state. The corn matured early. Excellent harvest conditions resulted in harvest being complete a week ahead of average. Soybean planting was also delayed by the cool, wet conditions and was not complete until late June. Hot, dry conditions from July through early September hindered blooming and pod development. These factors caused the crop to mature rapidly, and soybean harvest was complete by early November.

Livestock. A second major determinant in farm income is the price farmers receive for livestock and livestock products sold. In 1983, the average prices received by farm record keepers in the Illinois FBFM Association were 14 percent lower for hogs and steady to slightly lower for beef and milk (Table 1). The prices paid for all weights of feeder cattle and feeder pigs averaged 3 percent below the 1982 price for feeder cattle and 27 percent below the 1982 price for feeder pigs. The cattle prices, combined with 14 percent higher feed costs, resulted in a 19 percent drop in returns above feed cost (see Table 9). But the lower hog prices, combined with the increased feed costs, made hog returns approximate the low return years in 1980 and 1981.

Labor and management income

The average operator's share of labor and management income for 1979-1983 from all northern Illinois record-keeping farms (those north of a line from Kankakee to Moline) was \$2,352. Operators on 1,839 grain and hog farms in central Illinois had 5-year average earnings of \$6,044 (Table 2). Central Illinois occupies the area between the Kankakee-Moline line on the north and the Mattoon-Alton line on the south. Smaller farms and variable soil quality in northern Illinois result in smaller earnings from crops. The farms there typically average 5 to 10 percent lower crop yields than those in central Illinois.

But because of very low corn yields in central Illinois in two of the last five years, this difference has narrowed. The record-keeping farms in northern Illinois averaged 469 tillable acres per farm, compared with 545 tillable acres on farms in central Illinois. The labor and management income varies considerably, depending on the location and type of farm. For 1979-1983, operators in southern Illinois averaged \$-1,932 for labor and management. The effect of the 1983 drought on southern Illinois farms was to cause this 5-year average to drop \$7,469 per farm, from \$5,537 to \$-1,932.

In 1983, the labor and management income for all areas of Illinois averaged \$-508 per farm. It increased only \$1,243 over 1982, but was \$11,974

Table 2. Operator's Share of Labor and Management Income by Size and Type of Farm (1979-1983 Average)

	Number of acres per farm			
	Under 340	340-649	650+	All
Northern Illinois				
Acres of tillable land.....	222	432	842	469
Labor and management earnings by type of farm				
Grain.....	\$ 1,168	\$ 7,120	\$10,050	\$ 6,911
Hog.....	-1,846	2,468	-1,806	-213
Beef ^a	-10,566	-16,756	-12,111	-14,082
Dairy.....	2,708	3,060	...	2,809
All.....	-104	2,754	4,842	2,352
Central Illinois				
Acres of tillable land.....	251	449	845	545
Labor and management earnings by type of farm				
Grain ^b	\$ 3,575	\$ 8,369	\$15,250	\$ 9,935
Grain ^c	815	4,185	8,454	5,413
Hog.....	-912	-5,889	-799	-3,519
All.....	1,577	4,309	11,010	6,044
Southern Illinois				
Acres of tillable land.....	223	466	941	573
Labor and management earnings by type of farm				
Grain.....	\$-1,047	\$ -576	\$-2,652	\$-1,871
Hog.....	-5,036	-6,674	...	-6,835
Dairy.....	6,864	5,703	...	5,987
All.....	-345	-1,595	-3,286	-1,932

^a Includes central Illinois.

^b Highly productive soils with soil-productivity ratings of 86 to 100.

^c Heavy till and transition soils with soil-productivity ratings of 56 to 85.

above the very low year of 1981. The government acreage reduction and PIK program helped some farmers maintain a gross income while allowing them to reduce some costs. While these incomes declined on dairy and hog farms from 1982, they increased on grain farms in central and northern Illinois.

The income (salary) of the farm operator — whether tenant or part owner — is the return for the labor and management provided by the operator. The level of income received is a measure of overall farming efficiency and includes compensation for the risk involved. The income includes the operator's gross sales and the net change in inventory, reduced by operating expenses, depreciation, a charge for unpaid family labor, 12 percent interest on nonland investment, and a land-use charge equivalent to the average net rent received from 1978 to 1982 by landowners for crop-share leases.

Whenever the income figures in Table 2 get below the amounts required for paying living expenses and income and social security taxes, it becomes necessary for the charges deducted for interest on equity capital to be used to pay these expenses. These five-year average labor and management income figures indicate that the average farm operator's family used \$12,000 to \$20,000 of the return for equity capital to pay living and tax expense, depending on location and type of farm.

Table 3. Operator Farm and Family Sources and Uses of Dollars on an Average per Family, 1980 to 1983, Central Illinois

	All records, average per farm				Family of 3 to 5, 1983	
	1983	1982	1981	1980	High-third ^a	Low-third
Number in sample	257	195	132	178	61	61
Tillable acres farmed	601	606	590	602	681	486
Acres owned	128	122	106	120	189	69
Liabilities, January 1	\$227,749	\$210,515	\$170,376	\$154,467	\$334,771	\$165,738
Liabilities, December 31	223,757	227,064	188,411	176,889	336,628	174,289
Source of Dollars						
Net nonfarm taxable income	\$ 6,873	\$ 8,202	\$ 4,766	\$ 3,617	\$ 10,735	\$ 4,632
Money borrowed	81,460	120,741	110,019	101,424	106,892	84,244
Farm receipts	148,671	149,695	136,447	140,892	183,637	114,779
Total sources	\$237,004	\$278,638	\$251,232	\$245,933	\$301,264	\$203,655
Use of Dollars						
Interest paid	\$ 22,812	\$ 22,644	\$ 16,619	\$ 14,359	\$ 36,208	\$ 16,018
Cash operating expenses	84,680	90,769	80,284	83,684	102,511	68,962
Capital farm purchases	15,338	21,988	22,232	18,155	19,705	14,998
Payments on principal	85,006	104,192	91,983	79,002	104,978	75,428
Income and Social Security taxes	4,255	4,802	6,008	6,130	3,183	2,469
Net new savings and investment	-1,582	9,599	8,194	21,171	-2,837	7,656
Total living expense	23,335	22,300	21,948	21,205	33,354	16,038
Living — capital purchases	3,160	2,344	3,964	2,227	4,162	2,086
Total uses	\$237,004	\$278,638	\$251,232	\$245,933	\$301,264	\$203,655

^a Records were sorted into high- and low-third categories according to total living expenses.

Family living expenditures

Total cash living expenditures for a sample of 257 central Illinois farm-operator families in 1983 averaged \$23,335 (Table 3). This average was 4.6 percent above the 1982 average. Capital purchases for family living expenses of \$3,160 include family share of the auto plus items that exceed \$250 and will last more than one year. Capital purchases when added to the other living expenses were 12 percent of total cash outlay for all family living expenditures for 1983.

The average farmer in this sample paid \$22,812 in interest in 1983 on operating and machinery debts plus the long-term real estate debt. This interest expense has increased from 15 percent of total operating expenses (including interest paid) in 1980 to 21 percent in 1983. It was 15 percent of total farm receipts in 1983 and \$38 per tillable acre farmed.

The most significant financial facts about 1983 are as follows: the \$39,281 or \$65 per acre reduction in the funds borrowed; capital purchases for machinery cut to \$15,338 or only \$26 per tillable acre; and a \$11,181 drop in net new savings and investments. These changes reflect the adjustments occurring in the average operator's farm and family expenditures to cope with tight cash flow.

The 1983 records from families with three to five persons were sorted into high one-third and low one-third groups according to the total living expenses (see Table 3). The total cash living expenses for the high-third group averaged \$33,354, compared with \$16,038 for the low-third group. The high-third group farmed 195 more acres than the other group and owned 28 percent of the land farmed; the low-third group owned only 14 percent of the land farmed. The results indicate that the high-third group

had more nonfarm taxable income from off-farm investments and twice as much outstanding debt; yet this group found it necessary to use up savings to support the higher interest and living costs.

Living expense included cash expenditures for food, operating expense, clothing, personal items, recreation, entertainment, education, transportation, life insurance, contributions, and medical expenses. The farms contained 62 more tillable acres than the average of all the record-keeping farms in the state. Management was also considered to be slightly above average. Considering these factors, it is estimated that the average total living expense (excluding capital purchases) for all record-keeping families would be about \$19,000 to \$21,000 — 10 to 15 percent below the average of these 257 farms. When the \$6,873 net nonfarm income for 1983 is used for living, the remaining \$19,622 must be generated from the farm business. This amounts to \$33 per tillable acre farmed.

Income changes on Illinois farms

Comparative costs and returns between years and among major types of farming operations in northern and central and southern Illinois are reported in Tables 4, 6, and 7. The separation of farms into northern and central, and southern Illinois is based on soil-type regions dividing the state approximately on an east-west line from Mattoon to Alton. The sample consisted of grain, hog, beef, and dairy farms that were between 340 and 499 acres and averaged 413 acres. Labor available on farms of this size averaged 14 months on grain farms, 20 months on hog farms, 17 months on beef farms, and 25 months on dairy farms. The data in the tables are presented as if the farms were all owner operated. For leased

farms, the landlord and tenant shares of the business were combined. Between 55 and 75 percent of the land in Illinois is tenant operated, depending on the location, primarily under crop-share and livestock-share leases.

Size of farm, type of farm, quality of soil, and managerial inputs have been held reasonably constant by the sampling procedure used in selecting farms within each category. Variations among figures for 1982, 1983, and the 5-year average are due to changes in farm prices and to costs, weather, and internal farming adjustments. The data in Tables 4, 6, and 7 are particularly helpful for evaluating changes in farm costs and returns within a particular size and type of

farm, and for making comparisons between types of farming. The data do not reflect overall farming adjustments resulting from the enlargement of farms or major changes in the use of resources.

The figure for net farm income (formerly identified as farm and family earnings) comprises returns to the farm family for all unpaid labor, interest on invested capital, and the managerial inputs used in farming. Changes in the value of farm inventories and that of farm products consumed are included as income. Net farm income is calculated by accounting methods generally comparable to the accrual method used to calculate taxable farm income for the federal income tax. Two important differences occur under

Table 4. Average Selected Total Farm Items on 340- to 499-Acre Northern and Central Illinois Grain, Hog, and Beef Farms

	Grain farms ^a			Hog farms			Beef farms		
	1983	1982	1979-83 average	1983	1982	1979-83 average	1983	1982	1979-83 average
Number of farms	378	370	366	151	121	130	49	41	46
Total acres	423	423	421	413	411	413	411	409	410
Soil productivity rating ^b	88	88	88	80	82	81	79	80	80
Cash operating income	\$ 139,018	\$ 131,658	\$ 129,924	\$ 226,273	\$ 240,112	\$ 217,837	\$ 334,472	\$ 315,536	\$ 327,637
Less purchased feed and livestock	1,841	654	882	61,550	66,549	63,827	174,841	186,536	180,357
Net cash operating income	\$ 137,177	\$ 131,004	\$ 129,042	\$ 164,723	\$ 173,563	\$ 154,010	\$ 159,631	\$ 129,000	\$ 147,280
Inventory change	-2,280	-3,445	3,082	-14,858	14,388	1,216	-15,731	15,476	-8,094
Farm products used	323	226	215	567	634	639	1,030	1,045	1,049
Value of farm production	\$ 135,220	\$ 127,785	\$ 132,339	\$ 150,432	\$ 188,585	\$ 155,865	\$ 144,930	\$ 145,521	\$ 140,235
Total operating expenses	55,629	60,837	56,449	73,989	78,939	72,303	69,330	73,397	68,146
Annual depreciation	17,726	16,175	15,228	28,707	25,852	24,658	27,015	23,598	23,329
Net farm income	\$ 61,865	\$ 50,773	\$ 60,662	\$ 47,736	\$ 83,794	\$ 58,904	\$ 48,585	\$ 48,526	\$ 48,761
Unpaid labor charge	13,122	12,815	12,462	15,881	16,072	15,535	14,794	14,342	13,827
Returns to capital and management	48,743	37,958	48,200	31,855	67,722	43,369	33,791	34,184	34,933
Interest charge on capital	54,433	57,088	56,629	63,640	69,914	65,795	68,835	76,536	73,101
Management returns	\$ -5,690	\$ -19,130	\$ -8,429	\$ -31,785	\$ -2,192	\$ -22,426	\$ -35,044	\$ -42,352	\$ -38,168
Total cash income ^c	139,498	132,720	130,645	226,917	241,069	218,572	335,138	315,668	327,975
Total cash expenditures ^c	71,503	73,605	72,020	159,713	175,087	164,699	268,422	280,606	265,975
Cash balance	\$ 67,995	\$ 59,115	\$ 58,625	\$ 67,204	\$ 65,982	\$ 53,873	\$ 66,716	\$ 35,062	\$ 62,000
Capital purchases	12,879	13,056	...	23,737	29,492	...	24,129	20,709	...
FARM INVESTMENT									
Livestock inventory	\$ 143	\$ 134	\$ 171	\$ 72,002	\$ 73,541	\$ 71,252	\$ 135,093	\$ 130,987	\$ 140,841
Grain inventory	93,836	97,824	97,218	70,118	73,896	74,156	71,316	78,624	79,776
Remaining capital cost in:									
Machinery and auto	36,551	40,672	40,018	46,571	49,167	49,847	45,288	49,414	51,133
Buildings and fence	25,724	24,971	23,857	75,917	78,703	79,505	64,100	70,929	70,884
Soil fertility	31	33	40	39	77	59	0	...	19
Value of land (current basis)	1,173,047	1,302,028	1,275,518	973,987	1,087,325	1,066,720	957,738	1,082,198	1,054,769
Total farm investment	\$1,329,332	\$1,465,662	\$1,436,822	\$1,238,634	\$1,362,709	\$1,341,539	\$1,273,535	\$1,412,152	\$1,397,422
Rate earned on investment, %	3.67	2.59	3.35	2.57	4.97	3.23	2.65	2.42	2.50

^a Sample now includes only farms where value of feed fed to livestock was less than 1 percent of crop returns.

^b Adjusted in 1979. See Illinois Circular 1156, *Soil Productivity in Illinois*.

^c Includes sales or purchases of capital items.

^d Data available only for period from 1980 to 1983.

the accrual method of income tax accounting — the provision for capital gains on livestock sales and the inclusion of interest paid as a farm expense.

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

The investment per farm is established as an average of the January 1 and December 31 investments on the farm each year. Physical quantities of grain and livestock are valued at farm market prices. Machinery, buildings, and soil fertility are valued at the remaining capital cost (original cost less depreciation as allowed for income tax deductions to date). Land is priced at current values. A base land value is established for each farm on the basis of soil-productivity rating that is adjusted to a current value each year by using the February index of land prices in Illinois. The procedure used for adjusting the land value is described in the definitions of soil productivity rating and value of land (current basis) on page 2. The annual change in land values represents an accounting adjustment to bring land values to current market levels. The land adjustment index for 1983 was 9.6 percent below that of 1982.

Northern and central Illinois farms

Grain farms. The net farm income for grain farms having no livestock in northern and central Illinois (340 to 499 acres) averaged \$61,865 in 1983, with operator and landowner shares combined (Table 4). This income is \$11,092 above that of 1982 and approaches the pre-1981 period. Even though corn yields averaged 55 bushels per acre below yields in 1982 and soybean yields 4 bushels below, crop returns were boosted \$20 per acre above those of 1982 because of 8 to 10 percent higher selling prices for grain sold during the year; year-end inventory prices that were 40 percent higher; government acreage reserve and PIK program payments. The higher crop returns plus 5 percent lower cash-operating expenses accounted for the net farm income increase. The allowance for depreciation increased 9 percent whereas capital purchases declined again to only \$32 per tillable acre. Interest charges on all capital used declined 5 percent from 1982. The \$5,690 negative management return would be positive today if interest charges were to return to the 1978 rate.

A study of the cost to grow corn and soybeans on central Illinois farms is summarized in Table 5. These farms had high soil ratings (soil productivity index 86-100) and did not participate in the 1983 government acreage reserve program. These farms continued to use 96 percent of their tillable land to

Table 5. Average Cost per Tillable Acre to Grow Corn and Soybeans on Central Illinois Grain Farms with No Livestock

	Corn		Soybeans	
	1983	1982	1983	1982
Number of farms.....	100	547	101	547
Acres grown per farm....	274	302	232	260
Yield per acre, bu.....	96	155	38	46
Nonland costs				
Variable costs				
Soil fertility.....	\$ 53	\$ 57	\$ 16	\$ 17
Pesticides.....	20	19	17	17
Seed.....	19	19	13	13
Drying and storage....	10	15	3	4
Machinery repairs, fuel, and hire.....	28	31	24	26
Total, variable costs...	\$130	\$141	\$ 73	\$ 77
Other nonland costs				
Labor.....	\$ 31	\$ 31	\$ 29	\$ 28
Buildings and storage..	9	9	5	5
Machinery depreciation.....	36	33	29	26
Nonland interest.....	43	51	37	47
Overhead.....	12	11	11	11
Total, other costs.....	\$131	\$135	\$111	\$117
Total, nonland costs...	\$261	\$276	\$184	\$194
Land costs				
Taxes.....	\$ 22	\$ 22	\$ 22	\$ 22
Adjusted net rent.....	99	97	99	97
Total land costs.....	\$121	\$119	\$121	\$119
Total, all costs.....	\$382	\$395	\$305	\$313
Nonland cost per bu.....	\$ 2.72	\$ 1.78	\$ 4.84	\$ 4.22
Total, all costs per bu....	\$ 3.98	\$ 2.55	\$ 8.03	\$ 6.80
.....				
Avg. yield, past 4 years...	123	136	42	44
Total, all costs per bu....	\$ 3.11	\$ 2.90	\$ 7.26	\$ 7.11

grow corn and soybeans, with 52 percent of the acres in corn and 44 percent in soybeans. The table compares 1983 cost per acre with the 1982 cost. In 1983, the total cost averaged \$382 per acre for corn and \$305 for soybeans. From 1982 to 1983, the total cost decreased 3 percent for both corn and soybeans. Next to soil fertility, nonland interest cost continues to be one of the largest cost items apart from the charge for land.

Nonland costs of \$2.72 per bushel for corn and \$4.84 for soybeans in 1983 are the most relevant costs for continuing production in the short run, especially where land is free of debt. The low yields in 1983 increased the cost per bushel. If the 1983 yields had been at the 1980-1983 average of 123 for corn and 42 for soybeans, the total of all costs per bushel would have been \$3.11 for corn and \$7.16 for soybeans. These costs do not include a charge for management.

The cost of fertility for soybeans was allocated on the basis of phosphorus, potassium, and lime removals, with the residual allocated to corn. The total unpaid labor charge was based on the labor available. The nonland interest rate was 12 percent of one-half the average of the beginning- and end-of-year inventory value for the crops on hand plus one half the cash-operating expenses, excluding interest paid, plus the

depreciated value of machinery and buildings. The adjusted net rent was the average net rent received by crop-share landlords as reported on record-keeping farms for 1980-1982.

Hog farms. The net farm income for hog farms in northern and central Illinois (340 to 499 acres) in 1983 averaged \$47,736, with operator and landlord shares combined (Table 4). After one year of favorable returns for hog producers in 1982, the 14 percent lower prices for hogs sold, combined with 13 percent higher feed costs and low crop yields, resulted in net incomes returning to the low levels of 1981. Compared with 1981, the drop in inventory values of crops and livestock during the year was 38 percent greater, and allowance for depreciation was 23 percent higher. Interest charges however, were 11 percent less. Except in 1982, these farms have had substantial negative management returns in four of the past five years.

Even though corn yields were much lower in 1983, higher selling prices for large inventories carried over from 1982, along with government payments, resulted in 10 percent higher crop sales. Each farm farrowed an average of 161 litters and produced about the same amount of pork as in the peak year 1979.

The increase in the 1983 allowance for depreciation over previous years reflects the change in the Federal Income Tax laws on the accelerated cost-recovery method of depreciation. These farms made substantial capital purchases in 1982, contributing to this increase in depreciation. Since 1978, annual operating expenses per farm increased \$4,834 per year until 1983 when they dropped \$4,950 or 6.3 percent. The year 1983 can be described as one in which hog profits dropped because of overexpansion of hog numbers. When combined with low crop yields and continued high interest charges, management returns were the second lowest year on record.

