





# 1991 67th annual SUMMARY OF ILLINOIS FARM BUSINESS RECORDS

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## 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 7,233 Illinois farms. It is the 67th annual summary 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 Illinois commercial farms with over 500 acres and one out of every four Illinois farms with total farm sales over \$100,000 is enrolled in this service, which grew steadily until 1982. Except for 1988, enrollment has declined slightly each year since 1982. One factor contributing to this decline has been the lower levels of farm income during the last half decade, resulting in fewer farm operators. In 1992, 10 associations in 102 counties are being served by 68 full-time field staff and two half-time field staff specialists. Participation in this farm-business analysis program is voluntary; 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
1980 .....	10	102	67	8,205
1990 .....	10	102	70	7,192

Estimates for 1991 indicate that 90 percent of the 7,233 farms covered in this report are larger than 240 acres. For the most part, this 90 percent falls within the size of business that includes farms selling \$50,000 or more of farm products per year. In the 1987 Census of Agriculture, farms selling \$50,000 or more accounted for 87 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 1987, there were 44,810 farms in Illinois with more than 180 acres and with sales of \$10,000 or more. The figures that follow, taken from the 1987 Census of Agriculture, show that these farms represented 76 percent of the 59,181 farms larger than 50 acres and that these farms produced more than 98 percent of the agricultural products sold from Illinois farms.

Acres per farm	Percent of all farms over 50 acres	Percent of census farms enrolled in FBFM	Number of farms enrolled in FBFM
180-499.....	43.1	9.3	2,374
500-999.....	24.1	17.8	2,537
1,000+ .....	8.5	19.6	983

Although most of the 1991 recordkeeping 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 5,017 farms identified by the Census with more than 1,000 acres in 1987. About a fifth of these farms (19.6 percent) were enrolled in the Illinois FBFM Association. Of the 14,257 farms in the group having from 500 to 999 acres, 17.8 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 1991 was 742 acres, compared with an average of 348 acres for all Illinois farms.

The data presented in this report is the total of operator and landlord income, expenses, and investments in the farm business. The group averages are 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 recordkeeping farms may be used with reasonable confidence, even though the recordkeeping 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 pages will be of assistance in using the data.

The first part of the report (Tables 2 to 8) summarizes recent changes in farm income on Illinois farms. It also identifies economic forces and factors that contribute to these changing trends. The data presented in Tables 5 through 8 are the total of operator and landlord data. Some data used in the text are drawn from previous issues of this report.

The second section (Tables 9 to 18) presents data

on livestock enterprises. 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) discusses costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern, central, and southern Illinois. It is the total of operator and landlord data. It reports on the 25 percent of grain farms that received the highest return to management per dollar of cost and the 25 percent that received the lowest return. It also reports on two-man and three-man hog and beef farms. A two-man hog and beef farm uses from 21 to 27 months of labor; a three-man hog and beef farm, from 31 to 39 months.

## 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 Circular 1156 of the Illinois Cooperative Extension Service, *Soil Productivity in Illinois*. New land values were assigned in 1980. The annual 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 multiplied by the pounds of hay, 0.45 multiplied by the pounds of hay silage, 0.33 multiplied by the pounds of corn silage, and 24 multiplied by the pasture days per feed unit (which are also multiplied by the total feed units per cow). This total is then divided by 2,000.

### Sampling technique

Data from all records certified usable 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.

### Type of farm

*Grain farms* are farms where the value of the feed fed was *less* than 40 percent of the crop returns

and where the 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 5.

*Hog or beef farms* are farms where the value of feed fed was *more* than 40 percent of the crop returns and where either the hog or beef-cattle enterprise received more than half of the value of feed fed.

*Dairy farms* are farms where the value of feed fed was *more* than 40 percent of the crop returns and where the dairy enterprise received *more* than one-third of the value of feed fed.

### Cost items

The *value of feed fed* includes on-the-farm grains with the following average prices per bushel: corn, \$2.41; oats, \$1.16; and wheat, \$2.71. Commercial feeds were priced at actual cost, hay and silage at farm values, and pasture at 40 cents per animal unit per pasture day. A pasture day represents an intake of about 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 and lease; fuel and oil; the farm share of electricity, telephone, and light vehicle expenses; building repairs; drying and storage; hired labor; livestock expenses; taxes; insurance; and miscellaneous expenses. Purchased feed, grain, 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. But the total interest paid by the operator only on all debt—operating debt plus longer-term debt—is listed separately in Tables 19a to 27a under "Selected Cost and Return Items per Tillable Acre."

*Machinery and equipment* include depreciation, repairs, machine hire and lease, fuel and oil, and the farm share of electricity, telephone, and light vehicle expenses.

*Labor* includes hired labor plus family and operator's labor, charged in 1991 at \$1,425 a month.

*Interest on nonland capital* covers the interest charged at 9 percent on the sum of one-half the average of the January 1 and December 31 inventory values of grain, plus the average of the January 1 and December 31 inventories 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 5, 7, and 8, this charge is combined with the land charge or net rent and labeled interest charge on capital.

The average cash interest paid per farm by all farm operators was \$15,617. Details on operator and landlord shares of expenses and income are published annually in research reports by the Department of Agricultural Economics.

*Land charge or net rent* is the bare land priced at current land values multiplied by 4.5 percent to reflect net rents received by the landlord.

*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.

The *basic value of land* (the *current basis*) is adjusted each year according to the February index of land prices in Illinois as reported by the United States Department of Agriculture (USDA). An additional adjustment was made to this index in 1984 to reflect the large drop in land values. The land value index for 1991, using a base earning value of 1979 = 100, was 66.

The *capital account adjustment* includes the gain or loss on capital items sold less any amortization deduction.

## Return items

*Crop returns* are the sum of grain, seed and feed sales, the value of homegrown seed used, the value of all feed fed (except milk), government-deficiency and diverted-acre payments received and accrued, and the change in value for feed and grain inventories, less the value of feed and grain purchased. Government PIK (payment in kind) certificates purchased to redeem grain under government loan are included in the feed-and-grain purchase account.

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

*Net farm income* is the value of farm production, less total operating expenses and depreciation, plus gain or loss on machinery or buildings sold. Net farm income includes the return to the farm and family for unpaid labor, the interest on all invested capital, and the returns to management.

*Labor and management income per operator* is total net farm income, less the value of family labor and the interest—including net rent—charged on all capital invested. This figure, as the residual return to all unpaid operator's labor and management efforts, is then divided by the 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 after a

charge for unpaid labor and the interest or land charge on capital are deducted from net farm income.

The *rate earned on investment* is capital and management earnings—interest on all capital and land charge, plus management returns—per \$100 of the total farm average annual investment.

## RECENT CHANGES IN INCOME ON ILLINOIS FARMS

### Farm business trends in 1991

Illinois agriculture is based largely on crop production, especially corn and soybeans. In 1991, Illinois ranked second in the nation in the production of soybeans and second in the nation in the production of corn. The total value of corn and soybeans produced on Illinois farms was 17 percent of the total U.S. production for these crops. In 1990, the total value was 65 percent of the total value of production in Illinois from all crops and livestock and 89 percent of the value of production from all crops produced.

**Crops.** Year-to-year variations in net income are related to crop yields, grain prices, and acres in high cash-value crops. Corn and soybean yields in 1991 were lower than in 1990 due to drought conditions in certain areas of the state. In 1991, the average corn yield for Illinois was 107 bushels per acre, 20 bushels below 1990 and the third poorest yield in the last decade. Recordkeeping farms averaged 111 bushels per acre in 1991, 21 bushels below the 1990 yield. Soybean yields were 37.5 bushels per acre in 1991, compared with 39 in 1990. Recordkeeping farms averaged 42 bushels per acre in 1991. Crop yields on the 7,233 recordkeeping farms covered in this report averaged 4 to 12 percent 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 10 to 14 cents per bushel below 1990 prices (Table 1). Corn prices received in 1991 averaged 1 to 3 cents less than those received in 1990. Wheat sold for 48 to 64 cents less per bushel during the year. Crops under loan with the Commodity Credit Corporation (CCC) and forfeited at the end of the loan period are included as grain sales. The selling price would be the loan rate for that particular crop. Positive marketing margins on old-crop corn inventoried at the beginning of the year averaged about 17 cents. The average price received for old-crop soybeans equaled the inventory price. The year-end, new-crop corn inventory price was 10 cents higher than it was the year before, and the year-end, new-crop soybean inventory price was 25 cents lower.

Production of the major crops in 1991 was lower than the production levels of 1990. Compared to 1990, corn production was down 11 percent; soybean

**Table 1. Average Prices Received and Paid by Farm Recordkeepers for Grain, Livestock, and Milk**

	1991		1990	
	Northern Illinois	Southern Illinois	Northern Illinois	Southern Illinois
<b>Grain prices per bushel</b>				
Purchased — corn . . . . .	\$2.30	\$2.35	\$2.43	\$2.38
Sold — corn . . . . .	2.37	2.37	2.38	2.40
soybeans . . . . .	5.75	5.74	5.85	5.88
wheat . . . . .	2.43	2.33	2.91	2.97
<b>Livestock prices per cwt</b>				
Hogs, all weights . . . . .	\$48.52		\$53.69	
Fed cattle, all weights . . . . .	72.55		76.40	
Feeder cattle, all weights, prices paid . . . . .	85.94		85.42	
Dairy cattle, all weights . . . . .	59.45		62.82	
Sheep and wool, all weights . . . . .	42.82		58.62	
Milk per cwt . . . . .	11.70		13.80	

production was down 4 percent; oat production was down 43 percent; grain sorghum production was down 5 percent. Wheat production was down 50 percent with the average wheat yield of 32 bushels per acre the lowest since 1974. Hay production was down 6 percent. The Illinois 1991 All Crop Production Index, using a base value of 1977 = 100, was 94. This figure was down considerably from the figure for the previous year. Acreages of corn harvested for grain increased 6 percent from 1990 to 1991, while soybean acreage was unchanged from 1990. The acreage planted to soybeans was the same as in 1990 and 1984 and is the largest acreage planted to soybeans in Illinois. Wheat acreage harvested for grain decreased 24 percent.

Conditions for planting the 1991 corn crop were near normal. Corn planting began the first half of April, about a week ahead of average. Farmers planted 6 percent more acres of corn in 1991 than in 1990. Planting was complete by the first of June, which is near normal. Crop development progressed well ahead of average throughout the growing season.

Crop conditions started well over most areas of the state but began to deteriorate in July and August due to lack of rainfall. However, crop conditions varied considerably among different areas of the state. The eastern and northeastern areas were hit hardest while the west and southwestern areas had better-than-average yields. Corn harvest began earlier than usual in late August and finished two to three weeks ahead of schedule.

Soybean planting began in late April but progressed behind schedule due to wet weather conditions in May. Planting progress improved greatly the end of May and into June. Planting was complete by the second week of June, slightly ahead of schedule. The condition of the soybeans started out well but

deteriorated into the growing season due to hot, dry weather. As with the corn crop, yields varied greatly among different geographic areas. Timely rains in August helped certain areas. Harvest began ahead of normal with some harvest being done during the last week of August. Harvest continued at a record pace and was completed by the last week of October.

**Livestock.** A second major determinant in farm income is the price farmers receive for livestock and livestock products. In 1991, the average prices received by farm recordkeepers in the Illinois FBFM Association were 10 percent lower for hogs, 5 percent lower for fat cattle, and 15 percent lower for milk than they were in 1990 (Table 1). The prices paid for all weights of feeder cattle and feeder pigs averaged 1 percent above the 1990 price for feeder cattle and 7 percent below the 1990 price for feeder pigs. Lower returns due to lower prices received for fat cattle and lower year-end inventory values caused returns above feed and purchased animals for the feeder-cattle enterprise to decrease from \$25.74 per hundredweight produced to \$3.97 (Table 10). Lower hog prices and lower year-end inventory values decreased returns above feed cost from \$27.15 per hundredweight produced to \$17.67. Returns above feed were below the 5-year average for 1987 through 1991 by \$2.46 per hundredweight produced. Lower milk prices in 1991 made dairy returns above feed cost per cow drop from \$1,471 in 1990 to \$1,064 in 1991 and 15 percent below the average for the 5-year period from 1987 through 1991.

### Labor and management income

The average operator's share of labor and management income for the 5-year period from 1987 through 1991 on all northern Illinois recordkeeping farms (located north of a line from Kankakee to Moline) was \$18,221. Operators on 1,724 grain and hog farms in central Illinois had 5-year average earnings of \$23,100 (Table 2). Central Illinois occupies the area between the Kankakee-Moline line in the north and the Mattoon-Alton line in the south. Smaller farms and variable soil quality in northern Illinois have generated smaller earnings from crops. The farms in northern Illinois typically average 5 to 10 percent lower crop yields than those in central Illinois.

Northern Illinois has a heavier concentration of livestock, which had lower earnings in 1991 compared to 1990. The difference in earnings between central and northern Illinois increased by \$694 in a comparison of the 5-year averages for the periods from 1986 through 1990 and from 1987 through 1991. The northern Illinois area in general suffered more from the drought than central Illinois. The recordkeeping farms in northern Illinois averaged 554 tillable acres per farm, compared with an average of 679 tillable acres on farms in central Illinois.

The figure for labor and management income



**Table 2. Operator's Five-Year Average Share of Labor and Management Income by Size and Type of Farm, 1987 Through 1991**

	Number of acres per farm			
	Under 340	340 to 649	650+	All
<b>Northern Illinois</b>				
Acres of tillable land .....	234	462	911	554
<b>Labor and management earnings by type of farm</b>				
Grain .....	\$ 5,023	\$17,136	\$26,458	\$19,508
Hog .....	16,619	20,193	28,101	20,507
Beef <sup>a</sup> .....	-2,977	9,146	10,416	6,841
Dairy .....	14,649	22,174	...	17,809
All .....	10,244	17,643	24,955	18,221
<b>Central Illinois</b>				
Acres of tillable land .....	255	490	938	679
<b>Labor and management earnings by type of farm</b>				
Grain <sup>b</sup> .....	\$ 8,817	\$19,701	\$34,962	\$26,004
Grain <sup>c</sup> .....	3,650	14,466	25,399	19,537
Hog .....	11,971	20,218	29,751	21,275
All .....	8,279	18,143	30,741	23,100
<b>Southern Illinois</b>				
Acres of tillable land .....	247	572	1,096	749
<b>Labor and management earnings by type of farm</b>				
Grain .....	\$ 6,145	\$11,357	\$24,445	\$19,045
Hog .....	12,420	24,663	...	21,827
Dairy .....	25,904	32,065	...	29,198
All .....	14,065	19,167	24,445	20,658

<sup>a</sup> Includes central Illinois.

<sup>b</sup> Highly productive soils with soil-productivity ratings from 86 to 100.

<sup>c</sup> Heavy-till and transition soils with soil-productivity ratings from 56 to 85.

<sup>d</sup> Data not available.

varies considerably, depending on the location and type of farm. For the period from 1987 through 1991, operators in southern Illinois averaged \$20,658 for labor and management. This average decreased by \$511, compared with the average for the 5-year period from 1986 through 1990. When the average earnings for the 5-year period from 1987 through 1991 are compared with the earnings from 1986 through 1990, earnings increased slightly in northern and central Illinois and decreased in southern Illinois.

In 1991, the labor and management income for all areas of Illinois averaged \$10,453 per farm. This figure is \$18,500 lower than the 1990 state average. The lower returns were a result of reduced crop yields, especially for corn and wheat, and lower livestock and livestock product prices. Gross crop returns for grain farms were \$33 per tillable acre lower in 1991 than in 1990. Prices received for all major livestock commodities were below the previous year's prices. Although in general returns were lower, they did vary considerably between different geographic areas depending upon rainfall amounts. A few areas had higher-than-average earnings, but most areas were below average.

The income or 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. This income is reduced by operating expenses, depreciation, a charge for unpaid family labor, 9 percent interest on nonland investment, and a land-use charge equivalent to the average net rent received by landowners for crop-share leases from 1987 to 1990.

Whenever the income figures in Table 2 fall below the amounts required for living expenses and income and Social Security taxes, operators must use the charges deducted for interest on equity capital to pay these expenses. If we assume that \$30,000 is needed to pay living expenses and income and Social Security taxes, these figures for 5-year average, labor and management income indicate that to pay these expenses, the average farm operator's family uses between \$1,000 and \$25,000 of the return for equity capital, depending on the location and type of farm. Using part of the return to equity to pay family living expenses indicates that the farm operator is not receiving a competitive return to either his labor and management or his equity in the business. Off-farm income could be used to pay for some of the family living expenses.

### Family living expenditures

Total cash living expenditures for a sample of 456 central Illinois, sole-proprietor, farm-operator families in 1991 averaged \$32,480 (Table 3). This figure is 1 percent higher than the 1990 average. Capital purchases for family living expenses of \$4,418 include the family's share of the auto, plus items that exceed \$250 and will last more than one year. Capital purchases for family living were 12 percent of the total cash outlay for all family living expenditures in 1991.

The average farmer in this sample paid \$15,550 in interest in 1991 on operating, machinery, and long-term real estate debts. This interest expense was 12 percent of total operating expenses (including interest paid) and 9 percent of total farm receipts, or \$21 per tillable acre farmed in 1991. The average amount of interest paid in 1991 was \$480 more than the amount paid in 1990. This is the third year in a row that the amount of interest paid exceeded the amount paid in the previous year.

The most significant financial facts about 1991 are as follows:

- Net farm income, plus net nonfarm income, was \$5,402 less than the sum of family living capital purchases, total living expenses, and payments for income and Social Security taxes. This was the first time since 1988 that this margin was negative and only the third time since 1984;
- Liabilities of \$202,708 as of December 31, 1991, were 53 cents for each dollar of farm-only assets,

**Table 3. Average Sources and Uses of Funds Over A Four-Year Period and by Noncapital Living Expenses for Selected Illinois Farms**

	All records, average per farm				Family of 3 to 5, 1991 <sup>a</sup>	
	1991	1990	1989	1988	High-third	Low-third
Number of farms .....	456	408	402	365	95	95
Tillable acres farmed.....	731	719	709	661	892	563
Acres owned.....	131	120	119	116	120	90
Farm assets, January 1 <sup>b</sup> .....	\$381,588	\$358,394	\$335,756	\$321,422	\$435,352	\$286,245
Farm assets, December 31 <sup>b</sup> .....	383,283	384,363	335,420	303,897	437,488	287,947
Liabilities, January 1.....	198,764	183,161	175,939	187,670	259,314	152,298
Liabilities, December 31.....	202,708	203,168	182,841	175,131	268,503	153,650
<b>Net farm income.....</b>	<b>30,596</b>	<b>50,825</b>	<b>45,047</b>	<b>17,438</b>	<b>37,177</b>	<b>22,457</b>
<b>Source of dollars</b>						
Net nonfarm income.....	\$ 12,226	\$ 12,624	\$ 10,502	\$ 9,654	\$ 15,504	\$ 11,537
Money borrowed.....	118,446	116,122	90,394	91,872	179,209	85,461
Farm receipts.....	177,832	180,737	156,717	163,138	233,982	149,306
<b>Total sources.....</b>	<b>\$308,504</b>	<b>\$309,483</b>	<b>\$257,613</b>	<b>\$264,664</b>	<b>\$428,695</b>	<b>\$246,304</b>
<b>Use of dollars</b>						
Interest paid.....	\$ 15,550	\$ 15,070	\$ 13,850	\$ 12,907	\$ 21,438	\$ 11,779
Cash operating expenses.....	111,037	112,943	97,737	101,802	150,975	95,382
Capital farm purchases.....	22,829	27,834	18,299	13,237	27,770	21,015
Payments on principal.....	113,510	98,101	85,797	104,689	168,916	83,651
Income and Social Security taxes..	11,326	9,444	8,040	7,926	13,213	8,344
Net new savings and investment...	-2,646	9,710	1,070	-5,739	-4,269	-2,457
<b>Total living expenses.....</b>	<b>\$ 32,480</b>	<b>\$ 32,090</b>	<b>\$ 28,499</b>	<b>\$ 26,439</b>	<b>\$ 46,080</b>	<b>\$ 23,283</b>
Living — capital purchases.....	4,418	4,291	4,321	3,403	4,572	5,307
<b>Total uses.....</b>	<b>\$308,504</b>	<b>\$309,483</b>	<b>\$257,613</b>	<b>\$264,664</b>	<b>\$428,695</b>	<b>\$246,304</b>

<sup>a</sup> Records were sorted into thirds according to total noncapital living expenses.

<sup>b</sup> Modified-cost basis, except the land value, which was held at the same current value for January 1 and December 31.

including land at current value and machinery at depreciated value. The 53 cents on the dollar was the second lowest since 1985;

- Although considerably lower than the year before, capital purchases for farm machinery and equipment were at their second highest levels since 1979;
- The amount of money borrowed exceeded principal payments for the third year in a row, after three years in which principal payments exceeded money borrowed;
- The amount of noncapital living expenses per tillable acre farmed was \$44, which was the second highest amount in recent years;
- Income and Social Security taxes paid increased by \$1,882, and the total amount of taxes paid, \$11,326, was the largest amount since this study began.

The 1991 records from three- to five-member families were sorted into high one-third and low one-third groups according to the family's total living expenses (see Table 3). The total cash living expenses for the high-third group averaged \$46,080, compared with \$23,283 for the low-third group. The high-third group farmed 329 more acres than the other group and owned 13 percent of the land farmed; the low-third group owned 16 percent of the land farmed. The results indicate that the high-third group had more nonfarm taxable income. The high-third group had 75 percent more outstanding debt and a higher net farm income. When net farm income is added to net nonfarm income, and total family living expenses—including capital purchases for family living—and payments for income and Social Security

tax are subtracted, the low one-third group had \$8,244 more dollars remaining than the high one-third group.

Living expenses included cash expenditures for food, operating expenses, clothing, personal items, recreation, entertainment, education, transportation, life insurance, contributions, and medical expenses. The sample of 456 farms contained 47 more tillable acres than the average of all the recordkeeping farms in the state. Management was also considered slightly above average. In view of these factors, average total living expenses for all recordkeeping families (excluding capital purchases) are estimated to be between \$25,000 and \$27,000 or 15 to 20 percent below the average total living expenses of these 456 central Illinois farms. When the \$12,226 net nonfarm income for 1991 is used for living expenses, the remaining \$24,672 must be generated from the farm business to pay the \$36,898 used for total living expenses including family living capital purchases. The figure, \$24,672, amounts to \$34 per tillable acre farmed.

