

92nd ANNUAL

SUMMARY OF  
ILLINOIS  
FARM BUSINESS  
RECORDS  
2016

Commercial Farms  
Production Costs  
Income  
Investments



UNIVERSITY OF ILLINOIS  
EXTENSION

COLLEGE OF AGRICULTURAL, CONSUMER  
AND ENVIRONMENTAL SCIENCES

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*Summary of Illinois Farm Business Records for 2016*  
was prepared by **B.M. Krapf, D.D. Raab, and B.L. Zwilling**  
of the **Department of Agricultural and Consumer Economics,**  
**College of Agricultural, Consumer and Environmental Sciences.**

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# ILLINOIS FARM BUSINESS FARM MANAGEMENT ASSOCIATION

cooperating with nine local farm management associations and the  
 Department of Agricultural and Consumer Economics, College of Agricultural, Consumer and Environmental Sciences,  
 University of Illinois at Urbana-Champaign

STATE TOTAL --- 5,691 cooperating farmers and 69 member field staff\*  
 July 1, 2017, distribution of cooperators by counties and associations

## Associations and Field Staff

### BLACKHAWK

593

Jeffery L. Johnson  
 Alan A. Petersohn  
 Rodney B. Gieseke  
 David A. Goodell  
 Tonya M. Wiersema  
 Adam W. Drinkall  
 Jennifer L. Doty  
 Marissa D. Tolbert

### WESTERN

792

Robert L. Rhea  
 Miriam M. Mock  
 Mike R. Shepherd  
 Nathan P. Edlefson  
 Ruth Ann McGrew  
 Brett W. Goodwin  
 Taylor J. Endress  
 Jessie N. Shoopman

### SANGAMON VALLEY

597

James E. Phelan  
 Kevin E. Coultas  
 Kent D. Leesman  
 Brittany L. Gunther  
 Angela J. Westen  
 Jestun C. Nutter  
 Gavin W. Urish  
 Ronica L. Boundy

### LINCOLN

711

Michael E. Schmitz  
 Dathel W. Davidson  
 Daniel A. Doan  
 Mitchel W. Fickling  
 Michael P. Bruns  
 Cody V. Stewart  
 Dale J. Heinkel  
 Jacob E. Hileman  
 Joshua T. Eyman  
 Stephanie K. Woods  
 Maggie J. McClure

\* Numbers are Enrollment Totals

69 ⊕ Field Staff Office

8 ○ Association Office

† State Office

## Associations and Field Staff

### ILLINOIS VALLEY

591

Scott M. Newport  
 John A. Hudson  
 Bradley G. Lenschow  
 James P. McCabe  
 Tony J. Stirling  
 Sarah E. DeSchepper

### SANGAMON VALLEY

34

### PIONEER

1116

Michael C. Heiser  
 Darren L. Bray  
 Brian J. Pulley  
 Nathan A. Waibel  
 Jeffrey A. Marquis  
 Lowell J. Stoller  
 Jacob M. Springer  
 Carla S. Doubet  
 Jedediah D. Metzger  
 Erica M. Frye  
 Bradley A. Carroll  
 Alissa D. Fosdick  
 Jacob B. Quaid