Beef farms. The net farm income for beef farms in northern and central Illinois (340 to 499 acres) averaged \$48,585 in 1983, with operator and landlord shares combined (Table 4). This is the same as in 1982 and the 1979-83 average. These farms produced 1,788 hundredweight of beef per farm, or weight-in-gain equivalents to 358 head at 500 pounds of gain per head.

For five consecutive years and for six of the last eight years, these farms have had negative returns for management exceeding \$29,000. Historically, returns on beef farms have fluctuated between high- and low-profit years. Since 1974, there have been only two profit-making years — 1975 and 1978. Higher management returns for 1983 resulted primarily from lower interest charges. Increased livestock sales, lower replacement cost for feeders, and 6 percent lower operating expenses offset the increased cost for depreciation and lowered inventory values.

Costs and returns to produce beef from 1980 to 1983, based on a detailed breakdown of individual

costs from a selected sample of beef farms, are shown in Table 13. Note that interest is the second highest expense next to feed. This analysis is discussed in more detail under the livestock section on feeder-cattle enterprises. Since 1979, interest costs have continued to plague beef farms while average selling prices have decreased. Although the average rate earned on the investment of 2.65 percent in 1983 on these farms was somewhat better than on other northern Illinois livestock farms, the 5-year average of only 2.5 percent is low enough to convince some Illinois beef producers to consider changing their present feeder operation or their choice of enterprise.

The data indicate that most farms on which beef cattle are raised or fed continue to compete for resources in Illinois where nonmarketable resources such as roughage, labor, and buildings, or very high levels of management are available. Unless the corn-beef livestock feeding ratios improve considerably, we can expect to see this type of farm survive primarily where there are large amounts of debt-free capital that can be combined with very high levels of management.

Dairy farms. The net farm income for dairy farms in northern and central Illinois (340 to 499 acres) averaged \$45,727 in 1983, with operator and landlord shares combined (Table 6). There was little to no change from 1982. Since the peak income years of 1978-1980, incomes have declined, making the current 1979-1983 average 25 percent lower than the 1978-82 five-year average. The average number of cows per farm increased from 61 to 62 but is 6 below the high year in 1980.

The value of farm production remained nearly the same, with increased crop and livestock sales from inventory offsetting the decline in total year-end inventory value. The expansion phase in number of dairy cows and operating expenses per farm that began in the mid-seventies came to a halt in 1983. Operating expenses remained about the same, whereas cost of purchased feeds and depreciation increased. The interest charge declined \$5,700 from 1982 to 1983 but is still \$13,941 above that of 1979. The interest charge on capital continues to be the second largest expense next to feed in the cost to produce milk (see Table 15).

The 1979-83 average rate earned on the investment for this type of farm was 3.66 percent. This rate of return is still higher than that earned on other farm types in northern and central Illinois. However, as milk-support prices continue to decline, adjustments on dairy farms will be necessary to lower unit production costs until dairy supplies are reduced substantially. More dairy farmers with high debt loads will be feeling the cash-flow crunch each month, and some may not be able to continue in business.

The price received for beef from cull animals and vealers from the dairy herd can be an important factor in determining total returns. When beef prices were high, those sales accounted for as much as 20

Table 6. Average Selected Total Farm Items on 340- to 499-Acre Northern and Central Illinois Dairy Farms

	1983	1982	1979-83 average
Number of farms	49	58	49
Total acres	405	407	401
Soil-productivity rating ^a	72	71	71
Cash operating income \$	198,864	185,321	185,891
Less purchased feed and livestock	32,559	31,100	31,831
Net cash operating income	\$ 166,305	\$ 154,221	\$ 154,060
Inventory change	-8,511	1,599	7,149
Farm products used	1,103	1,006	1,012
Value of farm production ... \$	158,897	156,826	162,221
Total operating expenses ..	81,345	81,225	74,755
Annual depreciation	31,825	30,275	26,652
Net farm income	\$ 45,727	\$ 45,326	\$ 60,814
Unpaid labor charge	20,159	20,238	19,340
Returns to capital and management	25,568	25,088	41,474
Interest charge on capital	61,972	67,672	61,934
Management returns	\$ -36,404	\$ -42,584	\$ -20,460
Total cash income ^b	198,991	185,468	186,040
Total cash expenditures ^b ...	140,376	140,403	142,297
Cash balance	\$ 58,615	\$ 45,065	\$ 43,743
Capital purchases	26,023	28,358	...
FARM INVESTMENT			
Livestock inventory	\$ 79,990	\$ 76,508	\$ 75,693
Grain inventory	62,897	63,187	61,815
Remaining capital cost in:			
Machinery and auto	60,905	69,741	62,900
Buildings and fence	83,820	85,126	88,597
Soil fertility	9	...	3
Value of land (current basis)	798,246	872,284	843,938
Total farm investment	\$1,085,867	\$1,166,846	\$1,132,946
Rate earned on investment, %	2.35	2.15	3.66

^a Adjusted in 1979. See Illinois Circular 1156, *Soil Productivity in Illinois*.

^b Includes sales or purchases of capital items.

^c Data available only for period from 1980 to 1983.

percent of the total income from the dairy enterprise, as they did in 1978 and 1979. But when beef prices are low, as they were from 1975 to 1977 and again since 1980, this source of income has dropped to only 10 to 12 percent of the total.

Southern Illinois farms

Grain farms. The net farm income for grain farms in southern Illinois (340 to 499 acres) averaged \$24,951 in 1983, with operator and landlord shares combined (Table 7). This income is the lowest for this size and type of farm since 1971 and 28 percent below 1982. Severe drought, causing corn yields to average 65 bushels per acre and soybeans 19 bushels per acre below 1982, resulted in about \$15,000 lower crop returns per farm. The sale of crops carried over from 1982 at higher prices, increased government acreage reserve and PIK payments, and 7 percent lower operating expenses helped cushion the effect of the drought on income.

The effect of low incomes during the past three years is evident in spending patterns. To balance cash flows, farm operators reduced spending wherever possible. In addition to cutting operating expenses, they have reduced capital purchases for machinery and buildings, which have continued to decline from \$16,438 per farm in 1981 to only \$11,775 in 1983 or \$30 per tillable acre. Depreciation charges actually increased 14 percent in 1983 because of the accelerated cost-recovery system of depreciation authorized by changes in the 1981 income tax laws.

Management returns for this size and type of farm have now been very low for the past three years, but the return has been negative in only 5 of the past 17 years. The fluctuation of the rate earned on investment from 6.7 percent in 1975 to 1.2 percent in 1983 indicates the variability of returns from this area of the state.

Hog farms. The net farm income for hog farms (340 to 499 acres) in southern Illinois averaged \$19,961 in 1983, with landlord and operator shares combined (Table 7). The \$54,588 drop in income from 1982 to 1983 indicates how vulnerable livestock feeder farms for hogs and beef are to price and yield changes occurring in the same year. Selling prices for hogs dropped 14 percent, and the average crop yields for corn and soybeans in 1983 were less than one-half the 1982 yields. Many of these farms were still trying to recover losses incurred during the three poor hog return years of 1979 to 1981. Management returns in 1983 were the lowest on record, \$7,852 lower than the previous low year in 1981.

When funds are available, capital purchases for machinery, equipment, and new facilities generally follow. From 1972 to 1979, producers invested heavily in new facilities. Since 1979, all capital purchases have been reduced to the bare minimum of \$18,060 per farm in 1983 or \$48 per tillable acre. Total operating expenses decreased 8 percent on these farms in 1983. These expenses had been increasing at the rate of 8.8 percent a year since 1978. The returns above all cost per hundredweight of pork produced in 1982 were high enough to cause the 1980-82 average to approach break-even on farms with more than 250 litters, and to be \$1.27 per hundred pounds produced below total cost on farms with less than 250 litters (Table 11). The 1983 returns averaged \$5 to \$9 per 100 pounds produced below the total of all costs.

While in 1982 the profits from the hog enterprise tended to supplement the low income from grain production on these farms, the hog enterprise losses in 1983 compounded the losses in grain production due to the drought. The 1979-83 rate earned on investment of 3.35 percent still ranks this type of farm as one that competes well for resources used. However, profit margins are getting smaller.

Dairy farms. The net farm income for dairy farms in southern Illinois (340 to 499 acres) in 1983 averaged \$29,396, with operator and landlord shares

combined (Table 7). This is 48 percent below the 1983 income and 53 percent below the 1979-1983 average. Corn and soybean yields of less than half the 1982 yields, combined with an 18 percent increase in feed purchases and an 8 percent increase in depreciation, contributed to the lowest net farm income for this size and type of farm since 1974.

The 13 percent average annual increase in total operating expenses from 1978 to 1981 has now declined 2 percent each year for the past two years. Farms with very low net incomes or net operating losses in 1983 were not able to utilize for income tax deductions all the accelerated depreciation available from capital purchases incurred in recent years. The

\$5,306 increase over 1982 in capital purchases for 1983 indicates that most of these farms must still have good equities in their businesses in order to maintain or increase capital purchases even though net income was at a record low level. However, large capital purchases made since 1980 may spell trouble for farms that have high debt loads and little equity capital. More dairy farmers can be expected to have the cash flow problems that have been with grain and hog farmers for a number of years.

The average number of milk cows per farm in 1983 was 72 compared with 69 in 1982 and with 74 for the past 5-year average. This average of 72 is 10 more than on farms of a similar size and type in

Table 7. Average Selected Total Farm Items on 340- to 499-Acre Southern Illinois Grain, Hog, and Dairy Farms

	Grain farms			Hog farms			Dairy farms		
	1983	1982	1979-83 average	1983	1982	1979-83 average	1983	1982	1979-83 average
Number of farms	112	143	143	74	65	63	44	42	41
Total acres	421	415	420	421	423	417	395	402	402
Soil productivity rating ^a	62	60	62	59	61	60	61	61	60
Cash operating income	\$104,989	\$109,345	\$107,270	\$184,757	\$200,219	\$181,426	\$188,999	\$195,212	\$190,558
Less purchased feed and livestock	6,363	8,369	7,990	60,056	55,665	58,573	37,114	33,896	34,112
Net cash operating income	\$ 98,626	\$100,976	\$ 99,280	\$124,701	\$144,554	\$122,853	\$151,885	\$161,316	\$156,446
Inventory change	-10,850	-2,347	-259	-20,047	18,446	1,068	-16,226	661	5,420
Farm products used	1,036	922	899	1,091	969	931	1,348	1,174	1,303
Value of farm production	\$ 88,812	\$ 99,551	\$ 99,920	\$105,745	\$163,969	\$124,852	\$137,007	\$163,151	\$163,169
Total operating expenses	45,446	48,714	46,117	61,150	66,311	58,921	73,585	75,128	72,354
Annual depreciation	18,415	16,032	15,299	24,634	23,109	21,602	34,026	31,436	28,322
Net farm income	\$ 24,951	\$ 34,805	\$ 38,504	\$ 19,961	\$ 74,549	\$ 44,328	\$ 29,396	\$ 56,587	\$ 62,493
Unpaid labor charge	13,901	13,358	13,069	15,121	14,951	14,479	18,588	18,761	17,326
Returns to capital and management	11,050	21,447	25,435	4,840	59,598	29,849	10,808	37,826	45,167
Interest charge on capital	36,342	37,801	37,416	43,740	49,608	46,030	52,613	57,346	51,750
Management returns	\$-25,292	\$-16,354	\$-11,981	\$-38,900	\$ 9,990	\$-16,181	\$-41,805	\$-19,520	\$-6,583
Total cash income ^b	105,746	109,507	108,016	184,923	201,082	181,865	191,773	195,766	191,325
Total cash expenditures ^b	63,134	69,511	68,982	138,605	142,899	139,748	137,587	130,813	136,386
Cash balance	\$ 42,612	\$ 39,996	\$ 39,034	\$ 46,318	\$ 58,183	\$ 42,117	\$ 54,186	\$ 64,953	\$ 54,939
Capital purchases	11,775	12,751	...	18,060	20,635	...	27,595	22,289	...
FARM INVESTMENT									
Livestock inventory	\$ 9,160	\$ 11,396	\$ 11,268	\$ 60,138	\$ 55,646	\$ 54,470	\$ 85,468	\$ 75,103	\$ 74,144
Grain inventory	51,328	56,110	55,377	41,282	55,962	52,847	46,365	56,164	53,731
Remaining capital cost in:									
Machinery and auto	41,182	41,971	42,940	45,113	47,760	48,708	64,157	70,896	67,081
Buildings and fence	15,553	13,845	15,902	40,630	44,200	47,104	54,716	54,262	52,783
Soil fertility	15	39	87	389	446	345	21	14	21
Value of land (current basis)	701,114	742,792	741,361	616,862	713,030	688,661	637,358	703,976	672,969
Total farm investment	\$818,352	\$866,153	\$866,935	\$804,414	\$917,044	\$892,135	\$888,085	\$960,415	\$920,729
Rate earned on investment, %	1.35	2.48	2.93	.60	6.50	3.35	1.22	3.94	4.91

^a Adjusted in 1979. See Illinois Circular 1156, *Soil Productivity in Illinois*.

^b Includes sales or purchases of capital items.

^c Data available only for period from 1980 to 1983.

northern Illinois. Even though these southern Illinois farms had 10 more milk cows per farm, producers used an average of 1.2 less months of labor.

Interest charges are among the highest cost items apart from feed in the production of milk (see Table 15). Interest on capital invested increased 18 percent per year from 1978 to 1981 but finally declined 3 percent from 1981 to 1983. If milk prices decline because there is a surplus of dairy products in relation to demand, costs per unit of production will need to decrease. Otherwise net incomes will continue to decline. For each \$1.00 drop in the average price received per hundredweight of milk sold, net income on these farms could decline about \$10,000 per farm. Each 5 percent decrease in nonfeed cost could increase net income about \$4,000 per farm. Adjustments required to meet changes of this kind include improving efficiency, reducing cost, diverting resources to produce income from other uses, or being willing to accept lower returns for equity capital invested and unpaid family labor.

The rate earned on an investment for 1979-1982 of 4.91 percent is dropping rapidly each year as we move from the high income years of 1978 to 1980. The 5-year average rate earned on investments for both northern and southern Illinois dairy farms indicate that, for the investment involved, the average dairy farm (of the size under discussion) has been more profitable than any other farm type listed in Tables 4, 6, and 7. During 1979-1983, the average value for bare land on these southern Illinois dairy farms was \$1,751 per acre, compared with \$2,105 on northern Illinois dairy farms; building investments averaged \$90 less per acre.

LIVESTOCK ENTERPRISES

The return (per \$100 of feed fed) from various livestock enterprises and the price of corn during each of the past 15 years are given in Table 8. Averages for 15 years and 5 years are also shown. The difference between the average return figure and \$100 feed cost represents the margin available for labor, depreciation on equipment, cash expenses other than feed, and interest on investment and 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 (1969-1983) represent the approximate level of return at which farmers have been willing to maintain livestock production. The average may not represent a break-even return on all farms because some farmers may discount market prices for some of the resources used in producing livestock. If a farmer already has facilities for livestock, he only needs to cover direct operating costs in order to continue production. However, when he views livestock production as a new or a long-run enterprise,

Table 8. Returns per \$100 Feed Fed to Different Classes of Livestock

Year	Farrow-to-finish hogs	Feeder pigs	Feeder cattle bought	Dairy cow herds	Beef cow herds	Poultry	Native sheep raised	Yearly price of corn
—dollars—								
1969	212	171	152	205	162	203	146	1.14
1970	142	104	118	199	150	186	128	1.26
1971	150	122	156	200	180	135	122	1.27
1972	214	171	161	212	208	134	134	1.16
1973	192	161	120	177	184	151	123	2.00
1974	121	108	64	138	41	125	94	3.00
1975	191	158	134	146	95	138	101	2.73
1976	152	118	93	168	91	146	105	2.55
1977	170	134	116	181	107	124	144	2.07
1978	208	151	170	217	199	141	159	2.13
1979	136	107	149	220	183	131	148	2.44
1980	138	122	111	207	144	118	131	2.80
1981	138	115	107	200	100	121	84	2.98
1982	213	165	147	205	115	119	83	2.43
1983	218	118	134	178	115	112	78	3.06
Averages								
1969-83	173	135	129	190	138	139	119	2.20
1969-73	182	146	141	199	177	162	131	1.37
1974-78	168	134	115	170	107	135	121	2.50
1979-83	169	125	130	202	131	120	105	2.74

Table 9. Variation in Returns to Livestock Enterprise Units, 1979-1983

	Farrow-to-finish hogs (per cwt.)	Feeder-pig finishing (per cwt.)	Feeder cattle (per cwt.)	Dairy cattle (cow)	Beef herd (cow) ^a	Poultry laying flock (hen)
Returns above cost of feed and purchased animals						
1979	\$ 9.50	\$ 1.57	\$20.27	\$1,068	\$240	\$1.99
1980	11.11	5.96	4.77	1,072	137	1.23
1981	11.45	4.29	3.41	1,035	1	1.48
1982	30.43	16.40	19.65	1,043	47	1.90
1983	12.68	5.26	16.04	885	51	3.09
5-year avg.	\$15.03	\$ 6.70	\$12.83	\$1,021	\$ 95	\$1.94
Nonfeed costs, 1979-1983						
Direct cash ^b	\$ 5.75	\$ 3.67	\$ 9.46	\$ 193	\$ 29	\$.72
Other costs ^c	12.70	6.42	11.90	848	178	2.52
TOTAL	\$18.45	\$10.09	\$21.36	\$1,041	\$207	\$3.24
Nonfeed cost for future production						
Direct cash	\$ 7.00	\$ 4.70	\$11.60	\$ 225	\$ 31	na
Other costs	19.00	8.00	14.00	890	190	na
TOTAL	\$26.00	\$12.70	\$25.60	\$1,115	\$221	na

^a The feed cost for beef herds includes up to \$42 of hay equivalent from salvage roughage.

^b Includes veterinary costs, utilities, fuel, and equipment repair costs, and other direct cash expenses, including interest on feeder cattle, from Table 6, *Farm Management Manuals*, 1978-1982.

^c Estimates of annual nonfeed costs are based on enterprise cost studies of operative units in 1979-1983.

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

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

The returns from feeder cattle vary greatly from year to year. The long-run averages, shown in Table 9, indicate that the cattle-feeding business is not paying average market rates for all the nonfeed cost resources used, even though returns earned in 1979 and 1982 approached the level needed. Above-average skills are needed in buying, selling, and feeding to meet the competition from other uses for time

and money on farms with feeder cattle. It is difficult to identify cyclical 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.

For the beef-herd enterprise, the average returns above cost of feed for 1979-1983 are below the margin needed to cover all nonfeed costs (Table 9). The implication is that the beef enterprise competes most favorably on farms where labor, capital, and management resources are plentiful and where these resources have few alternate uses. In the beef-cow enterprise, returns above the cost of feed during the last three years have been much below the 1979 and 1980 levels and have inflated the 5-year average. For the first time in 5 years, the dairy enterprise has had a return below \$1,000 per cow above the cost of feed. The 5-year average of \$1,021 is very close to covering all nonfeed costs for the same period.

In farrow-to-finish hog production, returns tend to follow a noticeably cyclical pattern (Table 9). They tend to exceed the 5-year average for 1 or 2 years and then drop below the average for 1 or 2 years. Returns have been below the 5-year average for 4 of the past 5 years.

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 return covers direct operating costs. Plans for expansion that require large investments for new facilities should be based on an estimated return that is high enough to cover all costs. Fluctuations in livestock returns can involve a risk in low-return years. The estimated nonfeed cost for future livestock production is shown in Table 9.

Hog enterprises

The information on farrow-to-finish enterprises in Table 10 is based on a sample of 819 farms farrowing 10 litters or more per year. Farms were omitted from the sample if the number of hogs purchased exceeded 10 percent of the pigs weaned. This eliminated from the sample those farms with combined farrowing and feeder-pig operations. (Information on feeder-pig finishing enterprises is given in Table 12.) The average size of farrow-to-finish enterprises on all record-keeping farms has been increasing at a rate of about 5 litters per year, from 91 litters per farm in 1970 to 155 litters in 1983. The 1983 records summarized here for the "all farms" group show that returns above feed costs per 100 pounds of pork produced decreased from a record high \$30.43 in 1982 to \$12.68 in 1983 (Table 9).