### Income changes on Illinois farms

The average operator's net farm income for all farms in 1991 was \$25,502; it was \$48,211 in 1990 (Table 4). Operator net farm incomes decrease steadily as a higher percent of gross farm returns is used to pay interest. On the average, when more than 25 to 30 percent of gross farm returns is used to pay interest, the operator's net farm income is usually negative. This was the case in 1991 when net farm incomes averaged only \$95 when interest as a percent

**Table 4. Percent of Illinois Farms and Operator Net Farm Income by Interest Paid as a Percent of Gross Farm Returns, 1987 Through 1991**

	Interest paid as a percent of gross farm returns							All
	Under 10	10-14.9	15-19.9	20-24.9	25-29.9	30-34.9	35+	
<b>Percent of farms</b>								
1987.....	65	14	9	5	3	2	2	100
1988.....	62	15	9	6	4	1	3	100
1989.....	65	15	9	5	3	1	2	100
1990.....	65	16	9	5	3	1	1	100
1991.....	59	16	10	6	4	2	3	100
<b>Net farm income</b>								
1987.....	47,596	38,779	35,292	25,667	18,434	11,663	-5,440	41,546
1988.....	32,526	24,040	14,720	8,712	-799	-6,419	-19,517	24,917
1989.....	51,632	42,415	31,688	23,894	14,677	61	-2,990	44,652
1990.....	56,786	41,803	34,008	27,946	19,210	5,407	-13,768	48,211
1991.....	36,437	21,663	12,110	3,850	95	-6,907	-30,034	25,502

of gross farm incomes was 25 to 30 percent. Interest paid as a part of gross farm returns for all operators averaged 9.9 percent in 1991; 8.8 in 1990; 8.9 in 1989; 9.8 in 1988; and 9.2 in 1987.

Comparative costs and returns between years and among major types of farming operations in northern and central, and in southern Illinois are reported in Tables 5, 7, and 8. The separation of farms into northern and central, and southern Illinois is based on soil-type regions that divide the state approximately on an east-west line from Mattoon to Alton. The sample consisted of grain, hog, beef, and dairy farms having between 340 and 799 acres or an average of 567 acres. Labor available on farms of this size averaged 13 months on grain farms, 22 months on hog farms, 19 months on beef farms, and 28 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. Depending on the location, between 55 and 75 percent of the land in Illinois is tenant operated, primarily under crop-share, some cash-rent, and a small number of 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 1990, 1991, and the 5-year average are due to changes in farm prices and to costs, weather, and internal farming adjustments. The data in Tables 5, 7, and 8 are particularly helpful for comparing types of farming and for evaluating changes in farm costs and returns for a particular size and kind of farm. The data do not reflect overall farming adjustments due to the enlargement of farms or to major changes in the use of resources.

The figure for net farm income comprises returns to the farm family for all unpaid labor, interest on all invested capital, and the managerial inputs used in farming. Changes in the value of farm inventories and that of consumed farm products are included as

income. Net farm income is calculated by accounting methods comparable to the accrual method used in calculating taxable farm income for the federal income tax. Two important differences in the accrual method of income tax accounting should be noted: the provision for capital gains on livestock sales, which was in effect until 1987, and the inclusion of interest paid as a farm expense. The operator's share of net farm income, which is listed below total net farm income in many tables, does have the interest expense deducted from it.

The figures for net farm income are the amount available from the farm business for living costs, income and Social Security taxes, debts, new investments, and savings. Interest must also be paid from total net farm income, but not the operator's share because it has already been subtracted. 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 purchases and sales of feed and livestock and by changes in liabilities and borrowed funds.

The investment per farm is established as an average of the investments in farm inventory on January 1 and December 31. 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, with the same value used for the beginning- and end-of-the-year land inventories. A base land value is established for each farm on the basis of a soil-productivity rating 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 of the value of land (the current basis) on pages 2 and 3. The annual change in land values represents an adjustment in accounting to bring land values to current market

**Table 5. Averages for Selected Total Farm Items on 340- to 799-Acre Northern and Central Illinois Grain, Hog, and Beef Farms**

	Grain farms			Hog farms			Beef farms		
	1991	1990	1987-1991 average	1991	1990	1987-1991 average	1991	1990	1987-1991 average
Number of farms . . . . .	787	832	807	203	208	219	52	49	50
Total acres . . . . .	577	571	566	550	555	543	525	529	525
Soil-productivity rating . . . . .	86	87	87	81	82	82	76	78	78
Cash operating income . . . . .	\$ 167,054	\$ 175,291	\$ 168,668	\$ 332,478	\$ 362,584	\$ 331,042	\$ 486,023	\$ 592,017	\$ 538,154
Less purchased feed and livestock . . . . .	759	2,563	8,307	96,515	106,361	103,690	289,894	370,808	339,630
Net cash operating income . . . . .	\$ 166,295	\$ 172,728	\$ 160,361	\$ 235,963	\$ 256,223	\$ 227,352	\$ 196,129	\$ 231,864	\$ 198,524
Accounts receivable change . . . . .	-1,101	2,961	-2,010	-941	3,063	-1,323	-1,588	2,849	-1,662
Inventory change . . . . .	-10,777	2,546	1,857	-21,712	26,128	1,942	-37,390	3,035	3,174
Farm products used . . . . .	247	259	262	579	652	596	1,107	845	981
Value of farm production . . . . .	\$ 154,664	\$ 178,494	\$ 160,470	\$ 213,889	\$ 286,066	\$ 228,567	\$ 158,258	\$ 238,593	\$ 201,017
Total cash operating expenses . . . . .	79,094	80,543	74,994	115,501	120,996	107,914	96,867	108,005	96,491
Prepaid-unpaid change . . . . .	417	-820	-444	-20	-2,333	-1,300	2,166	-3,094	-440
Annual depreciation . . . . .	10,612	11,112	12,028	21,729	27,068	26,598	21,988	23,682	25,482
<b>Net farm income . . . . .</b>	<b>\$ 64,541</b>	<b>\$ 87,659</b>	<b>\$ 73,892</b>	<b>\$ 76,679</b>	<b>\$ 140,355</b>	<b>\$ 95,355</b>	<b>\$ 37,237</b>	<b>\$ 110,000</b>	<b>\$ 79,484</b>
(Operator's share) <sup>a</sup> . . . . .	(21,119)	(35,863)	(28,856)	(27,011)	(78,580)	(44,225)	(-5,238)	(49,917)	(30,533)
Unpaid labor charge . . . . .	16,759	16,007	15,415	19,850	20,016	18,798	19,457	17,082	16,890
Returns to capital and management . . . . .	47,782	71,652	58,477	56,829	120,319	76,557	17,780	92,918	62,594
Interest charge on capital . . . . .	61,519	61,971	59,944	69,212	74,807	69,770	72,373	81,830	76,680
<b>Management returns . . . . .</b>	<b>\$ -13,737</b>	<b>\$ 9,681</b>	<b>\$ -1,467</b>	<b>\$ -12,383</b>	<b>\$ 45,512</b>	<b>\$ 6,787</b>	<b>\$ -54,593</b>	<b>\$ 11,088</b>	<b>\$ -14,086</b>
Total cash income <sup>b</sup> . . . . .	168,499	177,146	170,121	333,821	363,704	332,170	486,345	592,798	538,866
Total cash expenditures <sup>b</sup> . . . . .	94,596	98,119	95,464	239,090	264,352	237,606	409,871	493,506	458,322
Cash balance . . . . .	\$ 73,903	\$ 79,027	\$ 74,657	\$ 94,731	\$ 99,352	\$ 94,564	\$ 76,474	\$ 99,292	\$ 80,544
Capital purchases . . . . .	14,974	15,259	12,408	27,232	37,133	26,176	23,128	25,378	22,265
<b>FARM INVESTMENT</b>									
Livestock inventory . . . . .	\$ 232	\$ 161	\$ 217	\$ 97,374	\$ 114,417	\$ 97,276	\$ 206,184	\$ 240,513	\$ 215,977
Grain inventory . . . . .	102,803	108,264	98,870	98,349	100,403	89,206	93,796	99,460	84,879
Remaining capital cost in:									
Machinery and auto	23,172	19,779	19,392	36,910	35,787	33,878	39,689	35,466	33,825
Buildings and fence	15,344	16,196	18,253	49,363	52,254	54,269	45,369	48,352	50,050
Soil fertility . . . . .	71	55	60	122	161	126	2,630	0	527
Value of land (current basis) . . . . .	\$1,096,531	\$1,075,561	\$1,004,193	\$ 940,654	\$ 949,170	\$ 869,558	\$ 815,506	\$ 852,175	\$ 787,495
Total farm investment . . . . .	\$1,238,153	\$1,220,016	\$1,140,985	\$1,222,772	\$1,252,192	\$1,144,313	\$1,203,174	\$1,275,966	\$1,172,753
Rate earned on investment, percent	3.86	5.87	5.13	4.65	9.61	6.69	1.48	7.28	5.34

<sup>a</sup> Interest expense deducted from operator's share only.  
<sup>b</sup> Includes sales or purchases of capital items.

levels. The land adjustment index for 1991 was 2 percent above that of 1990.

### Northern and central Illinois farms

**Grain farms.** The net farm income for northern and central Illinois grain farms having 340 to 799 acres and no livestock averaged \$64,541 in 1991, with the operator's and landlord's shares combined (Table 5). This income was \$23,118 below that of 1990 and \$9,351 below the 5-year average income from 1987 through 1991. This income was the second

lowest of any during the last five years. Only 1988's income was lower. The value of farm production decreased \$23,830 due to lower cash operating income and a \$10,777 drop in inventory value. Total operating expenses actually declined by \$212. Depreciation expense decreased from \$11,112 in 1990 to \$10,612 in 1991. The amount of annual depreciation of these farms is now about half of the depreciation these farms had seven years ago.

The main factor causing incomes on northern and central Illinois grain farms to decrease as com-

pared to the year before was the drop in corn and soybean yields. The average corn yield on these farms in 1991 was 116 bushels per acre, compared to 141 in 1990. The average soybean yield was 41 bushels per acre, compared to 47 the year before. Corn was inventoried 15 cents higher at the end of 1991 compared to the beginning, while soybeans were inventoried 25 cents lower. The value of grain inventories on hand at the end of the year were \$10,622 lower than at the beginning. Accounts receivable, which basically consisted of accrued and earned deficiency payments from the government farm program, were \$1,101 less at the end of the year. Most farmers continue to participate in the government farm program, setting aside 7.5 percent of their corn acreage base.

The average price received in 1991 for corn and soybeans was slightly lower than the year before. The average price received for corn was higher than the inventory price at the beginning of the year while the soybean price was the same as the beginning-of-the-year inventory price. This resulted in a positive marketing margin for corn that added to net farm income. Cash operating expenses decreased by 2

percent and depreciation decreased by 4 percent. Capital purchases of \$14,974 in 1991 were \$285 less than in 1990.

While accrual net farm incomes declined \$23,118, net cash incomes decreased \$5,124. A major reason for the difference is due to a large inventory decrease which only affects the accrual income. Cash operating income decreased \$6,433. Management returns were a *negative* \$13,737, only the second time in the last five years that they have been *negative*. The rate earned on investment was 3.86 percent, compared with 5.87 percent in 1990 and the last 5-year average of 5.13 percent. This rate earned on investment for grain farms was the second lowest rate earned in 1991 for any type of farm.

A study of the cost to grow corn and soybeans on central Illinois farms is summarized in Table 6. These farms had a soil-productivity index ranging from 86 to 100. The farms used 95 percent of their tillable land to grow corn and soybeans, with 48.4 percent of the acres in corn and 46.3 percent in soybeans. The table compares 1991 costs per acre with the 1990 costs. In 1991, the total cost per acre averaged \$344 for corn and \$278 for soybeans. From 1990 to 1991, it decreased 1 percent for corn and soybeans.

Nonland costs of \$1.73 per bushel for corn and \$3.48 for soybeans in 1991 are the most relevant costs for continuing production in the short run, especially where land is free of debt. Although the total costs to produce a bushel of corn and soybeans decreased slightly in 1991 compared to 1990, the total costs per bushel increased due to lower yields. Total costs per bushel increased 29 cents for corn and 8 cents for soybeans. If the 1991 yields had been 127 for corn and 43 for soybeans or the same as the average for the period from 1988 through 1991, the total cost per bushel would have been \$2.71 for corn and \$6.47 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 9 percent of one-half the average of the beginning- and end-of-year inventory values 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 recordkeeping farms for the period from 1987 through 1991.

**Hog farms.** The net farm income in 1991 for northern and central Illinois hog farms having 340 to 799 acres averaged \$76,679, with the operator's and landlord's shares combined (Table 5). Net incomes were \$63,676 lower than net incomes in 1990, and \$18,676 lower than the average for the 5-year

**Table 6. Average Cost per Tillable Acre to Grow Corn and Soybeans on Central Illinois Grain Farms with No Livestock**

	Corn		Soybeans	
	1991	1990	1991	1990
Number of farms . . . . .	631	649	631	649
Acres grown per farm . . .	368	357	352	335
Yield per acre, bu. . . . .	131	149	46	47
<b>Variable nonland costs</b>				
Soil fertility . . . . .	\$ 55	\$ 53	\$ 18	\$ 18
Pesticides . . . . .	24	22	25	22
Seed . . . . .	23	23	13	13
Drying and storage . . .	8	10	4	4
Machinery repairs, fuel, and hire . . . . .	27	30	23	25
Total, variable costs . . .	\$137	\$138	\$ 83	\$ 82
<b>Other nonland costs</b>				
Labor . . . . .	\$ 29	\$ 30	\$ 27	\$ 27
Buildings and storage	6	7	3	4
Machinery depreciation	19	19	15	15
Nonland interest . . . . .	23	26	20	23
Overhead . . . . .	12	12	12	13
Total, other costs . . . . .	\$ 89	\$ 94	\$ 77	\$ 81
Total, nonland costs . . .	\$226	\$232	\$160	\$163
<b>Land costs</b>				
Taxes . . . . .	\$ 20	\$ 21	\$ 20	\$ 21
Adjusted net rent . . . . .	98	96	98	96
Total, land costs . . . . .	\$118	\$117	\$118	\$117
<b>Total, all costs . . . . .</b>	<b>\$344</b>	<b>\$349</b>	<b>\$278</b>	<b>\$280</b>
Nonland cost per bu . . . . .	\$ 1.73	\$ 1.56	\$ 3.48	\$ 3.47
Total, all costs per bu . . .	\$ 2.63	\$ 2.34	\$ 6.04	\$ 5.96
<hr/>				
Average yield, past 4 years . . . . .	127	133	43	43
Total, all costs per bu . . . .	\$ 2.71	\$ 2.62	\$ 6.47	\$ 6.51

period from 1987 through 1991. The net farm incomes for this group in 1991 were the second lowest for any year out of the last 7 years. The drop in income in 1991 followed record high earnings for these types of farms in 1990. Although incomes dropped considerably as compared to the previous year, they still were the second highest for any type of farm. Lower selling prices and inventory values were the main reason for the lower incomes. The value of farm production decreased \$72,177, or 25 percent, while cash operating expenses, other than feed costs, decreased 5 percent.

Management returns were a *negative* \$12,383, a decrease of \$57,895 from 1990 returns and \$19,170 below the 5-year average from 1987 through 1991. Capital purchases decreased by \$9,901, compared with 1990's purchases, but they were \$956 above the 1987 through 1991 average. Cash livestock sales decreased by \$37,270 in 1991 compared with 1990 figures. The average number of litters farrowed for this group was 235.

Lower earnings caused the rate earned on investment to decrease to 4.65 percent in 1991, compared with 9.61 percent in 1990. This was the third highest for any type of farm in Illinois. The 5-year average rate was 6.69 percent. The 5-year average earning rate was the second highest of any type of farm in northern and central Illinois.

**Beef farms.** The net farm income for northern and central Illinois beef farms having 340 to 799 acres averaged \$37,237 in 1991, with the operator's and landlord's shares combined (Table 5). This figure was \$72,763 lower than the 1990 figure and \$30,516 lower than the average from 1987 through 1991.

Lower slaughter cattle prices and inventory values contributed to the lower earnings. The average price received for fat cattle decreased 5 percent in 1991 compared with 1990. The average price paid to replace feeder cattle increased only 1 percent. Compared with 1990, the value of farm production decreased by \$80,335, or 44 percent. It was \$42,759 below the 5-year average for 1987 through 1991. The 1991 value of production was the lowest of any in the last 10 years. This followed 1990 when the value of production was the highest of any year in the preceding 10 years. These farms produced 2,091 hundredweight of beef per farm, or the weight-gain equivalents of 440 head, each gaining 475 pounds.

Management returns of a *negative* \$54,593 in 1991 for these farms were \$65,681 below 1990 returns and \$40,507 below the 5-year average from 1987 through 1991, which was a *negative* \$14,086. The 1991 management returns were the lowest of any year in the last 10 years. The only years that management returns have been positive in the last 9 years were in 1987 and 1990. Capital purchases were \$23,128 in 1991 compared to \$25,378 in 1990 and \$22,265 for the 1987 through 1991 average. Cash operating expenses, excluding purchases of feed and

livestock, decreased 10 percent. The net cash balance for these farms was \$76,474, or \$22,818 less than in 1990 and \$4,070 below the average for 1987 through 1991.

Cost and returns to produce beef from 1988 through 1991, based on a detailed breakdown of individual costs from a selected sample of beef farms, are shown in Table 14. Total costs exceeded total returns 3 of the last 4 years. This analysis is discussed in detail under the livestock section on feeder-cattle enterprises.

The average rate earned on investment decreased from 7.28 percent in 1990 to 1.48 percent in 1991. The 5-year average rate earned on investment from 1987 through 1991 was 5.34 percent. The 1991 rate earned on investment for these farms was the lowest in the last 9 years. The 1987 through 1991 average rate earned on investment is the second lowest for any type of farm. The average total farm investment was \$1,203,174. The average investment in cattle of \$93,796 was the second highest of any year during the last seven years.

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. Along with other livestock enterprises, returns to feeder-cattle enterprises in 1991 were lower than 1990 due to lower selling prices. In recent years, this type of farm has survived primarily where there are large amounts of debt-free capital that has been combined with very high levels of management.

**Dairy farms.** The net farm income for northern and central Illinois dairy farms having 340 to 799 acres averaged \$64,208 in 1991, with the operator's and landlord's shares combined (Table 7). This figure was \$33,409 below the 1990 figure and \$20,356 below the 5-year average from 1987 through 1991. The 1991 income was the lowest of any of the last 5 years. The average number of cows on these farms was 70, two above the average for 1990.

Lower milk prices which reduced cash operating income and lower crop yields which reduced the value of inventories resulted in lower value of production and net farm income. The value of farm production was \$190,425, 10 percent below the average for the 5-year period from 1987 through 1991. Cash operating expenses decreased 2 percent in 1991 compared to 1990. A detailed breakdown of the cost of producing milk can be found in Table 16. Management returns of a *negative* \$18,515 were \$33,370 below 1990 and \$22,041 below the average for the 5-year period from 1987 through 1991. Management returns were negative for the first time in 3 years and the lowest since 1986. Capital purchases decreased to \$21,951 compared to \$27,016 and the 1987 through 1991 average of \$22,146.

The 1991 rate earned on investment for these farms was 4.14 percent; the 1990 rate was 8.22

**Table 7. Averages for Selected Total Farm Items on 340- to 799-Acre Northern Illinois Dairy Farms**

	1991	1990	1987-1991 average
Number of farms .....	65	60	58
Total acres .....	479	468	475
Soil-productivity rating .....	71	71	71
Cash operating income.....\$	250,972	\$ 262,824	\$ 260,622
Less purchased feed and livestock .....	50,142	49,015	56,963
Net cash operating income .....	\$ 200,830	\$ 213,809	\$ 203,659
Accounts receivable change .....	-681	1,347	-592
Inventory change .....	-11,996	10,996	5,009
Farm products used .....	2,272	2,311	2,413
Value of farm production.....\$	190,425	\$ 228,463	\$ 210,489
Total cash operating expenses .....	106,651	108,518	103,592
Prepaid-unpaid change .....	775	-786	-387
Annual depreciation .....	18,791	23,114	22,720
Net farm income.....\$	64,208	\$ 97,617	\$ 84,564
(Operator's share) <sup>a</sup> .....	(28,683)	(59,117)	(47,882)
Unpaid labor charge .....	25,825	25,403	23,970
Returns to capital and management .....	38,383	72,214	60,594
Interest charge on capital ..	56,898	57,359	57,068
Management returns .....	\$ -18,515	\$ 14,855	\$ 3,526
Total cash income <sup>b</sup> .....	253,834	263,351	261,523
Total cash expenditures <sup>b</sup> ..	177,451	183,204	181,248
Cash balance .....	\$ 76,383	\$ 80,147	\$ 80,275
Capital purchases .....	21,951	27,016	22,146
<b>FARM INVESTMENT</b>			
Livestock inventory .....	\$ 119,491	\$ 106,712	\$ 106,124
Grain inventory .....	74,253	69,595	65,372
Remaining capital cost in:			
Machinery and auto .....	40,523	36,556	35,431
Buildings and fence .....	50,108	57,152	60,727
Soil fertility .....	895	970	392
Value of land (current basis) .....	642,402	607,563	586,482
Total farm investment .....	\$ 927,672	\$ 878,548	\$ 854,528
Rate earned on investment, percent .....	4.14	8.22	7.09

<sup>a</sup> Interest expense deducted from operator's share only.  
<sup>b</sup> Includes sales or purchases of capital items.

percent. The 5-year average rate earned on investment was 7.09 percent. Although the 1991 rate earned on investment dropped considerably compared to 1990, it was still the second highest for any type of farm in central and northern Illinois. The average price received for milk in 1991 was 15 percent lower than the average price received in 1990 and the lowest since 1979. Although milk prices were at very low levels during the early part of 1991, they did rebound upward toward the end of the year as producers culled their herds more extensively. Returns to dairy producers may increase somewhat in 1992 as milk prices are expected to average a little higher than in 1991. However, dairy producers may face higher feed costs due to a short supply of hay and other roughages.

The price received for beef from all cull animals and vealers sold 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 percent of the total income from the dairy enterprise. But when the beef prices are low, this source of income is only 10 to 12 percent of the total. In 1991, the returns from beef accounted for 15 percent of the total returns to the dairy herd, in comparison with 17 percent in 1990.

### Southern Illinois farms

**Grain farms.** The net farm income for southern Illinois grain farms having 340 to 799 acres averaged \$47,618 in 1991, with the landlord's and operator's shares combined (Table 8). This income is \$3,241 below net farm income in 1990 and \$8,928 below the average from 1987 through 1991. Higher soybean yields were offset by lower corn and wheat yields, causing the value of production to drop \$3,334, or 3 percent in 1991 compared to 1990. The value of production was the lowest of any in the last five years. Corn yields were 12 bushels per acre lower and wheat yields were 12 bushels per acre lower in 1991 compared to 1990. Farm operating expenses increased slightly while depreciation expenses dropped \$1,029. The cash balance of \$46,986 was the lowest since 1984.

Capital purchases were \$12,094 in 1991, \$2,961 less than 1990 and \$1,040 below the 5-year average for 1987 through 1991. After 2 years of increased capital purchases, they declined mainly as a result of lower earnings. Capital purchases in 1991 equaled \$20 per tillable acre compared to \$43 per tillable acre in 1981.

Management returns for these farms of a *negative* \$9,408 were the lowest since 1986. The 5-year average from 1987 through 1991 for management returns was \$1,303. The rate earned on investment decreased in 1991 to 3.96 percent; in 1990, this rate was 4.65 percent. This was the lowest rate earned on investment for any type of farm in southern Illinois. The average rate earned on investment for the period from 1987 through 1991 was 5.73 percent and below the average rates for any other types of farms in southern Illinois.