### EAST CENTRAL

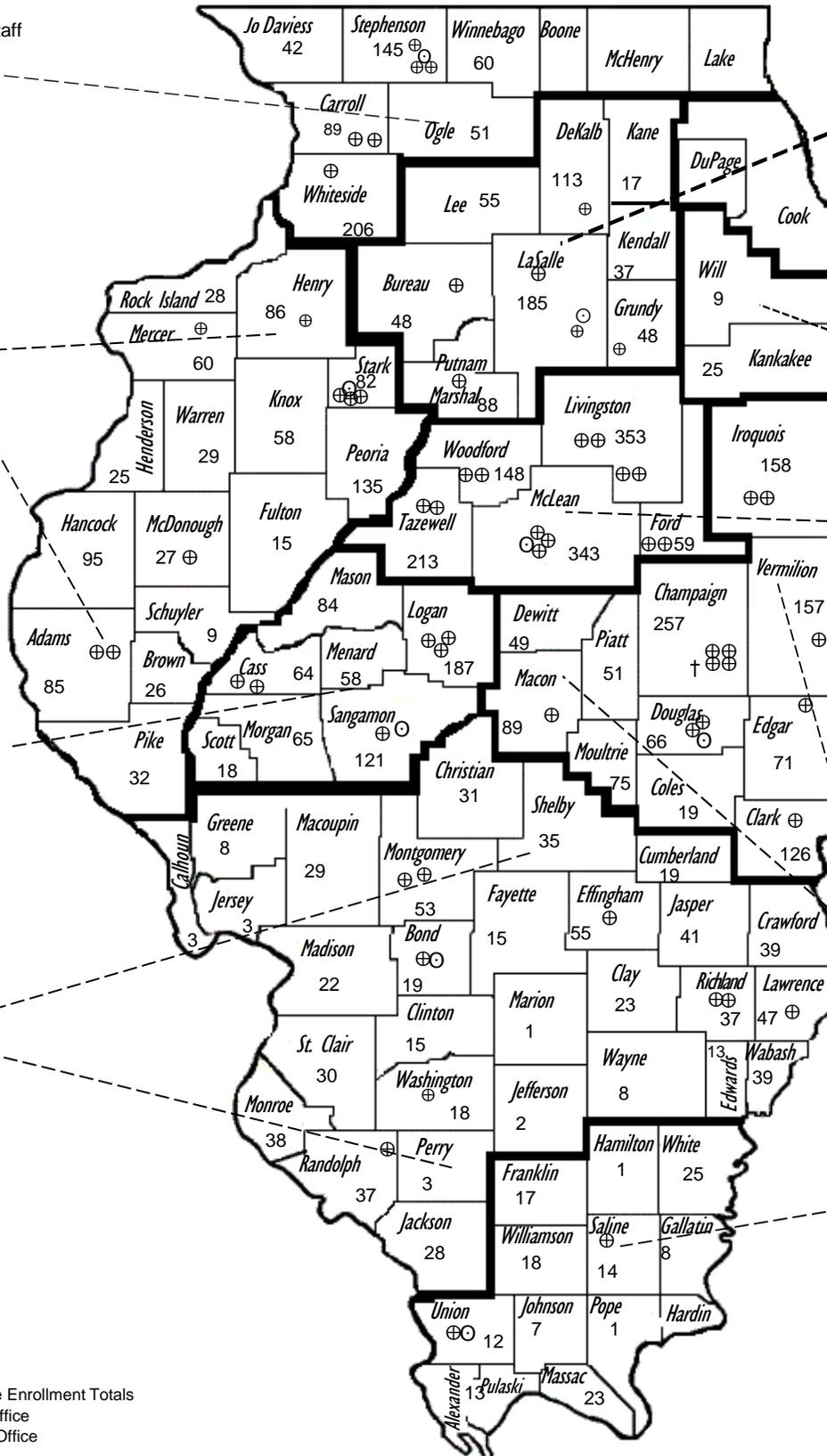
1118

James E. Cullison  
 Mitchell A. Fruhling  
 Jeffrey D. Lewis  
 Robert D. Daggett  
 Richard C. Thomas  
 Christopher A. Leman  
 Michael L. Clark  
 Klayton M. Finley  
 Hannah L. Miller  
 Whitney B. Warner  
 Jessica J. Patzwith  
 Brandon D. Duby  
 Krista L. Lottinville

### SHAWNEE

139

Douglas E. Hileman  
 Jonathan T. McGuire



## SOURCE OF DATA

This report is based on data obtained from farm business records on 5,691 Illinois farms. It is the 92nd annual summary of such records obtained from farmers cooperating with University of Illinois Extension, the Department of Agricultural and Consumer Economics, and the Illinois Farm Business Farm Management (FBFM) Association.

At present, about one out of every five Illinois commercial farms with over 1,000 acres or total farm sales over \$250,000 is enrolled in this service. Except for 1988, 2000, and 2015, enrollment has declined slightly each year since 1982. One factor contributing to this decline has been the continued decline in the number of farms in the state. In 2016, 8 associations in 102 counties were being served by 63 full-time field staff specialists and one half-time field staff specialist. 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 involved	Field staff employed	Farmers involved
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
2000.....	9	102	66	6,647
2010.....	9	102	61	5,775

Estimates for 2016 indicate that over 95 percent of the 5,691 farms covered in this report have total sales over \$100,000. In the 2012 Census of Agriculture, farms selling \$100,000 or more accounted for 96 percent of all sales from Illinois farms.