The 5-year average for returns above feed costs per 100 pounds produced is \$15.03 (Table 9). This figure is \$2.35 above the 1983 return. Detailed cost records show that an average farmer with existing facilities would have needed a return (above feed costs) of \$18.45 per 100 pounds to pay for all nonfeed

Table 10. Hog Enterprises, 1983

	Farrow to finish		Feeder-pig production
	All farms	200 or more litters per farm	
Number of farms	819	203	23
Average per farm			
Pork produced, lb.	266,427	575,122	100,657
Pork produced per litter, lb.	1,718	1,691	529
Total returns	114,342	250,379	67,593
Value of feed fed	80,529	169,397	41,429
Returns per \$100 of feed fed	141	147	163
No. of litters farrowed	155	340	190
Pigs farrowed per litter	9.25	9.39	9.34
Pigs weaned per litter	7.27	7.28	7.93
Litters farrowed per female year	1.72	1.80	1.50
Pigs weaned per female year	12.65	13.05	11.16
No. of pigs weaned	1,127	2,475	1,507
Death loss, percent of pounds produced	1.8	1.8	1.9
Weight per hog sold, lb.	237	233	50 ^a
Per 100 lb. produced:			
Price received	\$ 46.27	\$ 46.69	\$ 79.87 ^a
Total return	\$ 42.91	\$ 43.53	\$ 67.15
Feed cost	\$ 30.23	\$ 29.45	\$ 41.16
Return above feed	\$ 12.68	\$ 14.08	\$ 25.99
Farm grains, lb.	315	306	319
Commercial feed, lb.	83	85	151
Total concentrates, lb.	398	391	471
Cost per 100 pounds of commercial feed	\$ 15.51	\$ 14.85	\$ 15.77
Cost per 100 pounds of concentrates	\$ 7.57	\$ 7.51	\$ 8.73

^a The average weight sold and price received for the feeder-pig production enterprise is for the feeder pigs only.

costs during the past 5 years. The result was a deficit of \$3.42 below all costs during this 5-year period.

The farrow-to-finish enterprise records for 1983 reported in Table 10 were also sorted by the number of litters produced. One group farrowing 200 or more litters averaged 340 litters. The feed cost per 100 pounds of pork produced was 78 cents lower for the 340-litter group compared with the average for all farms. The large producers paid about \$13 less per ton for commercial feed, whereas feed conversion was 7 pounds lower. The prices received (net at the farm) for hogs sold by large producers were 42 cents higher than those received by all producers.

A summary of the feeder-pig production enterprises is also reported in Table 10. In 1983, the average enterprise in this group produced 190 litters with a return of \$163 per \$100 of feed fed. On an average, 7.9 pigs per litter were weaned and sold at 50 pounds per head. The 1983 average price received per 100 pounds of feeder pigs sold was \$79.87 or \$39.94 per head. The average feed cost per 100

pounds of pork produced (pigs and breeding stock) was \$41.16 for 471 pounds of concentrate.

A substantial profit margin is required to compensate for the risk and detailed management involved in hog production, compared with the risk and management involved in other uses of the same resources. Large-scale hog production in modern confinement facilities requires high capital investments. The future recovery of this specialized capital investment is uncertain, and the salvage value of confinement hog facilities is low. In addition, acquiring the managerial skills necessary for the large-scale production of hogs in confinement may discourage any rapid expansion of large hog-producing units.

The data on hog enterprises in Table 11 show a detailed breakdown of costs and returns from a group of specialized commercial hog farms for 1981-1983. The value of the feed fed to hogs was more than 75 percent of the crop returns produced on these farms. This intensity of livestock feeding indicates a commitment of major resources to the hog enterprise. The producers in this group probably exercise a higher level of management and use more confinement production facilities than the average hog producer in Illinois.

The hog enterprise records summarized in Table 11 were sorted by the number of litters produced. The group farrowing less than 250 litters averaged 148 litters from 1981 to 1983; the group farrowing 250 or more litters averaged 431 litters during the same period.

The cost data reported in Table 11 have been divided into two categories: cash costs and other costs.

This classification of production costs is important when short-run management decisions are being made concerning the level (volume) of production, particularly during periods of low prices.

As reported in Table 11, cash costs of production in 1983 ranged from approximately \$35 to \$38 per 100 pounds of pork produced. Feed is included as a cash cost, although for most producers a major share of the grains are farm raised. The readily available alternative cash market for grain makes the raised feed the same as cash.

The other costs category includes depreciation, labor, and an interest charge on all capital. Part of the labor and interest charge is a cash cost on most farms. The proportion of labor that is hired depends largely on the size of the farm. A one-man farm does not hire much labor, whereas a major share of the labor will be hired on a four-man farm.

The decline in operating expense in 1983 was large enough to offset a slight increase in depreciation and labor, and resulted in total nonfeed costs being down from 1982. The group farrowing less than 250 litters averaged 25 cents lower nonfeed costs than in 1982, and the group farrowing 250 litters or more averaged 62 cents lower nonfeed cost than in 1982. Total costs of production were up for both groups because of the increase in feed costs.

The most significant cost difference between the two groups of farms was the feed cost. The average feed cost for 1981-1983 per 100 pounds of pork produced for the large enterprises was \$1.79 lower than for the small enterprises. Differences in the amount of feed used per 100 pounds of pork pro-

Table 11. Costs and Returns for Farrow-to-Finish Hog Enterprises by Size of Enterprise, 1981-1983

	Under 250 litters			250 litters or more		
	1983	1982	1981	1983	1982	1981
Number of farms	99	79	98	100	70	76
Average per farm						
Tillable acres	259	205	246	435	368	388
Number of litters	148	141	154	437	425	430
	per 100 pounds of pork produced					
Total returns	\$ 42.70	\$ 57.34	\$ 40.79	\$ 43.65	\$ 56.72	\$ 42.05
Cash costs						
Feed	\$ 31.43	\$ 27.70	\$ 30.69	\$ 29.19	\$ 25.89	\$ 29.37
Operating expenses						
Maintenance and power ^a	3.69	4.40	3.26	3.59	4.41	3.31
Livestock expense	1.82	1.89	1.78	1.74	1.90	1.62
Insurance, taxes, and overhead .....	.96	.90	.91	1.00	.93	.96
Total operating expenses	6.47	7.19	5.95	6.33	7.24	5.89
Total cash costs	\$ 37.90	\$ 34.89	\$ 36.64	\$ 35.52	\$ 33.13	\$ 35.26
Other costs						
Depreciation ^b	\$ 3.87	\$ 3.38	\$ 3.25	\$ 4.05	\$ 3.63	\$ 3.60
Labor	4.04	3.78	3.67	3.56	3.45	3.24
Interest charge on all capital	5.64	5.90	5.78	5.38	5.62	5.56
Total other costs	\$ 13.53	\$ 13.06	\$ 12.70	\$ 12.99	\$ 12.70	\$ 12.40
Total nonfeed costs	\$ 20.00	\$ 20.25	\$ 18.65	\$ 19.32	\$ 19.94	\$ 18.29
Total all costs	\$ 51.43	\$ 47.95	\$ 49.34	\$ 48.51	\$ 45.83	\$ 47.66
Return above all costs	\$ -8.73	\$ 9.39	\$ -8.55	\$ -4.86	\$ 10.89	\$ -5.61

^a Includes utilities, machinery, equipment and building repairs, machine hire, and fuel.

^b Includes machinery, equipment, and building depreciation.

duced and the price paid for commercial feeds caused the difference in feed costs.

From 1981 to 1983, the returns above all costs averaged \$-2.63 per 100 pounds of pork produced for the small enterprises and \$0.14 for the large enterprises, a difference of \$2.77. Management practices such as the choice of building systems, method of transporting hogs to market, type of market used, and on-farm versus off-farm systems for feed-processing affect the individual cost items reported in Table 11. However, the return above all costs should accurately reflect the relative efficiency of the two groups of hog enterprises.

Feeder-cattle and feeder-pig finishing enterprises

Data for 1983 on the feeder-cattle and feeder-pig finishing enterprises are presented in Tables 12 and 13. These enterprise summaries include weights and values on partly finished animals purchased in previous years and on animals purchased during the current year.

The average for pork produced per farm from feeder-pig enterprises was 150,957 pounds in 1983 (Table 12). At 175 pounds of gain per head, this amounted to 863 head fed per farm in 1983, compared with 830 in 1982.

The return above the cost of feed and purchased animals for 1979-1983 averaged \$6.70 per 100 pounds of gain. This compares with an estimated return of \$10.09 required to cover all nonfeed costs for the past 5 years and \$12.70 required to consider future production (Table 9).

Assuming that a 500-pound unit of gain equals one head of feeder cattle, the average of 133,591 pounds of beef produced per farm in 1983 (Table 12) equals 267 head of feeder cattle per farm. That is an increase of 88 above the average of 179 head fed per farm in 1971. The return per \$100 of feed for feeder-cattle enterprises was \$134 in 1983, compared with \$107 in 1981 and a 15-year average of \$129 (Table 8).

The price paid for feeders was \$1.65 per 100 pounds less in 1983 than in 1982; the price received for cattle sold in 1983 was 83 cents lower than in 1982. The average weight of animals purchased and sold remained steady at 590 and 1,050 pounds, respectively. Feed cost was \$46.83 per 100 pounds produced in 1983, compared with \$41.03 in 1982.

Each 100 pounds of beef produced required 532 pounds of concentrates and 46 pounds of hay. The amount of corn silage used in 1983 averaged 733 pounds; other silage averaged 160 pounds, making a total of 893 pounds. Silage utilization by the feeder-cattle enterprise has remained relatively constant since 1971, with a 10-year average (1974-1983) of 981 pounds per 100 pounds of beef produced. The use of 893 pounds in 1983 was double the amount fed in 1960. The end result of this shift has been greater

Table 12. Feeder-Cattle and Feeder-Pig Finishing Enterprises, 1983

Items	Feeder cattle	Feeder-pig finishing
Number of farms.....	324	164
Average per farm		
Total pounds produced	133,591	150,957
Total returns.....	\$ 83,987	\$ 50,253
Value of feed fed	\$ 62,557	\$ 42,315
Returns per \$100 feed fed.....	\$ 134	\$ 118
Death loss, percent of		
lb. produced.....	2.2	2.2
Average weight purchased.....	590	49
Price paid per 100 pounds.....	\$ 60.00	\$ 81.38
Price received per 100 pounds...	\$ 61.11	\$ 47.00
Average weight sold.....	1,050	232
Per 100 pounds produced:		
Total returns.....	\$ 62.87	\$ 33.29
Feed cost	\$ 46.83	\$ 28.03
Return above feed	\$ 16.04	\$ 5.26
Farm grains, lb.....	532	309
Commercial feeds, lb.....	46	71
Total concentrates, lb.....	578	381
Hay, lb.....	50	...
Corn silage, lb.....	733	...
Other silage, lb.....	160	...
Hay equivalent, lb.....	366	...

production and utilization of crops from a fixed land resource. The mechanization of the silage-feeding operation has also reduced the labor input per unit of production.

These data do not show the wide variation in profits among cattle-feeding programs. The data in Tables 8, 9, and 12 on Illinois feeder-cattle enterprises reflect the composite results of all qualities and ages of cattle fed. The data are heavily weighted, with good to choice calves and yearlings as the predominant cattle-feeding system. Most farmers now feed more than one drove of cattle each year to better utilize their fixed investments in mechanized feedlots.

The return above the cost of feed and purchased animals averaged \$12.83 per 100 pounds of beef produced for 1979-1983 (Table 9). During this period, returns ranged from \$3.41 in 1981 to \$20.27 in 1979. Ever since interest rates began to increase in 1980, the returns above feed costs have remained below the estimated \$21.36 per hundredweight required to pay for all nonfeed costs for the average cattle feeder.

The data in Table 13 on feeder cattle enterprises show a detailed breakdown for 1980 through 1983 on cost and returns to produce beef on beef-feeding farms. The farms included had no other livestock. All total costs were accounted for either in crops or in the beef enterprise. Feed costs assume that all the grain and roughage fed that was produced on the farm was marketable.

The data show that these farms were finishing an average of 489 feeders each year in this 1980 to 1983 period. The 1980-1983 average total cash cost including feed and interest charged on cattle was \$61.61

Table 13. Costs and Returns for Beef Feeding Enterprises, 1980-1983

	1983	1982	1981	1980	Average 1980-83
Number of farms	58	56	63	59	59
Average per farm					
Tillable acres	488	474	470	413	461
Hundredweight beef produced	2,497	2,402	2,211	2,173	2,321
Number head @ 475-lb. gain equivalents ..	526	506	466	457	489
Average weight purchased, lb.	618	596	570	598	596
Average weight sold, lb.	1,070	1,056	1,066	1,073	1,066
Price received per 100 lb. sold. \$	61.25	\$ 63.07	\$ 62.18	\$ 65.57	\$ 63.02
Price paid per 100 lb. purchased.	60.44	62.46	65.00	75.25	65.79
per 100 pounds of beef produced					
Cash costs					
Feed ^a	\$ 48.83	\$ 41.32	\$ 45.41	\$ 43.54	\$ 44.78
Operating expenses					
Maintenance and power ^b	4.54	4.65	4.67	4.06	4.48
Livestock expense	1.81	1.82	1.35	1.75	1.68
Insurance, taxes, and overhead	1.25	1.26	1.14	1.02	1.17
Interest on cattle ^c	8.22	9.39	10.87	9.51	9.50
Total operating expense	\$ 15.82	\$ 17.12	\$ 18.03	\$ 16.34	\$ 16.83
Total cash costs	\$ 64.65	\$ 58.44	\$ 63.44	\$ 59.88	\$ 61.61
Other costs					
Depreciation ^d	\$ 5.45	\$ 5.13	\$ 5.40	\$ 4.84	\$ 5.20
Labor	2.37	2.30	2.33	2.04	2.26
Interest on other capital	4.04	4.34	5.60	3.14	4.28
Total other costs	\$ 11.86	\$ 11.77	\$ 13.33	\$ 10.02	\$ 11.74
Total all costs	\$ 76.51	\$ 70.21	\$ 76.77	\$ 69.90	\$ 73.35
Total returns ^a	\$ 64.20	\$ 62.68	\$ 48.65	\$ 47.03	\$ 55.64
Return above all costs	\$ -12.31	\$ -7.53	\$ -28.12	\$ -22.87	\$ -17.71

^a All grain fed was priced at average market price for the year. Market values were used for roughage fed while protein and minerals were charged at cost. Assumes all feeds fed were marketable.

^b Includes utilities, machinery, equipment and building repairs, machine hire and fuel.

^c Interest is a charge on average value of beginning- and end-of-year inventories on hand. Rate was 12% for 1980, 15% for 1981, 14% for 1982, and 12% for 1983.

^d Includes machinery, equipment, and building depreciation.

^e Sales less cost of purchased animals plus or minus inventory value change. No credit has been calculated for reduced fertility cost for manure applied to crops.

per 100 pounds of beef produced. This exceeded the average total return of \$55.64 for the same period by \$5.97 per 100 pounds produced, or \$28 per feeder. Some feeders may be able to discount some of these cash costs for roughage fed and for interest on cattle if they had no market for the roughage or were able to use their own money invested in cattle without paying interest. The value of roughage fed above harvest cost averaged about \$32 per feeder and interest on cattle averaged \$45 per feeder. This \$77 (\$32 + \$45) per feeder would then be available to cover the \$28 shortage listed above. The remaining \$49 per feeder would also contribute toward the 1980-1983 average total other costs. These costs include depreciation, labor, and interest of \$11.74 per 100 pounds of beef produced or \$55 per feeder (\$11.74 × 4.70 hundredweight of gain per feeder).

A large but declining number of cattle feeders in Illinois apparently will feed cattle if their return covers feed and cash costs but is short of paying market rates for some nonmarketable roughage, and fixed and overhead costs.

Farmer's values, goals, and attitudes have been important in maintaining production; but the dictates of the market, technological changes, and shifts in basic supply and demand factors are causing changes. The return reflected in these averages for the feeder cattle enterprise suggests that for cattle feeding to be

profitable, farmers must produce the kind of beef the consumer wants at the lowest possible cost. Even though farms may have nonmarketable feeds, unemployed labor, or fixed capital investments in facilities, these data indicate current returns are not enough to justify the building of new facilities.

Dairy enterprises

The minimum size for a herd included in this analysis was 10 milk cows. The average herd size on record-keeping farms has increased steadily at an average of 1.8 cows per year from 42 in 1970 to 63 in 1982 but declined 0.5 of a cow in 1983.

The return per \$100 of feed fed to dairy cattle in 1983 was \$178. The average for 1979-1983 was \$202 (Table 8). In 1983, milk prices per hundredweight decreased 2 percent. This compares with an average annual increase of 6 percent from 1976 to 1982 and 10 and 14 percent increases in 1978 and 1979. Beef prices for all weights sold dropped \$4.00 per hundred pounds, and feed costs increased \$5.04 per unit of milk or beef produced from 1982 to 1983.

Dairy farmers have reduced the amount of pasture and dry hay and have increased the amounts of grain and silage fed over the past two decades. Pasture days per animal unit dropped from 145 in 1960 to 50 in

1970 to only 20 in 1978. Since 1978, they have remained at about 20, indicating that this shift is now accepted on nearly all dairy farms in this sample.

The dairy herds in Table 14 were subdivided into two groups according to their efficiency as measured by returns above the cost of feed per cow. The high efficiency group, when compared with the low group, had more cows in the herd, fewer dry cows, and about double the returns above feed per cow, \$1,178 compared with \$573. The following factors were most significant: 21 percent higher milk production per cow, an average of 15,448 compared with 12,741 pounds, and a 22 percent lower feed cost per unit of milk and beef produced.

The average return above feed costs per cow for all dairy herds was \$885 in 1983 (Table 14). This compares with the 5-year average of \$1,021 per cow (Table 9). The 5-year average return above feed cost required to pay market prices for all nonfeed costs is estimated to be about \$1,041 per cow. The estimated return above feed costs currently required to attract new investments for dairy herds is about \$1,115 per cow. The high returns above feed costs per cow from 1979 to 1982 allowed many dairy farmers to expand or replace their less efficient facilities. As dairy herds have decreased in number and as their size and efficiency have increased, they have continued to increase the milk supply.

The data in Table 15 on dairy enterprises show a detailed breakdown for 1980 through 1983 on milk production costs and returns for dairy farms, by the number of cows in the herd. The farms included had no other livestock. All total costs were accounted for either in crops or in the dairy enterprise. The total costs for the dairy enterprise were reduced by the amount of income derived from sales or from an inventory increase in the pounds of beef produced, which was valued at the average price received for all weights of dairy animals sold in 1979-1983. The residual costs, amounting to 86 percent of the total enterprise costs, were then considered as the net cost of producing milk.

The most significant differences between the herds containing 40 to 79 cows and those with more than 79 for 1980-1983 were the averages for pounds of milk produced and labor and feed costs per 100 pounds of milk produced. The large herds produced a 4-year average of 338 more pounds of milk per cow. They also averaged an 18 cent lower feed cost and a 23 cent lower labor cost per 100 pounds of milk produced in this period.