**Hog farms.** The net farm income for southern Illinois hog farms having 340 to 799 acres averaged \$55,192 in 1991, with the landlord's and operator's shares combined (Table 8). This income was \$33,458 lower than net farm income in 1990 and \$20,875 lower than the average net farm income of \$76,067 earned from 1987 through 1991. Lower hog prices and lower corn and wheat yields were the main factors in the decrease in earnings. The value of farm production was down \$40,427, or 20 percent, in 1991 compared to 1990.

Management returns for 1991 were a *negative* \$8,891, compared to \$22,512 in 1990 and \$10,170 for the 5-year period from 1987 through 1991.

**Table 8. Averages for Selected Total Farm Items on 340- to 799-Acre Southern Illinois Grain, Hog, and Dairy Farms**

	Grain farms			Hog farms			Dairy farms		
	1991	1990	1987-1991 average	1991	1990	1987-1991 average	1991	1990	1987-1991 average
Number of farms.....	224	254	259	83	82	86	39	39	44
Total acres.....	591	579	582	559	548	551	525	528	514
Soil-productivity rating.....	60	60	60	58	59	59	59	59	59
Cash operating income.....	\$132,623	\$138,015	\$141,894	\$247,854	\$276,435	\$265,302	\$306,596	\$322,027	\$296,173
Less purchased feed and livestock ...	9,088	9,977	13,491	74,472	87,313	82,960	73,217	67,016	63,472
Net cash operating income.....	\$123,535	\$128,038	\$128,403	\$173,382	\$189,122	\$182,342	\$233,379	\$255,011	\$232,701
Accounts receivable change.....	-85	52	-213	-161	284	-127	-125	41	67
Inventory change.....	482	-1,408	3,249	-14,759	9,489	2,737	3,228	4,700	9,809
Farm products used ...	673	1,257	866	845	839	904	1,957	3,400	2,263
Value of farm production.....	\$124,605	\$127,939	\$132,305	\$159,307	\$199,734	\$185,856	\$238,439	\$263,152	\$244,840
Total cash operating expenses.....	66,319	65,986	63,975	88,382	94,308	89,382	123,924	121,188	111,301
Prepaid-unpaid change.....	545	-58	-385	-142	-1,296	-778	1,836	-690	-563
Annual depreciation ...	10,123	11,152	12,169	15,875	18,072	21,185	22,688	25,630	25,898
<b>Net farm income.....</b>	<b>\$ 47,618</b>	<b>\$ 50,859</b>	<b>\$ 56,546</b>	<b>\$ 55,192</b>	<b>\$ 88,650</b>	<b>\$ 76,067</b>	<b>\$ 89,991</b>	<b>\$117,024</b>	<b>\$108,204</b>
(Operator's share) <sup>a</sup> .....	(14,246)	(16,979)	(23,129)	(21,770)	(52,582)	(40,371)	(55,246)	(82,210)	(74,328)
Unpaid labor charge ...	17,418	16,776	16,306	19,816	18,571	18,387	26,465	24,871	23,833
Returns to capital and management.....	30,200	34,083	40,240	35,376	70,079	57,680	63,526	92,153	84,371
Interest charge on capital.....	39,608	39,304	38,937	44,267	47,567	47,510	57,693	56,612	54,168
<b>Management returns</b>	<b>\$ -9,408</b>	<b>\$ -5,221</b>	<b>\$ 1,303</b>	<b>\$ -8,891</b>	<b>\$ 22,512</b>	<b>\$ 10,170</b>	<b>\$ 5,833</b>	<b>\$ 35,541</b>	<b>\$ 30,203</b>
Total cash income <sup>b</sup> .....	133,939	139,252	142,998	248,187	277,387	266,649	306,930	322,387	296,545
Total cash expenditures <sup>b</sup> .....	86,953	89,897	89,891	180,481	206,760	194,830	216,025	223,810	199,788
Cash balance.....	\$ 46,986	\$ 49,355	\$ 53,107	\$ 67,706	\$ 70,627	\$ 71,819	\$ 90,905	\$ 98,577	\$ 96,757
Capital purchases.....	12,094	15,055	13,134	18,100	25,466	22,978	20,094	37,968	26,434
<b>FARM INVESTMENT</b>									
Livestock inventory.....	\$ 11,457	\$ 13,127	\$ 13,547	\$ 75,412	\$ 81,333	\$ 78,665	\$157,724	\$129,286	\$125,474
Grain inventory.....	66,843	65,622	63,654	63,245	68,425	65,423	66,966	71,518	64,347
Remaining capital cost in:									
Machinery and auto	26,152	22,832	21,614	29,721	26,110	28,113	61,839	50,366	46,461
Buildings and fence	7,446	8,138	9,569	23,269	27,750	33,185	33,864	31,541	32,473
Soil fertility.....	57	31	57	61	81	48	0	0	0
Value of land (current basis).....	650,945	623,279	594,023	566,733	568,479	540,853	572,338	561,949	522,924
Total farm investment	\$762,900	\$733,029	\$702,464	\$758,441	\$772,178	\$746,287	\$892,731	\$844,660	\$791,679
Rate earned on investment, percent	3.96	4.65	5.73	4.66	9.08	7.73	7.12	10.91	10.66

<sup>a</sup> Interest expense deducted from operator's share only.

<sup>b</sup> Includes sales or purchases of capital items.

Management returns were at their lowest level since 1985. Capital purchases were \$18,100 in 1991, \$7,366 lower than 1990 and \$4,878 lower than the 1987 through 1991 average. Cash operating expenses decreased \$5,926, or 6 percent; depreciation decreased \$2,197 and was at its lowest level in recent years.

As with central and northern Illinois hog farms, the rate earned on investment by southern Illinois hog farms decreased significantly. In 1991, the rate decreased to 4.66 percent from 9.08 percent in 1990. The average rate earned on investment for the period from 1987 through 1991 was 7.73 percent. The rate

earned on investment in this 5-year period for this type of farm was the second highest of any type of participating farm in Illinois. The 1991 rate earned on investment was the second highest of any type of farm.

**Dairy farms.** The net farm income in 1991 for southern Illinois dairy farms having 340 to 799 acres averaged \$89,991, with the operator's and landlord's shares combined (Table 8). This figure is \$27,033 below the net farm income earned in 1990 and \$18,213 below the average for the period from 1987 through 1991. This net farm income was the highest



earned by any type of participating farm of this size in Illinois in 1991. Lower milk prices and lower grain yields caused the value of farm production to decrease by \$21,632 in 1991 compared to 1990. However, the 1991 value of farm production was still the third highest for any year in the last decade. Net cash operating income decreased by \$24,713 in 1991 compared to 1990, while the value of grain and livestock inventories increased by \$3,228. Cash operating expenses increased \$2,736.

Capital purchases of \$20,094 were \$17,874 below 1990 capital purchases and \$6,340 below the average capital purchases for 1987 through 1991.

Management returns for this type of farm were \$5,833 in 1991; these returns were \$35,541 in 1990. The 5-year average from 1987 through 1991 was \$30,203. This was the only type of farm in 1991 that had positive management returns. The rate earned on investment of 7.12 percent was the highest in the state for this size of participating farm. The average rate earned on investment in 1990 was 10.91 percent, and the 5-year average from 1987 through 1991 was 10.66 percent. The average rate earned on investment by these southern Illinois dairy farms from 1987 through 1991 was the highest of any type of participating farm with 340 to 799 acres in Illinois. In 1991, the average value of bare land on these farms was \$1,192 per tillable acre. On northern Illinois dairy farms, this value was \$1,598 per tillable acre.

The average number of milk cows per farm in 1991 was 96, compared with 93 in 1990, and 90, the past 5-year average. The average of 96 cows in 1991 was 26 more than the average on farms of similar size and type in northern Illinois. In 1991, southern Illinois farms increased the size of their herds by 3 cows over the 1990 herd size, while northern Illinois farms also increased theirs by 2.

## 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 9. Fifteen-year and 5-year averages are also shown. The difference between the average return figure and a feed cost of \$100 represents the margin available for labor, depreciation on equipment, cash expenses other than feed, interest on investment, and 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 from 1977 through 1991 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 farmers already have facilities

**Table 9. Returns per \$100 of Feed Fed to Different Classes of Livestock**

Year	Farrow-to-finish hogs	Feeder-pig finishing	Feeder-pig production	Feeder cattle bought	Dairy cow herds	Beef cow herds	Native sheep raised	Yearly price of corn
dollars								
1977.....	170	134	182	116	181	107	144	2.07
1978.....	208	151	255	170	217	199	159	2.13
1979.....	136	107	194	149	220	183	148	2.44
1980.....	138	122	153	111	207	144	131	2.80
1981.....	138	115	174	107	200	100	84	2.98
1982.....	213	165	237	147	205	115	83	2.43
1983.....	141	118	163	134	178	115	78	3.06
1984.....	155	140	170	141	188	105	102	3.12
1985.....	166	129	170	121	202	101	130	2.54
1986.....	215	178	254	149	210	125	156	2.01
1987.....	217	168	232	196	237	168	141	1.61
1988.....	152	127	158	150	198	150	115	2.32
1989.....	162	141	167	145	209	144	96	2.48
1990.....	206	165	247	162	220	165	98	2.44
1991.....	168	128	199	109	188	129	64	2.41
<b>Averages</b>								
1977-1991	172	139	197	140	204	137	115	2.46
1977-1981	158	126	192	131	205	147	133	2.48
1982-1986	178	146	199	138	197	112	110	2.63
1987-1991	181	146	201	152	210	151	103	2.25

for livestock, they only need to cover direct operating costs in order to continue production. However, when they view livestock production as a new or a long-term enterprise, they hope to cover all costs, both fixed and variable. Otherwise they 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.

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 one or 2 years and then drop below this average for one or 2 years. Returns per \$100 feed fed of \$168 in 1991 were slightly below the last 5-year average of \$172.

The returns from feeder cattle vary greatly from year to year. The long-run averages shown in Table 10 indicate that the cattle-feeding business has not been paying average market rates for all resources used by the enterprise. However, the return of \$152 per \$100 feed fed for the most recent 5-year period (1987-91) was above returns for the two previous 5-year periods and the 15-year average of \$140 (Table 9). 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. Identifying cyclical income movements over a 15-year period in the beef-cattle industry is difficult because this industry is more complex and adjusts more slowly than other livestock enterprises.

The returns above feed costs for dairy enterprises of \$1,064 per cow in 1991 were \$193 below the 5-year average of \$1,257 (Table 10). These returns indicate that the average dairy enterprise has covered the total estimated cost of production of \$1,065 per cow from 1987 through 1991.

For the beef-herd enterprise, the average returns

**Table 10. Variation in Returns to Livestock Enterprise Units, 1987 Through 1991**

	Farrow-to-finish hogs (per cwt)	Feeder-pig finishing (per cwt)	Feeder cattle (per cwt)	Dairy cattle (per cow)	Beef herd (per cow) <sup>a</sup>
<b>Returns above cost of feed and purchased animals</b>					
1987	\$25.09	\$13.28	\$30.47	\$1,301	\$212
1988	14.01	6.63	20.56	1,116	196
1989	16.71	10.20	18.66	1,334	170
1990	27.15	15.79	25.74	1,471	230
1991	17.67	6.80	3.97	1,064	106
Five-year average	\$20.13	\$10.54	\$19.88	\$1,257	\$183
<b>Nonfeed costs, 1987 through 1991</b>					
Direct cash	\$ 6.35 <sup>b</sup>	\$ 4.20 <sup>c</sup>	\$12.80 <sup>c</sup>	\$ 420 <sup>c</sup>	\$ 30 <sup>c</sup>
Other costs	10.60 <sup>b</sup>	6.50 <sup>c</sup>	11.30 <sup>c</sup>	645 <sup>c</sup>	175 <sup>c</sup>
Total	\$16.95	\$10.70	\$24.10	\$1,065	\$205
<b>Nonfeed cost for future production</b>					
Direct cash	\$ 6.75	\$ 4.35 <sup>d</sup>	\$13.00 <sup>d</sup>	\$ 440	\$ 30
Other costs	16.00	7.00	15.00	800	200
Total	\$22.75	\$11.35	\$28.00	\$1,240	\$230

<sup>a</sup> The feed cost for beef herds includes up to \$60 of hay equivalent from salvage roughage.

<sup>b</sup> Estimates of annual nonfeed costs are based on enterprise cost studies of operative units from 1987 to 1991.

<sup>c</sup> Includes veterinary costs, utilities, fuel, equipment repair costs, and depreciation, from Table 6 in the *Farm Management Manuals* from 1987 to 1991.

<sup>d</sup> Includes interest on purchase cost: one-third year for feeder-pig finishing, and one-half year for feeder cattle.

above the cost of feed for the period from 1987 through 1991 provided a margin over cash costs, but fell short of the return needed to cover all nonfeed costs (Table 10). The implication is that the beef enterprise competes most favorably on farms where the resources of labor, capital, and management are plentiful and have few alternate uses. In the beef-cow enterprise, returns above the cost of feed per cow averaged \$183 during the last 5 years. The 1991 returns of \$106 were \$99 below the total costs, estimated at \$205 per cow. The 1991 returns to the beef-cow enterprise were the lowest since returns in the 1986 marketing year.

Raising livestock has become more competitive. Average profit margins are narrow. Fewer farmers are willing to stay in business because returns in some enterprises barely cover 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 also shown in Table 10.

## Hog enterprises

The information on farrow-to-finish enterprises in Table 11 is based on a sample of 618 enterprises 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 procedure eliminated from the sample those farms with combined farrowing and feeder-pig op-

**Table 11. Hog Enterprises, 1991 Averages per Farm**

	Farrow-to-finish enterprises		
	All farms	350 or more litters per farm	Feeder-pig production
Number of farms	618	110	21
Pork produced, pound	428,466	1,118,903	93,928
Pork produced per litter, pound	1,862	1,858	530
Total returns	\$185,877	\$497,441	\$65,455
Value of feed fed	\$110,163	\$278,598	\$32,732
Returns per \$100 of feed fed	\$ 168	\$ 178	\$ 199
Number of litters farrowed	230	602	177
Pigs farrowed per litter	9.57	9.73	9.87
Pigs weaned per litter	8.00	8.26	7.90
Litters farrowed per female year	1.91	2.05	2.12
Pigs weaned per female year	15.52	17.27	16.72
Number of pigs weaned	1,840	4,973	1,398
Death loss, percent of pounds produced	1.9	1.8	2.1
Weight per hog sold, pound	247	242	48 <sup>a</sup>
<b>per 100 pounds produced</b>			
Price received	\$ 48.52	\$ 49.43	\$ 90.59 <sup>a</sup>
Total return	\$ 43.38	\$ 44.45	\$ 69.68
Feed cost	\$ 25.71	\$ 24.90	\$ 34.85
Return above feed	\$ 17.67	\$ 19.55	\$ 34.83
Farm grains, pound	294	288	285
Commercial feed, pound	86	86	116
Total concentrates, pound	380	374	401
Cost per 100 pounds of commercial feed	\$ 14.98	\$ 14.38	\$ 19.38
Cost per 100 pounds of concentrates	\$ 6.74	\$ 6.64	\$ 8.65

<sup>a</sup> The average weight sold and price received for the feeder-pig production enterprise is for feeder pigs only.

erations. (Information on feeder-pig finishing enterprises is given in Table 13.) The average size of farrow-to-finish enterprises on all recordkeeping farms was 230 litters in 1991. The 1991 records summarized here for the "all farms" group show that returns of \$17.67 above feed costs per 100 pounds of pork produced were \$9.48 below the 1990 return of \$27.15.

The 5-year average for returns above feed costs per 100 pounds produced was \$20.13 (Table 10). Even the 5-year average can vary significantly because of the wide fluctuations in returns from year to year. Detailed cost records show that an average farmer with existing facilities needed a return above feed costs of \$16.95 per 100 pounds to pay for all nonfeed costs during the past 5 years. The return above all costs during this 5-year period of \$3.18 (\$20.13 minus \$16.95) may still not be large enough to make a majority of farmers or lenders feel comfortable about expanding production with borrowed capital.

**Table 12. Average Costs and Returns for Farrow-to-Finish Hog Enterprises by Size of Enterprise, 1989 Through 1991**

	Under 250 litters			250 litters or more		
	1991	1990	1989	1991	1990	1989
Number of farms .....	52	48	58	101	89	126
Tillable acres.....	255	231	243	564	607	513
Number of litters .....	155	138	145	495	475	439
	<b>per 100 pounds of pork produced</b>					
Total returns.....	\$ 42.88	\$ 53.55	\$ 43.13	\$ 44.46	\$ 53.81	\$ 44.43
<b>Cash costs</b>						
Feed.....	\$ 26.61	\$ 28.30	\$ 28.62	\$ 25.02	\$ 25.46	\$ 26.36
Operating expenses:						
Maintenance and power <sup>a</sup> .....	3.80	4.16	3.20	3.96	4.24	3.58
Livestock expenses.....	1.99	2.22	1.66	2.24	2.16	1.86
Insurance, taxes, and overhead.....	1.05	.97	.97	1.02	1.02	1.01
Total operating expenses.....	\$ 6.84	\$ 7.35	\$ 5.83	\$ 7.22	\$ 7.42	\$ 6.45
Total cash costs .....	\$ 33.45	\$ 35.65	\$ 34.45	\$ 32.24	\$ 32.88	\$ 32.81
<b>Other costs</b>						
Depreciation <sup>b</sup> .....	\$ 1.84	\$ 2.52	\$ 2.16	\$ 2.34	\$ 2.68	\$ 2.58
Labor .....	4.33	4.37	3.74	4.28	3.70	3.62
Interest charge on all capital.....	3.20	3.64	3.49	3.25	3.55	3.61
Total other costs.....	\$ 9.37	\$ 10.53	\$ 9.39	\$ 9.87	\$ 9.93	\$ 9.81
Total nonfeed costs.....	\$ 16.21	\$ 17.88	\$ 15.22	\$ 17.09	\$ 17.35	\$ 16.26
Total all costs.....	\$ 42.82	\$ 46.18	\$ 43.84	\$ 42.11	\$ 42.81	\$ 42.62
Return above all costs.....	\$ .06	\$ 7.37	\$ -71	\$ 2.35	\$ 11.00	\$ 1.81

<sup>a</sup> Includes utilities, machinery, equipment and building repairs, machine hire, and fuel.

<sup>b</sup> Includes machinery, equipment, and building depreciation.

The farrow-to-finish enterprise records for 1991 reported in Table 11 were also sorted by the number of litters produced. One group farrowing 350 or more litters averaged 602 litters. Compared with the average feed cost for all farrow-to-finish enterprises, the feed cost per 100 pounds of pork produced was 81 cents lower for the 602-litter group. The large producers paid \$12.00 less per ton for commercial feed and had slightly better feed conversion. The prices received for hogs sold by large producers or the net at the farm was 91 cents higher than the net received by all producers.

A summary of the feeder-pig production enterprises is also reported in Table 11. In 1991, the average enterprise in this group produced 177 litters with a return of \$199 per \$100 of feed fed. On an average, 7.9 pigs per litter were weaned and sold at 48 pounds per head. The 1991 average price received per 100 pounds of feeder pigs sold was \$90.59 or \$43.48 per head. The average feed cost per 100 pounds of pork produced (pigs and breeding stock) was \$34.83 for 401 pounds of concentrate.

A substantial profit margin is required to compensate for the risk and detailed management involved in hog production in comparison 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. However, the level of profits in recent years has resulted in an increase in production. Pork production for 1992 is projected to be at record levels. Although improvements in production efficiency and some increase in consumer demand have helped offset lower prices due to increased production, future returns will depend to a great extent on whether producers continue to increase production or liquidate some of the breeding herd.

The data on hog enterprises in Table 12 show a detailed breakdown of costs and returns from a group of specialized commercial hog farms for 1989, 1990, and 1991. 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 12 were sorted by the number of litters produced. The group farrowing fewer than 250 litters averaged 146 litters from 1989 to 1991; the group farrowing 250 or more litters averaged 470 litters during the same period.

The cost data reported in Table 12 have been divided into two categories: cash costs and other costs. This classification of production costs is important when short-term management decisions are being made concerning the volume of production, particularly during periods of low prices.

**Table 13. Feeder-Cattle and Feeder-Pig Finishing Enterprises, 1991 Averages per Farm**

	Feeder cattle	Feeder-pig finishing
Number of farms .....	214	172
Total pounds produced .....	157,566	162,282
Total returns.....	\$ 70,934	\$ 49,704
Value of feed fed .....	\$ 64,675	\$ 38,674
Returns per \$100 of feed fed.....	\$ 109	\$ 128
Death loss, percent of pounds produced.....	2.0	2.1
Average weight purchased.....	661	50
Price paid per 100 pounds .....	\$ 85.94	\$ 97.33
Price received per 100 pounds .....	\$ 72.55	\$ 48.42
Average weight sold.....	1,161	244
	<b>per 100 pounds produced</b>	
Total returns.....	\$ 45.02	\$ 30.63
Feed cost .....	\$ 41.05	\$ 23.83
Return above feed.....	\$ 3.97	\$ 6.80
Farm grains, pound.....	605	286
Commercial feeds, pound.....	45	80
Total concentrates, pound.....	650	366
Hay, pound.....	63	... <sup>a</sup>
Corn silage, pound.....	479	... <sup>a</sup>
Other silage, pound.....	105	... <sup>a</sup>
Hay equivalent, pound.....	268	... <sup>a</sup>

<sup>a</sup> Data not available.

As reported in Table 12, cash costs of production in 1991 ranged from \$32.24 to \$33.45 per 100 pounds of pork produced, depending on the grouping size. Feed is included as a cash cost although for most producers a major share of the grain is raised on the farm. The readily available alternative cash market for grain makes the raised feed the same as cash.

The other category of costs 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-person farm does not hire much labor, whereas a major share of the labor will be hired on a four-person farm.

Most categories of nonfeed costs decreased somewhat for both groups of enterprises in 1991. Total nonfeed costs decreased \$1.67 per 100 pounds of pork produced (9 percent) for the small enterprises and 26 cents (1 percent) for the large enterprises from 1990 to 1991. For the small group, both total operating expenses and total other costs decreased while the decrease for the large group was primarily in the operating expense category. With slightly lower feed costs, the total cost of production decreased from 1990 to 1991 by \$3.36 per 100 pounds of pork produced for the group of small enterprises as compared to a decrease of only 70 cents for the large enterprise group.

The most significant cost difference between the two groups of farms was the feed cost. The average feed cost for 1989, 1990, and 1991 per 100 pounds of pork produced for the large enterprises was \$2.23 lower than it was for the small enterprises. This difference in feed cost was an average of about

\$21,000 per farm with the larger enterprises. Differences in the amount of feed used per 100 pounds of pork produced and the price paid for commercial feeds caused this difference in feed costs.

From 1989 through 1991, the returns above all costs averaged \$2.24 per 100 pounds of pork produced for the small enterprises and \$5.05 for the large enterprises—a difference of \$2.81. Management practices, such as the choice of building systems, method of transporting hogs to market, type of market used, and on- versus off-farm systems for feed-processing affect the individual cost items reported in Table 12. But 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 1991 on the feeder-cattle and feeder-pig finishing enterprises are presented in Tables 13 and 14. 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 amount of pork produced per farm from feeder-pig enterprises was 162,282 pounds in 1991 (Table 13). At 175 pounds of gain per head, this figure amounted to 927 head fed per farm in 1991, up from the 899 head fed per farm in 1990.