The segment of Illinois agriculture that includes farms with more than \$100,000 in total sales is often referred to as "commercial farming." In 2012, there were 24,809 farms in Illinois with sales of \$100,000 or more. The figures that follow, taken from the 2012 Census of Agriculture, show that these farms represented about 60 percent of the 40,946 farms with more than \$10,000 in sales. These farms produced more almost 96 percent of the agricultural products sold from Illinois farms.

Total farm sales (\$)	% of all farms, \$10,000+ sales	% of census farms enrolled	No. of farms enrolled
10,000-99,999	39.4	1.4	225
100,000-249,999	21.1	5.5	473
250,000-499,900	16.2	12.1	806
500,000+	23.3	31.4	2,993

Most of the 2016 recordkeeping farms covered in this report are within the larger groups. There were 16,172 farms identified by the census with more than \$250,000 total sales

in 2012. About a fourth of these farms (23.4 percent) were enrolled in the Illinois FBFM Association. Of the 8,637 farms in the group having from \$100,000 to \$249,999 in total sales, only 5.5 percent participated in the farm record program. Only about 1 percent of the farms enrolled in FBFM had less than \$100,000 in sales. The average acreage size of all farms larger than 180 acres enrolled in FBFM in 2016 was 1,193 acres, compared with an average of 851 acres for all Illinois farms sorted similarly.

This report presents only the operator's share of income and expenses for 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, choosing 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 1 to 8) summarizes selected recent changes in farm income on Illinois farms. It also identifies economic forces and factors that contribute to these changing trends. Some of the 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. This information is the total of operator and landlord data. 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 23a) discusses costs, returns, financial summaries, land use, and crop yields for different sizes and types of farms in northern, central, and southern Illinois. This section contains only the operator data. It reports on the 33 percent of grain farms that received the highest return to management per dollar of cost and the 33 percent that received the lowest return.

## 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 University of Illinois Extension Circular 1156, *Soil Productivity in Illinois*. New land values were assigned in 1980. The adjustment of land values brings them to current market levels.

### Operator(s)

This is the person providing labor and management to the active farming operation. If months of operator labor are 12 or less, then there is one operator for the farm. If months of operator labor are more than 12, then the number of operators is determined by dividing the months of operator labor by 12.

### 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 was 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 livestock), type of farm, value of feed fed, and soil productivity rating.

### 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 one-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 6.

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

**Dairy farms** are farms where the value of feed fed was more than 40 percent of crop returns and where the dairy enterprise received more than one-third 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, \$3.55; oats, \$2.30; and wheat, \$3.82. 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 the following nondepreciable items:

- Fertilizer
- Pesticides
- Seeds (including homegrown seeds)
- Machinery repairs
- Machine hire and lease
- Fuel and oil
- Farm share of electricity, telephone, and light vehicle expenses
- Building repairs and rents
- Drying and storage
- Hired labor
- Livestock expenses
- Taxes
- Insurance
- 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 operator's total farm investment. But the total interest paid by the operator on all debt—operating debt plus longer-term debt—is listed separately in Tables 19 to 23a under "Selected returns and costs per operator tillable acre."

**Power and equipment** includes depreciation, repairs, machine hire and lease, fuel and oil, and the farm share of expenses for electricity, telephone, and light vehicles.

**Labor** includes hired labor plus family and operator's labor, charged in 2016 at \$3,800 per month.

A change in the method of calculating the **depreciation deduction** for machinery and buildings was adapted in 2003 and continued to be used in 2016. Until 2003, the depreciation deduction was based on Internal Revenue Service guidelines; the depreciation expense used for analysis purposes was the same as that used for completing the tax return. As changes in tax law allowed larger and larger write-offs in the year machinery and buildings were purchased, the depreciation method used for analysis was changed to more closely reflect the actual decline in value of machinery and buildings. The new method does not use the additional bonus depreciation or expense election write-off in the year of purchase; it uses instead a slightly longer life and a lower rate than the IRS-allowed methods

for tax depreciation. The change in methods does not increase or decrease the total amount of depreciation that can be claimed on an item; it is simply an issue of timing as to when the depreciation is deducted.

**Interest on nonland capital** covers the interest charged at 4.0 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 light vehicles, buildings, and soil fertility, plus one-half the cash operating expense, exclusive of interest paid. In Tables 6 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 \$29,578.