In 1983, the total of all costs increased 4 percent primarily because of increases in the cost of feed. Average price received for milk sold declined 3 percent. Interest charges, which leveled off in 1982, continued to decline in 1983 but are still the second highest cost next to feed cost for producing milk. Feed now averages 46 percent of the total cost compared with about 50 percent in 1979. The negative management returns that began in 1980 have been

Table 14. Dairy Cattle Enterprises, 1983

	All farms	Efficiency	
		High ^a	Low ^b
Number of farms	256	87	86
Average per farm			
Number of cows	62.3	67.3	58.7
Milk cows dry, %	13.6	13.2	14.4
Animal units in herd	117	131	105
Total returns	\$125,184	\$154,644	\$ 99,427
Value of feed fed	\$ 70,007	\$ 75,306	\$ 63,757
Returns per \$100 of feed fed	\$ 178	\$ 205	\$ 151
Returns above feed per cow	\$ 885	\$ 1,178	\$ 573
Total milk produced, 100 lb.	8,850	10,397	7,479
Pounds of milk per cow	14,205	15,448	12,741
Pounds of butterfat per cow	525	571	471
Total beef produced, lb.	40,377	48,529	29,044
Pounds of beef per cow	648	721	494
Death loss, percent of pounds produced	9.8	7.0	15.5
Price received for:			
100 pounds of milk	\$ 12.63	\$ 12.75	\$ 12.57
100 pounds of beef	\$ 45.62	\$ 49.14	\$ 43.16
Per unit of milk and beef: ^c			
Feed cost	\$ 54.32	\$ 49.38	\$ 63.32
Grain, lb.	328	302	367
Protein and minerals, lb.	102	86	139
Total concentrates, lb.	431	389	507
Hay and dry roughage, lb.	260	225	327
Corn silage, lb.	696	624	830
Other silage, lb.	405	405	365
Pasture (pasture-days)	1		2
Pasture-days per animal unit	14	11	20
Hay equivalent per cow, tons	7.2	7.2	7.2
Concentrates per cow, lb.	8,915	8,814	8,964

^a High one-third dairy return above feed per cow exceeds 980.
^b Low one-third dairy return above feed per cow is below 740.
^c 1,000 pounds of milk or 100 pounds of beef.

increasing each year. Thus even though costs stabilize, milk prices decline. But the large herd group has averaged 50 cents more returns above all costs per 100 pounds milk produced for this period than the small herd group. Like most livestock farmers, the dairy farmers who have large amounts of unpaid family labor and who use small amounts of borrowed money are in the best position to withstand long periods of negative profit margins.

Beef-cow herds

The minimum size for a beef-cow herd included in Table 16 was 10 cows. Farms combining cow herds and purchased feeder cattle were not included. In addition to all farms, Table 16 gives an analysis of

Table 15. Milk Production Costs and Returns by Size of Herd, 1980-1983

	40 to 79 cows in herd				80 or more cows in herd			
	1983	1982	1981	1980	1983	1982	1981	1980
Number of farms.....	150	134	142	129	61	48	59	45
Average per farm								
Tillable acres.....	290	266	266	259	408	409	401	413
Number of cows.....	59.2	59.7	59.6	58.4	106.8	104.7	105.1	104.5
Milk per cow, lb.....	14,349	13,639	13,819	14,018	14,857	14,477	13,987	14,247
per 100 pounds of milk produced								
Price received.....	\$ 12.65	\$ 13.01	\$ 13.19	\$ 12.29	\$ 12.58	\$ 13.00	\$ 13.34	\$ 12.42
Feed costs.....	6.70	6.15	6.55	6.24	6.56	5.77	6.60	5.98
Returns above feed costs.....	\$ 5.95	\$ 6.86	\$ 6.64	\$ 6.05	\$ 6.02	\$ 7.23	\$ 6.74	\$ 6.44
Nonfeed costs								
Buildings.....	\$.66	\$.65	\$.68	\$.55	\$.67	\$.70	\$.64	\$.60
Machinery and equipment.....	1.85	1.76	1.67	1.53	1.65	1.61	1.64	1.55
Labor.....	1.97	2.00	1.89	1.77	1.70	1.76	1.72	1.54
Livestock expenses.....	.86	.78	.74	.74	.87	.84	.84	.76
Taxes.....	.12	.12	.11	.10	.06	.07	.07	.06
Interest charge on all capital.....	2.32	2.40	2.33	1.72	2.19	2.39	2.40	1.87
Insurance and overhead.....	.15	.14	.15	.14	.16	.17	.16	.14
Total nonfeed costs.....	\$ 7.93	\$ 7.85	\$ 7.57	\$ 6.55	\$ 7.30	\$ 7.54	\$ 7.47	\$ 6.52
Total all costs.....	\$ 14.63	\$ 14.00	\$ 14.12	\$ 12.79	\$ 13.86	\$ 13.31	\$ 14.07	\$ 12.50
Returns above all costs.....	\$ -1.98	\$ -.99	\$ -.93	\$ -.50	\$ -1.28	\$ -.31	\$ -.73	\$ -.08

cow herds in which calves were sold at weaning time, comparing them with those in which calves were finished to slaughter weights. For 1956-1969, the average size of the herd on all farms ranged from 25 to 30 cows. From 1969 to 1973, the average grew to about 40 cows per herd and remained stable through 1979. From 1980 to 1982 the herd size increased to 43-45 cows, but in 1983 dropped back to 40. Most Illinois farmers who maintain a beef-cow herd do so as a supplemental enterprise to market nonsalable feeds and labor.

The return per \$100 of feed fed to beef-cow herds averaged \$115 in both 1982 and 1983 but only \$100 in 1981. The return from 1979-1983 averaged \$131, which is below the 15-year 1969-1983 average (Table 8). Beef prices received in 1983 averaged \$56.25 per hundredweight, slightly above the \$55.52 in 1982. Feed costs per 100 pounds of beef produced stayed almost constant at \$47.14.

The added return above feed costs for feeding out calves over selling calves at weaning averaged only \$5 per cow for 1979-1983. Additional returns are needed for the added costs of labor, buildings, and the capital required to feed out calves. The 1983 return above feed costs for feeding calves to market weight was \$7 more per cow than for selling calves.

Poultry enterprises

The minimum size of the flock included in Table 17 is 2,000 hens. The flocks averaged 13,783 hens. Poultry in Illinois is rapidly being concentrated in fewer but larger and more industrialized operations.

These relatively large commercial flocks used 4.4 pounds of feed concentrates per dozen eggs produced or per 1.5 pounds of weight produced. For 1983, the feed cost per dozen eggs was 36 cents. Egg prices averaged 60 cents per dozen in 1983.

In 1983, the return above feed costs per hen was \$3.09, compared with the 5-year average of \$1.94 (Table 9). About a third of these farms sold a major share of their eggs through retail outlets.

Table 16. Beef-Cow Enterprises, 1983

	All farms	Calves sold	Calves fed out
Number of farms.....	458	210	183
Average per farm			
Number of cows in herd.....	40	40	41
Animal units in herd.....	62	55	70
Total pounds produced.....	28,307	21,660	34,954
Beef per cow in herd, lb.....	707	541	852
Total returns.....	\$15,387	\$11,915	\$19,851
Value of feed fed.....	\$13,345	\$ 9,632	\$17,200
Returns per \$100 of feed fed.....	\$ 115	\$ 123	\$ 115
Returns above feed per cow.....	\$ 51	\$ 57	\$ 64
Death loss, lb.....	1,605	1,349	1,907
Percent of pounds produced.....	5.6	6.2	5.4
Price received per 100 lb. sold.....	\$ 56.25	\$ 55.33	\$ 57.23
Per 100 pounds produced:			
Feed cost.....	\$ 47.14	\$ 44.46	\$ 49.20
Grain, lb.....	238	107	322
Protein and minerals, lb.....	39	30	45
Total concentrates, lb.....	277	138	368
Hay and dry roughage, lb.....	607	674	537
Corn silage, lb.....	395	332	377
Other silage, lb.....	77	83	68
Pasture-days.....	29	39	26
Pasture-days per animal unit.....	135	155	130
Hay equivalent per cow, tons.....	5.2	4.7	5.6

Table 17. Poultry Enterprises, 1983

	Number of hens per farm 2,000 and over
Number of farms	5
Average per farm	
Poultry produced, lb.	9,672
Total returns from poultry	\$144,021
Total value of feed fed	\$101,440
Returns per \$100 of feed fed	\$ 142
Returns above feed fed per hen	\$ 3.09
Average number of hens	13,783
Eggs produced per hen	241
Percent production	66
Feed units ^a	283,298
Feed cost per unit ^a	\$.36
Concentrates per feed unit, lb.	4.44
Cost per 100 pounds of concentrates	\$ 8.06
Price per dozen eggs sold	\$.60

^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 18 is three animal units. One animal unit of sheep is defined as 750 pounds, liveweight. The return per \$100 of feed fed in 1983 was \$78

Table 18. Sheep Enterprises, 1983

	Native flocks
Number of farms	54
Average per farm	
Wool and mutton produced, lb.	5,958
Total returns	\$2,235
Value of feed fed	\$2,848
Returns per \$100 of feed fed	\$ 78
Percent lamb crop	124
Death loss, lb.	548
Percent of pounds produced	9.2
Per 100 pounds produced:	
Price received	\$ 44.94
Feed cost	47.80
Concentrates, lb.	320
Hay, lb.	570
Corn silage, lb.	33
Pasture (pasture days)	23
Hay equivalent, lb.	1,187

for native flocks. The pounds of wool and mutton produced per farm have remained fairly constant for the past 10 years. The price received for sheep decreased from \$48.00 per hundredweight in 1982 to \$44.94 in 1983. Most Illinois farmers who keep sheep do so as a supplemental enterprise in order to market nonsalable feeds and labor.

Costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern and central Illinois and southern Illinois are reported in Tables 19 to 27a.

Table 19. Average Return, Costs, and Financial Summary of Grain Farms by Size and Management Returns, 1983 (High Soil Rating, Northern and Central Illinois)

RANGE IN SIZE (TOTAL ACRES) MANAGEMENT RETURNS NUMBER OF FARMS	GRAIN FARMS WITH SOIL RATING 86-100 NORTH & CENTRAL ILLINOIS*					340-799	LOW 25%	HIGH 25%
	180-339	340-799	800-1199	OVER 1199	YOUR FARM	ALL FARMS	136	136
TOTAL ACRES IN FARM	111	545	116	49		821		
ACRES OF TILLABLE LAND	279	531	943	1517		614	519	579
SOIL RATING ON TILLABLE LAND	268	511	904	1404		587	497	561
TOTAL MONTHS LABOR	94	93	93	92		93	92	93
MONTHS OF HIRED LABOR	12.4	14.7	20.2	30.0		16.1	15.0	15.1
BEEF PRODUCED, CWT.	.9	2.5	6.5	12.6		3.5	2.9	2.8
PORK PRODUCED, CWT.	0	1	1	1		2	1	1
DAIRY COWS, NUMBER	0	0	1	4		0	0	0
DOLLAR RETURNS PER FARM:								
CROP RETURNS	90838	171058	301088	484675		197302	137042	215998
LIVESTOCK RETURNS ABOVE FEED	5	3	21	187		17	10	3
CUSTOM WORK	690	1569	2541	6482		1881	1639	1404
OTHER FARM RECEIPTS	1573	2557	3752	9275		2994	2585	2969
VALUE OF FARM PRODUCTION	93106	175187	307403	500620		202193	141276	220374
DOLLAR COSTS PER FARM:								
CROP EXPENSES	16734	31398	54215	90119		36144	34366	29861
POWER AND EQUIPMENT	19694	33468	53382	84120		37443	37215	33012
BUILDING AND FENCE	4513	7682	11376	18861		8443	8298	7614
LABOR	13797	16107	22517	35121		17835	16246	16581
LIVESTOCK SERVICES & SUPPLIES	101	92	88	235		101	152	73
TAXES	6225	11247	19546	30253		12875	11061	11969
INSURANCE AND MISCELLANEOUS	2486	3828	6078	9622		4310	4010	3778
INTEREST ON NON-LAND CAPITAL	12142	21069	34537	58853		24020	21774	22426
LAND CHARGE-NET RENT	26652	50008	88112	134184		57258	48623	54320
TOTAL NON-FEED COST	102344	174897	289848	461368		198427	181743	179632
CAPITAL ACCOUNT ADJUSTMENT	235	-311	-726	-1124		-344	-516	5
MANAGEMENT RETURNS	-9003	-22	16827	38127		3421	-40984	40746
FARM PRODUCTION PER \$1.00 OF NON-FEED COSTS	.91	1.00	1.06	1.09		1.02	.78	1.23
FARM PRODUCTION PER MAN	89842	142814	182320	200248		150683	112646	174562
FINANCIAL SUMMARY:								
CASH OPERATING INCOME	95467	177593	302688	496491		203197	162393	213158
INVENTORY CHANGE	-1610	-966	7033	13027		911	-19636	9216
ACCTS. RECEIVABLE (NET CHANGE)	-16	58	-67	351		47	60	54
FARM PRODUCTS USED	177	439	623	718		447	462	393
LESS: PURCHASED FEED	894	1784	2815	9420		2265	1641	2401
PURCHASED LIVESTOCK	16	152	58	548		144	362	47
ADJUSTED GROSS FARM INCOME	93106	175187	307403	500620		202193	141276	220374
CASH OPERATING EXPENSE	39768	71414	122592	199303		81999	75138	72275
PREPAID EXPENSE(-IF INCR.)	-1173	-2354	-3033	-5531		-2480	-1527	-3576
ACCTS. PAYABLE (+IF INCR.)	63	-6	141	-589		-10	-79	68
FARM PRODUCED INPUTS	172	417	592	631		422	428	384
TOTAL OPERATING EXPENSE	38829	69468	120293	193812		79928	73958	69149
INCOME BEFORE DEPRECIATION	54277	105715	187112	306810		122264	67319	151226
LESS DEPRECIATION	11994	20949	31819	55393		23329	23981	20186
CAPITAL ACCOUNT ADJUSTMENT	235	-311	-726	-1124		-344	-516	5
NET FARM INCOME	42518	84455	154568	250292		98589	42821	131046
RATE EARNED ON INVEST. %	3466	12810	26241	44697		15348	-26962	52834
	3.15	4.03	4.52	4.87		4.20	1.72	6.11

Note: Variations in totals are due to rounding to the nearest dollar. Farms having a high soil rating (86-100) are those with nearly level, well-drained prairie soils. *Value of feed fed to livestock was less than 1 percent of crop returns.

Table 19a. Average Operating Costs, Investments, and Land Use of Grain Farms by Size and Management Returns, 1983 (High Soil Rating, Northern and Central Illinois)

RANGE IN SIZE (TOTAL ACRES) MANAGEMENT RETURNS NUMBER OF FARMS	180-339		340-799		800-1199		OVER 1199		YOUR FARM		ALL FARMS		340-799	
	111	545	116	49	821	LOW 25%	HIGH 25%							
SELECTED COST AND RETURN ITEMS PER TILLABLE ACRE:														
SOIL FERTILITY	32.02	31.57	30.10	33.42	31.54	36.25	26.84							
PESTICIDES	16.14	15.67	16.47	16.46	15.98	17.92	13.33							
SEED AND OTHER CROP	14.21	14.22	13.38	14.33	14.05	14.99	13.07							
CROP TOTAL	* 62.37	* 61.46	* 59.95	* 64.21	* 61.58	* 69.17	* 53.23							
AUTO AND UTILITIES	6.52	4.32	3.28	2.57	3.98	4.75	3.90							
MACHINERY REPAIRS, SUPPLIES	13.29	12.25	11.82	11.09	12.05	13.01	11.21							
MACHINERY HIRE	5.39	3.92	3.82	3.37	3.91	5.50	2.91							
FUEL AND OIL	12.35	11.64	11.18	11.32	11.54	12.54	11.11							
MACHINERY DEPRECIATION	35.86	33.38	28.94	31.60	32.31	39.11	29.72							
POWER AND EQUIPMENT TOTAL	* 73.40	* 65.51	* 59.03	* 59.93	* 63.79	* 74.91	* 58.85							
DRYING AND STORAGE	5.73	5.72	4.87	4.55	5.37	5.40	6.03							
BUILDING REPAIR	2.40	1.72	1.47	1.02	1.61	2.17	1.36							
BUILDING DEPRECIATION	8.69	7.60	6.24	7.87	7.41	9.14	6.19							
BUILDING TOTAL	* 16.82	* 15.04	* 12.58	* 13.44	* 14.38	* 16.70	* 13.57							
LABOR UNPAID	47.43	26.30	16.69	13.63	23.71	26.99	24.31							
LABOR HIRED	3.99	5.22	8.21	11.40	6.68	5.71	5.25							
LABOR TOTAL	* 51.42	* 31.52	* 24.90	* 25.02	* 30.39	* 32.70	* 29.56							
VALUE OF FEED FED	.08	.10	.08	.28	.12	.13	.08							
CAPITAL PURCHASES	34.31	31.59	26.10	32.82	30.74	35.13	29.12							
CROP RETURNS	338.55	334.84	332.94	345.32	336.15	275.84	385.03							
LIVESTOCK RETURN ABOVE FED	.02	.01	.02	.13	.03	.02	.01							
VALUE OF FARM PRODUCTION	347.00	342.92	339.93	356.68	344.49	284.36	392.83							
TOTAL NON-FEED COST	381.43	342.36	320.52	328.71	338.07	365.81	320.21							
MANAGEMENT RETURNS	-33.56	- .04	18.61	27.16	5.83	-82.49	72.63							
FARM INVESTMENT:														
LIVESTOCK INVENTORY	49	170	204	833	198	327	101							
GRAIN INVENTORY	66422	125150	225611	347880	144697	106805	155345							
REMAINING COST IN--														
MACHINERY AND AUTO	26092	43414	67129	126291	49369	50369	42204							
BUILDINGS AND FENCE	19802	30146	39423	75688	32776	36116	26700							
SOIL FERTILITY	25	23	23	0	22	26	64							
VALUE OF LAND (CURRENT)	832874	1562761	2753483	4193255	1789314	1519486	1697492							
TOTAL FARM INVESTMENT	945266	1761670	3085865	4743946	2016380	1713132	1921909							
TOTAL INVESTMENT PER ACRE	3387	3320	3273	3127	3285	3299	3322							
MACHINERY INVESTMENT PER TILLABLE ACRE	97	85	74	90	84	101	75							
PERCENT TILLABLE LAND IN--														
CORN AND CORN SILAGE	38.9	36.0	34.4	36.6	35.9	41.8	29.4							
SOYBEANS	44.4	42.6	43.3	36.6	42.0	39.5	43.6							
WHEAT	.2	.5	.6	.2	.5	.6	.4							
OTHER SMALL GRAIN	.1	.1	.0	.0	.1	.1	.0							
DIVERTED ACRES	13.2	19.1	20.8	22.7	19.6	16.9	24.4							
ALL HAY AND PASTURE	.1	.3	.2	.1	.2	.1	.1							
CROP YIELDS, BU. PER ACRE														
CORN	100	98	99	98	98	82	110							
SOYBEANS	38	39	39	41	39	35	42							
WHEAT	58	64	69	63	65	56	67							

Note: Variations in totals are due to rounding to the nearest dollar. Farms having a high soil rating (86-100) are those with nearly level, well-drained prairie soils.
*Figures marked with an asterisk are subtotals.