The return above the cost of feed and purchased animals from 1987 through 1991 averaged \$10.54 per 100 pounds of gain. This return was 16 cents below the \$10.70 of all nonfeed costs for the past 5 years. It is also below the estimated \$11.35 required to cover all costs for future production (Table 10).

Given that a 475-pound unit of gain equals one head of feeder cattle, the average of 157,566 pounds of beef produced per farm in 1991 (Table 13) equals 332 head of feeder cattle per farm. That figure is an increase of 5 from the average of 327 head fed per farm in 1990. The return per \$100 of feed for feeder-cattle enterprises was \$109 in 1991 in comparison with a 5-year average of \$152 and a 15-year average of \$140 (Table 9). This was the lowest return per \$100 feed fed since 1981, when it was \$107.

The price paid for feeders was 52 cents per 100 pounds higher in 1991 than it was in 1990; the price received for cattle sold in 1991 was \$3.85 lower per 100 pounds than the price received in 1990. The average weight of purchased animals was 661 pounds; the average weight of animals sold was 1,161 pounds. Feed cost was \$41.05 per 100 pounds produced in 1991; it was \$41.03 in 1990.

Each 100 pounds of beef produced required 650 pounds of concentrates and 63 pounds of hay. The amount of corn silage used in 1991 averaged 479 pounds; other silage averaged 105 pounds, making a total of 584 pounds. Silage utilization by the feeder-

**Table 14. Average Costs and Returns for Beef-Feeding Enterprises, 1988 Through 1991**

	1991	1990	1989	1988	1988-1991 average
Number of farms.....	34	36	40	41	38
Tillable acres.....	571	610	583	527	573
Hundredweight beef produced.....	3,069	3,585	3,446	2,845	3,236
Number head @ 475-pound gain equivalents.....	646	755	725	599	681
Average weight purchased, pound.....	665	654	658	655	658
Average weight sold, pound.....	1,180	1,133	1,140	1,127	1,145
Price received per 100 pounds sold.....	\$ 72.66	\$ 76.77	\$ 72.32	\$ 68.76	\$ 72.63
Price paid per 100 pounds purchased.....	\$ 88.11	\$ 86.65	\$ 83.35	\$ 81.04	\$ 84.79
	<b>per 100 pounds of beef produced</b>				
<b>Cash costs</b>					
Feed <sup>a</sup> .....	\$ 41.17	\$ 40.09	\$ 39.67	\$ 40.46	\$ 40.35
Operating expenses:					
Maintenance and power <sup>b</sup> .....	3.81	3.71	3.44	3.67	3.66
Livestock expense.....	2.32	2.25	2.60	2.80	2.49
Insurance, taxes, and overhead.....	1.30	1.18	1.32	1.12	1.23
Interest on cattle <sup>c</sup> .....	7.46	8.47	9.06	7.69	8.17
Total operating expense.....	\$ 14.89	\$ 15.61	\$ 16.42	\$ 15.28	\$ 15.55
Total cash costs.....	\$ 56.06	\$ 55.70	\$ 56.09	\$ 55.74	\$ 55.90
<b>Other costs</b>					
Depreciation <sup>d</sup> .....	\$ 3.76	\$ 4.05	\$ 4.07	\$ 3.68	\$ 3.89
Labor.....	2.61	2.20	2.31	1.95	2.27
Interest on other capital.....	2.44	2.65	2.54	1.53	2.29
Total other costs.....	\$ 8.81	\$ 8.90	\$ 8.92	\$ 7.16	\$ 8.45
Total all costs.....	\$ 64.87	\$ 64.60	\$ 65.01	\$ 62.90	\$ 64.35
Total returns <sup>a</sup> .....	\$ 45.65	\$ 67.23	\$ 58.60	\$ 58.78	\$ 57.57
Return above all costs.....	\$ -19.22	\$ 2.63	\$ -6.41	\$ -4.12	\$ -6.78

<sup>a</sup> All grain fed was priced at the average market price for the year. Market values were used for roughage fed while protein and minerals were charged at cost. All the feed fed is assumed to have been marketable.

<sup>b</sup> Includes utilities, machinery, equipment and building repairs, machine hire, and fuel.

<sup>c</sup> Interest is a charge on the average value of beginning- and end-of-year inventories on hand. The rate was 10 percent for 1988, 11 percent for 1989, 10 percent for 1990, and 9 percent for 1991.

<sup>d</sup> Includes machinery, equipment, and building depreciation.

<sup>e</sup> Sales less cost of purchased animals, plus or minus inventory value change. No credit has been calculated for reduced fertility cost when manure is applied to crops.

cattle enterprise has decreased the last 5 years since the 10-year average for the period from 1977 through 1986 reached 906 pounds per 100 pounds of beef produced. The use of 584 pounds per 100 pounds of beef produced in 1991 was the smallest amount fed since 1963. The high initial investment required for many silage feeding operations and a slowdown in capital purchases may denote more reliance on higher concentrate and dry roughage facilities.

These data do not show the wide variation in profits among cattle-feeding programs. The data in Tables 9, 10, and 13 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 \$19.88 per 100 pounds of beef produced from 1987 through 1991 (Table 10). During this period, returns ranged from \$3.97 in 1991, to \$30.47 in 1987. The returns above feed costs have remained below the estimated costs required to pay for all nonfeed costs for the average cattle feeder in 3 of the last 5 years. The 1987 returns above feed cost of \$30.47 were record high, at least for the

period since 1964. The 1991 returns were the lowest since 1981.

The data in Table 14 on feeder-cattle enterprises show a detailed breakdown for the period from 1988 through 1991 on cost and returns to produce beef on beef-feeding farms. The farms included had no other livestock. All costs were accounted for either in crops or in the beef-feeding enterprise. The figure for feed costs is based on the assumption that all the grain and roughage fed was produced on the farm and was marketable.

The data show that these farms were finishing an average of 681 feeders each year from 1988 through 1991. The 4-year average total cash cost including feed and interest charged on cattle was \$55.90 per 100 pounds of beef produced. The average total return of \$57.57 for the same period exceeded total cash costs by \$1.67 per 100 pounds produced, or about \$10 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. Other costs of \$8.45 per 100 pounds of beef produced or \$40 per feeder (\$8.45 multiplied by 4.75 hundredweight of gain per feeder) include depreciation, labor, and interest. Adding the

other costs to cash costs results in total costs of \$64.35 per hundredweight over the 4-year period.

A 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. But this number is expected to decline.

Farmer's values, goals, and attitudes have been important in maintaining production; but the dictates of the market, technological changes, and shifts in the basic factors of supply and demand continue to cause changes. The return reflected in these averages for the feeder-cattle enterprise suggests that 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 returns are not consistently high 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 recordkeeping farms increased steadily at an average of 1.8 cows per year from 42 in 1970 to 63 in 1982. The herd size has remained steady, between 63 and 69 cows, since 1982.

The return per \$100 of feed fed to dairy cattle in 1991 was \$188. The average for the period from 1987 through 1991 was \$210 (Table 9). In 1991, milk prices per hundredweight decreased 15 percent from 1990 and 10 percent from 1989. Milk prices increased an annual average rate of 8 percent for 1989 and 1990. From 1990 to 1991, beef prices for all weights sold decreased \$3.37 per hundred pounds, while feed costs increased \$1.43 per unit of milk or beef produced.

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 6 in 1991. This shift indicates that significant pasture days are a thing of the past on nearly all dairy farms in this sample.

The dairy herds in Table 15 were subdivided into two groups according to their efficiency as measured by returns above the cost of feed per cow. In comparison with the low-efficiency group, the high-efficiency group had more cows in the herd, and 91 percent higher returns above feed per cow. Returns above feed per cow for the high-efficiency group were \$1,385 and \$724 for the low-efficiency group. For the high-efficiency group, two factors were most significant: 20 percent higher milk production per cow—an average of 18,023 pounds, compared with an average of 15,011 pounds for the low-efficiency

group—and a 19 percent lower feed cost per unit of milk and beef produced.

The average return above feed costs per cow for all dairy herds was \$1,064 in 1991 (Table 15). This figure compares with the 5-year average of \$1,257 per cow (Table 10). The 5-year average return above feed cost required to pay market prices for all nonfeed costs is estimated to be about \$1,065 per cow. The estimated return above feed costs currently required to attract new investments for dairy herds is about \$1,240 per cow. Although the number of dairy herds has decreased, their size and efficiency have increased, and they have continued to increase the milk supply. Normal depreciation and wear-and-tear will soon require the reinvestment of greater amounts of capital in some of these businesses.

**Table 15. Dairy Cattle Enterprises, 1991 Averages per Farm**

	All farms	Efficiency	
		High <sup>a</sup>	Low <sup>b</sup>
Number of farms .....	165	54	56
Number of cows .....	66.3	71.3	61.0
Milk cows dry, percent .....	13.4	12.7	14.0
Animal units in herd .....	129	139	118
Total returns .....	\$150,707	\$184,923	\$120,491
Value of feed fed .....	\$ 80,136	\$ 86,122	\$ 76,294
Returns per \$100 of feed fed .....	\$ 188	\$ 214	\$ 157
Returns above feed per cow .....	\$ 1,064	\$ 1,385	\$ 724
Total milk produced, 100 pounds .....	10,976	12,851	9,157
Pounds of milk per cow .....	16,555	18,023	15,011
Pounds of butterfat per cow .....	604	652	552
Total beef produced, pound .....	42,973	51,299	37,112
Pounds of beef per cow .....	648	719	608
Death loss, percent of pounds produced .....	10.4	6.9	13.0
Price received for:			
100 pounds of milk .....	\$ 11.70	\$ 11.95	\$ 11.46
100 pounds of beef .....	\$ 59.45	\$ 59.93	\$ 58.99
Per unit of milk and beef: <sup>c</sup>			
Feed cost .....	\$ 52.46	\$ 47.89	\$ 59.28
Grain, pound .....	328	297	375
Protein and minerals, pound .....	104	104	113
Total concentrates, pound .....	432	401	488
Hay and dry roughage, pound .....	326	312	352
Corn silage, pound .....	480	375	610
Other silage, pound .....	419	421	435
Pasture days .....	...	...	...
Pasture days per animal unit .....	6	7	8
Hay equivalent per cow, tons .....	7.9	8.0	8.1
Concentrates per cow, pound .....	9,951	10,110	10,292

<sup>a</sup> High one-third return above feed per cow exceeds 1,200.  
<sup>b</sup> Low one-third return above feed per cow is below 930.  
<sup>c</sup> 1,000 pounds of milk or 100 pounds of beef.  
<sup>d</sup> No significant pasture use.

**Table 16. Average Milk Production Costs and Returns by Size of Herd, 1989 Through 1991**

	40 to 79 cows in herd			80 or more cows in herd		
	1991	1990	1989	1991	1990	1989
Number of farms .....	80	102	101	59	57	53
Tillable acres.....	259	295	269	522	468	474
Number of cows.....	57.6	57.3	59.5	107.9	108.4	110.7
Milk per cow, pound.....	16,789	16,625	16,488	17,056	17,012	16,512
	<b>per 100 pounds of milk produced</b>					
Price received.....	\$ 11.82	\$ 13.87	\$ 13.09	\$ 11.90	\$ 14.03	\$ 13.11
<b>Cash costs</b>						
Feed.....	\$ 6.23	\$ 6.38	\$ 6.28	\$ 6.02	\$ 6.14	\$ 6.10
Operating expenses:						
Maintenance and power <sup>a</sup> .....	1.17	1.42	1.36	1.35	1.51	1.30
Livestock expense .....	1.13	1.11	1.04	1.13	1.11	.95
Insurance, taxes, and overhead.....	.26	.28	.26	.26	.23	.22
Total operating expenses.....	\$ 2.56	\$ 2.81	\$ 2.66	\$ 2.74	\$ 2.85	\$ 2.47
Total cash costs .....	\$ 8.79	\$ 9.19	\$ 8.94	\$ 8.76	\$ 8.99	\$ 8.57
<b>Other costs</b>						
Depreciation <sup>b</sup> .....	\$ .61	\$ .82	\$ .77	\$ .67	\$ .76	\$ .76
Labor .....	1.59	1.81	1.77	1.49	1.50	1.49
Interest charge on all capital.....	1.34	1.56	1.52	1.30	1.49	1.49
Total other costs.....	\$ 3.54	\$ 4.19	\$ 4.06	\$ 3.46	\$ 3.75	\$ 3.74
Total nonfeed costs.....	\$ 6.10	\$ 7.00	\$ 6.72	\$ 6.20	\$ 6.60	\$ 6.21
Total all costs.....	\$ 12.33	\$ 13.38	\$ 13.00	\$ 12.22	\$ 12.74	\$ 12.31
Return above all costs.....	\$ -.51	\$ .49	\$ .09	\$ -.32	\$ 1.29	\$ .80

<sup>a</sup> Includes utilities, machinery, equipment and building repairs, machine hire, and fuel.  
<sup>b</sup> Includes machinery, equipment, and building depreciation.

The data in Table 16 on dairy enterprises show a detailed breakdown of milk production costs and returns for dairy farms by the number of cows in the herd in the period from 1989 through 1991. The farms included had no other livestock. All 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 an inventory increase in the pounds of beef produced or from sales, which was valued at the average price received for all weights of dairy animals sold from 1987 through 1991. The residual costs, amounting to 85 percent of the total enterprise costs, were then considered as the net cost of producing milk.

The differences between the herds containing 40 to 79 cows and those containing 80 or more cows for the period from 1989 through 1991 appear to be narrowing. This is probably due to the smaller, lower-efficiency herds exiting the dairy enterprise. For the 3-year period, the milk price for the larger herds averaged only 8 cents higher, while total non-feed costs per 100 pounds of milk sold were 27 cents lower. The major cost difference was 23 cents less for labor on the large farms.

In 1991, feed costs per 100 pounds of milk produced decreased slightly for both groups. The cost of feed averaged about 50 percent of total production costs in Illinois dairy enterprises. Total nonfeed costs decreased by 12.9 and 6.1 percent, respectively, for the small and large dairy herds when compared with costs in 1990. The total cost of

producing 100 pounds of milk in 1991 was \$12.33 for the small herds and \$12.22 for the large herds. The average price received for milk in 1991 decreased for both groups of dairy enterprises. This resulted in returns below total production costs of 51 cents and 32 cents, respectively, for both the small and large enterprise groups in 1991. The returns above all costs for the large-herd group have averaged 57 cents per 100 pounds of milk produced more than the returns for the small-herd group from 1989 through 1991. This amounts to \$10,490 more in returns per farm per year for herds in the large size group. In general, dairy farmers experienced their lowest returns in 1991 since the mid-1980s.

### Beef-cow herds

The minimum size for a beef-cow herd included in Table 17 was 10 cows. Farms combining cow herds and purchased feeder cattle were not included. In addition to all farms, Table 17 gives an analysis of cow herds in which calves were sold at weaning time and compares them with cow herds in which calves were finished to slaughter weights. From 1956 through 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 1989. The herd size increased to 46 cows in 1991. 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

**Table 17. Beef-Cow Enterprises, 1991 Averages per Farm**

	All farms	Calves sold	Calves fed out
Number of farms .....	279	88	59
Number of cows in herd ...	46	42	51
Animal units in herd.....	70	56	83
Total pounds produced.....	34,088	18,748	55,565
Beef per cow in herd, pound.....	741	446	1,089
Total returns.....	\$21,469	\$14,121	\$31,119
Value of feed fed.....	\$16,587	\$11,069	\$22,520
Returns per \$100 of feed fed.....	\$ 129	\$ 127	\$ 138
Returns above feed per cow.....	\$ 106	\$ 72	\$ 168
Death loss, pound .....	1,985	1,570	2,636
Percent of pounds produced .....	5.8	8.3	4.7
Price received per 100 pounds sold .....	\$ 73.28	\$ 77.83	\$ 69.37
<b>per 100 pounds produced</b>			
Feed cost.....	\$ 48.65	\$ 59.04	\$ 40.52
Grain, pound.....	257	155	301
Protein and minerals, pound.....	36	37	31
Total concentrates, pound .....	293	192	332
Hay and dry roughage, pound .....	681	1,024	410
Corn silage, pound.....	364	245	399
Other silage, pound .....	88	85	115
Pasture days.....	29	45	18
Pasture days per animal unit .....	142	150	125
Hay equivalent per cow, tons.....	5.7	4.9	5.6

herds averaged \$129 in 1991. The return for the 5-year period from 1987 through 1991 averaged \$151, which is above the 15-year average of \$137 for the period from 1977 through 1991 (Table 9). Beef prices received in 1991 averaged \$73.28 per hundredweight, a decrease of \$2.75 over beef prices in 1990. Feed costs per 100 pounds of beef produced increased by \$1.07 to \$48.65 in 1991.

Since 1987, the return above feed cost per cow for the average farmer to feed out calves rather than

**Table 18. Sheep Enterprises, 1991 Averages per Farm**

	Native flocks
Number of farms .....	34
Wool and mutton produced, pound .....	6,905
Total returns.....	\$2,256
Value of feed fed.....	\$3,479
Returns per \$100 of feed fed .....	\$ 64
Percent lamb crop.....	145
Death loss, pound .....	635
Percent of pounds produced.....	9.2
<b>per 100 pounds produced</b>	
Price received.....	\$42.82
Feed cost.....	\$50.38
Concentrates, pound.....	385
Hay, pound.....	724
Corn silage, pound.....	0
Pasture days.....	6
Hay equivalent, pound .....	887

to sell them at weaning has been about \$67 per cow. Additional returns are needed for the added costs of labor, buildings, and the capital required to feed out the calves. In 1991, return above feed cost for feeding calves to market weight was \$96 more per cow than for selling calves.

### Sheep enterprises

Sheep production is a minor enterprise on Illinois recordkeeping farms. The minimum size of enterprise in Table 18 is 3 animal units. One animal unit of sheep is defined as 750 pounds, liveweight. The return per \$100 of feed fed in 1991 was \$64 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 declined from \$58.62 per hundredweight in 1990 to \$42.82 in 1991, while feed costs per hundredweight produced increased by \$3.15 to \$50.38. 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 Illinois farms are reported in Tables 19 to 27a.**





Table 19. 1991 Average Return, Costs, and Financial Summary by Size and Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 86 to 100

Range in size (total acres)	180-339	340-799	800-1199	Over 1199	Your Farm	All Farms	Low 25% 122	340-799 High 25% 122
Management returns	68	486	221	112		887		
Number of farms	281	572	979	1,546		774	567	612
Total acres in farm	269	552	941	1,497		747	549	591
Acres of tillable land	93	92	92	92		92	92	93
Soil rating on tillable land	11.4	13.1	16.9	25.2		15.4	13.4	13.0
Total months labor	0.4	1.3	4.3	8.7		2.9	1.7	1.3
Months of hired labor	0	1	2	5		2	0	1
Beef produced, hundredweight	0	0	1	0		0	0	0
Pork produced, hundredweight	0	0	0	0		0	0	0
Dairy cows, number	0	0	0	0		0	0	0
Dollar returns per farm								
Crop returns	75,971	160,970	282,234	451,852		221,397	125,107	202,851
Livestock returns above feed	9	14	2	54		16	6	45
Custom work	1,198	1,859	3,161	6,749		2,750	1,762	2,016
Other farm receipts	846	1,294	2,008	3,815		1,756	945	1,586
<b>Value of farm production</b>	<b>78,024</b>	<b>164,138</b>	<b>287,406</b>	<b>462,471</b>		<b>225,919</b>	<b>127,819</b>	<b>206,499</b>
Dollar costs per farm								
Crop expenses	20,414	42,758	71,743	112,583		57,083	45,648	42,837
Power and equipment	15,315	26,284	44,901	66,550		35,166	28,116	26,530
Building and fence	4,269	6,248	9,613	13,318		7,827	6,927	5,333
Labor	16,260	18,557	24,628	37,086		22,233	19,121	18,297
Livestock services and supplies	82	158	232	368		197	148	231
Taxes	5,589	11,294	18,647	29,462		14,982	10,627	12,053
Insurance and miscellaneous	3,038	5,074	7,729	12,416		6,506	5,341	4,765
Interest on nonland capital	6,656	12,503	22,416	36,343		17,535	12,833	12,833
Land charge or net rent	26,342	52,845	89,675	141,854		71,229	52,647	56,053
<b>Total nonfeed cost</b>	<b>97,965</b>	<b>175,719</b>	<b>289,579</b>	<b>449,977</b>		<b>232,757</b>	<b>181,604</b>	<b>178,930</b>
Capital account adjustment	636	1,080	1,603	1,514		1,231	859	2,030
<b>Management returns</b>	<b>(19,304)</b>	<b>(10,500)</b>	<b>(569)</b>	<b>14,007</b>		<b>(5,606)</b>	<b>(52,927)</b>	<b>29,599</b>
Farm production per \$1.00 of nonfeed costs	0.80	0.93	0.99	1.03		0.97	0.70	1.15
Farm production per man	81,846	150,741	203,547	219,835		175,522	114,353	191,266
Financial summary								
Cash operating income	85,271	172,184	295,153	484,427		235,586	162,388	193,019
Inventory change	(6,325)	(6,658)	(4,367)	(11,630)		(6,690)	(32,645)	14,412
Accts. receivable (net change)	(742)	(1,179)	(1,771)	(3,612)		(1,600)	(1,583)	(952)
Farm products used	89	267	448	756		361	260	344
Less purchased feed	267	371	1,895	7,210		1,606	549	91
Less purchased livestock	0	103	160	259		129	51	231
<b>Adjusted gross farm income</b>	<b>78,024</b>	<b>164,138</b>	<b>287,406</b>	<b>462,471</b>		<b>225,919</b>	<b>127,819</b>	<b>206,499</b>
Cash operating expense	42,524	81,569	138,188	214,815		109,507	84,438	82,400
Prepaid expense (-if increased)	623	319	179	635		348	575	(340)
Accts. payable (+if increased)	(78)	(139)	(16)	70		(77)	(142)	(126)
Farm-produced inputs	89	243	419	715		334	226	326
<b>Total operating expense</b>	<b>43,157</b>	<b>81,992</b>	<b>138,768</b>	<b>216,234</b>		<b>110,111</b>	<b>85,096</b>	<b>82,257</b>
Income before depreciation	34,867	82,144	148,637	246,236		115,806	42,723	124,244
Less depreciation	6,040	11,655	20,772	31,934		16,057	14,207	11,115
Capital account adjustment	636	1,080	1,603	1,514		1,231	859	2,030
<b>Net farm income *</b>	<b>29,463</b>	<b>71,569</b>	<b>129,468</b>	<b>215,817</b>		<b>100,981</b>	<b>29,376</b>	<b>115,160</b>
(operator's share) *	9,715	25,079	43,093	67,128		33,699	614	49,947
Rate earned on investment, %	(3,640)	6,003	16,138	27,230		10,469	(36,268)	46,012
	2.07	4.15	4.93	5.36		4.65	0.97	7.02

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils.  
\* Interest expense deducted from operator's share only.