**Land charge or net rent** is the bare land priced at current land values multiplied by 2.05 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 index of land prices in Illinois as reported by the United States Department of Agriculture (USDA). The land value index for 2016, using a base earning value of 1979 = 100, was 361.

The **capital account adjustment** includes the gain or loss on capital items sold, less 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 farm program payments received and accrued; crop insurance payments received and accrued; and the change in value for feed and grain inventories, less the value of feed and grain purchased.

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 operators’ labor and management efforts, is 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.

**Farm production per man year** is the value of farm production, including the landlord’s share of value of farm production divided by the outcome of total months of labor divided by 12. If total months of labor are less than 12, then the divisor is equal to one.

## FARM BUSINESS TRENDS IN 2016

Illinois agriculture is based largely on crop production, especially corn and soybeans. In 2016, Illinois ranked first in the nation in soybean production and second in corn production when measured in dollars. The total value of corn produced on Illinois farms was 15 percent of total U.S. production, while the total value of soybeans produced on Illinois farms was 14 percent of total U.S. production.

### Crop production

Year-to year variations in net income are related to the growing season, crop yields, grain prices, and acres in high-cash-value crops. A warmer-than-normal February and March combined with average precipitation led to a good start to planting, with 12 percent of the corn crop planted by April 17. As of April 24, 42 percent of the corn crop was planted, which was well above the 5-year average of 25 percent and above the 2015 average of 26 percent. Ninety-four percent of the corn was planted by May 29, compared with 99 percent the year before and 96 percent for the 5-year average. Soybeans were reported 90 percent planted by June 12, compared with 89 percent in 2015 and 90 percent for the 5-year average. A normal growing season and slightly-above-average precipitation in July and August led to regular crop development. The additional precipitation in these months also led to greater corn and soybean yields than in 2015. A warm fall and below-normal precipitation allowed corn and soybeans to mature and harvest to run above the 5-year average but slightly below 2015.

**Crop yields.** With average temperatures throughout the growing season as well as increased precipitation during pollination and flowering, yields were higher for corn and soybeans across the state. The average corn yield for Illinois farms reported by the Illinois Crop Reporting Service was 197 bushels per acre, 22 bushels below the previous year’s yield. The average for 2012 through 2016 was 171 bushels per acre. Farmers participating in the Illinois FBFM program averaged 215 bushels of corn per acre in 2016, which is the highest on record. The 2016 corn yield was 25 bushels above the year before.

Soybean yields for all Illinois farms were reported at 59 bushels per acre in 2016. This was 3 bushels higher than

in 2015 as well as 6 bushels more than the 5-year average and was the highest on record. FBFM recordkeeping farms averaged 64 bushels of soybeans per acre in 2016, 6 bushels above their 5-year average and the highest on record. Crop yields on the 5,691 recordkeeping farms covered in this report averaged about 9 percent above the average for all Illinois farms.

**Grain prices.** Sales for corn and soybeans have been divided between old and new crop sales. The prices received for old-crop soybeans sold during the year averaged 90 cents to \$1.11 per bushel below 2015 prices (Table 1). Old-crop corn prices received in 2016 averaged 6 cents to 12 cents below those received in 2015. New-crop prices received were mostly lower for corn and higher for soybeans compared to the year before. The price received for new-crop corn averaged 28 cents to 32 cents lower than the year before, and new-crop soybeans averaged 60 cents to 61 cents higher. Wheat sold for 19 cents less per bushel to no change during the year. Prices received for old-crop corn and soybean sold in 2016 were above their inventory prices, resulting in a positive marketing margin. The year-end, new-crop inventory price for corn was 30 cents lower than the year before; for soybeans it was \$1.20 higher.

**Crop production.** Corn production totaled 2.256 billion bushels in 2016, 243 million bushels more than the previous year. The final yield was 197 bushels per acre, which was 22 bushels above the previous year’s yield. The yield for the 2016 soybean crop was 59 bushels per acre, 3 bushels above the 2015 yield. Production totaled 593 million bushels, 9 percent above the previous year.

The 2016 yield for sorghum for grain was 93 bushels per acre, 1 bushel below the yield in 2015. Sorghum production, at 1.5 million bushels, was down 53 percent from the previous year. The yield for the 2016 winter wheat crop was 74 bushels per acre, which is 9 bushels above the previous year. Total production was 34.8 million bushels, 3 percent above the 2015 production of 33.8 million bushels. The oats yield, at 81 bushels per acre, was 4 bushels above 2015. Production of all hay in 2016 was 1.50 million tons, 2 percent below 2015. Alfalfa hay production was down 11 percent, to 897,000 tons. All other hay production decreased to 600,000 tons. The alfalfa yield increased from 3.5 to 3.9 tons per acre, while all other hay yields decreased from 2.8 to 2.4 tons per acre.