Table 20. Average Return, Costs, and Financial Summary of Grain Farms by Size and Management Returns, 1983 (Low Soil Rating, Northern and Central Illinois)

	GRAIN FARMS WITH SOIL RATING 56-85 NORTH & CENTRAL ILLINOIS*							340-799	
	180-339	340-799	800-1199	OVER 1199	YOUR FARM	ALL FARMS	LOW 25%	HIGH 25%	
RANGE IN SIZE (TOTAL ACRES)	73	314	96	34		517	79	79	
MANAGEMENT RETURNS									
NUMBER OF FARMS									
TOTAL ACRES IN FARM	284	549	953	1604		656	562	584	
ACRES OF TILLABLE LAND	267	514	889	1471		612	516	556	
SOIL RATING ON TILLABLE LAND	77	77	75	76		77	76	78	
TOTAL MONTHS LABOR	12.3	14.3	19.9	29.9		16.1	15.2	14.1	
MONTHS OF HIRED LABOR	1.0	2.1	5.8	11.9		3.3	2.7	2.0	
BEEF PRODUCED, CWT.	1	1	4	6		2	1	0	
PORK PRODUCED, CWT.	0	1	0	0		0	1	0	
DAIRY COWS, NUMBER	0	0	0	0		0	0	0	
DOLLAR RETURNS PER FARM:									
CROP RETURNS	81410	156042	269313	462290		186677	126885	200007	
LIVESTOCK RETURNS ABOVE FEED	54	27	41	546		68	-10	105	
CUSTOM WORK	1167	1938	2716	3114		2051	1700	2275	
OTHER FARM RECEIPTS	1894	2989	6551	9171		3902	2875	4235	
VALUE OF FARM PRODUCTION	84525	160995	278621	475120		192697	131449	206623	
DOLLAR COSTS PER FARM:									
CROP EXPENSES	16104	30678	54032	87834		36715	36733	28801	
POWER AND EQUIPMENT	20665	34310	54996	83835		39482	38568	33127	
BUILDING AND FENCE	5513	8178	14878	22732		10003	8927	9350	
LABOR	13286	15677	22532	34061		17821	16895	15433	
LIVESTOCK SERVICES & SUPPLIES	58	104	161	133		110	83	126	
TAXES	5022	9544	16088	27519		11303	9546	10239	
INSURANCE AND MISCELLANEOUS	2357	3667	5901	8143		4192	4052	3464	
INTEREST ON NON-LAND CAPITAL	12215	20738	35265	55794		24538	22109	21751	
LAND CHARGE-NET RENT	21862	42121	69272	116947		49223	42450	45414	
TOTAL NON-FEED COST	97082	165014	273122	436999		193383	179363	167705	
CAPITAL ACCOUNT ADJUSTMENT	-221	-265	-708	-111		-331	-462	5	
MANAGEMENT RETURNS	-12778	-4284	4789	38009		-1017	-48376	38922	
FARM PRODUCTION PER \$1.00									
OF NON-FEED COSTS	.87	.98	1.02	1.09		1.00	.73	1.23	
FARM PRODUCTION PER MAN	82556	135467	168145	190872		144045	103707	176468	
FINANCIAL SUMMARY:									
CASH OPERATING INCOME	86625	167366	281407	513409		199898	157670	202341	
INVENTORY CHANGE	-1458	-5105	-343	-31150		-5418	-25287	5289	
ACCTS. RECEIVABLE (NET CHANGE)	52	61	118	787		118	115	-5	
FARM PRODUCTS USED	142	310	549	708		357	181	480	
LESS : PURCHASED FEED	821	1592	2962	8624		2200	1207	1470	
PURCHASED LIVESTOCK	15	43	148	9		56	22	11	
ADJUSTED GROSS FARM INCOME	84525	160995	278621	475120		192697	131449	206623	
CASH OPERATING EXPENSE	37969	68652	119054	201691		82428	76476	70225	
PREPAID EXPENSE (-IF INCR.)	-777	-1695	-3547	-8390		-2349	-432	-3319	
ACCTS. PAYABLE (+IF INCR.)	-26	-91	169	-157		-38	-221	-9	
FARM PRODUCED INPUTS	129	295	488	663		331	172	469	
TOTAL OPERATING EXPENSE	37293	67159	116164	193805		80370	75993	67365	
INCOME BEFORE DEPRECIATION	47232	93836	162460	281316		112328	55455	139258	
LESS DEPRECIATION	13251	21653	36892	50718		25208	25008	19892	
CAPITAL ACCOUNT ADJUSTMENT	-221	-265	-708	-111		-331	-462	5	
NET FARM INCOME	33760	71919	124859	230486		86789	29985	119371	
LABOR AND MGT. INCOME PER OPR.	-549	8721	15927	37806		10663	-34597	51826	
RATE EARNED ON INVEST. %	2.69	3.89	4.42	5.09		4.14	1.07	6.52	

Note: Variations in totals are due to rounding to the nearest dollar. Farms having a low soil rating (56-85) are those with poorly drained, heavy-til, and timber soils.
*Value of feed fed to livestock was less than 1 percent of crop returns.

Table 20a. Average Operating Costs, Investments, and Land Use of Grain Farms by Size and Management Returns, 1983 (Low Soil Rating, Northern and Central Illinois)

RANGE IN SIZE (TOTAL ACRES) MANAGEMENT RETURNS NUMBER OF FARMS	180-339		340-799		800-1199		OVER 1199		YOUR FARM		ALL FARMS		340-799		HIGH 25%		
	73	314	96	34	517	LOW 25%	79	25%	79	25%	79	25%	79	25%	79	25%	
SELECTED COST AND RETURN ITEMS PER TILLABLE ACRE:																	
SOIL FERTILITY	29.82	30.49	30.15	29.48	30.20								39.67	24.93			
PESTICIDES	16.48	15.26	16.36	16.56	15.84								17.56	14.05			
SEED AND OTHER CROP	14.06	13.91	14.28	13.67	13.98								13.98	12.79			
CROP TOTAL	* 60.36	* 59.65	* 60.79	* 59.71	* 60.01								* 71.16	* 51.76			
AUTO AND UTILITIES	7.13	4.93	3.73	3.07	4.45								5.12	4.43			
MACHINERY REPAIRS, SUPPLIES	13.71	12.15	11.03	10.48	11.68								12.34	12.05			
MACHINERY HIRE	6.27	4.00	3.98	4.00	4.14								6.21	3.71			
FUEL AND OIL	12.59	11.71	10.88	11.34	11.48								12.02	10.85			
MACHINERY DEPRECIATION	37.75	33.93	32.26	28.10	32.79								39.02	28.48			
POWER AND EQUIPMENT TOTAL	* 77.45	* 66.72	* 61.88	* 56.99	* 64.54								* 74.71	* 59.53			
DRYING AND STORAGE	5.41	5.73	5.13	7.30	5.80								5.00	7.71			
BUILDING REPAIR	3.42	2.02	2.40	1.78	2.17								2.94	1.84			
BUILDING DEPRECIATION	11.84	8.15	9.22	6.38	8.39								9.36	7.26			
BUILDING TOTAL	* 20.66	* 15.90	* 16.74	* 15.45	* 16.35								* 17.29	* 16.80			
LABOR UNPAID	46.70	25.95	17.48	13.42	22.96								26.74	23.87			
LABOR HIRED	3.09	4.53	7.88	9.74	6.17								5.99	3.86			
LABOR TOTAL	* 49.79	* 30.49	* 25.35	* 23.16	* 29.13								* 32.73	* 27.74			
VALUE OF FEED FED	1.13	.12	.15	.15	.13								.11	.04			
CAPITAL PURCHASES	29.26	32.17	38.53	30.48	33.44								37.73	29.79			
CROP RETURNS	305.11	303.43	303.01	314.28	305.14								245.81	359.45			
LIVESTOCK RETURN ABOVE FED	20.20	.05	.05	.37	.11								-.02	.19			
VALUE OF FARM PRODUCTION	316.78	313.06	313.49	323.00	314.98								254.65	371.34			
TOTAL NON-FEED COST	363.84	320.87	307.30	297.09	316.10								347.47	301.39			
MANAGEMENT RETURNS	-47.89	-8.33	5.39	25.84	-1.66								-93.72	69.95			
FARM INVESTMENT:																	
LIVESTOCK INVENTORY	429	188	433	1134	329								177	45			
GRAIN INVENTORY	58606	109064	175456	291768	126283								97824	135979			
REMAINING COST IN--																	
MACHINERY AND AUTO	27493	47307	82502	115571	55534								57942	40479			
BUILDINGS AND FENCE	23354	32347	52667	74117	37597								36386	32489			
SOIL FERTILITY	41	47	53	0	44								123	14			
VALUE OF LAND (CURRENT)	683179	1316248	2164741	3654600	1538192								1326580	1419177			
TOTAL FARM INVESTMENT	793105	1505188	2475853	4137191	1757972								1519034	1628185			
TOTAL INVESTMENT PER ACRE	2797	2743	2599	2580	2681								2702	2789			
MACHINERY INVESTMENT PER TILLABLE ACRE	103	92	93	79	91								112	73			
PERCENT TILLABLE LAND IN--																	
CORN AND CORN SILAGE	36.2	32.7	34.6	32.0	33.3								40.8	27.2			
SOYBEANS	36.7	39.4	36.2	36.2	37.9								34.0	41.5			
WHEAT	1.5	1.1	1.6	.9	1.2								2.1	.5			
OTHER SMALL GRAIN	.1	.2	.2	.2	.2								.3	.1			
DIVERTED ACRES	23.5	24.7	26.2	29.7	25.8								20.6	28.9			
ALL HAY AND PASTURE	1.1	.3	.5	.1	.4								.4	.2			
CROP YIELDS, BU. PER ACRE																	
CORN	85	85	87	87	86								72	98			
SOYBEANS	35	36	36	36	36								30	40			
WHEAT	53	55	55	52	54								52	62			

Note: Variations in totals are due to rounding to the nearest dollar. Farms having a low soil rating (56-85) are those with poorly drained, heavy-till, and timber soils.

*Figures marked with an asterisk are subtotals.

Table 21. Average Return, Costs, and Financial Summary of Hog Farms by Size and Months of Labor, 1983 (High Soil Rating, Northern and Central Illinois)

RANGE IN SIZE (TOTAL ACRES) MONTHS OF LABOR NUMBER OF FARMS	HOG FARMS WITH SOIL RATING 86-100 NORTH & CENTRAL ILLINOIS					BY MONTHS OF LABOR		
	60-259	260-499	500-799	OVER 799	YOUR FARM	ALL FARMS	21-27 MO.	31-39 MO.
TOTAL ACRES IN FARM	202	364	602	1119	—	487	446	733
ACRES OF TILLABLE LAND	191	340	556	1021	—	450	412	679
SOIL RATING ON TILLABLE LAND	92	92	92	90	—	92	92	90
TOTAL MONTHS LABOR	15.7	19.0	30.7	48.7	—	25.0	24.5	34.9
MONTHS OF HIRED LABOR	2.5	4.8	15.1	31.4	—	10.3	6.7	14.4
BEEF PRODUCED, CWT.	55	88	139	228	—	112	137	152
PORK PRODUCED, CWT.	2114	3212	4867	8902	—	4125	3531	5386
DAIRY COWS, NUMBER	0	0	0	3	—	0	0	0
DOLLAR RETURNS PER FARM:								
CROP RETURNS	66767	116216	177174	353302	—	151539	135848	219554
LIVESTOCK RETURNS ABOVE FEED	22608	39804	64916	114336	—	52077	46957	58386
CUSTOM WORK	602	1418	1163	1999	—	1269	1014	817
OTHER FARM RECEIPTS	1170	1702	2972	6455	—	2511	2227	3315
VALUE OF FARM PRODUCTION	91147	159142	246226	476093	—	207397	186046	282072
DOLLAR COSTS PER FARM:								
CROP EXPENSES	14617	24022	40848	78699	—	33246	26526	55504
POWER AND EQUIPMENT	23844	37311	56096	92451	—	46298	42402	58620
BUILDING AND FENCE	8755	14580	22738	48787	—	19770	18446	29256
LABOR	17006	21175	35089	61734	—	28918	29615	39383
LIVESTOCK SERVICES & SUPPLIES	4081	6694	11071	19095	—	8834	6581	12444
TAXES	4551	7920	12844	22465	—	10318	9065	15066
INSURANCE AND MISCELLANEOUS	2678	3787	11455	11455	—	5292	4954	6658
INTEREST ON NON-LAND CAPITAL	18620	31608	49127	98609	—	41854	36586	59715
LAND CHARGE-NET RENT	18867	33419	54913	99700	—	44266	40650	64698
TOTAL NON-FEED COST	113018	180515	289557	532995	—	238796	214824	341345
CAPITAL ACCOUNT ADJUSTMENT	-484	-952	-1792	-1108	—	-1091	-1539	-1030
MANAGEMENT RETURNS	-22355	-22326	-45122	-58011	—	-32491	-30318	-60303
FARM PRODUCTION PER \$1.00 OF NON-FEED COSTS	.81	.88	.85	.89	—	.87	.87	.83
FARM PRODUCTION PER MAN	69601	100678	96288	117302	—	99605	91297	96857
FINANCIAL SUMMARY:								
CASH OPERATING INCOME	151402	229919	354628	703089	—	305074	268223	425477
INVENTORY CHANGE	-14863	-10778	-12309	-50654	—	-16934	-15339	-31285
ACCTS. RECEIVABLE (NET CHANGE)	0	39	-343	159	—	-48	-642	0
FARM PRODUCTS USED	376	401	760	639	—	639	708	978
LESS : PURCHASED FEED	37054	50955	81935	154515	—	68960	53787	87494
PURCHASED LIVESTOCK	8713	9483	14573	23612	—	12373	13116	25603
ADJUSTED GROSS FARM INCOME	91147	159142	246226	476093	—	207397	186046	282072
CASH OPERATING EXPENSE	45171	72836	127468	237853	—	101777	87995	143782
PREPAID EXPENSE (-IF INCR.)	100	175	-566	-309	—	-84	-1527	-1317
ACCTS. PAYABLE (+IF INCR.)	38	66	-451	2990	—	297	-845	3614
FARM PRODUCED INPUTS	40	113	328	668	—	222	291	407
TOTAL OPERATING EXPENSE	45349	73190	126777	241201	—	102210	85912	146485
INCOME BEFORE DEPRECIATION	45798	85953	119449	234892	—	105187	100134	135587
LESS DEPRECIATION	15687	26754	41559	74485	—	34284	32122	47864
CAPITAL ACCOUNT ADJUSTMENT	-484	-952	-1792	-1108	—	-1091	-1539	-1030
NET FARM INCOME	29625	58245	76097	159297	—	69811	66471	86692
LABOR AND MGT. INCOME PER OPR.	-7277	-7559	-24134	-31532	—	-14645	-12229	-31163
RATE EARNED ON INVEST. %	2.05	3.27	2.79	3.60	—	3.11	2.99	2.56

Note: Variations in totals are due to rounding to the nearest dollar. Farms having a high soil rating (86-100) are those with nearly level, well-drained prairie soils.

Table 21a. Average Operating Costs, Investments, and Land Use of Hog Farms by Size and Months of Labor, 1983 (High Soil Rating, Northern and Central Illinois)

RANGE IN SIZE (TOTAL ACRES)	60-259		260-499		500-799		OVER 799		YOUR FARM		ALL FARMS		BY MONTHS OF LABOR	
	MONTHS OF LABOR	NUMBER OF FARMS	76	44	22	22	44	22	21-27 MO.	26	31-39 MO.	17		
SELECTED COST AND RETURN ITEMS PER TILLABLE ACRE:														
SOIL FERTILITY		43.02	36.58	34.96	40.53						37.73	31.50	41.49	
PESTICIDES		16.45	16.73	22.12	20.71						19.50	15.78	23.30	
SEED AND OTHER CROP CROP TOTAL		17.18	17.43	16.39	15.87						16.64	17.15	16.96	
AUTO AND UTILITIES	*	76.65	70.74	73.46	73.77	*	73.46	73.77	*	73.87	64.43	81.76	*	
MACHINERY REPAIRS, SUPPLIES		19.40	14.27	12.76	13.70		14.06	12.83		14.06	12.83	11.43		
MACHINERY HIRE		26.84	22.16	22.68	21.55		22.53	22.08		22.53	22.08	18.19		
FUEL AND OIL		10.79	6.81	5.09	5.12		5.12	4.66		5.12	4.66	4.66		
MACHINERY DEPRECIATION		19.33	18.91	16.82	16.38		17.58	16.88		17.58	17.16	16.88		
POWER AND EQUIPMENT TOTAL	*	48.68	47.74	43.53	37.38		43.58	45.48		43.58	45.48	35.19		
DRYING AND STORAGE		4.78	4.61	3.15	5.27		4.36	3.18		4.36	3.23	3.18		
BUILDING REPAIR		7.55	7.34	6.54	7.63		7.19	9.02		7.19	9.02	5.90		
BUILDING DEPRECIATION		33.58	30.99	31.20	34.91		32.38	32.55		32.38	32.55	34.01		
BUILDING TOTAL	*	45.91	42.94	40.89	47.80	*	43.93	44.80	*	43.93	44.80	43.09	*	
LABOR UNPAID		76.00	45.78	30.90	18.62		35.96	47.50		35.96	47.50	33.26		
LABOR HIRED		13.17	16.58	32.21	41.87		28.30	24.44		28.30	24.44	24.75		
LABOR TOTAL	*	89.17	62.36	63.10	60.49	*	64.25	71.94	*	64.25	71.94	58.01	*	
VALUE OF FEED FED		362.69	273.83	265.73	286.37		286.37	243.04		286.37	243.04	243.04		
CAPITAL PURCHASES		71.97	75.70	67.99	53.35		66.68	81.17		66.68	81.17	48.67		
CROP RETURNS		350.11	342.25	318.63	346.19		336.71	329.97		336.71	329.97	323.40		
LIVESTOCK RETURN ABOVE FED		118.55	117.22	116.75	112.03		115.71	114.06		115.71	114.06	86.00		
VALUE OF FARM PRODUCTION		477.95	468.66	442.82	466.51		460.83	451.90		460.83	451.90	415.49		
TOTAL NON-FEED COST		592.63	531.61	520.74	522.27		530.60	521.81		530.60	521.81	502.80		
MANAGEMENT RETURNS		-117.23	-65.75	-81.15	-56.84		-72.20	-73.64		-72.20	-73.64	-88.83		
FARM INVESTMENT:														
LIVESTOCK INVENTORY		42426	67942	99678	212964		89074	79722		89074	79722	119321		
GRAIN INVENTORY		37438	76215	120451	208091		96267	89821		96267	89821	141806		
REMAINING COST IN--														
MACHINERY AND AUTO		26091	44835	70657	106665		55398	48661		55398	48661	72050		
BUILDINGS AND FENCE		42894	72258	107669	249620		97608	80910		97608	80910	150685		
SOIL FERTILITY	0		62	15	1522		221	0		221	0	1939		
VALUE OF LAND (CURRENT)		589599	1044332	1716026	3115822		1383320	1270296		1383320	1270296	2021824		
TOTAL FARM INVESTMENT		738446	1305645	2114496	3894486		1721889	1569409		1721889	1569409	2507625		
TOTAL INVESTMENT PER ACRE		3651	3589	3514	3479		3539	3517		3539	3517	3419		
MACHINERY INVESTMENT PER TILLABLE ACRE		137	132	127	105		123	118		123	118	106		
PERCENT TILLABLE LAND IN--														
CORN AND CORN SILAGE		55.4	57.1	55.9	44.5		53.0	52.1		53.0	52.1	54.5		
SOYBEANS		24.8	24.6	29.8	30.8		28.0	25.4		28.0	25.4	29.0		
WHEAT		2.0	.9	1.6	1.7		1.5	2.4		1.5	2.4	2.4		
OTHER SMALL GRAIN		2.0	1.7	.6	.3		1.0	1.0		1.0	1.0	.5		
DIVERTED ACRES		12.4	12.8	8.6	18.4		13.1	16.1		13.1	16.1	8.8		
ALL HAY AND PASTURE		3.0	2.3	1.4	1.7		1.9	2.8		1.9	2.8	1.8		
CROP YIELDS, BU. PER ACRE														
CORN		96	91	84	87		89	89		89	89	87		
SOYBEANS		42	41	40	39		40	41		40	41	39		
WHEAT		60	65	65	64		64	67		64	67	57		

Note: Variations in totals are due to rounding to the nearest dollar. Farms having a high soil rating (86-100) are those with nearly level, well-drained prairie soils. *Figures marked with an asterisk are subtotals.