Table 19a. 1991 Average Operating Costs, Investments, and Land Use by Size and Management Returns for Northern and Central Illinois  
Grain Farms with Soil Ratings from 86 to 100

Range in size (total acres)	180-339	340-799	800-1199	Over 1199	Your Farm	All Farms	340-799
Management returns	68	486	221	112		887	High 25%
Number of farms							Low 25%
							122
							122
Some costs and returns per tillable acre							
Soil fertility	34.42	35.72	36.03	34.35		35.43	38.71
Pesticides	23.81	23.68	23.66	23.12		23.53	23.97
Seed and other crop	17.66	18.02	16.53	17.75		17.47	20.53
<b>Crop total</b>	<b>75.88</b>	<b>77.42</b>	<b>76.21</b>	<b>75.22</b>		<b>76.44</b>	<b>83.21</b>
Light vehicle and utilities	6.43	4.01	3.15	2.64		3.46	4.50
Machinery repairs, supplies	14.66	13.02	12.69	11.38		12.55	13.17
Machinery hire	10.33	5.30	5.09	4.36		5.14	5.13
Fuel and oil	9.61	8.15	8.41	8.03		8.24	7.87
Machinery depreciation	15.90	17.11	18.35	18.06		17.71	20.16
<b>Power and equipment total</b>	<b>56.93</b>	<b>47.59</b>	<b>47.70</b>	<b>44.46</b>		<b>47.09</b>	<b>51.25</b>
Drying and storage	7.26	5.92	5.28	4.53		5.40	5.61
Building repair	2.06	1.40	1.22	1.09		1.28	1.28
Building depreciation	6.55	3.99	3.71	3.28		3.79	5.74
<b>Building total</b>	<b>15.87</b>	<b>11.31</b>	<b>10.21</b>	<b>8.90</b>		<b>10.48</b>	<b>12.63</b>
Labor, unpaid	58.62	30.28	19.07	15.78		23.87	30.31
Labor, hired	1.83	3.32	7.10	9.00		5.90	4.55
<b>Labor total</b>	<b>60.44</b>	<b>33.60</b>	<b>26.16</b>	<b>24.78</b>		<b>29.77</b>	<b>34.86</b>
Value of feed fed	0.03	0.06	0.11	0.13		0.09	0.04
Capital purchases	21.00	28.87	30.25	29.61		29.27	31.97
Operator interest paid	17.75	18.17	17.65	16.70		17.62	16.68
Crop returns	282.41	291.46	299.81	301.88		296.47	228.05
Livestock return above feed	0.03	0.03	0.00	0.04		0.02	0.01
Value of farm production	290.04	297.20	305.30	308.97		302.52	233.00
Total nonfeed cost	364.16	318.16	307.61	300.62		311.68	331.04
<b>Management returns</b>	<b>-71.76</b>	<b>-19.01</b>	<b>-0.61</b>	<b>9.36</b>		<b>-7.51</b>	<b>-96.48</b>
Farm investment							
Livestock inventory	130	168	334	1,098		324	141
Grain inventory	54,110	107,463	193,885	312,683		150,818	97,668
Remaining cost in							
machinery and auto	10,895	23,451	50,662	83,012		36,789	28,942
buildings and fence	12,522	15,088	23,319	33,486		19,265	19,765
soil fertility	33	67	17	337		86	120
Value of land (current)	585,378	1,174,326	1,992,763	3,152,288		1,582,846	1,169,925
Total farm investment	663,067	1,320,560	2,260,976	3,582,891		1,790,124	1,316,558
Total investment per acre	2,357	2,309	2,310	2,317		2,313	2,292
Machinery invest. per till. acre	41	42	54	55		49	53
Percent tillable land in							
Corn and corn silage	49.3	49.2	48.3	49.7		49.0	48.7
Soybeans	45.3	45.6	46.3	44.1		45.4	46.1
Wheat	0.4	0.6	0.6	0.8		0.6	0.5
Other small grain	0.0	0.1	0.0	0.0		0.0	0.1
Diverted acres	3.5	3.7	3.6	4.0		3.7	3.5
All hay and pasture	0.1	0.1	0.1	0.2		0.1	0.1
Crop yields, bushels per acre							
Corn	121	126	130	128		128	93
Soybeans	42	44	46	46		45	35
Wheat	62	50	46	54		50	51

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils.

Table 20. 1991 Average Return, Costs, and Financial Summary by Size and Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 56 to 85

Range in size (total acres) Management returns Number of farms	180-339		340-799		800-1199		Over 1199		Your Farm		All Farms	
	63	63	301	301	130	130	93	93			Low 25% 75	High 25% 75
Total acres in farm	274	274	584	584	967	967	1,708	1,708			577	620
Acres of tillable land	259	259	553	553	917	917	1,569	1,569			552	587
Soil rating on tillable land	78	78	77	77	77	77	76	76			78	77
Total months labor	11.9	11.9	12.9	12.9	15.7	15.7	22.9	22.9			13.6	12.7
Months of hired labor	0.6	0.6	1.1	1.1	3.2	3.2	7.0	7.0			1.3	0.8
Beef produced, hundredweight	0	0	0	0	3	3	5	5			0	1
Pork produced, hundredweight	0	0	4	4	0	0	1	1			0	15
Dairy cows, number	0	0	0	0	0	0	0	0			0	0
Dollar returns per farm												
Crop returns	65,422	65,422	136,015	136,015	230,396	230,396	393,208	393,208			100,060	185,848
Livestock returns above feed	(9)	(9)	32	32	156	156	77	77			2	136
Custom work	798	798	1,952	1,952	2,736	2,736	6,286	6,286			1,737	3,428
Other farm receipts	942	942	1,351	1,351	2,519	2,519	3,968	3,968			990	1,644
<b>Value of farm production</b>	<b>67,153</b>	<b>67,153</b>	<b>139,350</b>	<b>139,350</b>	<b>235,807</b>	<b>235,807</b>	<b>403,538</b>	<b>403,538</b>			<b>102,788</b>	<b>191,057</b>
Dollar costs per farm												
Crop expenses	20,776	20,776	40,608	40,608	69,615	69,615	115,818	115,818			39,852	42,464
Power and equipment	14,444	14,444	25,527	25,527	40,860	40,860	72,044	72,044			27,614	27,757
Building and fence	3,350	3,350	5,400	5,400	8,976	8,976	12,374	12,374			5,755	5,952
Labor	16,660	16,660	18,298	18,298	22,060	22,060	32,803	32,803			19,437	17,819
Livestock services and supplies	212	212	106	106	229	229	359	359			76	163
Taxes	4,263	4,263	9,296	9,296	14,712	14,712	24,677	24,677			9,385	10,491
Insurance and miscellaneous	3,065	3,065	5,016	5,016	7,725	7,725	12,379	12,379			5,542	4,997
Interest on nonland capital	6,105	6,105	11,646	11,646	19,588	19,588	32,547	32,547			11,667	13,066
Land charge or net rent	21,187	21,187	43,687	43,687	72,627	72,627	118,265	118,265			44,564	44,924
<b>Total nonfeed cost</b>	<b>90,062</b>	<b>90,062</b>	<b>159,579</b>	<b>159,579</b>	<b>256,388</b>	<b>256,388</b>	<b>421,261</b>	<b>421,261</b>			<b>163,892</b>	<b>167,634</b>
Capital account adjustment	1,082	1,082	1,263	1,263	642	642	1,221	1,221			623	2,792
<b>Management returns</b>	<b>(21,827)</b>	<b>(21,827)</b>	<b>(18,966)</b>	<b>(18,966)</b>	<b>(19,939)</b>	<b>(19,939)</b>	<b>(16,501)</b>	<b>(16,501)</b>			<b>(60,479)</b>	<b>26,215</b>
Farm production per \$1.00	0.75	0.75	0.87	0.87	0.92	0.92	0.96	0.96			0.63	1.14
Farm production per man	67,645	67,645	129,886	129,886	179,724	179,724	211,233	211,233			90,714	180,811
Financial summary												
Cash operating income	77,344	77,344	158,761	158,761	265,820	265,820	451,600	451,600			147,176	183,616
Inventory change	(9,255)	(9,255)	(17,431)	(17,431)	(24,978)	(24,978)	(38,790)	(38,790)			(40,064)	8,570
Accts. receivable (net change)	(123)	(123)	(976)	(976)	(439)	(439)	(2,654)	(2,654)			(1,851)	(902)
Farm products used	93	93	214	214	452	452	828	828			262	117
Less purchased feed	904	904	1,193	1,193	4,874	4,874	6,922	6,922			2,731	319
Less purchased livestock	0	0	25	25	173	173	522	522			0	24
<b>Adjusted gross farm income</b>	<b>67,153</b>	<b>67,153</b>	<b>139,350</b>	<b>139,350</b>	<b>235,807</b>	<b>235,807</b>	<b>403,538</b>	<b>403,538</b>			<b>102,788</b>	<b>191,057</b>
Cash operating expense	39,885	39,885	74,483	74,483	127,554	127,554	218,019	218,019			75,046	80,275
Prepaid expense (-if increased)	488	488	770	770	(663)	(663)	(2,361)	(2,361)			1,154	(517)
Accts. payable (+if increased)	(30)	(30)	31	31	202	202	(964)	(964)			238	36
Farm-produced inputs	93	93	211	211	426	426	775	775			262	105
<b>Total operating expense</b>	<b>40,435</b>	<b>40,435</b>	<b>75,496</b>	<b>75,496</b>	<b>127,518</b>	<b>127,518</b>	<b>215,467</b>	<b>215,467</b>			<b>76,699</b>	<b>79,899</b>
Income before depreciation	26,717	26,717	63,855	63,855	108,292	108,292	188,074	188,074			26,089	111,158
Less depreciation	6,264	6,264	11,935	11,935	18,989	18,989	32,266	32,266			13,497	12,883
Capital account adjustment	1,082	1,082	1,263	1,263	642	642	1,221	1,221			623	2,792
<b>Net farm income *</b>	<b>21,535</b>	<b>21,535</b>	<b>53,184</b>	<b>53,184</b>	<b>89,946</b>	<b>89,946</b>	<b>157,030</b>	<b>157,030</b>			<b>13,215</b>	<b>101,067</b>
(operator's share) *	8,237	8,237	14,724	14,724	21,558	21,558	28,506	28,506			(12,796)	42,590
Labor & mgt. income per operator	(5,582)	(5,582)	(2,000)	(2,000)	(624)	(624)	672	672			(42,220)	43,020
Rate earned on investment, %	1.01	1.01	3.29	3.29	3.94	3.94	4.53	4.53			-0.38	7.32

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-till, and timber soils.  
\* Interest expense deducted from operator's share only.

Table 20a. 1991 Average Operating Costs, Investments, and Land Use by Size and Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 56 to 85

Range in size (total acres)	180-339		340-799		800-1199		Over 1199		Your Farm		All Farms		340-799	
	63		301		130		93				587		Low 25%	High 25%
Management returns													75	75
Number of farms														
<b>Some costs and returns per tillable acre</b>														
Soil fertility	37.94	34.09	35.39	34.74								34.79	33.28	32.12
Pesticides	24.74	22.68	23.78	21.89								22.79	22.04	23.79
Seed and other crop	17.60	16.60	16.78	17.20								16.88	16.83	16.37
<b>Crop total</b>	80.28	73.37	75.96	73.82								74.46	72.15	72.29
Light vehicle and utilities	6.76	4.11	3.37	3.04								3.66	4.45	4.52
Machinery repairs, supplies	12.67	12.27	11.81	12.12								12.11	13.18	11.98
Machinery hire	10.84	4.89	4.38	5.16								5.06	5.10	5.57
Fuel and oil	8.00	7.74	8.02	8.00								7.91	7.81	7.74
Machinery depreciation	17.55	17.12	17.00	17.61								17.26	19.45	17.44
<b>Power and equipment total</b>	55.82	46.13	44.58	45.92								46.00	50.00	47.25
Drying and storage	4.11	3.83	4.52	3.58								3.94	3.46	4.26
Building repair	2.18	1.51	1.57	1.35								1.50	1.99	1.44
Building depreciation	6.65	4.42	3.70	2.96								3.83	4.98	4.43
<b>Building total</b>	12.94	9.76	9.79	7.89								9.27	10.42	10.13
Labor, unpaid	62.10	30.39	19.43	14.48								23.45	31.62	28.70
Labor, hired	2.28	2.67	4.64	6.43								4.40	3.57	1.63
<b>Labor total</b>	64.38	33.06	24.07	20.91								27.85	35.19	30.33
Value of feed fed	0.04	0.06	0.15	0.14								0.11	0.01	0.14
Capital purchases	22.32	24.22	31.15	26.42								26.71	20.03	27.58
Operator interest paid	16.09	18.84	19.57	21.82								19.90	15.74	22.89
Crop returns	252.81	245.77	251.38	250.62								249.10	181.16	316.36
Livestock return above feed	-0.04	0.06	0.17	0.05								0.08	0.00	0.23
Value of farm production	259.50	251.79	257.28	257.21								255.30	186.10	325.23
Total nonfeed cost	348.03	288.35	279.74	268.50								281.77	296.73	285.36
<b>Management returns</b>	-84.35	-34.27	-21.76	-10.52								-25.03	-109.50	44.62
Farm investment														
Livestock inventory	44	334	556	858								435	17	494
Grain inventory	46,617	95,268	152,592	222,614								122,917	90,888	109,940
Remaining cost in machinery and auto buildings and fence	11,488	22,722	45,862	83,800								36,318	26,886	24,060
soil fertility	11,318	15,758	20,809	31,181								18,844	15,534	16,794
Value of land (current)	6	78	89	61								70	89	79
Total farm investment	470,819	970,808	1,613,938	2,628,107								1,322,147	990,312	998,312
Total farm investment per acre	540,290	1,104,949	1,833,846	2,966,616								1,500,720	1,123,724	1,149,676
Machinery invest. per till. acre	1,975	1,891	1,896	1,737								1,844	1,949	1,855
Percent tillable land in	44	41	50	53								48	49	41
Corn and corn silage	49.9	50.8	49.6	51.8								50.8	49.0	52.9
Soybeans	41.1	41.1	41.7	39.5								40.7	45.5	36.5
Wheat	1.2	1.3	1.8	1.8								1.6	0.8	1.9
Other small grain	0.4	0.1	0.0	0.1								0.1	0.1	0.1
Diverted acres	4.3	4.3	4.1	4.4								4.3	3.5	5.1
All hay and pasture	0.6	0.3	0.3	0.3								0.3	0.2	0.4
Crop yields, bushels per acre														
Corn	103	100	98	103								101	65	136
Soybeans	38	36	36	37								36	28	49
Wheat	37	43	43	36								40	44	41

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-till, and timber soils.

Table 21. 1991 Average Return, Costs, and Financial Summary by Size and Months of Labor for Northern and Central Illinois Hog Farms with Soil Ratings from 86 to 100

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor
Management returns	20	35	47	35		137	21-27
Number of farms							42
							31-39
							10
Total acres in farm	192	375	634	1,152		636	636
Acres of tillable land	184	354	599	1,079		599	593
Soil rating on tillable land	93	91	90	90		91	90
Total months labor	14.0	19.2	26.8	40.0		26.4	24.4
Months of hired labor	1.8	4.4	11.9	22.2		11.1	7.4
Beef produced, hundredweight	22	42	145	273		134	221
Pork produced, hundredweight	2,080	3,861	5,614	7,469		5,124	4,184
Dairy cows, number	0	0	0	0		0	0
Dollar returns per farm							
Crop returns	48,415	97,505	183,499	311,665		174,552	172,450
Livestock returns above feed	38,725	65,427	97,203	147,831		93,482	72,035
Custom work	812	2,313	1,469	4,604		2,390	2,161
Other farm receipts	465	880	1,711	5,786		2,358	1,239
<b>Value of farm production</b>	<b>88,418</b>	<b>166,125</b>	<b>283,883</b>	<b>469,886</b>		<b>272,783</b>	<b>247,886</b>
Dollar costs per farm							
Crop expenses	13,414	25,042	49,547	83,942		46,799	43,518
Power and equipment	17,100	36,335	50,710	87,581		51,551	47,415
Building and fence	5,932	13,116	19,794	33,037		19,448	15,575
Labor	19,779	27,179	37,782	62,372		38,727	35,164
Livestock services and supplies	2,667	8,388	14,890	17,977		12,233	8,604
Taxes	4,377	8,030	13,121	22,192		12,861	12,350
Insurance and miscellaneous	3,433	4,916	9,611	15,174		8,931	7,421
Interest on nonland capital	9,905	19,989	33,377	56,273		32,380	28,184
Land charge or net rent	18,046	33,580	56,956	102,589		56,962	56,638
<b>Total nonfeed cost</b>	<b>94,653</b>	<b>176,576</b>	<b>285,789</b>	<b>481,136</b>		<b>279,891</b>	<b>254,869</b>
Capital account adjustment	1,087	1,376	806	5,899		2,294	953
<b>Management returns</b>	<b>(5,148)</b>	<b>(9,073)</b>	<b>(1,099)</b>	<b>(5,351)</b>		<b>(4,814)</b>	<b>(6,028)</b>
Farm production per \$1.00 of nonfeed costs	0.93	0.94	0.99	0.98		0.97	0.97
Farm production per man	75,895	103,813	127,243	140,875		124,195	122,090
Financial summary							
Cash operating income	137,552	258,299	421,298	637,589		393,490	345,074
Inventory change	(3,838)	(15,519)	(25,499)	(25,376)		(19,756)	(12,583)
Accts. receivable (net change)	(374)	(560)	(1,283)	(1,391)		(994)	(586)
Farm products used	144	429	950	1,781		912	777
Less purchased feed	37,497	64,055	86,656	109,816		79,622	64,617
Less purchased livestock	7,567	12,467	24,926	32,900		21,246	20,272
<b>Adjusted gross farm income</b>	<b>88,418</b>	<b>166,125</b>	<b>283,883</b>	<b>469,886</b>		<b>272,783</b>	<b>247,886</b>
Cash operating expense	40,950	81,931	145,278	247,146		139,888	120,235
Prepaid expense (-if increased)	(659)	477	1,194	1,875		914	1,501
Accts. payable (+if increased)	15	107	231	883		334	81
Farm - produced inputs	3	91	419	766		363	178
<b>Total operating expense</b>	<b>40,309</b>	<b>82,606</b>	<b>147,121</b>	<b>250,669</b>		<b>141,500</b>	<b>121,996</b>
Income before depreciation	48,109	83,519	136,761	219,217		131,283	125,891
Less depreciation	9,044	19,312	27,080	46,159		27,337	23,809
Capital account adjustment	1,087	1,376	806	5,899		2,294	953
<b>Net farm income *</b>	<b>40,152</b>	<b>65,584</b>	<b>110,488</b>	<b>178,957</b>		<b>106,240</b>	<b>103,035</b>
(operator's share) *	19,599	27,300	41,115	56,088		38,270	42,680
Labor & mgt. income per operator	11,853	7,754	17,534	11,757		12,730	11,952
Rate earned on investment, %	4.50	4.65	5.51	5.35		5.26	5.05

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils. \* Interest expense deducted from operator's share only.

Table 21a. 1991 Average Operating Costs, Investments, and Land Use by Size and Months of Labor for Northern and Central Illinois Hog Farms with Soil Ratings from 86 to 100

Range in size (total acres) Management returns Number of farms	60-259		260-499		500-799		Over 799		Your Farm		All Farms		Months of Labor	
	20	35	35	47	47	35	35	35	35	31-39	42	137	21-27	31-39
<b>Some costs and returns per tillable acre</b>														
Soil fertility	28.69	30.37	30.37	37.69	37.69	31.46	31.46	31.46	31.46	31.46	31.46	33.31	32.75	32.50
Pesticides	26.35	20.64	20.64	26.44	26.44	26.40	26.40	26.40	26.40	26.40	26.40	25.54	22.42	29.41
Seed and other crop	17.73	19.73	19.73	18.59	18.59	19.90	19.90	19.90	19.90	19.90	19.90	19.33	18.22	22.13
<b>Crop total</b>	<b>72.76</b>	<b>70.74</b>	<b>70.74</b>	<b>82.72</b>	<b>82.72</b>	<b>77.76</b>	<b>77.76</b>	<b>77.76</b>	<b>77.76</b>	<b>77.76</b>	<b>77.76</b>	<b>78.18</b>	<b>73.40</b>	<b>84.04</b>
Light vehicle and utilities	16.18	15.81	15.81	12.65	12.65	11.64	11.64	11.64	11.64	11.64	11.64	12.82	9.70	11.50
Machinery repairs, supplies	21.22	26.48	26.48	24.96	24.96	26.91	26.91	26.91	26.91	26.91	26.91	25.92	24.17	25.46
Machinery hire	7.05	12.63	12.63	7.80	7.80	6.15	6.15	6.15	6.15	6.15	6.15	7.74	8.10	4.81
Fuel and oil	14.60	15.96	15.96	13.51	13.51	12.08	12.08	12.08	12.08	12.08	12.08	13.27	12.68	12.69
Machinery depreciation	33.71	31.75	31.75	25.74	25.74	24.36	24.36	24.36	24.36	24.36	24.36	26.37	25.31	31.08
<b>Power and equipment total</b>	<b>92.76</b>	<b>102.64</b>	<b>102.64</b>	<b>84.66</b>	<b>84.66</b>	<b>81.13</b>	<b>81.13</b>	<b>81.13</b>	<b>81.13</b>	<b>81.13</b>	<b>81.13</b>	<b>86.12</b>	<b>79.97</b>	<b>85.54</b>
Drying and storage	6.51	3.50	3.50	3.85	3.85	4.17	4.17	4.17	4.17	4.17	4.17	4.07	4.29	4.38
Building repair	10.32	10.74	10.74	9.72	9.72	8.04	8.04	8.04	8.04	8.04	8.04	9.13	7.13	8.38
Building depreciation	15.35	22.80	22.80	19.48	19.48	18.39	18.39	18.39	18.39	18.39	18.39	19.29	14.85	20.39
<b>Building total</b>	<b>32.18</b>	<b>37.05</b>	<b>37.05</b>	<b>33.05</b>	<b>33.05</b>	<b>30.60</b>	<b>30.60</b>	<b>30.60</b>	<b>30.60</b>	<b>30.60</b>	<b>30.60</b>	<b>32.49</b>	<b>26.27</b>	<b>33.15</b>
Labor, unpaid	94.11	59.58	59.58	35.48	35.48	23.57	23.57	23.57	23.57	23.57	23.57	36.27	40.89	28.11
Labor, hired	13.18	17.20	17.20	27.59	27.59	34.21	34.21	34.21	34.21	34.21	34.21	28.42	18.42	32.12
<b>Labor total</b>	<b>107.29</b>	<b>76.78</b>	<b>76.78</b>	<b>63.08</b>	<b>63.08</b>	<b>57.78</b>	<b>57.78</b>	<b>57.78</b>	<b>57.78</b>	<b>57.78</b>	<b>57.78</b>	<b>64.69</b>	<b>59.30</b>	<b>60.23</b>
Value of feed fed	283.69	283.68	283.68	245.13	245.13	185.99	185.99	185.99	185.99	185.99	185.99	225.44	196.30	183.70
Capital purchases	58.58	82.20	82.20	55.12	55.12	83.44	83.44	83.44	83.44	83.44	83.44	72.41	50.12	52.78
Operator interest paid	29.32	32.09	32.09	31.27	31.27	34.18	34.18	34.18	34.18	34.18	34.18	32.64	26.23	37.85
Crop returns	262.63	275.44	275.44	306.36	306.36	288.72	288.72	288.72	288.72	288.72	288.72	291.59	290.84	294.80
Livestock return above feed	210.06	184.82	184.82	162.29	162.29	136.95	136.95	136.95	136.95	136.95	136.95	156.16	121.49	138.96
Value of farm production	479.62	469.28	469.28	473.96	473.96	435.29	435.29	435.29	435.29	435.29	435.29	455.69	418.07	437.82
Total nonfeed cost	513.44	498.80	498.80	477.14	477.14	445.71	445.71	445.71	445.71	445.71	445.71	467.57	429.85	465.84
<b>Management returns</b>	<b>-27.93</b>	<b>-25.63</b>	<b>-25.63</b>	<b>-1.84</b>	<b>-1.84</b>	<b>-4.96</b>	<b>-4.96</b>	<b>-4.96</b>	<b>-4.96</b>	<b>-4.96</b>	<b>-4.96</b>	<b>-8.04</b>	<b>-10.17</b>	<b>-24.27</b>
Farm investment	35,986	69,293	69,293	109,260	109,260	162,646	162,646	162,646	162,646	162,646	162,646	101,992	89,705	143,840
Livestock inventory	39,164	70,045	70,045	137,264	137,264	231,343	231,343	231,343	231,343	231,343	231,343	129,805	124,978	192,951
Grain inventory														
Remaining cost in machinery and auto buildings and fence	14,315	32,981	32,981	42,393	42,393	85,194	85,194	85,194	85,194	85,194	85,194	46,824	41,270	82,686
soil fertility	16,205	37,985	37,985	65,311	65,311	109,659	109,659	109,659	109,659	109,659	109,659	62,491	46,984	92,228
Value of land (current)	0	0	0	0	0	123	123	123	123	123	123	31	25	68
Total farm investment	401,016	746,213	746,213	1,265,693	1,265,693	2,279,747	2,279,747	2,279,747	2,279,747	2,279,747	2,279,747	1,265,813	1,258,632	1,834,468
Total investment per acre	506,686	956,515	956,515	1,619,921	1,619,921	2,868,712	2,868,712	2,868,712	2,868,712	2,868,712	2,868,712	1,606,955	1,561,592	2,346,240
Machinery invest. per till. acre	2,639	2,550	2,550	2,556	2,556	2,491	2,491	2,491	2,491	2,491	2,491	2,529	2,455	2,487
Percent tillable land in	78	93	93	71	71	79	79	79	79	79	79	78	70	95
Corn and corn silage	57.8	52.5	52.5	58.7	58.7	54.2	54.2	54.2	54.2	54.2	54.2	55.7	54.5	53.4
Soybeans	30.6	36.9	36.9	34.0	34.0	37.3	37.3	37.3	37.3	37.3	37.3	35.8	36.5	37.1
Wheat	1.1	1.8	1.8	0.9	0.9	1.7	1.7	1.7	1.7	1.7	1.7	1.4	1.4	2.8
Other small grain	1.9	1.2	1.2	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.8	0.4
Diverted acres	3.2	3.7	3.7	4.1	4.1	4.3	4.3	4.3	4.3	4.3	4.3	4.1	3.8	3.9
All hay and pasture	2.6	2.5	2.5	1.1	1.1	0.8	0.8	0.8	0.8	0.8	0.8	1.2	1.8	1.9
Crop yields, bushels per acre														
Corn	112	117	117	124	124	121	121	121	121	121	121	121	121	134
Soybeans	44	44	44	50	50	47	47	47	47	47	47	48	47	52
Wheat	63	42	42	47	47	35	35	35	35	35	35	40	43	25