**Livestock production**

Two major determinants in farm income are the price farmers receive for livestock and livestock products and the value of feed fed in producing livestock. Gross returns to all livestock enterprises were higher in 2016 compared to 2015, except for dairies and beef cow herds. With much higher gross returns, returns above feed cost were higher for all livestock enterprises except dairies. In 2016 the average

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

	2016		2015	
	Northern & central	South-ern	Northern & central	South-ern
<b>Grain prices per bushel</b>				
<b>Sold</b>				
Corn, old crop .....	\$ 3.68	\$ 3.88	\$ 3.80	\$ 3.94
Corn, new crop .....	3.46	3.55	3.78	3.83
Soybeans, old crop .....	9.37	9.58	10.48	10.48
Soybeans, new crop .....	9.69	9.68	9.08	9.08
Wheat .....	4.06	4.46	4.06	4.65
<b>Livestock prices per cwt</b>				
Hogs, all weights .....	\$ 48.22		\$ 52.65	
Fed cattle, all weights .....	120.52		150.68	
Feeder cattle, all weights, prices paid .....	144.16		206.79	
Dairy cattle, all weights .....	74.47		112.41	
<b>Milk per cwt .....</b>	<b>16.27</b>		<b>17.89</b>	

prices received by farm record-keepers in the Illinois FBFM Association were 8 percent lower for hogs, 20 percent lower for fed cattle, and 34 percent lower for milk than they were in 2015 (Table 1). The prices paid for all weights of feeder cattle purchases averaged 30 percent below the 2015 price for feeder cattle, and feeder pigs weighing below 20 pounds averaged about the same as the 2015 price paid per pig. Higher returns resulted in returns above feed and purchased animals for feeder cattle enterprises increasing from a *negative* \$5.75 per hundredweight produced to \$16.70 (Table 10). This is below the 5-year average of \$23.28. Mainly due to lower feed prices, returns above feed costs for farrow-to-finish hog producers increased to \$14.38 per hundredweight produced in 2016. This was above 2015, but below the 5-year average. Lower milk prices and lower beef prices caused dairy returns above feed cost per cow to decrease from \$2,167 in 2015 to \$1,936 in 2016. This is 11 percent below 2015 and below the 5-year average. Returns for beef cow herds with calves sold decreased to a *negative* \$94, which is below the 5-year average of \$206.

**Labor and management income**

The average operator’s share of labor and management income for the 5-year period from 2012 through 2016 on all northern Illinois grain farms (located north of a line from Kankakee to Moline) was \$51,436 (Table 2). Operators on about 1,400 grain farms in central Illinois had 5-year average earnings of \$60,207. Central Illinois occupies the area between the Kankakee–Moline line in the north and the Mattoon–Alton line in the south. Better growing conditions and higher prices in the beginning of this 5-year period have led to larger earnings from crops.

The grain farms in northern Illinois averaged 1,082 tillable acres per farm, compared with an average of 1,152 tillable acres on grain farms in central Illinois. The figure

for labor and management income varies considerably with the location and type of farm. For the period from 2012 through 2016, grain farm operators in southern Illinois averaged \$32,502 for labor and management. This average decreased by \$27,293 compared with the average for the 5-year period from 2011 through 2015.

When the average earnings on Illinois grain farms for the 5-year period from 2012 through 2016 are compared with the earnings from 2011 through 2015, earnings decreased in all areas of the state. The average for the 5-year period from 2012 through 2016 decreased 49 percent in northern Illinois, 33 percent in central Illinois, and 46 percent in southern Illinois as compared to the 5-year period 2011 through 2015. The 2016 return to operator's labor and management was higher in all parts of the state than the 2015 earnings, and all areas were below the 2012–2016 5-year average. The year dropped from the 5-year average, 2011, averaged about \$196,000 higher earnings than in 2016.

When average earnings on Illinois livestock farms for the 5-year period from 2012 through 2016 are compared with the earnings from 2011 through 2015, earnings decreased for all enterprises. The average for the 5-year period from 2012 through 2016 decreased 51 percent for hog farms, 295 percent for beef farms, and 44 percent for dairy farms as compared to the 5-year period 2011 through 2015.