Table 22. Average Return, Costs, and Financial Summary of Hog Farms by Size and Months of Labor, 1983 (Low Soil Rating, Northern and Central Illinois)

HOG FARMS WITH SOIL RATING 56-85 NORTH & CENTRAL ILLINOIS									
RANGE IN SIZE (TOTAL ACRES) MONTHS OF LABOR NUMBER OF FARMS	60-259	260-499	500-799	OVER 799	YOUR FARM	ALL FARMS	BY MONTHS OF LABOR		
							21-27 MO.	28-30 MO.	31-39 MO.
TOTAL ACRES IN FARM	183	386	645	1112		533	577	680	
ACRES OF TILLABLE LAND	161	325	531	873		438	476	536	
SOIL RATING ON TILLABLE LAND	75	75	74	76		75	76	75	
TOTAL MONTHS LABOR	15.6	19.2	26.3	36.5		23.2	24.2	36.0	
MONTHS OF HIRED LABOR	3.2	5.4	9.1	16.4		7.7	6.9	15.0	
BEEF PRODUCED, CWT.	50	204	400	750		315	275	587	
PORK PRODUCED, CWT.	2984	2710	3585	4925		3304	3205	4657	
DAIRY COWS, NUMBER	2	1	2	0		1	2	3	
DOLLAR RETURNS PER FARM:									
CROP RETURNS	47617	92680	149947	231393		123273	141853	154620	
LIVESTOCK RETURNS ABOVE FEED	42891	33606	42052	65819		41605	37805	65610	
CUSTOM WORK	360	1035	1667	2570		1340	2039	2175	
OTHER FARM RECEIPTS	1246	2486	5560	7208		3891	3040	5905	
VALUE OF FARM PRODUCTION	92115	129807	199225	306990		169209	184738	228310	
DOLLAR COSTS PER FARM:									
CROP EXPENSES	11782	22772	34715	55664		29257	32632	35499	
POWER AND EQUIPMENT	24942	34927	54823	73198		44737	46515	60455	
BUILDING AND FENCE	10849	14731	20258	29168		17793	19582	27378	
LABOR	17718	21295	28552	41135		25630	26705	39088	
LIVESTOCK SERVICES & SUPPLIES	6247	5136	8120	11049		6977	7162	9139	
TAXES	3366	6208	10122	16992		8435	9415	11236	
INSURANCE AND MISCELLANEOUS	2629	3696	5535	8328		4723	4811	6649	
INTEREST ON NON-LAND CAPITAL	22142	29881	45076	67393		38412	41619	56721	
LAND CHARGE-NET RENT	13067	26504	42706	72629		35689	39526	43122	
TOTAL NON-FEED COST	112743	165147	249905	375556		211651	227966	289286	
CAPITAL ACCOUNT ADJUSTMENT	-751	-404	-786	-543		-588	-896	-286	
MANAGEMENT RETURNS	-21379	-35747	-51467	-69109		-43031	-44125	-61262	
FARM PRODUCTION PER \$1.00	.82	.79	.80	.82		.80	.81	.79	
OF NON-FEED COSTS	70889	81057	90808	100803		87598	91693	76007	
FARM PRODUCTION PER MAN	169956	203059	324328	481555		272308	281379	387872	
FINANCIAL SUMMARY:	-13062	-16511	-29997	-32216		-22300	-19701	-32129	
CASH OPERATING INCOME	-170	83	92	121		56	44	-197	
INVENTORY CHANGE	401	598	854	1011		705	704	997	
ACCTS. RECEIVABLE (NET CHANGE)	5813	4242	68543	95229		59933	58181	90143	
FARM PRODUCTS USED	9195	13180	27511	48253		21629	19507	38088	
LESS : PURCHASED FEED	92115	129807	199225	306990		169209	184738	228310	
PURCHASED LIVESTOCK	45321	67923	105135	161494		88546	91743	123093	
ADJUSTED GROSS FARM INCOME	-61	-782	-500	-262		-531	-150	-1756	
CASH OPERATING EXPENSE	114	43	208	816		208	27	255	
PREPAID EXPENSE (-IF INCR.)	48	102	171	225		132	145	96	
ACCTS. PAYABLE (+IF INCR.)	45421	67198	105148	162272		88355	91763	121687	
FARM PRODUCED INPUTS	46694	62609	94078	144718		80855	92974	106624	
TOTAL OPERATING EXPENSE	18430	26338	38074	51105		32135	36091	44657	
INCOME BEFORE DEPRECIATION	-751	-404	-786	-543		-588	-896	-286	
LESS DEPRECIATION	27512	35866	55217	93069		48131	55987	61679	
CAPITAL ACCOUNT ADJUSTMENT	-7351	-20621	-30487	-40658		-24511	-25202	-25780	
NET FARM INCOME	2.37	1.93	2.14	2.52		2.18	2.35	2.15	

Note: Variations in totals are due to rounding to the nearest dollar. Farms having a low soil rating (56-85) are those with poorly drained, heavy-til, and timber soils.

Table 22a. Average Operating Costs, Investments, and Land Use of Hog Farms by Size and Months of Labor, 1983 (Low Soil Rating, Northern and Central Illinois)

RANGE IN SIZE (TOTAL ACRES)	60-259		260-499		500-799		OVER 799		YOUR FARM		ALL FARMS		BY MONTHS OF LABOR	
	MONTHS OF LABOR	NUMBER OF FARMS	260-499	140	500-799	104	OVER 799	42	YOUR FARM	ALL FARMS	21-27 MO.	74	31-39 MO.	33
SELECTED COST AND RETURN														
ITEMS PER TILLABLE ACRE:														
SOIL FERTILITY														
PESTICIDES														
SEED AND OTHER CROP														
CROP TOTAL														
AUTO AND UTILITIES														
MACHINERY REPAIRS, SUPPLIES														
MACHINERY HIRE														
FUEL AND OIL														
MACHINERY DEPRECIATION														
POWER AND EQUIPMENT TOTAL														
DRYING AND STORAGE														
BUILDING REPAIR														
BUILDING DEPRECIATION														
BUILDING TOTAL														
LABOR UNPAID														
LABOR HIRED														
LABOR TOTAL														
VALUE OF FEED FED														
CAPITAL PURCHASES														
CROP RETURNS														
LIVESTOCK RETURN ABOVE FED														
VALUE OF FARM PRODUCTION														
TOTAL NON-FEED COST														
MANAGEMENT RETURNS														
FARM INVESTMENT:														
LIVESTOCK INVENTORY														
GRAIN INVENTORY														
REMAINING COST IN--														
MACHINERY AND AUTO														
BUILDINGS AND FENCE														
SOIL FERTILITY														
VALUE OF LAND (CURRENT)														
TOTAL FARM INVESTMENT														
TOTAL INVESTMENT PER ACRE														
MACHINERY INVESTMENT														
PER TILLABLE ACRE														
PERCENT TILLABLE LAND IN--														
CORN AND CORN SILAGE														
SOYBEANS														
WHEAT														
OTHER SMALL GRAIN														
DIVERTED ACRES														
ALL HAY AND PASTURE														
CROP YIELDS, BU. PER ACRE														
CORN														
SOYBEANS														
WHEAT														

Note: Variations in totals are due to rounding to the nearest dollar. Farms having a low soil rating (56-85) are those with poorly drained, heavy-til, and timber soils. *Figures marked with an asterisk are subtotals.

Table 23. Average Return, Costs, and Financial Summary of Grain Farms by Size and Management Returns, Southern Illinois, 1983

RANGE IN SIZE (TOTAL ACRES) MANAGEMENT RETURNS NUMBER OF FARMS	GRAIN FARMS WITH SOIL RATING 36-85 SOUTHERN ILLINOIS					340-799	LOW 25%	HIGH 25%
	180-339	340-799	800-1199	OVER 1199	YOUR FARM	ALL FARMS	81	81
TOTAL ACRES IN FARM	281	563	965	1860		837	630	565
ACRES OF TILLABLE LAND	254	507	885	1690		760	558	524
SOIL RATING ON TILLABLE LAND	63	60	60	59		60	61	59
TOTAL MONTHS LABOR	12.6	15.5	20.6	34.9		19.5	17.4	14.9
MONTHS OF HIRED LABOR	.5	2.7	5.5	15.7		5.2	4.3	2.6
BEEF PRODUCED, CWT.	43	76	108	252		108	72	67
PORK PRODUCED, CWT.	101	118	312	418		212	76	151
DAIRY COWS, NUMBER	0	0	0	0		0	0	0
DOLLAR RETURNS PER FARM:								
CROP RETURNS	55292	103827	182481	366444		159458	98258	127381
LIVESTOCK RETURNS ABOVE FEED	1916	1754	4517	7560		3360	-26	3112
CUSTOM WORK	546	712	1539	3996		1410	619	629
OTHER FARM RECEIPTS	1183	1500	2839	7538		2735	1603	1597
VALUE OF FARM PRODUCTION	58936	107793	191376	385538		166963	100453	132719
DOLLAR COSTS PER FARM:								
CROP EXPENSES	15383	28013	48684	96912		42627	35862	24745
POWER AND EQUIPMENT	18798	35217	56685	107132		50138	46034	31139
BUILDING AND FENCE	2983	5300	9239	19941		8325	6713	4146
LABOR	13813	16670	22536	40073		21476	18499	15631
LIVESTOCK SERVICES & SUPPLIES	434	418	735	1284		633	408	379
TAXES	4073	5398	9249	15204		7753	6334	5098
INSURANCE AND MISCELLANEOUS	1962	2965	4360	8243		4033	3593	2619
INTEREST ON NON-LAND CAPITAL	8701	17102	28276	57465		25331	21305	14899
LAND CHARGE-NET RENT	15030	27657	47732	84016		40198	31998	27618
TOTAL NON-FEED COST	81177	138737	227493	430264		200511	170746	126274
CAPITAL ACCOUNT ADJUSTMENT	-228	-371	-678	-489		-453	-1159	445
MANAGEMENT RETURNS	-22469	-31315	-36795	-45215		-34001	-71452	6890
FARM PRODUCTION PER \$1.00								
OF NON-FEED COSTS	.73	.78	.84	.90		.83	.59	1.05
FARM PRODUCTION PER MAN	56313	83341	111284	132414		102664	69229	107136
FINANCIAL SUMMARY:								
CASH OPERATING INCOME	69374	129094	226396	458125		198581	139995	140269
INVENTORY CHANGE	-7087	-13767	-18062	-25815		-16073	-30893	1019
ACCTS, RECEIVABLE (NET CHANGE)	-12	-19	-29	104		-2	-59	23
FARM PRODUCTS USED	578	1130	1582	2659		1427	1079	955
LESS: PURCHASED FEED	2651	5808	13606	37787		12390	7327	5272
PURCHASED LIVESTOCK	1263	2836	4904	11747		4578	2341	4275
ADJUSTED GROSS FARM INCOME	58936	107793	191377	385539		166964	100453	132719
CASH OPERATING EXPENSE	32303	57476	98864	202494		87830	72161	52410
PREPAID EXPENSE (-IF INCR.)	41	-545	-686	-1789		-716	-710	-296
ACCTS. PAYABLE (+IF INCR.)	0	220	27	115		134	876	-16
FARM PRODUCED INPUTS	453	928	1339	2220		1185	883	768
TOTAL OPERATING EXPENSE	32797	58078	99543	203038		88433	73210	52803
INCOME BEFORE DEPRECIATION	26139	49718	91837	182502		27243	27243	79856
LESS DEPRECIATION	11404	21849	35264	64570		30816	29804	17347
CAPITAL ACCOUNT ADJUSTMENT	-228	-371	-678	-489		-453	-1159	445
NET FARM INCOME	14506	27497	55893	117443		47264	-3720	62954
LABOR AND MGT. INCOME PER OPR.	-9924	-17700	-20624	-21150		-18237	-56725	19705
RATE EARNED ON INVEST. %	.23	1.33	2.27	3.11		2.15	-1.55	4.98

Note: Variations in totals are due to rounding to the nearest dollar.

Table 23a. Average Operating Costs, Investments, and Land Use of Grain Farms by Size and Management Returns, Southern Illinois, 1983

RANGE IN SIZE (TOTAL ACRES) MANAGEMENT RETURNS NUMBER OF FARMS	180-339		340-799		800-1199		OVER 1199		YOUR FARM		ALL FARMS		340-799	
	61	164	322	164	99	646	81	25%	100%	81	25%	81	25%	81
SELECTED COST AND RETURN ITEMS PER TILLABLE ACRE:														
SOIL FERTILITY	30.25	27.63	28.20	28.80	28.80	28.28							32.42	23.18
PESTICIDES	17.10	14.68	13.94	15.07	15.07	14.67							17.40	12.91
SEED AND OTHER CROP	13.11	12.94	12.85	13.48	13.48	12.94							14.42	11.17
CROP TOTAL	* 60.46	* 55.25	* 54.99	* 57.35	* 57.35	* 56.05							* 64.25	* 47.26
AUTO AND UTILITIES	6.82	4.68	3.42	3.66	3.66	4.03							5.06	4.08
MACHINERY REPAIRS, SUPPLIES	13.07	12.79	12.32	13.87	13.87	13.03							14.61	12.18
MACHINERY HIRE	4.31	4.01	3.37	3.82	3.82	3.77							4.06	3.86
FUEL AND OIL	12.08	11.82	11.80	11.56	11.56	11.74							13.08	11.36
MACHINERY DEPRECIATION	37.60	36.16	33.11	30.48	30.48	33.37							45.66	37.99
POWER AND EQUIPMENT TOTAL	* 73.88	* 69.46	* 64.03	* 63.40	* 63.40	* 65.93							* 82.47	* 59.47
DRYING AND STORAGE	1.77	1.81	2.02	2.38	2.38	2.07							1.73	1.71
BUILDING REPAIR	3.34	1.84	1.84	1.73	1.73	1.86							2.56	1.19
BUILDING DEPRECIATION	6.61	6.76	6.58	7.69	7.69	7.02							7.74	5.02
BUILDING TOTAL	* 11.72	* 10.45	* 10.44	* 11.80	* 11.80	* 10.95							* 12.03	* 7.92
LABOR UNPAID	52.06	27.72	18.84	12.53	12.53	20.69							25.87	25.87
LABOR HIRED	2.23	5.16	6.61	11.18	11.18	7.55							7.29	3.98
LABOR TOTAL	* 54.29	* 32.88	* 25.46	* 23.71	* 23.71	* 28.24							* 33.14	* 29.85
VALUE OF FEED FED	18.44	15.54	16.06	13.93	13.93	15.24							12.31	15.98
CAPITAL PURCHASES	31.41	28.60	28.92	28.22	28.22	28.65							38.07	20.58
CROP RETURNS	217.31	204.79	206.13	216.84	216.84	209.69							176.03	243.29
LIVESTOCK RETURN ABOVE FED	7.53	3.46	5.10	4.47	4.47	4.42							-.05	5.94
VALUE OF FARM PRODUCTION	231.63	212.61	216.18	228.14	228.14	219.56							179.96	253.48
TOTAL NON-FEED COST	319.04	273.64	256.98	254.61	254.61	263.67							305.89	241.17
MANAGEMENT RETURNS	-88.31	-61.77	-41.57	-26.76	-26.76	-44.71							-128.01	13.16
FARM INVESTMENT:														
LIVESTOCK INVENTORY	6566	10525	15348	30022	30022	14363							10464	9978
GRAIN INVENTORY	32192	64933	105943	210560	210560	94570							69910	67244
REMAINING COST IN--														
MACHINERY AND AUTO	24081	49074	80046	151551	151551	70282							68336	38190
BUILDINGS AND FENCE	8603	19105	31881	73861	73861	29748							24545	13855
SOIL FERTILITY	164	219	224	103	103	198							18	221
VALUE OF LAND (CURRENT)	469687	864281	1491621	2625504	2625504	1256191							999931	863075
TOTAL FARM INVESTMENT	541292	1008122	1725057	3091585	3091585	1465340							1173205	992565
TOTAL INVESTMENT PER ACRE	1928	1791	1788	1662	1662	1750							1862	1758
MACHINERY INVESTMENT PER TILLABLE ACRE	95	97	90	90	90	92							122	73
PERCENT TILLABLE LAND IN--														
CORN AND CORN SILAGE	27.7	24.4	24.5	24.1	24.1	24.4							27.0	22.3
SOYBEANS	39.4	36.6	38.0	35.1	35.1	36.6							37.9	32.8
WHEAT	16.3	15.3	14.0	13.2	13.2	14.3							16.1	16.0
OTHER SMALL GRAIN	.1	.0	.0	.0	.0	.0							.0	.0
DIVERTED ACRES	12.5	19.2	19.2	23.2	23.2	20.4							14.5	24.5
ALL HAY AND PASTURE	3.2	2.4	1.7	1.7	1.7	2.0							2.4	2.1
CROP YIELDS, BU. PER ACRE														
CORN	61	54	55	61	61	57							42	75
SOYBEANS	24	22	22	23	23	23							19	27
WHEAT	48	48	48	44	44	47							49	45

Note: Variations in totals are due to rounding to the nearest dollar.

*Figures marked with an asterisk are subtotals.

Table 24. Average Return, Costs, and Financial Summary of Hog Farms by Size and Months of Labor, Southern Illinois, 1983

RANGE IN SIZE (TOTAL ACRES) MONTHS OF LABOR NUMBER OF FARMS	HOG FARMS WITH SOIL RATING 36-85 SOUTHERN ILLINOIS					ALL FARMS	BY MONTHS OF LABOR	
	60-259	260-499	500-799	OVER 799	YOUR FARM		21-27 MO.	31-39 MO.
TOTAL ACRES IN FARM	183	385	627	1072		547	619	655
ACRES OF TILLABLE LAND	153	337	540	917		471	536	579
SOIL RATING ON TILLABLE LAND	58	59	60	58		59	58	62
TOTAL MONTHS LABOR	16.6	18.2	21.8	33.6		21.8	24.3	35.6
MONTHS OF HIRED LABOR	3.5	4.5	6.6	14.2		6.7	7.0	15.4
BEEF PRODUCED, CWT.	68	106	158	402		168	220	362
PORK PRODUCED, CWT.	2318	2596	2909	4601		3043	3043	5253
DAIRY COWS, NUMBER	0	1	0	0		0	1	0
DOLLAR RETURNS PER FARM:								
CROP RETURNS	31863	65894	108826	186332		94658	103316	132998
LIVESTOCK RETURNS ABOVE FEED	30954	31820	40501	62609		39774	41634	90815
CUSTOM WORK	548	683	656	999		710	914	476
OTHER FARM RECEIPTS	733	1968	1641	4291		2090	2358	3485
VALUE OF FARM PRODUCTION	64098	100366	151625	254232		137233	148223	227774
DOLLAR COSTS PER FARM:								
CROP EXPENSES	8826	21707	32504	52926		28833	34912	35716
POWER AND EQUIPMENT	21308	34479	47079	74048		43164	50188	64431
BUILDING AND FENCE	8550	10066	14175	22984		13353	13592	24583
LABOR	18773	19792	23524	38327		24061	26301	38508
LIVESTOCK SERVICES & SUPPLIES	3210	3472	5031	8823		4851	4517	9411
TAXES	1970	4002	6191	10259		5441	5835	7207
INSURANCE AND MISCELLANEOUS	2083	3196	3755	6110		3704	3719	5732
INTEREST ON NON-LAND CAPITAL	17908	23292	31885	52729		30242	32623	49633
LAND CHARGE-NET RENT	8037	18460	23765	49330		25644	28571	32987
TOTAL NON-FEED COST	90663	138467	193908	317908		179294	200259	268209
CAPITAL ACCOUNT ADJUSTMENT	-220	-778	-930	-895		-753	-890	-1247
MANAGEMENT RETURNS	-26786	-38879	-43213	-64571		-42814	-52926	-41682
FARM PRODUCTION PER \$1.00	.71	.72	.78	.80		.77	.74	.85
OF NON-FEED COSTS	46215	66257	83376	90914		75649	73062	76873
FARM PRODUCTION PER MAN								
FINANCIAL SUMMARY:								
CASH OPERATING INCOME	139981	183265	233804	401643		230406	242141	368623
INVENTORY CHANGE	-16537	-21285	-20957	-40102		-23808	-24297	-17825
ACCTS. RECEIVABLE (NET CHANGE)	0	-22	0	-8		-8	-24	0
FARM PRODUCTS USED	502	983	1134	2536		1229	1194	1194
LESS: PURCHASED FEED	51002	48989	49533	88200		56542	58441	94645
LESS: PURCHASED LIVESTOCK	8845	13584	12822	21646		14043	12445	29572
ADJUSTED GROSS FARM INCOME	64098	100366	151625	254232		137233	148223	227774
CASH OPERATING EXPENSE	33914	57478	81977	140044		75712	85819	111195
PREPAID EXPENSE(-IF INCR.)	0	143	-765	640		-56	-739	-356
ACCTS. PAYABLE (+IF INCR.)	74	44	5	-252		-15	0	0
FARM PRODUCED INPUTS	153	500	676	1869		742	802	625
TOTAL OPERATING EXPENSE	34140	58165	81891	142299		76380	85854	111463
INCOME BEFORE DEPRECIATION	29957	42201	69734	111933		60852	62369	116311
LESS DEPRECIATION	16112	23554	33596	52207		30453	34157	51950
CAPITAL ACCOUNT ADJUSTMENT	-220	-778	-930	-895		-753	-890	-1247
NET FARM INCOME	13625	17869	35208	58830		29646	27320	63113
LABOR AND MGT. INCOME PER OPR.	-12307	-23548	-27035	-38471		-25433	-30277	-21369
RATE EARNED ON INVEST. %	-.21	.38	1.56	1.91		1.25	.72	2.87

Note: Variations in totals are due to rounding to the nearest dollar.