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils.

Table 22. 1991 Average Return, Costs, and Financial Summary by Size and Months of Labor for Northern and Central Illinois Hog Farms with Soil Ratings from 56 to 85

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor
Management returns	46	83	81	63		273	21-27
Number of farms							64
Total acres in farm	198	373	627	1,180		605	658
Acres of tillable land	183	332	551	988		523	576
Soil rating on tillable land	75	75	75	75		75	76
Total months labor	14.6	16.1	24.7	36.8		23.2	24.2
Months of hired labor	2.5	3.1	11.3	19.0		9.1	9.1
Beef produced, hundredweight	107	169	230	480		249	252
Pork produced, hundredweight	2,373	2,791	4,818	7,579		4,427	4,616
Dairy cows, number	1	0	0	0		0	0
Dollar returns per farm							
Crop returns	47,769	83,686	144,476	280,300		141,043	160,502
Livestock returns above feed	44,224	47,146	81,761	139,830		78,312	81,066
Custom work	486	907	1,796	4,208		1,862	2,214
Other farm receipts	910	1,186	1,779	5,116		2,222	2,614
<b>Value of farm production</b>	<b>93,390</b>	<b>132,925</b>	<b>229,812</b>	<b>429,453</b>		<b>223,440</b>	<b>246,396</b>
Dollar costs per farm							
Crop expenses	13,405	24,125	41,108	74,846		39,063	44,538
Power and equipment	24,097	29,708	49,229	78,326		45,774	51,977
Building and fence	10,221	10,081	17,175	30,490		16,919	18,599
Labor	21,015	22,988	38,681	62,740		36,485	36,912
Livestock services and supplies	5,663	6,350	11,242	18,539		10,499	11,857
Taxes	3,685	5,838	10,210	17,426		9,446	11,030
Insurance and miscellaneous	4,088	4,369	7,753	13,947		7,536	8,104
Interest on nonland capital	12,962	17,396	30,083	55,391		29,181	31,735
Land charge or net rent	14,179	26,388	43,569	79,169		41,609	45,915
<b>Total nonfeed cost</b>	<b>109,314</b>	<b>147,243</b>	<b>249,048</b>	<b>430,871</b>		<b>236,510</b>	<b>260,666</b>
Capital account adjustment	694	520	835	1,862		952	615
<b>Management returns</b>	<b>(15,229)</b>	<b>(13,797)</b>	<b>(18,401)</b>	<b>445</b>		<b>(12,118)</b>	<b>(13,655)</b>
Farm production per \$1.00 of nonfeed costs	0.85	0.90	0.92	1.00		0.94	0.95
Farm production per man	76,816	98,978	111,661	140,160		115,719	122,085
Financial summary							
Cash operating income	166,490	208,148	367,040	618,488		342,966	370,428
Inventory change	(12,372)	(6,692)	(28,635)	(12,425)		(15,483)	(17,620)
Accts. receivable (net change)	(246)	(601)	(1,113)	(1,327)		(861)	(1,076)
Farm products used	454	417	441	885		538	530
Less purchased feed	45,666	47,512	85,430	122,456		75,746	77,517
Less purchased livestock	15,265	20,816	22,490	53,711		27,968	28,349
<b>Adjusted gross farm income</b>	<b>93,392</b>	<b>132,941</b>	<b>229,812</b>	<b>429,453</b>		<b>223,445</b>	<b>246,396</b>
Cash operating expense	50,163	69,089	130,912	230,590		121,513	132,493
Prepaid expense (-if increased)	(10)	800	(348)	(2,455)		(428)	148
Accts. payable (+if increased)	(67)	(49)	169	(1,009)		(208)	25
Farm - produced inputs	141	81	69	303		139	150
<b>Total operating expense</b>	<b>50,225</b>	<b>69,921</b>	<b>130,801</b>	<b>227,427</b>		<b>121,013</b>	<b>132,816</b>
Income before depreciation	43,167	63,020	99,013	202,028		102,433	113,580
Less depreciation	14,711	14,964	25,439	43,552		24,626	28,623
Capital account adjustment	694	520	835	1,862		952	615
<b>Net farm income *</b>	<b>29,150</b>	<b>48,576</b>	<b>74,409</b>	<b>160,338</b>		<b>78,759</b>	<b>85,572</b>
(operator's share) *	14,115	20,277	20,128	60,931		28,576	29,204
Labor & mgt. income per operator	1,522	3,012	(3,301)	12,967		3,185	3,753
Rate earned on investment, %	2.65	3.88	4.32	5.80		4.78	4.72

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-til, and timber soils. \* Interest expense deducted from operator's share only.



Table 22a. 1991 Average Operating Costs, Investments, and Land Use by Size and Months of Labor for Northern and Central Illinois  
Hog Farms with Soil Ratings from 56 to 85

Range in size (total acres) Management returns Number of farms	60-259		260-499		500-799		Over 799		Your Farm		All Farms		Months of Labor	
	46	83	81	63	63	273	21-27	31-39						
Some costs and returns per tillable acre														
Soil fertility	30.66	32.13	32.03	31.36		31.68	33.86	32.22						
Pesticides	23.84	23.25	24.30	26.51		25.03	24.79	22.44						
Seed and other crop	18.90	17.35	18.25	17.91		17.97	18.73	15.94						
<b>Crop total</b>	<b>73.39</b>	<b>72.73</b>	<b>74.59</b>	<b>75.78</b>		<b>74.68</b>	<b>77.38</b>	<b>70.61</b>						
Light vehicle and utilities	21.83	13.00	13.25	10.95		12.70	13.45	11.71						
Machinery repairs, supplies	35.12	24.84	25.87	22.16		24.60	24.58	29.06						
Machinery hire	14.14	9.32	8.40	6.74		8.19	8.04	5.90						
Fuel and oil	18.43	13.65	13.71	13.03		13.68	13.98	16.20						
Machinery depreciation	42.42	28.74	28.10	26.41		28.33	30.25	31.05						
<b>Power and equipment total</b>	<b>131.93</b>	<b>89.56</b>	<b>89.32</b>	<b>79.30</b>		<b>87.51</b>	<b>90.30</b>	<b>93.92</b>						
Drying and storage	4.58	4.08	3.71	3.18		3.60	4.10	2.53						
Building repair	13.25	9.94	9.43	10.03		10.01	8.79	11.50						
Building depreciation	38.13	16.37	18.02	17.67		18.73	19.43	16.70						
<b>Building total</b>	<b>55.96</b>	<b>30.39</b>	<b>31.16</b>	<b>30.87</b>		<b>32.34</b>	<b>32.31</b>	<b>30.73</b>						
Labor, unpaid	94.38	56.04	34.76	25.65		38.40	37.49	34.15						
Labor, hired	20.67	13.26	35.42	37.87		31.35	26.64	30.36						
<b>Labor total</b>	<b>115.06</b>	<b>69.30</b>	<b>70.18</b>	<b>63.52</b>		<b>69.75</b>	<b>64.13</b>	<b>64.51</b>						
Value of feed fed	380.72	245.07	253.68	215.12		242.69	236.58	257.77						
Capital purchases	161.84	50.72	53.34	69.79		66.39	75.48	63.06						
Operator interest paid	41.49	28.17	39.33	31.77		34.01	33.10	29.91						
Crop returns	261.53	252.28	262.14	283.79		269.64	278.85	259.11						
Livestock return above feed	242.12	142.12	148.35	141.57		149.71	140.84	149.11						
Value of farm production	511.30	400.71	416.98	434.79		427.16	428.08	417.40						
Total nonfeed cost	598.48	443.87	451.88	436.23		452.14	452.88	451.61						
<b>Management returns</b>	<b>-83.38</b>	<b>-41.60</b>	<b>-33.39</b>	<b>0.45</b>		<b>-23.17</b>	<b>-23.73</b>	<b>-31.48</b>						
Farm investment														
Livestock inventory	50.654	70.607	112,324	198,839		109,214	114,223	219,683						
Grain inventory	36,523	64,639	97,831	182,917		97,045	113,459	156,986						
Remaining cost in machinery and auto buildings and fence	16,006	22,842	41,720	79,531		40,374	47,975	75,617						
soil fertility	31,669	27,561	57,906	108,652		55,970	58,377	75,650						
Value of land (current)	0	168	132	48		101	115	184						
	315,093	586,403	968,200	1,759,303		924,637	1,020,325	1,361,042						
Total farm investment	449,944	772,219	1,278,111	2,329,289		1,227,339	1,354,472	1,889,159						
Total investment per acre	2,275	2,071	2,037	1,974		2,028	2,060	1,754						
Machinery invest. per till. acre	88	69	76	81		77	83	95						
Percent tillable land in														
Corn and corn silage	61.9	60.5	57.6	53.7		56.7	59.3	54.0						
Soybeans	23.7	25.1	29.4	33.9		30.2	29.2	28.7						
Wheat	1.7	2.2	3.0	3.2		2.8	2.8	2.9						
Other small grain	2.5	1.7	0.7	0.5		0.9	1.0	0.8						
Diversed acres	3.8	4.4	4.9	4.8		4.7	4.4	4.5						
All hay and pasture	5.0	5.6	3.5	3.1		3.8	2.9	7.8						
Crop yields, bushels per acre														
Corn	107	106	110	118		112	118	109						
Soybeans	41	42	42	47		44	44	41						
Wheat	46	36	35	36		36	38	35						

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-till, and timber soils.

Table 23. 1991 Average Return, Costs, and Financial Summary by Size and Management Returns for Southern Illinois Grain Farms with Soil Ratings from 36 to 85

	180-339	340-799	800-1199	Over 1199	Your Farm	All Farms	340-799 Low 25% 56	High 25% 56
Range in size (total acres)								
Management returns								
Number of farms	30	224	149	143		546		
Total acres in farm	279	591	967	1,829		1,001	609	604
Acres of tillable land	252	545	891	1,706		928	557	575
Soil rating on tillable land	56	60	60	59		60	57	64
Total months labor	12.7	14.0	18.3	29.9		19.3	14.9	13.9
Months of hired labor	0.8	1.8	5.1	13.7		5.8	1.7	2.2
Beef produced, hundredweight	106	79	68	97		82	70	77
Pork produced, hundredweight	22	163	330	587		312	137	187
Dairy cows, number	0	0	0	0		0	0	0
Dollar returns per farm								
Crop returns	52,014	118,672	197,794	382,516		205,703	101,144	155,586
Livestock returns above feed	3,004	3,482	5,250	10,260		5,713	2,930	4,009
Custom work	225	907	1,965	4,074		1,988	737	975
Other farm receipts	804	1,539	3,341	6,199		3,211	1,418	1,368
<b>Value of farm production</b>	<b>56,047</b>	<b>124,601</b>	<b>208,350</b>	<b>403,048</b>		<b>216,615</b>	<b>106,228</b>	<b>161,937</b>
Dollar costs per farm								
Crop expenses	16,059	35,285	58,916	114,614		61,454	40,910	36,383
Power and equipment	13,002	27,778	43,241	84,461		46,032	32,933	26,698
Building and fence	1,540	3,102	5,191	11,329		5,741	3,508	2,213
Labor	17,632	19,741	26,171	43,190		27,521	20,894	19,260
Livestock services and supplies	480	516	888	1,752		939	469	491
Taxes	1,820	4,856	7,265	13,370		7,576	4,495	6,012
Insurance and miscellaneous	2,215	3,795	5,712	10,871		6,085	4,058	3,801
Interest on nonland capital	5,536	10,316	16,567	34,370		18,059	12,254	10,341
Land charge or net rent	12,307	29,292	47,085	85,396		47,909	28,181	32,986
<b>Total nonfeed cost</b>	<b>70,590</b>	<b>134,678</b>	<b>211,034</b>	<b>399,349</b>		<b>221,312</b>	<b>147,701</b>	<b>138,185</b>
Capital account adjustment	120	668	505	2,101		969	(1,082)	2,360
<b>Management returns</b>	<b>(14,421)</b>	<b>(9,409)</b>	<b>(2,178)</b>	<b>5,800</b>		<b>(3,728)</b>	<b>(42,555)</b>	<b>26,112</b>
Farm production per \$1.00 of nonfeed costs	0.79	0.93	0.99	1.01		0.98	0.72	1.17
Farm production per man	53,126	106,563	136,693	161,558		134,795	85,359	139,802
Financial summary								
Cash operating income	62,502	132,620	217,347	422,445		227,795	125,633	154,430
Inventory change	(2,543)	481	885	1,255		628	(10,277)	15,735
Accts. receivable (net change)	(83)	(85)	(153)	(617)		(243)	23	(93)
Farm products used	291	673	1,149	1,654		1,039	639	492
Less purchased feed	1,085	4,191	6,652	17,157		8,088	5,172	3,665
Less purchased livestock	3,033	4,897	4,224	4,530		4,515	4,617	4,961
<b>Adjusted gross farm income</b>	<b>56,047</b>	<b>124,601</b>	<b>208,350</b>	<b>403,048</b>		<b>216,616</b>	<b>106,228</b>	<b>161,937</b>
Cash operating expense	29,253	65,771	109,603	212,993		114,284	71,058	68,851
Prepaid expense (-if increased)	838	602	2,150	6,337		2,539	1,608	21
Accts. payable (+if increased)	250	(56)	51	(93)		(19)	(156)	13
Farm - produced inputs	174	548	969	1,430		873	472	383
<b>Total operating expense</b>	<b>30,515</b>	<b>66,863</b>	<b>112,772</b>	<b>220,666</b>		<b>117,676</b>	<b>72,980</b>	<b>69,268</b>
Income before depreciation	25,532	57,740	95,581	182,381		98,941	33,248	92,669
Less depreciation	5,275	10,791	15,853	35,757		18,408	15,379	8,872
Capital account adjustment	120	668	505	2,101		969	(1,082)	2,360
<b>Net farm income *</b>	<b>20,378</b>	<b>47,617</b>	<b>80,233</b>	<b>148,726</b>		<b>81,502</b>	<b>16,786</b>	<b>86,157</b>
(operator's share) *	4,432	14,246	21,602	37,180		21,721	(8,394)	37,140
Labor & mgt. income per operator	1,887	7,282	14,328	17,900		11,689	(24,679)	42,002
Rate earned on investment, %	1.02	3.96	5.02	5.53		4.94	-0.28	8.18

Note: Variations in totals due to rounding to the nearest dollar.  
\* Interest expense deducted from operator's share only.

**Table 23a. 1991 Average Operating Costs, Investments, and Land Use by Size and Management Returns for Southern Illinois Grain Farms with Soil Ratings from 36 to 85**

Range in size (total acres) Management returns Number of farms	180-339		340-799		800-1199		Over 1199		Your Farm		All Farms		340-799	
	30	30	224	149	143	143	546	Low 25%	High 25%	56	56			
<b>Some costs and returns per tillable acre</b>														
Soil fertility	31.33	30.95	31.25	31.24	31.17	35.54	31.34							
Pesticides	18.31	18.62	19.29	19.88	19.40	21.00	17.23							
Seed and other crop	14.00	15.14	15.56	16.06	15.68	16.90	14.66							
<b>Crop total</b>	<b>63.65</b>	<b>64.71</b>	<b>66.10</b>	<b>67.19</b>	<b>66.25</b>	<b>73.44</b>	<b>63.22</b>							
Light vehicle and utilities	6.58	4.27	4.06	3.33	3.80	3.95	3.93							
Machinery repairs, supplies	12.11	14.99	15.13	15.54	15.25	15.82	14.33							
Machinery hire	5.46	4.73	4.55	3.48	4.09	4.83	4.66							
Fuel and oil	8.70	9.62	9.75	9.58	9.62	10.17	9.46							
Machinery depreciation	18.70	17.32	15.03	17.58	16.86	24.35	14.00							
<b>Power and equipment total</b>	<b>51.53</b>	<b>50.94</b>	<b>48.51</b>	<b>49.51</b>	<b>49.62</b>	<b>59.12</b>	<b>46.39</b>							
Drying and storage	1.56	1.41	1.46	1.57	1.50	1.33	1.15							
Building repair	2.34	1.84	1.60	1.69	1.71	1.82	1.28							
Building depreciation	2.20	2.44	2.76	3.38	2.97	3.15	1.42							
<b>Building total</b>	<b>6.10</b>	<b>5.69</b>	<b>5.82</b>	<b>6.64</b>	<b>6.19</b>	<b>6.30</b>	<b>3.84</b>							
Labor, unpaid	67.21	31.94	21.05	13.58	20.77	33.94	29.05							
Labor, hired	2.67	4.26	8.31	11.74	8.90	3.57	4.42							
<b>Labor total</b>	<b>69.88</b>	<b>36.20</b>	<b>29.36</b>	<b>25.32</b>	<b>29.67</b>	<b>37.51</b>	<b>33.47</b>							
Value of feed fed	17.49	14.21	14.72	11.49	13.08	12.45	13.52							
Capital purchases	25.98	22.18	21.79	27.60	24.74	29.17	16.05							
Operator interest paid	30.01	20.14	20.72	17.65	19.24	17.58	22.06							
Crop returns	206.16	217.62	221.90	224.23	221.75	181.58	270.36							
Livestock return above feed	11.91	6.39	5.89	6.01	6.16	5.26	6.97							
Value of farm production	222.15	228.49	233.74	236.26	233.52	190.70	281.39							
Total nonfeed cost	279.78	246.97	236.75	234.09	238.58	265.15	240.12							
<b>Management returns</b>	<b>-57.16</b>	<b>-17.26</b>	<b>-2.44</b>	<b>3.40</b>	<b>-4.02</b>	<b>-76.40</b>	<b>45.37</b>							
<b>Farm investment</b>														
Livestock inventory	11,336	11,457	15,417	21,258	15,098	11,838	10,512							
Grain inventory	31,768	66,843	110,245	221,139	117,171	71,071	79,281							
Remaining cost in machinery and auto buildings and fence soil fertility	15,079	26,152	39,154	102,595	49,113	40,666	21,624							
Value of land (current)	3,496	7,446	12,592	28,355	14,109	9,512	4,323							
	3	57	64	243	105	176	0							
	273,482	650,944	1,046,347	1,897,695	1,064,637	626,243	733,021							
Total farm investment	335,164	762,897	1,223,817	2,271,267	1,260,227	759,503	848,759							
Total investment per acre	1,200	1,290	1,265	1,242	1,259	1,247	1,406							
Machinery invest. per till. acre	60	48	44	60	53	73	38							
<b>Percent tillable land in</b>														
Corn and corn silage	40.1	39.2	40.7	40.7	40.3	40.5	43.3							
Soybeans	37.4	38.3	38.2	37.2	37.7	35.3	39.7							
Wheat	9.7	12.2	12.8	12.1	12.3	13.5	10.4							
Other small grain	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
Diverted acres	4.8	5.4	4.7	4.8	4.9	6.0	3.5							
All hay and pasture	6.1	2.1	1.6	1.4	1.7	2.2	1.1							
<b>Crop yields, bushels per acre</b>														
Corn	91	99	100	97	98	79	124							
Soybeans	38	39	38	38	38	34	45							
Wheat	34	34	32	32	32	31	40							

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

Table 24. 1991 Average Return, Costs, and Financial Summary by Size and Months of Labor for Southern Illinois Hog Farms with Soil Ratings from 36 to 85