In 2016, the labor and management income for all areas of Illinois averaged \$27,697 per farm. This figure is \$94,895 above the 2015 state average. Returns to labor and management for 2016 averaged \$31,959 below the average for the 5-year period 2012 through 2016. Higher yields and lower costs were the main reasons for the higher incomes in 2016.

Corn yields were well above the yields recorded the year before. The average corn yield on the 2,510 farms in 2016 was 215 bushels per acre, 25 bushels above the 2015 yield. The average soybean yield in 2016 was 64 bushels per acre, 3 bushels above the 2015 yield. Corn and soybean yields were generally highest in the north and central parts of the state from east to west. Average temperatures and above-average precipitation during July and August led to good growing conditions for crops. The average corn and soybean yields were the highest on record for FBFM record-keeping farms.

Year-end inventory price for the 2016 corn crop of \$3.30 per bushel was 30 cents per bushel lower than a year earlier. Soybeans were inventoried at \$9.80 per bushel, \$1.20 higher than December 31, 2015. The average sales price received for the 2015 corn and soybean crop sold in 2016 was above the inventory price, resulting in a positive marketing margin. Crop returns averaged \$745 per tillable acre, \$76 per acre higher than the 2015 crop returns.

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

**Table 2. Operator's 5-Year Average Share of Labor and Management Income by Size and Type of Farm, 2012 Through 2016**

	Number of acres per farm <sup>a</sup>			
	Under 800	800 to 1,199	1,200+	All
<b>Northern Illinois</b>				
Tillable acres .....	480	991	2,156	1,082
<b>Labor and management earnings by type of farm</b>				
Grain.....	\$17,484	\$49,199	\$109,892	\$51,436
<b>Central Illinois</b>				
Tillable acres .....	520	694	1,965	1,152
<b>Labor and management earnings by type of farm</b>				
Grain <sup>b</sup> .....	\$31,075	\$63,299	\$116,776	\$74,267
Grain <sup>c</sup> .....	26,247	45,127	71,902	42,895
All.....	29,063	55,664	97,753	60,207
<b>Southern Illinois</b>				
Tillable acres .....	494	982	2,228	1,409
<b>Labor and management earnings by type of farm</b>				
Grain.....	\$4,351	\$19,533	\$57,650	\$32,502
<b>Illinois livestock</b>				
<b>Labor and management earnings by type of farm</b>				
Hog.....	.. <sup>d</sup>	.. <sup>d</sup>	.. <sup>d</sup>	\$36,961
Beef.....	.. <sup>d</sup>	.. <sup>d</sup>	.. <sup>d</sup>	-16,608
Dairy.....	.. <sup>d</sup>	.. <sup>d</sup>	.. <sup>d</sup>	26,648

<sup>a</sup>Tillable acres.

<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.

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, 4 percent interest on nonland investment, and a land-use charge equivalent to the average net rent received by landowners for crop-share leases from 2012 to 2015.

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 \$80,000 is needed to pay living expenses and income and Social Security taxes, figures for the lowest of the 5-year average labor and management incomes indicate that the average farm operator's family uses up to \$96,608 of the return for equity capital, depending on location and type of farm. None of the average labor and management incomes were high enough that the operator did not need to use any of the return for equity capital to meet living expenses. Using part of the return to equity to pay family living expenses indicates that farm operators are not receiving a competitive return for either their labor and management or their equity in the business. Off-farm income could be used to pay for some living expenses.

**Financial characteristics**

The Farm Financial Standards Council has identified several key measures to analyze the financial strength of a farm business. These measures are in the areas of liquidity, solvency, profitability, and financial efficiency. The averages for these key measures for 2,468 Illinois farms can be found in Table 3. These measures are also calculated by farm type. Due to the effects that weather and other outside factors may have on a farm business for any one year, it is better to monitor these measures over time and to identify trends than it is to rely too heavily on these measures for any one year when making business decisions. More detail and in-depth analysis of these financial characteristics can be found in *Financial Characteristics of Illinois Farms*, published by the Department of Agricultural and Consumer Economics at the University of Illinois.