Table 24a. Average Operating Costs, Investments, and Land Use of Hog Farms by Size and Months of Labor, Southern Illinois, 1983

RANGE IN SIZE (TOTAL ACRES) MONTHS OF LABOR NUMBER OF FARMS	BY MONTHS OF LABOR				ALL FARMS		
	60-259	260-499	500-799	OVER 799		YOUR FARM	21-27 MO.
	46	103	83	51	283	67	25
SELECTED COST AND RETURN ITEMS PER TILLABLE ACRE:							
SOIL FERTILITY	28.12	32.84	30.75	31.23	31.32	35.91	31.53
PESTICIDES	13.67	15.90	16.16	15.13	15.60	15.62	16.29
SEED AND OTHER CROP	15.77	15.62	13.26	13.90	14.23	13.66	13.90
CROP TOTAL	* 57.55	* 64.35	* 60.17	* 60.27	* 61.16	* 65.19	* 61.72
AUTO AND UTILITIES	22.20	12.93	8.88	7.90	10.30	10.07	11.71
MACHINERY REPAIRS, SUPPLIES	28.58	21.00	17.78	18.00	19.27	19.05	22.93
MACHINERY HIRE	8.35	4.22	3.67	3.49	4.00	4.73	2.49
FUEL AND OIL	21.00	17.68	15.02	14.14	15.72	16.24	17.05
MACHINERY DEPRECIATION	58.81	46.39	41.80	37.18	42.27	43.62	57.16
POWER AND EQUIPMENT TOTAL	* 138.95	* 102.22	* 87.15	* 80.71	* 91.55	* 93.71	* 111.34
DRYING AND STORAGE	2.09	1.88	1.69	2.33	1.98	1.99	2.50
BUILDING REPAIR	7.46	5.05	4.54	4.43	4.44	4.03	7.63
BUILDING DEPRECIATION	46.20	22.92	20.01	19.29	21.90	19.36	32.35
BUILDING TOTAL	* 55.75	* 29.84	* 26.24	* 25.05	* 28.32	* 25.38	* 42.48
LABOR UNPAID	94.34	44.46	31.05	23.26	35.16	35.58	38.32
LABOR HIRED	28.08	14.22	12.50	18.51	15.88	13.53	28.22
LABOR TOTAL	* 122.42	* 58.68	* 43.54	* 41.78	* 51.03	* 49.11	* 66.54
VALUE OF FEED FED	494.26	251.39	177.36	171.59	211.37	191.17	285.00
CAPITAL PURCHASES	107.00	58.20	42.90	39.33	49.02	43.66	74.63
CROP RETURNS	207.78	195.35	201.45	203.10	200.78	192.91	229.83
LIVESTOCK RETURN ABOVE FED	201.85	94.34	74.97	68.24	84.36	77.74	156.94
VALUE OF FARM PRODUCTION	417.99	297.55	280.67	277.11	291.08	276.77	393.61
TOTAL NON-FEED COST	591.23	410.50	358.94	346.52	380.29	373.93	463.48
MANAGEMENT RETURNS	-174.68	-115.26	-79.99	-70.38	-90.81	-98.83	-72.03
FARM INVESTMENT:							
LIVESTOCK INVENTORY	52245	57052	68913	114356	70076	75151	118489
GRAIN INVENTORY	21123	40502	66495	123558	59943	59027	93191
REMAINING COST IN--							
MACHINERY AND AUTO	25090	43229	63921	95322	55737	65683	90470
BUILDINGS AND FENCE	43739	41877	54150	87593	54018	54825	92315
SOIL FERTILITY	31	360	342	772	375	665	325
VALUE OF LAND (CURRENT)	251143	576879	930150	1541573	801391	892853	1030838
TOTAL FARM INVESTMENT	393371	759901	1183972	1963174	1041542	1148204	1425626
TOTAL INVESTMENT PER ACRE	2150	1974	1889	1832	1905	1856	2177
MACHINERY INVESTMENT PER TILLABLE ACRE	164	128	118	104	118	123	156
PERCENT TILLABLE LAND IN--							
CORN AND CORN SILAGE	44.7	36.5	35.6	34.6	36.0	33.5	45.1
SOYBEANS	21.6	30.3	32.4	29.9	30.4	28.7	30.2
WHEAT	14.4	15.1	13.2	14.1	14.1	16.0	10.8
OTHER SMALL GRAIN	.7	.0	.1	.0	.1	.0	.3
DIVERTED ACRES	8.0	12.6	12.3	14.5	12.9	12.2	8.5
ALL HAY AND PASTURE	6.5	3.9	3.9	5.0	4.5	5.6	5.1
CROP YIELDS, BU. PER ACRE							
CORN	56	49	51	48	50	49	58
SOYBEANS	21	21	23	23	21	22	24
WHEAT	45	50	47	47	48	46	49

Note: Variations in totals are due to rounding to the nearest dollar.

*Figures marked with an asterisk are subtotals.

Table 25. Average Return, Costs, and Financial Summary of Dairy Farms by Size and Number of Cows in the Herd, Northern and Southern Illinois, 1983

	DAIRY FARMS-NORTHERN ILLINOIS				DAIRY FARMS-SOUTHERN ILLINOIS			
	10-39 NUMBER OF FARMS	40-79	OVER 79	ALL FARMS	10-39	40-79	OVER 79	ALL FARMS
NUMBER OF COWS IN HERD	44	125	44	213	17	87	54	158
TOTAL ACRES IN FARM	273	330	478	349	274	404	574	448
ACRES OF TILLABLE LAND	231	273	401	291	243	373	513	407
SOIL RATING ON TILLABLE LAND	74	72	71	73	60	60	61	60
TOTAL MONTHS LABOR	17.0	23.1	36.3	24.6	18.5	23.7	35.6	27.2
MONTHS OF HIRED LABOR	4.0	6.3	14.3	7.4	3.3	7.2	16.4	9.9
BEEF PRODUCED, CWT.	229	439	743	458	202	390	677	468
PORK PRODUCED, CWT.	167	207	351	229	72	56	168	96
DAIRY COWS, NUMBER	33	56	103	61	32	60	104	72
DOLLAR RETURNS PER FARM:								
CROP RETURNS	61876	73898	114794	79862	43557	76330	110686	84546
LIVESTOCK RETURNS ABOVE FEED	25366	50510	106685	56920	22556	49605	92175	61244
CUSTOM WORK	627	767	495	682	250	757	1266	876
OTHER FARM RECEIPTS	1525	2113	3570	2292	1629	3355	5788	4001
VALUE OF FARM PRODUCTION	89394	127287	225544	139757	67991	130048	209916	150667
DOLLAR COSTS PER FARM:								
CROP EXPENSES	14776	16127	26430	17976	15379	23239	33297	25831
POWER AND EQUIPMENT	27667	36401	61179	39715	26317	46377	67401	51404
BUILDING AND FENCE	6886	11939	26845	13933	5387	9945	16521	11702
LABOR	18733	24838	42978	27324	19992	25643	38440	29409
LIVESTOCK SERVICES & SUPPLIES	4884	8884	17740	9886	3927	6831	14917	9282
TAXES	4692	5214	7829	5646	2316	3903	5700	4346
INSURANCE AND MISCELLANEOUS	2527	2868	5983	3441	2057	3165	5192	3739
INTEREST ON NON-LAND CAPITAL	20140	29067	56084	32804	14752	28595	48563	33930
LAND CHARGE-NET RENT	18841	21077	30406	22542	16332	19808	29446	22728
TOTAL NON-FEED COST	119138	156414	275276	173267	106458	167507	259477	192371
CAPITAL ACCOUNT ADJUSTMENT	-250	-487	-1302	-607	307	-1014	-789	-795
MANAGEMENT RETURNS	-29993	-29615	-51034	-34118	-38160	-38473	-50351	-42499
FARM PRODUCTION PER \$1.00	.75	.81	.82	.81	.64	.78	.81	.78
OF NON-FEED COSTS	62993	66126	74490	68231	44033	65841	70688	66412
FINANCIAL SUMMARY:								
CASH OPERATING INCOME	112500	160499	290278	177392	91055	169845	297206	204896
INVENTORY CHANGE	-6735	-6655	-11019	-7573	-5607	-13058	-26815	-16958
ACCTS. RECEIVABLE (NET CHANGE)	-36	12	0	0	0	0	0	0
FARM PRODUCTS USED	706	930	1208	941	2801	1543	1951	1818
LESS: PURCHASED FEED	12408	22576	43579	24814	15438	24286	56945	34496
PURCHASED LIVESTOCK	4630	4922	11342	6188	4819	3995	5481	4591
ADJUSTED GROSS FARM INCOME	89395	127288	225544	139757	67991	130048	209916	150668
CASH OPERATING EXPENSE	48685	63368	118498	71723	41846	69074	116820	82463
PREPAID EXPENSE (-IF INCR.)	-243	164	-375	-31	0	69	-831	-245
ACCTS. PAYABLE (+IF INCR.)	13	-38	13	-17	0	-57	0	-31
FARM PRODUCED INPUTS	23	33	59	37	580	713	785	723
TOTAL OPERATING EXPENSE	48477	63526	118194	71710	42426	69798	116773	82907
INCOME BEFORE DEPRECIATION	40917	63762	107351	68047	25565	60250	93143	67760
LESS DEPRECIATION	17305	24213	46402	27370	16158	31124	43490	33740
CAPITAL ACCOUNT ADJUSTMENT	-250	-487	-1302	-607	307	-1014	-789	-795
NET FARM INCOME	23362	39060	59645	40070	9714	28111	48863	33224
LABOR AND MGT. INCOME PER OPR.	-16811	-12841	-24605	-16091	-21696	-17218	-24168	-20075
RATE EARNED ON INVEST. %	1.20	2.31	2.56	2.21	-1.14	1.18	2.14	1.45

Note: Variations in totals are due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois.

Table 25a. Average Operating Costs, Investments, and Land Use of Dairy Farms by Size and Number of Cows in the Herd, Northern and Southern Illinois, 1983

NUMBER OF COWS IN HERD NUMBER OF FARMS	10-39		40-79		OVER 79		ALL FARMS		10-39		40-79		OVER 79		ALL FARMS	
	44	125	44	125	44	213	44	213	17	87	54	158	17	87	54	158
SELECTED COST AND RETURN ITEMS PER TILLABLE ACRE:																
SOIL FERTILITY	35.19	31.05	35.48	32.99	31.79	33.98	33.39	33.59	31.79	33.98	33.39	33.59	31.79	33.98	33.39	33.59
PESTICIDES	13.17	13.68	16.08	14.28	15.16	15.20	14.12	15.78	15.16	13.07	15.20	14.12	15.16	13.07	15.20	14.12
SEED AND OTHER CROP	15.70	14.33	14.35	14.56	16.22	16.29	15.78	16.50	16.22	15.30	16.29	15.78	16.22	15.30	16.29	15.78
CROP TOTAL	*	59.07	*	61.83	*	63.18	*	63.50	*	62.35	*	63.50	*	62.35	*	63.50
AUTO AND UTILITIES	15.25	18.92	22.51	19.34	11.72	12.87	12.50	12.87	11.72	12.05	11.72	12.87	11.72	12.05	11.72	12.87
MACHINERY REPAIRS, SUPPLIES	22.17	30.09	35.04	30.20	21.97	25.65	27.55	27.55	21.97	25.65	27.55	27.55	21.97	25.65	27.55	27.55
MACHINERY HIRE	9.64	8.09	10.76	9.11	5.72	6.11	6.02	6.02	5.72	5.99	6.11	6.02	5.72	5.99	6.11	6.02
FUEL AND OIL	19.72	19.78	20.69	20.03	18.57	20.84	19.34	19.34	18.57	18.15	20.84	19.34	18.57	18.15	20.84	19.34
MACHINERY DEPRECIATION	53.16	56.44	63.56	57.93	50.14	62.60	60.58	60.58	50.14	62.60	60.58	60.58	50.14	62.60	60.58	60.58
POWER AND EQUIPMENT TOTAL	* 119.94	* 133.32	* 152.55	* 136.61	* 108.12	* 124.43	* 126.36	126.36	* 108.12	* 124.43	* 126.36	126.36	* 108.12	* 124.43	* 126.36	126.36
DRYING AND STORAGE	2.72	3.33	3.18	3.19	1.60	1.47	1.47	1.47	1.60	1.44	1.60	1.47	1.60	1.44	1.60	1.47
BUILDING REPAIR	5.29	8.16	11.17	8.55	5.12	4.98	4.98	4.98	5.12	4.37	5.12	4.98	5.12	4.37	5.12	4.98
BUILDING DEPRECIATION	21.84	32.25	52.09	36.19	16.24	24.93	22.32	22.32	16.24	20.87	24.93	22.32	16.24	20.87	24.93	22.32
BUILDING TOTAL	* 29.85	* 43.73	* 66.44	* 47.93	* 22.13	* 26.68	* 28.76	28.76	* 22.13	* 26.68	* 28.76	28.76	* 22.13	* 26.68	* 28.76	28.76
LABOR UNPAID	62.32	67.88	60.32	64.81	68.98	41.32	46.87	46.87	68.98	48.78	41.32	46.87	68.98	48.78	41.32	46.87
LABOR HIRED	18.89	23.09	46.85	29.17	13.15	25.43	25.43	25.43	13.15	20.02	25.43	25.43	13.15	20.02	25.43	25.43
LABOR TOTAL	* 81.21	* 90.97	* 107.16	* 93.99	* 82.13	* 68.80	* 72.29	72.29	* 82.13	* 68.80	* 72.29	72.29	* 82.13	* 68.80	* 72.29	72.29
VALUE OF FEED FED	186.33	266.60	331.94	272.06	155.55	185.23	210.77	210.77	155.55	185.23	210.77	210.77	155.55	185.23	210.77	210.77
CAPITAL PURCHASES	48.66	67.17	75.18	67.52	57.99	58.66	57.01	57.01	57.99	58.66	57.99	57.01	57.99	58.66	57.99	57.01
CROP RETURNS	268.23	270.66	286.24	274.70	178.94	204.80	207.82	207.82	178.94	204.80	215.67	207.82	178.94	204.80	215.67	207.82
LIVESTOCK RETURN ABOVE FED	109.96	185.00	266.02	195.79	92.66	133.10	150.54	150.54	92.66	133.10	179.60	150.54	92.66	133.10	179.60	150.54
VALUE OF FARM PRODUCTION	387.52	466.20	562.39	480.71	279.33	348.93	370.36	370.36	279.33	348.93	409.01	370.36	279.33	348.93	409.01	370.36
TOTAL NON-FEED COST	516.46	572.88	686.40	595.98	437.36	449.44	472.87	472.87	437.36	449.44	505.58	472.87	437.36	449.44	505.58	472.87
MANAGEMENT RETURNS	-130.02	-108.47	-127.25	-117.36	-156.77	-103.23	-104.47	-104.47	-156.77	-103.23	-98.11	-104.47	-156.77	-103.23	-98.11	-104.47
FARM INVESTMENT:																
LIVESTOCK INVENTORY	43765	66133	120545	72752	32263	63521	84273	84273	32263	63521	134080	84273	32263	63521	134080	84273
GRAIN INVENTORY	37460	45210	70730	48881	21402	50160	54193	54193	21402	50160	71014	54193	21402	50160	71014	54193
REMAINING COST IN--																
MACHINERY AND AUTO	35865	46123	77914	50571	34464	64950	69051	69051	34464	64950	86549	69051	34464	64950	86549	69051
BUILDINGS AND FENCE	41770	71059	165765	84572	23826	46451	56576	56576	23826	46451	83198	56576	23826	46451	83198	56576
SOIL FERTILITY	10	0	81	19	0	25	40	40	0	25	78	40	0	25	78	40
VALUE OF LAND (CURRENT)	588777	658645	950184	704437	510364	619009	710253	710253	510364	619009	920183	710253	510364	619009	920183	710253
TOTAL FARM INVESTMENT	747647	887172	1385219	961233	622318	844117	974387	974387	622318	844117	1295102	974387	622318	844117	1295102	974387
TOTAL INVESTMENT PER ACRE	2734	2692	2900	2758	2273	2090	2175	2175	2273	2090	2258	2175	2273	2090	2258	2175
MACHINERY INVESTMENT PER TILLABLE ACRE	155	169	194	174	142	174	170	170	142	174	169	170	142	174	169	170
PERCENT TILLABLE LAND IN--																
CORN AND CORN SILAGE	46.4	44.5	50.4	46.5	32.6	34.3	34.3	34.3	32.6	34.3	34.6	34.3	32.6	34.3	34.6	34.3
SOYBEANS	9.7	5.6	3.2	5.6	26.9	24.3	23.7	23.7	26.9	24.3	22.6	23.7	26.9	24.3	22.6	23.7
WHEAT	.7	.6	1.0	.7	16.7	16.6	15.1	15.1	16.7	16.6	13.0	15.1	16.7	16.6	13.0	15.1
OTHER SMALL GRAIN	6.5	6.1	4.4	5.7	1.3	.2	.2	.2	1.3	.2	.1	.2	1.3	.2	.1	.2
DIVERTED ACRES	15.0	12.6	9.5	12.1	6.9	7.7	8.8	8.8	6.9	7.7	10.3	8.8	6.9	7.7	10.3	8.8
ALL HAY AND PASTURE	20.8	29.6	31.1	28.6	16.3	16.4	17.2	17.2	16.3	16.4	18.4	17.2	16.3	16.4	18.4	17.2
CROP YIELDS, BU. PER ACRE																
CORN	85	88	86	87	42	50	50	50	42	50	52	50	42	50	52	50
SOYBEANS	33	39	44	38	22	21	22	22	22	21	23	22	22	21	23	22
WHEAT	53	58	55	56	51	49	50	50	51	49	50	50	51	49	50	50

Note: Variations in totals are due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois.

*Figures marked with an asterisk are subtotals.

Table 26. Average Return, Costs, and Financial Summary of Beef Cattle Farms by Size and Months of Labor, Northern and Southern Illinois, 1983

AREA OF STATE RANGE IN SIZE (TOTAL ACRES) MONTHS OF LABOR NUMBER OF FARMS	BEEF FARMS					SOUTHERN ALL FARMS
	NORTHERN ILLINOIS					
	180-339	340-799	OVER 799	ALL FARMS	YOUR FARM	
	28	90	48	166		50
TOTAL ACRES IN FARM	272	500	1126	643		921
ACRES OF TILLABLE LAND	233	426	941	543		386
SOIL RATING ON TILLABLE LAND	78	79	79	79		56
TOTAL MONTHS LABOR	16.0	18.4	31.9	21.9		18.1
MONTHS OF HIRED LABOR	1.8	4.8	7.2	7.2		4.1
BEEF PRODUCED, CWT.	1186	2080	3254	2269		863
PORK PRODUCED, CWT.	407	778	1397	894		300
DAIRY COWS, NUMBER	0	0	0	0		0
DOLLAR RETURNS PER FARM:						
CROP RETURNS	79093	133658	315438	177017		73617
LIVESTOCK RETURNS ABOVE FEED	18096	36706	65552	41908		10533
CUSTOM WORK	863	1272	4158	2038		1330
OTHER FARM RECEIPTS	1404	1977	5222	2819		1375
VALUE OF FARM PRODUCTION	99456	173614	390370	223782		86855
DOLLAR COSTS PER FARM:						
CROP EXPENSES	17932	30657	71381	40286		21545
POWER AND EQUIPMENT	28459	43044	84377	52535		29491
BUILDING AND FENCE	11641	14539	28623	18123		5051
LABOR	17344	20284	36770	24555		19306
LIVESTOCK SERVICES & SUPPLIES	2796	4845	8210	5472		2730
TAXES	5288	8921	18265	11010		4773
INSURANCE AND MISCELLANEOUS	2692	4444	7752	5105		3339
INTEREST ON NON-LAND CAPITAL	26877	45697	86599	54350		22680
LAND CHARGE-NET RENT	20366	37024	80782	46867		21496
TOTAL NON-FEED COST	133395	209456	422757	258304		130410
CAPITAL ACCOUNT ADJUSTMENT	-563	-672	766	-237		262
MANAGEMENT RETURNS	-34502	-36514	-31621	-34760		-43291
FARM PRODUCTION PER \$1.00	.75	.83	.92	.87		.67
OF NON-FEED COSTS	74675	113043	146780	122529		57737
FARM PRODUCTION PER MAN	206736	402833	729958	464347		158003
FINANCIAL SUMMARY:	188	-24146	-24941	-20271		-17426
CASH OPERATING INCOME	127	55	10	10		0
INVENTORY CHANGE	188	127	-142	10		0
ACCTS, RECEIVABLE (NET CHANGE)	693	1025	1492	1104		989
FARM PRODUCTS USED	23350	37922	61273	42216		16232
LESS : PURCHASED FEED	84938	168234	254725	179193		38477
PURCHASED LIVESTOCK	99456	173614	390370	223782		86855
ADJUSTED GROSS FARM INCOME	49733	81751	178974	104463		54385
CASH OPERATING EXPENSE	-191	-209	-1883	-690		280
PREPAID EXPENSE (-IF INCR.)	0	0	0	0		22
ACCTS. PAYABLE (+IF INCR.)	43	73	106	77		328
FARM PRODUCED INPUTS	49583	81614	177196	103849		55014
TOTAL OPERATING EXPENSE	49873	92000	213175	119933		31841
INCOME BEFORE DEPRECIATION	20953	30161	59183	37000		15919
LESS DEPRECIATION	-563	-672	766	-237		262
CAPITAL ACCOUNT ADJUSTMENT	28356	61166	154758	82695		16184
NET FARM INCOME	-17641	-22937	-16701	-20240		-27391
LABOR AND MGT. INCOME PER OPR.	1.48	3.01	4.20	3.48		1.10
RATE EARNED ON INVEST. %						

Note: Variations in totals are due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois.