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor 21-27	31-39
Number of farms	20	52	49	45		166	30	13
Total acres in farm	195	382	653	1,177		655	669	903
Acres of tillable land	179	329	580	1,057		582	583	787
Soil rating on tillable land	61	60	58	59		59	59	58
Total months labor	16.1	17.6	20.8	37.2		23.7	24.1	33.7
Months of hired labor	4.0	4.1	6.9	17.0		8.4	7.6	13.0
Beef produced, hundredweight	37	85	162	280		155	91	304
Pork produced, hundredweight	2,962	2,664	3,899	7,150		4,281	4,283	5,210
Dairy cows, number	0	0	0	2		1	0	0
Dollar returns per farm								
Crop returns	42,626	70,757	114,196	244,772		127,363	130,399	165,607
Livestock returns above feed	46,673	40,314	68,796	135,891		75,397	73,572	87,377
Custom work	742	540	739	2,262		1,090	1,262	1,849
Other farm receipts	3,113	2,114	3,062	7,245		3,905	5,062	8,183
<b>Value of farm production</b>	<b>93,155</b>	<b>113,725</b>	<b>186,793</b>	<b>390,170</b>		<b>207,755</b>	<b>210,295</b>	<b>263,016</b>
Dollar costs per farm								
Crop expenses	13,041	22,746	37,769	78,123		41,023	43,026	61,214
Power and equipment	24,675	28,084	39,897	91,155		48,258	49,023	62,096
Building and fence	5,968	7,174	10,690	23,873		12,594	14,145	15,832
Labor	23,039	24,783	29,676	54,822		34,160	34,279	48,051
Livestock services and supplies	5,769	5,431	8,799	15,734		9,259	11,796	12,864
Taxes	2,096	3,343	4,970	9,185		5,257	6,163	6,947
Insurance and miscellaneous	3,426	4,237	6,348	11,083		6,618	7,432	6,809
Interest on nonland capital	13,051	13,915	21,381	46,517		24,853	25,544	32,961
Land charge or net rent	9,840	18,323	29,646	57,298		31,209	30,410	40,008
<b>Total nonfeed cost</b>	<b>100,905</b>	<b>128,034</b>	<b>189,176</b>	<b>387,791</b>		<b>213,229</b>	<b>221,818</b>	<b>286,780</b>
Capital account adjustment	126	137	370	844		396	381	1,024
<b>Management returns</b>	<b>(7,623)</b>	<b>(14,171)</b>	<b>(2,012)</b>	<b>3,222</b>		<b>(5,078)</b>	<b>(11,141)</b>	<b>(22,739)</b>
Farm production per \$1.00 of nonfeed costs	0.92	0.89	0.99	1.01		0.97	0.95	0.92
Farm production per man	69,627	77,582	107,533	125,974		105,313	104,711	93,634
Financial summary								
Cash operating income	177,043	184,900	283,531	567,570		316,803	317,711	397,156
Inventory change	(8,829)	(18,017)	(11,592)	(39,970)		(20,965)	(21,371)	(32,758)
Accts. receivable (net change)	(23)	(65)	(227)	(1,125)		(395)	(413)	(76)
Farm products used	440	595	1,013	1,663		989	949	1,319
Less purchased feed	63,802	46,041	67,939	113,199		72,850	74,382	84,442
Less purchased livestock	11,672	7,645	17,991	24,769		15,826	12,197	18,182
<b>Adjusted gross farm income</b>	<b>93,155</b>	<b>113,725</b>	<b>186,793</b>	<b>390,170</b>		<b>207,755</b>	<b>210,295</b>	<b>263,016</b>
Cash operating expense	48,927	64,540	99,744	216,859		114,342	119,344	162,745
Prepaid expense (-if increased)	23	(502)	(127)	(3,264)		(1,077)	(1,486)	(2,303)
Accts. payable (+if increased)	3	341	102	198		191	482	0
Farm - produced inputs	222	220	631	1,232		616	579	875
<b>Total operating expense</b>	<b>49,176</b>	<b>64,597</b>	<b>100,348</b>	<b>215,023</b>		<b>114,070</b>	<b>118,917</b>	<b>161,316</b>
Income before depreciation	43,979	49,127	86,445	175,147		93,685	91,378	101,700
Less depreciation	11,596	12,014	17,979	40,247		21,378	23,383	23,009
Capital account adjustment	126	137	370	844		396	381	1,024
<b>Net farm income *</b>	<b>32,509</b>	<b>37,251</b>	<b>68,836</b>	<b>135,744</b>		<b>72,703</b>	<b>68,376</b>	<b>79,715</b>
(operator's share) *	13,316	14,055	27,218	56,418		29,335	18,387	27,953
Labor & mgt. income per operator	8,478	2,366	16,343	16,913		11,172	8,849	3,225
Rate earned on investment, %	4.36	3.28	5.59	6.11		5.38	4.80	4.08

Note: Variations in totals due to rounding to the nearest dollar.  
\* Interest expense deducted from operator's share only.

Table 24a. 1991 Average Operating Costs, Investments, and Land Use by Size and Management Returns for Southern Illinois Hog Farms with Soil Ratings from 36 to 85

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor
Number of farms	20	52	49	45		166	21-27 30
	31-39						13
<b>Some costs and returns per tillable acre</b>							
Soil fertility	37.50	32.45	31.28	34.64		33.37	35.71
Pesticides	18.36	21.05	19.10	22.02		20.85	21.21
Seed and other crop	17.17	15.56	14.69	17.28		16.21	16.85
<b>Crop total</b>	<b>73.04</b>	<b>69.07</b>	<b>65.07</b>	<b>73.94</b>		<b>70.43</b>	<b>73.77</b>
Light vehicle and utilities	22.57	13.59	11.17	11.04		11.95	13.63
Machinery repairs, supplies	41.65	29.34	20.33	25.14		25.08	25.32
Machinery hire	9.85	3.77	5.23	10.38		7.68	4.36
Fuel and oil	18.70	13.76	12.74	14.27		13.90	14.85
Machinery depreciation	45.44	24.82	19.27	25.44		24.25	26.09
<b>Power and equipment total</b>	<b>138.20</b>	<b>85.28</b>	<b>68.74</b>	<b>86.27</b>		<b>82.85</b>	<b>84.05</b>
Drying and storage	1.97	2.13	1.29	2.75		2.18	1.79
Building repair	11.95	8.07	5.42	7.20		7.01	8.55
Building depreciation	19.51	11.58	11.71	12.65		12.43	13.92
<b>Building total</b>	<b>33.43</b>	<b>21.78</b>	<b>18.42</b>	<b>22.59</b>		<b>21.62</b>	<b>24.25</b>
Labor, unpaid	96.57	58.26	34.15	27.17		37.29	40.40
Labor, hired	32.47	17.00	16.98	24.72		21.36	18.37
<b>Labor total</b>	<b>129.04</b>	<b>75.25</b>	<b>51.13</b>	<b>51.88</b>		<b>58.65</b>	<b>58.77</b>
Value of feed fed	455.03	240.80	183.74	187.27		205.60	200.90
Capital purchases	89.31	40.05	36.97	56.60		49.10	49.99
Operator interest paid	43.74	38.54	29.61	28.05		30.95	37.22
Crop returns	238.73	214.85	196.74	231.65		218.67	223.58
Livestock return above feed	261.40	122.41	118.52	128.61		129.45	126.14
Value of farm production	521.73	345.32	321.81	369.25		356.69	360.57
Total nonfeed cost	565.14	388.77	325.91	367.00		366.09	380.32
<b>Management returns</b>	<b>-42.70</b>	<b>-43.03</b>	<b>-3.47</b>	<b>3.05</b>		<b>-8.72</b>	<b>-19.10</b>
Farm investment							
Livestock inventory	62,615	59,168	83,321	160,431		94,164	82,064
Grain inventory	29,693	47,174	72,350	172,102		86,365	86,647
Remaining cost in machinery and auto buildings and fence	21,568	21,035	33,948	83,750		41,912	48,688
soil fertility	17,390	16,620	27,953	61,347		32,183	39,490
Value of land (current)	0	61	39	32		39	204
Total farm investment	218,658	407,168	658,799	1,273,297		693,527	675,772
Total farm investment per acre	349,924	551,223	876,408	1,750,956		948,187	932,864
Machinery invest. per till. acre	1,791	1,444	1,343	1,488		1,448	1,395
Percent tillable land in	121	64	58	79		72	83
Corn and corn silage	51.8	45.6	43.4	49.0		46.9	47.5
Soybeans	28.8	31.2	34.9	35.3		34.2	36.1
Wheat	11.5	13.3	11.6	8.9		10.6	8.5
Other small grain	0.0	0.0	0.0	0.0		0.0	0.0
Diverted acres	2.0	4.9	4.0	3.9		4.0	4.5
All hay and pasture	3.9	2.9	4.2	2.9		3.3	2.1
Crop yields, bushels per acre							
Corn	93	91	88	99		94	95
Soybeans	37	40	35	41		39	38
Wheat	36	31	30	32		31	30

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

Table 25. 1991 Average Return, Costs, and Financial Summary by Number of Cows in Herd for Illinois Dairy Farms

Area of state	Northern Illinois				Southern Illinois			
	10-39 20	40-79 92	Over 79 35	All Farms 147	10-39 9	40-79 29	Over 79 47	All Farms 85
Number of cows in herd	278	345	547	384	358	312	644	501
Number of farms	226	292	472	326	317	281	596	459
Total acres in farm	75	72	75	73	62	60	59	60
Acres of tillable land	15.4	20.2	32.2	22.4	23.4	22.1	36.2	30.0
Soil rating on tillable land	2.3	5.2	11.6	6.3	8.2	6.6	16.8	12.4
Total months labor	338	460	702	501	291	349	769	575
Months of hired labor	266	132	165	158	137	94	145	127
Beef produced, hundredweight	33	57	105	65	29	60	115	87
Pork produced, hundredweight								
Dairy cows, number								
Dollar returns per farm								
Crop returns	58,760	76,460	123,139	85,166	64,363	65,035	137,511	105,039
Livestock returns above feed	30,042	66,042	125,134	75,214	60,083	54,600	124,007	93,558
Custom work	132	831	717	709	598	225	446	387
Other farm receipts	2,414	1,361	6,002	2,609	10,032	7,503	17,229	13,149
<b>Value of farm production</b>	<b>91,346</b>	<b>144,695</b>	<b>254,992</b>	<b>163,698</b>	<b>135,076</b>	<b>127,363</b>	<b>279,193</b>	<b>212,133</b>
Dollar costs per farm								
Crop expenses	15,236	20,194	34,157	22,844	18,374	17,646	40,510	30,365
Power and equipment	23,967	35,335	61,514	40,022	29,983	34,803	66,932	52,058
Building and fence	4,826	8,702	20,401	10,960	3,494	5,401	9,364	7,390
Labor	22,444	29,112	46,272	32,291	42,457	30,011	51,494	43,208
Livestock services and supplies	8,470	13,819	27,619	16,377	9,057	10,352	19,753	15,413
Taxes	4,252	5,699	9,417	6,387	2,649	2,778	5,258	4,136
Insurance and miscellaneous	2,907	3,853	7,914	4,691	4,581	4,351	7,014	5,848
Interest on nonland capital	12,441	20,441	39,125	23,807	13,547	17,381	35,334	26,902
Land charge or net rent	18,283	21,453	34,258	24,070	18,094	15,787	30,602	24,223
<b>Total nonfeed cost</b>	<b>112,865</b>	<b>158,608</b>	<b>280,678</b>	<b>181,448</b>	<b>142,236</b>	<b>138,510</b>	<b>266,260</b>	<b>209,543</b>
Capital account adjustment	3,659	551	606	987	89	746	572	580
<b>Management returns</b>	<b>(17,858)</b>	<b>(13,360)</b>	<b>(25,079)</b>	<b>(16,762)</b>	<b>(7,070)</b>	<b>(10,401)</b>	<b>13,505</b>	<b>3,170</b>
Farm production per \$1.00 of nonfeed costs	0.81	0.91	0.91	0.90	0.95	0.92	1.05	1.01
Farm production per man	71,041	86,120	94,986	87,743	69,171	69,275	92,567	84,793
Financial summary								
Cash operating income	128,603	188,156	339,661	216,126	159,759	173,643	346,262	267,621
Inventory change	(3,035)	(6,662)	(15,561)	(8,288)	(470)	(388)	1,835	832
Accts. receivable (net change)	(273)	(496)	(397)	(442)	(78)	(31)	(239)	(151)
Farm products used	997	1,664	2,749	1,832	1,394	1,149	2,244	1,780
Less purchased feed	20,799	27,216	56,201	33,244	24,169	30,798	63,900	48,399
Less purchased livestock	13,705	9,818	13,600	11,247	897	15,572	6,400	8,947
<b>Adjusted gross farm income</b>	<b>91,786</b>	<b>145,626</b>	<b>256,648</b>	<b>164,734</b>	<b>135,537</b>	<b>128,002</b>	<b>279,802</b>	<b>212,736</b>
Cash operating expense	54,331	78,984	143,517	90,995	75,952	69,026	144,690	111,597
Prepaid expense (-if increased)	851	429	3,208	1,148	1,077	(638)	503	174
Accts. payable (+if increased)	(479)	(120)	(35)	(149)	0	(482)	981	378
Farm-produced inputs	453	938	1,680	1,049	659	758	1,144	961
<b>Total operating expense</b>	<b>55,156</b>	<b>80,230</b>	<b>148,369</b>	<b>93,042</b>	<b>77,687</b>	<b>68,662</b>	<b>147,318</b>	<b>113,110</b>
Income before depreciation	36,630	65,396	108,278	71,693	57,850	59,339	132,483	99,626
Less depreciation	8,646	16,099	31,226	18,686	11,598	15,329	25,999	20,834
Capital account adjustment	3,659	551	606	987	89	746	572	580
<b>Net farm income *</b>	<b>31,644</b>	<b>49,849</b>	<b>77,659</b>	<b>53,993</b>	<b>46,341</b>	<b>44,756</b>	<b>107,056</b>	<b>79,372</b>
(operator's share) *	10,152	22,122	38,615	24,420	28,978	24,461	61,202	45,255
Labor & mgt. income per operator	(327)	4,754	3,009	3,647	8,747	8,798	23,419	16,877
Rate earned on investment, %	2.42	4.17	4.18	4.01	4.57	4.34	7.71	6.74

Note: Variations in totals due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois. \* Interest expense deducted from operator's share only.

Table 25a. 1991 Average Operating Costs, Investments, and Land Use by Number of Cows in Herd for Illinois Dairy Farms

Area of state	Northern Illinois				Southern Illinois			
	10-39 20	40-79 92	Over 79 35	All Farms 147	10-39 9	40-79 29	Over 79 47	All Farms 85
<b>Some costs and returns per tillable acre</b>								
Soil fertility	29.10	31.07	33.06	31.57	30.59	30.97	32.65	32.15
Pesticides	20.93	19.98	21.72	20.67	13.91	16.87	19.26	18.37
Seed and other crop	17.53	18.07	17.57	17.85	13.52	14.91	16.03	15.61
<b>Crop total</b>	<b>67.55</b>	<b>69.12</b>	<b>72.35</b>	<b>70.09</b>	<b>58.02</b>	<b>62.74</b>	<b>67.94</b>	<b>66.13</b>
Light vehicle and utilities	14.15	18.53	21.47	19.13	15.68	15.16	15.16	16.42
Machinery repairs, supplies	31.83	35.92	38.56	36.44	28.80	33.63	33.63	33.28
Machinery hire	18.34	11.53	15.39	13.50	2.66	9.23	13.28	11.66
Fuel and oil	16.29	18.25	15.79	17.22	16.43	18.40	16.73	17.06
Machinery depreciation	25.64	36.71	39.10	36.49	31.12	41.49	33.46	34.97
<b>Power and equipment total</b>	<b>106.26</b>	<b>120.94</b>	<b>130.30</b>	<b>122.79</b>	<b>94.68</b>	<b>123.75</b>	<b>112.25</b>	<b>113.37</b>
Drying and storage	2.45	3.85	5.25	4.20	1.27	1.26	0.78	0.91
Building repair	6.25	7.55	10.95	8.60	4.26	4.93	4.79	4.78
Building depreciation	12.70	18.38	27.01	20.83	5.50	13.02	10.14	10.40
<b>Building total</b>	<b>21.40</b>	<b>29.78</b>	<b>43.21</b>	<b>33.62</b>	<b>11.03</b>	<b>19.20</b>	<b>15.70</b>	<b>16.09</b>
Labor, unpaid	83.08	72.96	62.18	70.19	68.75	78.19	46.31	54.61
Labor, hired	16.43	26.68	35.83	28.87	65.32	28.52	40.05	39.49
<b>Labor total</b>	<b>99.51</b>	<b>99.64</b>	<b>98.02</b>	<b>99.07</b>	<b>134.07</b>	<b>106.71</b>	<b>86.36</b>	<b>94.10</b>
Value of feed fed	231.77	273.12	295.05	276.79	193.52	263.39	234.11	237.27
Capital purchases	32.71	49.35	52.32	48.81	53.60	40.49	43.79	43.82
Operator interest paid	35.24	46.35	40.77	43.38	48.35	39.43	39.68	40.26
<b>Crop returns</b>	<b>260.52</b>	<b>261.69</b>	<b>260.84</b>	<b>261.29</b>	<b>203.25</b>	<b>231.24</b>	<b>230.62</b>	<b>228.75</b>
Livestock return above feed	133.19	226.04	265.07	230.76	189.74	194.14	207.98	203.75
Value of farm production	404.99	495.24	540.14	502.22	426.56	452.86	468.24	461.99
Total nonfeed cost	500.40	542.85	594.55	556.68	449.16	492.50	446.55	456.34
<b>Management returns</b>	<b>-79.16</b>	<b>-45.73</b>	<b>-53.13</b>	<b>-51.43</b>	<b>-22.33</b>	<b>-36.99</b>	<b>22.65</b>	<b>6.90</b>
<b>Farm investment</b>	<b>50,881</b>	<b>83,250</b>	<b>158,086</b>	<b>96,665</b>	<b>56,947</b>	<b>83,599</b>	<b>166,878</b>	<b>126,826</b>
Livestock inventory	37,379	50,982	91,990	58,895	47,219	38,073	81,631	63,127
Remaining cost in machinery and auto buildings and fence	14,673	32,847	65,958	38,258	23,877	32,509	67,574	50,984
soil fertility	24,486	39,460	78,533	46,726	7,544	19,070	34,687	26,485
Value of land (current)	0	588	203	416	0	0	0	0
Total farm investment	406,296	476,732	761,280	534,898	402,087	350,824	680,036	538,287
Total farm investment	533,715	683,858	1,156,048	775,856	537,674	524,075	1,030,804	805,707
Total investment per acre	1,923	1,981	2,113	2,020	1,503	1,678	1,600	1,609
Machinery invest. per till. acre	65	112	140	117	75	116	113	111
<b>Percent tillable land in</b>								
Corn and corn silage	56.1	54.8	54.0	54.6	36.8	39.2	40.8	40.2
Soybeans	12.3	7.6	13.6	10.1	29.6	17.3	22.8	22.1
Wheat	1.6	0.2	0.7	0.5	11.1	12.2	13.5	13.0
Other small grain	5.4	3.9	1.9	3.3	0.0	0.0	0.0	0.0
Diversed acres	3.6	4.0	3.5	3.8	4.5	3.3	3.8	3.7
All hay and pasture	20.8	28.9	24.1	26.5	17.4	26.7	17.0	19.1
<b>Crop yields, bushels per acre</b>								
Corn	112	108	105	107	85	97	91	92
Soybeans	42	42	39	41	36	39	38	38
Wheat	31	35	34	33	32	28	29	29

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

Table 26. 1991 Average Return, Costs, and Financial Summary by Size and Months of Labor for Illinois Beef Farms

Area of state	Northern Illinois					Months of Labor		Southern Illinois
	180-339	340-799	Over 799	All Farms	Your Farm	21-27	31-39	
	15	52	29	96		13	7	
Range in size (total acres)								
Number of farms	280	525	1,208	693		890	1,038	582
Total acres in farm	243	459	970	580		539	915	437
Acres of tillable land	77	76	81	78		77	76	51
Soil rating on tillable land	13.1	18.7	28.6	20.8		23.6	35.3	20.7
Total months labor	0.7	5.0	12.3	6.6		9.9	13.0	6.0
Months of hired labor	1,138	2,091	4,216	2,584		2,330	4,069	1,101
Beef produced, hundredweight	53	761	1,082	747		1,311	1,867	469
Pork produced, hundredweight	0	0	0	0		0	0	0
Dairy cows, number								
Dollar returns per farm	70,010	139,254	286,502	172,916		157,406	286,575	81,614
Crop returns	4,062	14,509	32,347	18,265		27,893	58,146	17,327
Livestock returns above feed	1,295	1,866	5,577	2,898		2,379	5,053	776
Custom work	650	2,625	2,600	2,309		1,641	3,415	1,278
Other farm receipts	76,018	158,255	327,026	196,388		189,318	353,189	100,994
<b>Value of farm production</b>								
Dollar costs per farm	17,968	39,242	84,003	49,440		44,162	77,653	24,394
Crop expenses	21,673	41,282	76,142	48,749		48,450	75,856	28,983
Power and equipment	6,856	11,527	17,729	12,670		12,531	20,121	4,105
Building and fence	18,578	27,929	43,031	31,030		35,050	50,748	27,819
Labor	2,240	5,787	11,413	6,932		6,419	15,115	4,346
Livestock services and supplies	5,261	8,923	19,432	11,525		9,582	17,747	3,531
Taxes	3,471	6,058	13,618	7,938		6,919	14,223	3,932
Insurance and miscellaneous	16,180	35,675	70,449	43,133		41,098	75,869	19,248
Interest on nonland capital	18,931	36,698	83,531	48,069		45,053	70,885	19,404
Land charge or net rent	111,158	213,121	419,348	259,487		249,263	418,218	135,761
<b>Total nonfeed cost</b>	1,471	272	4,968	1,878		115	0	3,283
Capital account adjustment	(33,668)	(54,593)	(87,352)	(61,219)		(59,829)	(65,028)	(31,483)
<b>Management returns</b>								
Farm production per \$1.00 of nonfeed costs	0.68	0.74	0.78	0.76		0.76	0.84	0.74
Farm production per man	69,741	101,638	137,247	113,290		96,076	120,210	58,638
Financial summary								
Cash operating income	191,309	486,019	971,011	586,479		497,298	935,958	188,938
Inventory change	(11,264)	(37,391)	(45,583)	(35,783)		(19,613)	(33,541)	(11,671)
Accts. receivable (net change)	(526)	(1,588)	(1,813)	(1,490)		(1,582)	(3,220)	(93)
Farm products used	533	1,107	1,791	1,224		1,000	1,914	780
Less purchased feed	10,303	36,343	60,509	39,574		40,687	69,643	23,317
Less purchased livestock	93,729	253,551	537,872	314,468		247,096	478,277	53,641
<b>Adjusted gross farm income</b>	76,018	158,255	327,026	196,388		189,318	353,189	100,994
Cash operating expense	44,217	96,849	195,675	118,479		113,280	193,583	67,808
Prepaid expense (-if increased)	934	2,161	8,159	3,781		489	7,619	(1,054)
Accts. payable (+if increased)	0	5	84	28		(19)	34	(386)
Farm-produced inputs	0	18	217	75		9	54	207
<b>Total operating expense</b>	45,151	99,032	204,135	122,363		113,757	201,289	66,574
Income before depreciation	30,867	59,223	122,891	74,025		75,561	151,900	34,421
Less depreciation	13,227	22,260	38,039	25,615		29,734	38,418	9,589
Capital account adjustment	1,471	272	4,968	1,878		115	0	3,283
<b>Net farm income *</b>	19,112	37,235	89,821	50,289		45,942	113,482	28,115
(operator's share) *	6,096	(5,238)	(69)	(1,906)		5,808	8,647	4,565
Rate earned on investment, %	(16,568)	(34,102)	(57,425)	(38,408)		(39,318)	(24,694)	(12,805)
	0.24	1.48	2.55	1.95		1.81	3.44	1.13

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

\* Interest expense deducted from operator's share only.