**Liquidity** is an assessment of a farm’s ability to meet current cash-flow needs. The amount of working capital and the current ratio (current assets divided by current liabilities) are two measures of liquidity. The average amount of working capital as of December 31 for the 2,468 farms was \$235,343, up 1 percent from \$232,173 a year earlier. Grain farms had the greatest working capital, averaging \$242,058, while dairy farms had the least, averaging \$35,575. Most of the assets of a dairy farm—the dairy herd, buildings, and land—are noncurrent assets. The average current ratio for all the farms was 2.10, up from 2.07 a year ago. Grain farms recorded the highest (most healthy) current ratio, and hog farms the lowest. The 2016 current ratio was the second lowest since 2006.

**Solvency** is a measure of the farm’s overall financial strength and risk-taking ability. The average net worth of

the 2,468 farms at the end of 2016 was \$2,949,711, up from \$2,920,753 the year before. Average farm and nonfarm incomes in 2016 were above family living requirements, thus enabling net worth increases. Grain farms had the highest net worth, followed by beef farms, with dairy farms recording the lowest. The **debt-to-farm equity** and **debt-to-farm asset** indicators show how debt capital is combined with equity capital. This is useful in looking at the risk exposure of the business. The average debt-to-farm asset percentage for all farms was 20.3. The debt-to-farm asset percentage ranged from 19.9 for grain farms to 40.8 for hog farms. The average debt-to-farm asset level of 18.2 from 2012 was at its lowest level for at least 20 years.

A measure of a farm’s **profitability** is useful in examining its ability to meet family living demands and retire term debt. It is also useful in measuring the farm’s ability to utilize assets and equity to generate income. The average return on farm assets for the 2,468 farms was 1.5 percent, up from a *negative* 0.8 percent a year earlier. Grain farms recorded the highest returns, averaging 1.6 percent, while beef farms recorded the lowest, averaging a *negative* 1.4 percent. Return on farm equity in 2016 ranged from 1.1 percent for grain farms to a *negative* 3.6 percent for dairy farms. The average was 0.9 percent, up from a *negative* 1.8 percent in 2015.

The interest, operating, and depreciation expense ratios relate these various expense categories as a percentage of the value of farm production. The farm operating income ratio measures the return to labor, capital, and management as a percentage of the value of farm production. These measures can be used to evaluate the financial efficiency of the farm business. The interest–expense ratio averaged 3.0

**Table 3. Financial Characteristics of Illinois Farms for 2016 by Type of Farm**

	All farms	Grain farms	Hog farms	Dairy farms	Beef farms
Number of farms.....	2,468	2,371	33	42	22
<b>Liquidity</b>					
Working capital.....	\$235,343	\$242,058	\$90,041	\$35,575	\$198,531
Current ratio .....	2.10	2.13	1.22	1.30	1.71
<b>Solvency</b>					
Net worth (market) .....	\$2,949,711	\$2,986,042	\$2,237,254	\$1,683,432	\$2,520,454
Debt-farm equity (%) .....	25.4	24.8	67.8	51.0	33.6
Debt-farm asset (%) .....	20.3	19.9	40.8	33.8	25.1
<b>Profitability</b>					
Farm operating income .....	\$67,828	\$71,349	–\$38,895	\$25,441	–\$70,673
Return on farm assets (%) .....	1.5	1.6	–1.3	–0.9	–1.4
Return on farm equity (%) .....	0.9	1.1	–3.4	–3.6	–3.3
<b>Financial efficiency</b>					
Interest expense ratio (%) .....	3.0	2.9	5.1	7.0	9.8
Operating expense ratio (%) .....	70.7	70.4	83.1	75.5	82.1
Depreciation expense ratio (%) ..	11.8	11.8	10.9	11.6	16.6
Farm operating income ratio (%) ..	13.0	13.3	–2.2	3.1	–15.6
Asset turnover ratio .....	0.21	0.21	0.20	0.19	0.08

percent for the 2,468 farms, ranging from 2.9 percent for grain farms to 9.8 percent for beef farms. The 3.0 percent was the same as 2015. The 2012 figure of 1.9 percent is the lowest since at least 1995. The farm operating income ratio ranged from a high of 13.3 percent for grain farms to a *negative* 15.6 percent for beef farms. The average for all farms in 2016 was 13 percent, up from 1.5 percent in 2015. The 2012 through 2016 5-year average farm operating income ratio is 15.8 percent. The 2016 farm operating income ratio is below the 5-year average.