Table 26a. Average Operating Costs, Investments, and Land Use of Beef Cattle Farms by Size and Months of Labor, Northern and Southern Illinois, 1983

AREA OF STATE	NORTHERN ILLINOIS				SOUTHERN ALL FARMS	
	180-339	340-799	OVER 799	ALL FARMS	YOUR FARM	BY MONTHS OF LABOR
RANGE IN SIZE (TOTAL ACRES)	28	90	48	166	21-27 MO.	31-39 MO.
MONTHS OF LABOR	32	32	32	32	32	32
NUMBER OF FARMS	50	50	50	50	50	50
SELECTED COST AND RETURN ITEMS PER TILLABLE ACRE:						
SOIL FERTILITY	43.96	36.74	40.30	39.05	—	42.71
PESTICIDES	16.96	18.63	19.29	18.84	—	14.28
SEED AND OTHER CROP	15.91	16.53	16.27	16.36	—	21.22
CROP TOTAL	* 76.82	* 71.90	* 75.86	* 74.25	—	16.70
AUTO AND UTILITIES	11.36	9.60	6.51	8.18	—	* 80.63
MACHINERY REPAIRS, SUPPLIES	24.53	20.32	17.59	19.26	—	7.77
MACHINERY HIRE	11.63	8.53	7.61	8.29	—	16.16
FUEL AND OIL	20.79	17.49	16.91	17.44	—	6.21
MACHINERY DEPRECIATION	53.60	45.02	41.05	43.66	—	15.83
POWER AND EQUIPMENT TOTAL	* 121.92	* 100.96	* 89.67	* 96.82	—	31.21
DRYING AND STORAGE	3.28	1.87	3.58	2.82	—	* 100.43
BUILDING REPAIR	10.65	6.65	5.01	6.12	—	1.57
BUILDING DEPRECIATION	35.94	25.58	21.83	24.45	—	3.00
BUILDING TOTAL	* 49.87	* 34.10	* 30.42	* 33.40	—	7.93
LABOR UNPAID	66.90	35.09	20.19	29.93	—	29.11
LABOR HIRED	7.40	12.49	18.89	15.33	—	* 40.52
LABOR TOTAL	* 74.30	* 47.57	* 39.08	* 45.25	—	39.66
VALUE OF FEED FED	303.74	289.84	215.31	253.48	—	20.64
CAPITAL PURCHASES	126.43	56.46	43.80	55.19	—	* 49.84
CROP RETURNS	338.83	313.48	335.25	326.23	—	298.71
LIVESTOCK RETURN ABOVE FED	77.52	86.09	69.67	77.23	—	48.75
VALUE OF FARM PRODUCTION	426.06	407.19	414.88	412.42	—	329.67
TOTAL NON-FEED COST	571.46	491.26	449.30	476.04	—	95.36
MANAGEMENT RETURNS	-147.81	-85.64	-33.61	-64.06	—	436.56
FARM INVESTMENT:						
LIVESTOCK INVENTORY	88209	159679	272437	180229	—	217097
GRAIN INVENTORY	49716	83455	193678	109636	—	121717
REMAINING COST IN--						
MACHINERY AND AUTO	33183	54759	106970	66217	—	73805
BUILDINGS AND FENCE	51038	78039	135900	90216	—	92687
SOIL FERTILITY	103	28	50	47	—	130241
VALUE OF LAND (CURRENT)	636446	1157016	2524439	1464608	—	0
TOTAL FARM INVESTMENT	858693	1532978	3233476	1910953	—	2050337
TOTAL INVESTMENT PER ACRE	3161	3064	2871	2973	—	2673050
MACHINERY INVESTMENT PER TILLABLE ACRE	142	128	114	122	—	2903
PERCENT TILLABLE LAND IN--						
CORN AND CORN SILAGE	59.6	56.1	56.9	56.8	—	63.8
SOYBEANS	8.0	12.0	16.7	14.1	—	8.8
WHEAT	.7	.5	1.4	1.0	—	.3
OTHER SMALL GRAIN	3.2	1.9	1.0	1.6	—	2.0
DIVERTED ACRES	11.6	18.8	15.7	16.7	—	13.8
ALL HAY AND PASTURE	15.3	8.7	6.9	8.3	—	6.5
CROP YIELDS, BU. PER ACRE						
CORN	102	97	98	98	—	98
SOYBEANS	44	39	40	40	—	21
WHEAT	60	60	57	58	—	61

Note: Variations in totals are due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois.

*Figures marked with an asterisk are subtotals.

Table 27. Average Return, Costs, and Financial Summary of Part-Time Farms by Size and Soil Rating, Northern and Southern Illinois, 1983

AREA OF STATE FARM TYPE AND SOIL RATING RANGE IN SIZE (TOTAL ACRES) NUMBER OF FARMS	PART-TIME FARMS (USED LESS THAN 10 MONTHS OF LABOR)						SOUTHERN ILLINOIS			
	NORTHERN ILLINOIS			GRAIN 86-100			LIVESTOCK			
	UNDER 260	OVER 260	23	UNDER 260	OVER 260	30	UNDER 260	OVER 260	26	ALL FARMS
TOTAL ACRES IN FARM	168	363	182	179	421	190	179	421	190	
ACRES OF TILLABLE LAND	153	323	172	158	382	132	158	382	132	
SOIL RATING ON TILLABLE LAND	76	82	93	58	57	54	58	57	54	
TOTAL MONTHS LABOR	6.3	6.5	5.3	5.9	7.3	6.8	5.9	7.3	6.8	
MONTHS OF HIRED LABOR	.5	.6	.6	.3	.3	.3	.3	.3	.3	
BEEF PRODUCED, CWT.	1	38	10	36	14	61	36	14	61	
PORK PRODUCED, CWT.	38	0	12	17	9	393	17	9	393	
DAIRY COWS, NUMBER	0	0	0	0	0	0	0	0	0	
DOLLAR RETURNS PER FARM:										
CROP RETURNS	43235	91941	54790	26611	71215	15966	26611	71215	15966	
LIVESTOCK RETURNS ABOVE FEED	309	292	-279	553	-364	5713	553	-364	5713	
CUSTOM WORK	120	249	264	727	395	36	727	395	36	
OTHER FARM RECEIPTS	541	1105	941	630	1124	827	630	1124	827	
VALUE OF FARM PRODUCTION	44204	93588	55715	28521	72369	22542	28521	72369	22542	
DOLLAR COSTS PER FARM:										
CROP EXPENSES	9485	19579	10675	8937	19648	6454	8937	19648	6454	
POWER AND EQUIPMENT	11710	20918	13988	13357	23330	11599	13357	23330	11599	
BUILDING AND FENCE	3260	8041	3637	1463	3200	3976	1463	3200	3976	
LABOR	149	7242	5693	6468	7947	7524	6468	7947	7524	
LIVESTOCK SERVICES & SUPPLIES	84	325	224	156	96	1130	156	96	1130	
TAXES	3028	5957	4177	1718	3862	1529	1718	3862	1529	
INSURANCE AND MISCELLANEOUS	1537	2440	2086	1192	1791	1252	1192	1791	1252	
INTEREST ON NON-LAND CAPITAL	6559	12836	8561	4926	10018	7462	4926	10018	7462	
LAND CHARGE-NET RENT	12393	25890	17040	7978	18983	6538	7978	18983	6538	
TOTAL NON-FEED COST	54899	103228	66082	46195	88875	47463	46195	88875	47463	
CAPITAL ACCOUNT ADJUSTMENT	112	-354	-773	162	273	-661	162	273	-661	
MANAGEMENT RETURNS	-10583	-9994	-11140	-17511	-16233	-25582	-17511	-16233	-25582	
FARM PRODUCTION PER \$1.00 OF NON-FEED COSTS	.81	.91	.84	.62	.81	.47	.62	.81	.47	
FARM PRODUCTION PER MAN	84123	173707	126916	58068	119592	39531	58068	119592	39531	
FINANCIAL SUMMARY:										
CASH OPERATING INCOME	46875	94425	59852	33923	77718	38418	33923	77718	38418	
INVENTORY CHANGE	-1131	-190	-3284	-4678	-1753	-4570	-4678	-1753	-4570	
ACCTS. RECEIVABLE (NET CHANGE)	51	0	147	-5	-44	0	-5	-44	0	
FARM PRODUCTS USED	124	195	106	323	608	318	323	608	318	
LESS : PURCHASED FEED	1554	592	637	599	2829	8197	599	2829	8197	
PURCHASED LIVESTOCK	159	249	467	440	1328	3426	440	1328	3426	
ADJUSTED GROSS FARM INCOME	44204	93588	55716	28521	72369	22542	28521	72369	22542	
CASH OPERATING EXPENSE	22207	45996	27916	19404	37554	16895	19404	37554	16895	
PREPAID EXPENSE (-IF INCR.)	81	-1199	-535	0	-193	0	0	-193	0	
ACCTS. PAYABLE (+IF INCR.)	26	0	40	0	608	764	0	608	764	
FARM PRODUCED INPUTS	92	65	50	219	574	84	219	574	84	
TOTAL OPERATING EXPENSE	22406	44861	27470	19623	38543	17743	19623	38543	17743	
INCOME BEFORE DEPRECIATION	21798	48727	28245	8898	33826	4799	8898	33826	4799	
LESS DEPRECIATION	7177	13208	7891	7519	13717	8491	7519	13717	8491	
CAPITAL ACCOUNT ADJUSTMENT	112	-354	-773	162	273	-661	162	273	-661	
NET FARM INCOME	14733	35164	19580	1542	20382	-4353	1542	20382	-4353	
LABOR AND MGT. INCOME PER OPR.	-4344	-3728	-6186	-11561	-8787	-18903	-11561	-8787	-18903	
RATE EARNED ON INVEST. %	1.88	3.11	2.38	-1.61	1.90	-4.42	-1.61	1.90	-4.42	

Note: Variations in totals are due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois.

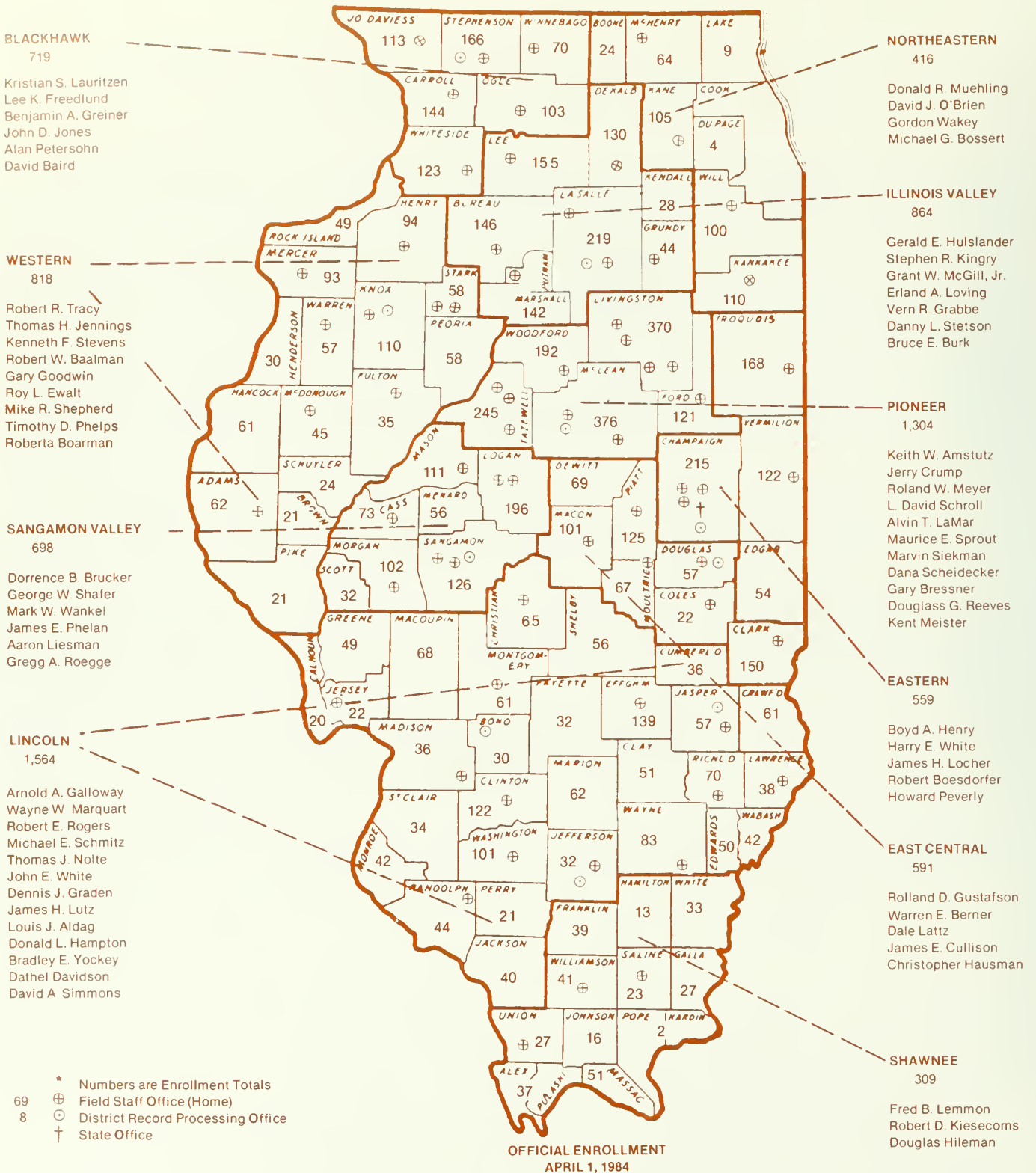
Table 27a. Average Operating Costs, Investments, and Land Use of Part-Time Farms by Size and Soil Rating, Northern and Southern Illinois, 1983

AREA OF STATE FARM TYPE AND SOIL RATING RANGE IN SIZE (TOTAL ACRES) NUMBER OF FARMS	NORTHERN ILLINOIS					SOUTHERN ILLINOIS				
	GRAIN 56-85		GRAIN 86-100		LIVESTOCK ALL FARMS	GRAIN 36-85		LIVESTOCK ALL FARMS		
	UNDER 260	OVER 260	UNDER 260	OVER 260		UNDER 260	OVER 260	UNDER 260	OVER 260	
	35	23	53	30	11	33	26	14		
SELECTED COST AND RETURN ITEMS PER TILLABLE ACRE:										
SOIL FERTILITY	31.39	29.24	32.38	30.23	34.25	28.88	23.72	31.44		
PESTICIDES	16.72	16.31	14.93	14.05	6.81	13.77	15.10	6.81		
SEED AND OTHER CROP	13.92	15.16	14.82	14.61	10.69	13.90	12.59	10.69		
CROP TOTAL	* 62.03	* 60.71	* 62.13	* 58.89	* 64.62	* 56.55	* 51.41	* 48.94		
AUTO AND UTILITIES	8.76	4.96	9.19	4.78	12.61	6.99	4.60	12.61		
MACHINERY REPAIRS, SUPPLIES	14.41	11.19	14.13	10.39	23.13	15.30	9.51	15.07		
MACHINERY HIRE	8.42	7.12	11.96	4.42	7.39	7.34	9.01	6.69		
FUEL AND OIL	12.12	12.39	12.39	10.90	21.14	13.30	8.58	15.25		
MACHINERY DEPRECIATION	32.87	29.86	33.74	35.02	38.34	41.60	29.35	38.34		
POWER AND EQUIPMENT TOTAL	* 76.58	* 64.86	* 81.41	* 65.52	* 117.88	* 84.52	* 61.04	* 87.96		
DRYING AND STORAGE	3.57	4.83	4.88	5.98	3.93	1.08	.77	1.11		
BUILDING REPAIR	3.69	9.02	4.10	1.52	5.17	2.40	1.36	2.99		
BUILDING DEPRECIATION	14.07	11.09	12.19	6.78	26.33	5.78	6.24	26.05		
BUILDING TOTAL	* 21.32	* 24.93	* 21.16	* 14.28	* 35.43	* 9.26	* 8.37	* 30.15		
LABOR UNPAID	41.62	19.94	29.80	21.87	55.67	38.92	19.93	54.82		
LABOR HIRED	2.71	2.51	3.33	1.41	10.86	2.01	.87	2.24		
LABOR TOTAL	* 44.33	* 22.45	* 33.13	* 23.28	* 66.53	* 40.93	* 20.79	* 57.06		
VALUE OF FEED FED	10.40	5.28	7.13	.20	359.21	12.60	2.34	123.72		
CAPITAL PURCHASES	33.41	28.99	29.59	34.17	123.78	29.35	22.52	104.02		
CROP RETURNS	282.74	285.07	318.86	337.01	272.21	168.39	186.33	121.09		
LIVESTOCK RETURN ABOVE FED	2.02	.91	-1.63	.00	122.66	3.50	-.96	43.33		
VALUE OF FARM PRODUCTION	289.08	290.18	324.25	345.94	403.22	180.48	189.35	170.96		
TOTAL NON-FEED COST	359.02	320.06	384.58	323.85	533.68	292.32	232.54	359.95		
MANAGEMENT RETURNS	-69.21	-30.99	-64.84	20.83	-134.14	-110.81	-42.48	-194.02		
FARM INVESTMENT:										
LIVESTOCK INVENTORY	1881	2708	1881	398	37926	4065	1342	18219		
GRAIN INVENTORY	28175	65222	39291	89948	14740	13725	32651	8520		
REMAINING COST IN--										
MACHINERY AND AUTO	13216	24814	15397	36426	14281	15200	29446	13469		
BUILDINGS AND FENCE	13929	21525	19460	23104	22183	4525	14489	17676		
SOIL FERTILITY	0	0	0	0	0	16	350	0		
VALUE OF LAND (CURRENT)	387279	809052	532496	1105590	317805	249299	593211	204315		
TOTAL FARM INVESTMENT	444480	923320	608526	1255466	406934	286829	671489	262199		
TOTAL INVESTMENT PER ACRE	2638	2547	3347	3100	3064	1600	1594	1380		
MACHINERY INVESTMENT PER TILLABLE ACRE	86	77	90	94	127	96	77	102		
PERCENT TILLABLE LAND IN--										
CORN AND CORN SILAGE	39.2	40.4	37.2	33.0	52.1	10.9	17.8	28.7		
SOYBEANS	37.7	27.4	35.1	40.8	21.1	35.8	34.1	17.0		
WHEAT	1.7	1.0	.3	.0	.9	21.1	17.3	15.0		
OTHER SMALL GRAIN	.9	.1	.2	.2	5.0	.0	.0	1.0		
DIVERTED ACRES	17.6	29.1	21.4	24.6	7.3	21.3	28.4	16.7		
ALL HAY AND PASTURE	1.7	2.0	3.0	.2	13.1	5.0	.9	18.5		
CROP YIELDS, BU. PER ACRE										
CORN	83	77	92	96	79	53	53	31		
SOYBEANS	33	34	39	38	36	18	21	15		
WHEAT	49	60	81	0	51	43	45	36		

Note: Variations in totals are due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois.

*Figures marked with an asterisk are subtotals.

ASSOCIATIONS, FIELD STAFF, AND COOPERATORS ENROLLED



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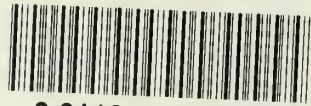
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