Table 26a. 1991 Average Operating Costs, Investments, and Land Use by Size and Months of Labor for Illinois Beef Farms

Area of state	Northern Illinois				Months of Labor		Southern Illinois
	180-339	340-799	Over 799	All Farms	21-27	31-39	
Range in size (total acres)	15	52	29	96	13	7	25
Number of farms							
<b>Some costs and returns per tillable acre</b>							
Soil fertility	36.28	38.61	35.46	36.86	37.79	35.96	28.97
Pesticides	20.34	27.49	29.22	27.89	24.33	28.87	14.30
Seed and other crop	17.28	19.38	21.92	20.53	19.87	20.06	12.59
<b>Crop total</b>	<b>73.90</b>	<b>85.48</b>	<b>86.60</b>	<b>85.28</b>	<b>81.99</b>	<b>84.89</b>	<b>55.86</b>
Light vehicle and utilities	9.90	9.35	7.73	8.57	8.86	8.22	8.47
Machinery repairs, supplies	23.05	24.91	22.30	23.47	21.24	23.78	23.17
Machinery hire	12.05	9.89	4.75	7.43	11.44	4.36	3.13
Fuel and oil	11.47	14.08	13.85	13.80	12.88	14.48	13.85
Machinery depreciation	32.67	31.69	29.87	30.83	35.54	32.09	17.75
<b>Power and equipment total</b>	<b>89.14</b>	<b>89.92</b>	<b>78.49</b>	<b>84.09</b>	<b>89.95</b>	<b>82.93</b>	<b>66.36</b>
Drying and storage	4.48	3.27	2.30	2.86	2.78	2.82	0.86
Building repair	6.69	6.35	6.64	6.52	5.30	9.27	4.34
Building depreciation	17.02	15.49	9.34	12.48	15.19	9.91	4.20
<b>Building total</b>	<b>28.20</b>	<b>25.11</b>	<b>18.28</b>	<b>21.86</b>	<b>23.26</b>	<b>22.00</b>	<b>9.40</b>
Labor, unpaid	72.68	42.38	23.91	35.03	36.43	34.72	47.97
Labor, hired	3.74	18.45	20.45	18.50	28.65	20.76	15.73
<b>Labor total</b>	<b>76.41</b>	<b>60.83</b>	<b>44.36</b>	<b>53.53</b>	<b>65.07</b>	<b>55.48</b>	<b>63.70</b>
Value of feed fed	210.47	247.03	217.04	229.48	239.50	244.08	158.37
Capital purchases	50.97	50.38	57.75	54.14	83.11	25.96	24.33
Operator interest paid	33.96	54.67	39.39	45.59	42.58	52.53	29.21
Crop returns	287.95	303.32	295.35	298.29	292.24	313.29	186.88
Livestock return above feed	16.71	31.60	33.35	31.51	51.79	63.57	39.67
Value of farm production	312.66	344.71	337.13	338.78	351.49	386.12	231.26
Total nonfeed cost	457.19	464.22	432.30	447.62	462.79	457.21	310.87
<b>Management returns</b>	<b>-138.48</b>	<b>-118.92</b>	<b>-90.05</b>	<b>-105.61</b>	<b>-111.08</b>	<b>-71.09</b>	<b>-72.09</b>
Farm investment							
Livestock inventory	82,123	206,184	404,064	246,576	222,793	486,889	122,901
Grain inventory	50,500	93,796	196,431	118,035	116,088	182,501	49,239
Remaining cost in machinery and auto buildings and fence	14,248	39,689	94,016	52,125	58,258	89,437	21,605
soil fertility	30,461	45,368	58,370	46,967	45,108	41,306	8,179
Value of land (current)	1,951	2,630	67	1,750	10,298	0	0
	420,684	815,502	1,856,257	1,068,206	1,001,169	1,575,231	431,191
Total farm investment	599,966	1,203,168	2,609,204	1,533,658	1,453,712	2,375,365	633,115
Total investment per acre	2,146	2,292	2,160	2,213	1,633	2,287	1,087
Machinery invest. per till. acre	59	86	97	90	108	98	49
<b>Percent tillable land in</b>							
Corn and corn silage	64.5	68.4	65.2	66.6	64.1	66.7	36.2
Soybeans	11.3	15.5	21.7	18.4	18.5	16.1	20.2
Wheat	1.0	0.7	1.0	0.8	0.9	0.2	6.9
Other small grain	2.6	0.8	0.8	0.9	0.9	2.4	0.4
Diverted acres	3.2	4.3	3.7	3.9	3.9	4.6	5.3
All hay and pasture	17.3	9.8	6.7	8.7	11.4	7.7	30.2
<b>Crop yields, bushels per acre</b>							
Corn	128	125	122	123	124	130	85
Soybeans	54	45	43	44	40	54	38
Wheat	47	40	45	44	32	41	24

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

Table 27. 1991 Average Return, Costs, and Financial Summary by Size, Type, and Soil Rating for Part-time Illinois Farms that Use Less than 10 Months of Labor

Area of state	Northern 56-85		Northern 86-100		Southern 36-85		Livestock All Farms
	Grain <260 34	Grain >260 37	Grain <260 51	Grain >260 59	Grain <260 27	Grain >260 25	
Range in size (total acres)							
Number of farms							
Total acres in farm	183	459	166	402	186	454	198
Acres of tillable land	163	430	157	377	150	385	114
Soil rating on tillable land	76	78	94	92	60	60	52
Total months labor	5.1	6.4	5.2	6.6	4.8	6.0	5.8
Months of hired labor	0.3	0.4	0.2	0.5	0.0	0.5	0.1
Beef produced, hundredweight	15	14	5	10	11	16	169
Pork produced, hundredweight	4	4	0	0	10	81	223
Dairy cows, number	0	0	0	0	0	0	4
Dollar returns per farm							
Crop returns	38,260	94,237	42,774	107,186	27,800	77,652	18,641
Livestock returns above feed	1,045	(231)	(174)	326	308	1,424	5,683
Custom work	261	1,206	330	1,055	126	1,668	657
Other farm receipts	785	1,000	349	1,011	239	807	1,351
<b>Value of farm production</b>	<b>40,351</b>	<b>96,210</b>	<b>43,277</b>	<b>109,578</b>	<b>28,474</b>	<b>81,551</b>	<b>26,331</b>
Dollar costs per farm							
Crop expenses	12,632	31,522	12,089	28,265	9,049	23,272	6,049
Power and equipment	10,598	20,514	9,722	18,714	8,316	20,855	11,272
Building and fence	2,646	4,066	3,306	4,562	1,041	2,988	2,827
Labor	7,125	8,939	7,175	9,559	6,773	8,556	8,215
Livestock services and supplies	215	302	84	109	150	195	1,696
Taxes	3,277	6,798	3,616	7,843	1,712	3,436	819
Insurance and miscellaneous	2,084	4,109	1,925	3,766	1,400	2,830	2,070
Interest on nonland capital	4,829	8,416	4,199	8,203	2,811	6,278	6,267
Land charge or net rent	13,138	34,617	15,623	36,781	8,617	21,486	5,836
<b>Total nonfeed cost</b>	<b>56,542</b>	<b>119,283</b>	<b>57,738</b>	<b>117,801</b>	<b>39,869</b>	<b>89,895</b>	<b>45,052</b>
Capital account adjustment	63	1,273	1,401	3,210	100	2,212	150
<b>Management returns</b>	<b>(16,127)</b>	<b>(21,799)</b>	<b>(13,059)</b>	<b>(5,013)</b>	<b>(11,295)</b>	<b>(6,131)</b>	<b>(18,570)</b>
Farm production per \$1.00 of nonfeed costs	0.71	0.81	0.75	0.93	0.71	0.91	0.58
Farm production per man	94,779	181,622	100,743	200,107	71,737	163,429	54,291
Financial summary							
Cash operating income	43,421	117,241	47,831	111,841	30,906	82,817	42,088
Inventory change	(981)	(19,141)	(4,021)	(1,176)	(1,264)	644	1,183
Accts. receivable (net change)	(201)	(1,099)	(433)	(790)	(123)	(194)	(72)
Farm products used	79	267	165	189	135	300	224
Less purchased feed	246	429	146	111	1,111	1,753	11,683
Less purchased livestock	1,719	626	117	372	67	261	5,407
<b>Adjusted gross farm income</b>	<b>40,351</b>	<b>96,211</b>	<b>43,277</b>	<b>109,578</b>	<b>28,474</b>	<b>81,551</b>	<b>26,331</b>
Cash operating expense	26,320	57,145	26,294	55,747	18,216	45,478	19,835
Prepaid expense (-if increased)	175	1,433	49	437	15	306	(279)
Accts. payable (+if increased)	35	40	(56)	93	0	944	159
Farm - produced inputs	38	239	35	167	118	222	0
<b>Total operating expense</b>	<b>26,567</b>	<b>58,857</b>	<b>26,322</b>	<b>56,444</b>	<b>18,348</b>	<b>46,950</b>	<b>19,714</b>
Income before depreciation	13,784	37,353	16,955	53,134	10,126	34,601	6,618
Less depreciation	5,114	8,966	4,543	7,775	3,337	7,372	5,113
Capital account adjustment	63	1,273	1,401	3,210	100	2,212	150
<b>Net farm income *</b>	<b>8,733</b>	<b>29,660</b>	<b>13,813</b>	<b>48,569</b>	<b>6,888</b>	<b>29,441</b>	<b>1,655</b>
(operator's share) *	2,551	1,294	3,387	13,496	871	2,524	(6,345)
Labor & mgt. income per operator	(9,233)	(13,611)	(6,091)	3,415	(4,751)	1,449	(10,448)
Rate earned on investment, %	0.54	2.47	1.72	4.40	0.06	4.00	-3.35

Note: Variations in totals due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois. \* Interest expense deducted from operator's share only.

Table 27a. 1991 Operating Costs, Investments, and Land Use by Size, Type, and Soil Rating for Part-time Illinois Farms that Use Less than 10 Months of Labor

Area of state Range in size (total acres) Number of farms	Northern 56-85		Northern 86-100		Southern 36-85		Livestock	
	Grain <260 34	Grain >260 37	Grain <260 51	Grain >260 59	Grain <260 27	Grain >260 25	All Farms 9	All Farms 10
Some costs and returns per tillable acre								
Soil fertility	34.97	33.98	36.03	35.15	22.64	29.97	38.42	28.59
Pesticides	25.29	22.83	23.60	22.57	23.14	16.09	20.69	12.85
Seed and other crop	17.13	16.45	17.29	17.31	14.41	14.33	16.85	11.54
<b>Crop total</b>	<b>77.38</b>	<b>73.26</b>	<b>76.92</b>	<b>75.04</b>	<b>60.19</b>	<b>60.38</b>	<b>75.96</b>	<b>52.97</b>
Light vehicle and utilities	8.39	5.03	8.37	4.09	8.57	5.80	13.43	21.17
Machinery repairs, supplies	14.78	11.20	12.50	12.55	15.18	14.10	24.99	27.68
Machinery hire	9.42	6.37	14.37	11.01	5.81	9.82	29.79	5.98
Fuel and oil	8.62	7.40	8.09	6.71	7.82	8.72	13.53	13.45
Machinery depreciation	23.70	17.68	18.54	15.32	17.93	15.68	15.68	30.41
<b>Power and equipment total</b>	<b>64.92</b>	<b>47.67</b>	<b>61.85</b>	<b>49.68</b>	<b>55.32</b>	<b>54.11</b>	<b>94.31</b>	<b>98.70</b>
Drying and storage	5.31	4.30	6.43	4.70	1.18	2.83	4.41	0.42
Building repair	3.28	2.00	4.24	2.09	1.48	1.47	7.57	9.98
Building depreciation	7.62	3.16	10.37	5.32	4.27	3.45	13.67	14.36
<b>Building total</b>	<b>16.21</b>	<b>9.45</b>	<b>21.03</b>	<b>12.11</b>	<b>6.92</b>	<b>7.75</b>	<b>25.65</b>	<b>24.76</b>
Labor, unpaid	42.24	19.58	44.87	22.83	44.94	20.26	53.41	71.13
Labor, hired	1.41	1.19	0.78	2.55	0.12	1.94	2.38	0.81
<b>Labor total</b>	<b>43.65</b>	<b>20.77</b>	<b>45.65</b>	<b>25.38</b>	<b>45.05</b>	<b>22.20</b>	<b>55.78</b>	<b>71.94</b>
Value of feed fed	7.14	2.28	2.11	1.51	5.57	7.66	237.01	173.91
Capital purchases	33.51	31.24	43.22	33.88	6.82	26.93	28.55	17.68
Operator interest paid	15.67	20.72	22.33	17.68	13.08	29.05	34.84	44.73
Crop returns	234.39	219.00	272.14	284.56	184.92	201.48	277.46	163.23
Livestock return above feed	6.40	-0.54	-1.12	0.87	2.05	3.70	59.49	49.76
Value of farm production	247.19	223.59	275.34	290.91	189.40	211.60	342.66	230.57
Total nonfeed cost	346.38	277.21	367.35	312.74	265.21	233.25	454.39	394.51
<b>Management returns</b>	<b>-98.80</b>	<b>-50.66</b>	<b>-83.09</b>	<b>-13.31</b>	<b>-75.14</b>	<b>-15.91</b>	<b>-104.02</b>	<b>-162.62</b>
Farm investment	4.128	2.448	1.131	1.724	2.177	3.235	43.361	31.478
Livestock inventory	22,965	56,814	27,355	64,347	12,842	37,447	30,278	10,059
Grain inventory	11,676	18,959	5,857	13,101	8,499	17,512	8,105	10,448
Machinery and auto buildings and fence	10,631	10,824	10,639	12,059	3,902	5,598	23,133	11,120
soil fertility	0	0	0	15	142	70	820	0
Value of land (current)	291,953	769,272	347,173	817,367	191,498	477,470	361,460	129,690
Total farm investment	341,353	858,315	392,155	908,612	219,059	541,333	467,157	192,795
Total investment per acre	1,870	1,871	2,366	2,261	1,178	1,194	2,207	974
Machinery invest. per till. acre	72	44	37	35	57	45	44	91
Percent tillable land in								
Corn and corn silage	54.3	47.5	49.5	49.1	31.8	36.9	48.5	42.4
Soybeans	36.0	43.4	43.9	43.9	44.0	38.4	34.8	11.6
Wheat	3.4	2.4	0.2	1.3	14.0	9.6	1.8	8.9
Other small grain	0.2	0.2	0.0	0.1	0.0	0.0	3.2	0.0
Diverted acres	3.9	4.8	3.9	3.2	4.1	13.0	2.5	10.2
All hay and pasture	2.1	1.7	0.3	0.8	2.6	1.1	7.3	29.5
Crop yields, bushels per acre								
Corn	93	88	113	122	87	94	121	69
Soybeans	37	33	42	44	35	38	50	37
Wheat	52	38	25	52	28	34	45	32

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

# ASSOCIATIONS, FIELD STAFF, AND COOPERATORS ENROLLED

Associations and Field Staff

Associations and Field Staff

**BLACKHAWK**  
742

Kristian S. Lauritzen  
Lee K. Freedlund  
Benjamin A. Greiner  
Alan Petersohn  
Jeffrey L. Johnson  
Rodney B. Gieseke  
Garett Plumley

**NORTHEASTERN**  
353

Donald R. Muehling  
David J. O'Brien  
Gordon Wakey  
Michael G. Bossert

**WESTERN**  
669

Gary Goodwin  
Thomas H. Jennings  
Roy L. Ewalt  
Mike R. Shepherd  
Timothy D. Phelps  
Roberta Boarman  
Robert Rhea  
David A. Ward

**ILLINOIS VALLEY**  
699

Danny L. Stetson  
John A. Hudson  
Dale J. Heinkel  
Bradley G. Lenschow  
James P. McCabe  
Scott M. Newport

**SANGAMON VALLEY**  
659

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George W. Shafer  
James E. Phelan  
Aaron W. Liesman  
Kevin E. Coultas  
Gary Shupe

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1,431

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L. David Schroll  
Jerry Crump  
Gary E. Bressner  
Kent Meister  
David A. Pilgrim  
Thomas R. Hand  
John F. Kennedy  
Bradley E. Vissering  
Les A. Marti  
Darren L. Bray  
Gary Freeman

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1,207

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Robert E. Rogers  
Michael E. Schmitz  
Thomas J. Nolte  
John E. White  
Dennis J. Graden  
Louis J. Aldag  
Donald L. Hampton  
Bradley E. Yockey  
Dathel Davidson  
Daniel A. Doan  
Eddie G. Sterchi  
Robert E. Annis, Jr.

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552

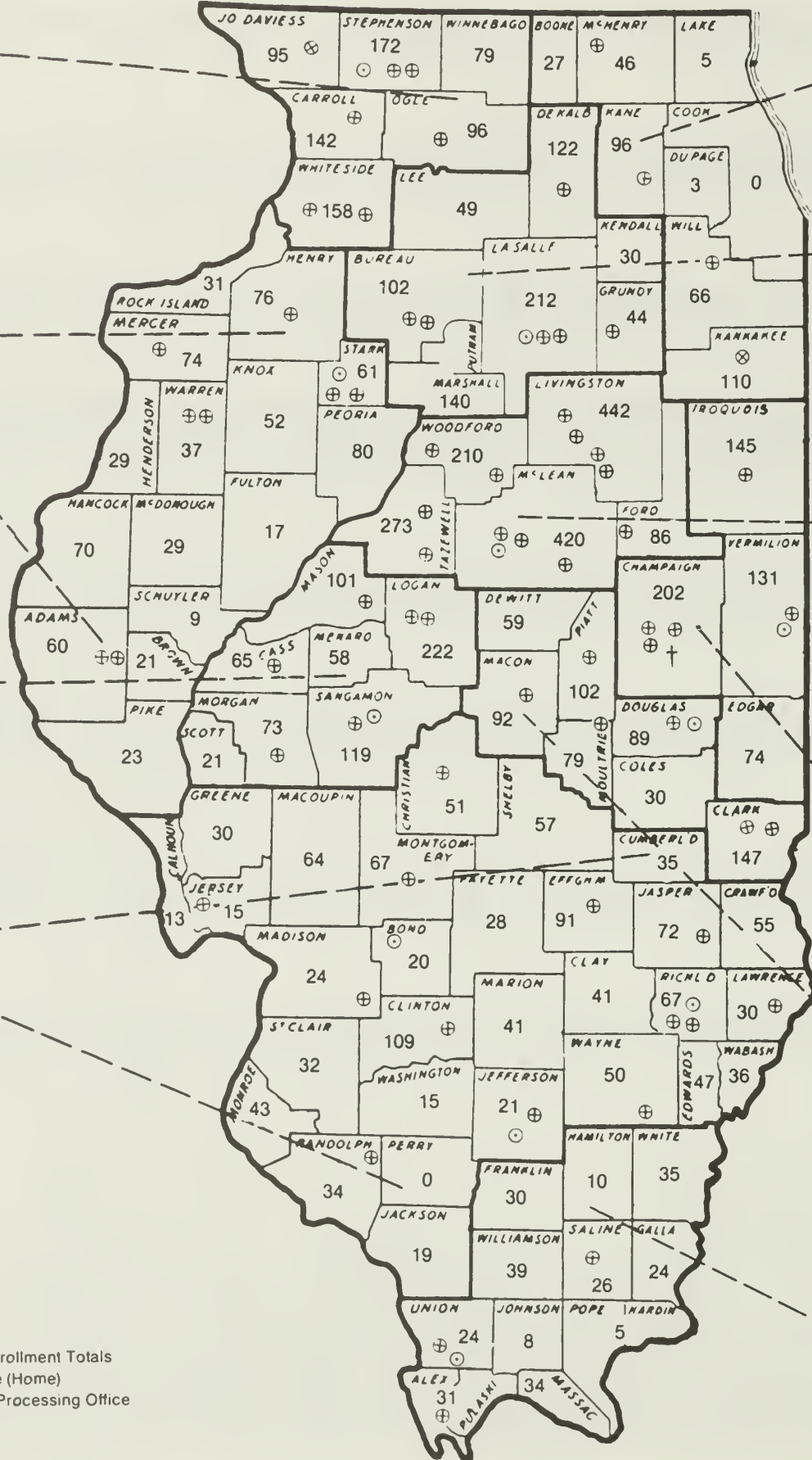
Robert K. Boesdorfer  
Howard Peverly  
Bruce E. Burk  
Dwight D. Raab  
Donald E. Becker

**EAST CENTRAL**  
598

James E. Cullison  
Rolland D. Gustafson  
Gary E. Connelly  
Jeffrey D. Lewis  
Robert Daggett  
Richard Thomas

**SHAWNEE**  
266

Robert D. Kiesecombs  
Douglas E. Hileman  
Mark A. Taake



OFFICIAL ENROLLMENT  
June 1, 1992

\* Numbers are Enrollment Totals  
70 ⊕ Field Staff Office (Home)  
11 ⊙ District Record Processing Office  
† State Office



*An Illinois native, Professor Kesler received a B.S. degree from the University of Illinois College of Agriculture in 1955 and an M.S. degree in 1965. He became an assistant professor in the University of Illinois Department of Agricultural Economics in 1965. He was promoted to associate professor in 1970 and professor in 1978. In 1979, he became Assistant Head and Director of Extension Programs for the Department of Agricultural Economics, a position he held until his retirement in 1991.*

## HONORED RETIREE

**Richard P. "Dick" Kesler** served Illinois agriculture for 36 years before his retirement in 1991. His early experiences teaching vocational agriculture at Lexington High School and working as a fieldman for the Illinois Farm Business Farm Management Service (FBFM) laid the foundation for his career in the Department of Agricultural Economics at the University of Illinois and in the Cooperative Extension Service.

As an Extension specialist in farm management, he made major contributions to the department's Extension programs. His work on the changing economic structure of the hog industry and his evaluation of profitability and financial feasibility have been widely recognized.

Kesler has been a leader in the farm management profession. Alert to changing conditions in Illinois agriculture, he developed a computer program to test the financial feasibility of a farm plan and assist the farm operator with financial planning during the transition to the new plan. He provided leadership in organizing the Rural Route program to deal with the financial crisis faced by many farmers in the mid-1980s, and he served on more than three dozen department, state, regional, and national committees and task forces.

Kesler has been an active member of many professional and honorary organizations. He has also received many awards and much recognition during his career, including the Illinois Cooperative Extension Service's Sustained Excellence Award and the Silver Plow Award from the American Society of Farm Managers and Rural Appraisers.

Kesler and his wife Evelyn have four married children and five grandchildren.

Prepared by D.H. Lattz, C.E. Cagley, Clark Roberts, and Irene Chow  
of the Department of Agricultural Economics

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