**Family living expenditures**

Total cash living expenditures for a sample of 1,333 Illinois sole-proprietor, farm-operator families in 2016 averaged \$76,917 (Table 4). This figure is 2 percent lower than the 2015 average. Capital purchases for family living expenses of \$5,344 include the family’s share of the auto, plus items that exceed \$250 and will last more than 1 year. Capital purchases for family living were 7.5 percent of the total cash outlay for all family living expenditures in 2016.

The average farmer in this sample paid \$25,936 in interest in 2016 on operating, machinery, and long-term real

estate debts. This interest expense was 5 percent of total operating expense (including interest paid) and 4 percent of total farm receipts. The average amount of interest paid in 2016 was \$1,975 more than the amount paid in 2015. Here are the most significant financial facts about 2016:

- Net farm income plus net nonfarm income was \$14,430 more than the sum of family living capital purchases, total living expenses, and payments for income and Social Security taxes. This compares to the 5-year average of total income averaging \$30,663 more than family living expense and taxes for the period 2012 through 2016. The 2012 figure of \$187,966 is the largest positive margin ever.
- Net nonfarm income averaged \$44,503 and was the highest amount since this study began. This was \$3,841 more than the 2015 figure of \$40,662.
- Capital farm purchases were \$60,026, compared to \$63,852 in 2015, or 6.0 percent less. They were \$32,518 lower than the average for 2012 through 2016 and were at their highest level ever in 2013.
- The amount of money borrowed did not exceed principal payments for the first time on record. Principal payments

**Table 4. Average Sources and Uses of Funds Over a 4-Year Period and by Noncapital Living Expenses for Selected Illinois Farms**

	All records, average per farm				Family of 3 to 5, 2015 <sup>a</sup>	
	2016	2015	2014	2013	High-third	Low-third
Number of farms.....	1,333	1,377	1,350	1,307	135	135
Age of operator.....	57	57	56	55	50	47
Number in family.....	2.6	2.7	2.7	2.7	3.9	3.7
<b>Net farm income .....</b>	<b>\$77,700</b>	<b>\$5,188</b>	<b>\$95,885</b>	<b>\$105,902</b>	<b>\$136,703</b>	<b>\$68,336</b>
<b>Source of dollars</b>						
Net nonfarm income .....	\$ 44,503	\$ 40,662	\$ 39,676	\$ 38,019	\$ 58,291	\$ 44,282
Money borrowed.....	436,713	449,744	439,315	418,038	532,016	331,812
Farm receipts.....	<u>641,771</u>	<u>665,446</u>	<u>715,621</u>	<u>736,101</u>	<u>839,276</u>	<u>564,368</u>
<b>Total sources .....</b>	<b>\$1,122,987</b>	<b>\$1,155,872</b>	<b>\$1,194,612</b>	<b>\$1,192,158</b>	<b>\$1,429,583</b>	<b>\$940,462</b>
<b>Use of dollars</b>						
Interest paid.....	\$ 25,936	\$ 23,961	\$ 21,266	\$ 20,530	\$ 33,611	\$ 24,207
Cash operating expenses.....	468,061	494,496	519,618	497,855	602,912	425,465
Capital farm purchases.....	60,026	63,852	89,020	130,006	83,611	55,696
Payments on principal .....	438,474	423,513	390,179	365,513	521,283	350,837
Income and Social Security taxes .....	25,512	32,438	38,801	40,328	35,936	14,597
Net new savings and investments.....	22,717	32,833	46,792	48,796	18,461	8,638
Contributions .....	3,471	3,537	3,698	3,874	5,072	2,192
Medical expenses.....	11,115	11,102	11,213	10,417	16,004	7,432
Life insurance .....	4,946	4,627	4,626	4,492	6,262	2,842
Expendables.....	<u>57,385</u>	<u>59,272</u>	<u>62,174</u>	<u>61,933</u>	<u>99,603</u>	<u>42,792</u>
Total living expenses .....	(\$ 76,917)	(\$ 78,538)	(\$ 81,711)	(\$ 80,716)	(\$ 126,941)	(\$ 55,258)
Living—capital purchases.....	<u>5,344</u>	<u>6,241</u>	<u>7,225</u>	<u>8,414</u>	<u>6,828</u>	<u>5,764</u>
<b>Total uses .....</b>	<b>\$1,122,987</b>	<b>\$1,155,872</b>	<b>\$1,194,612</b>	<b>\$1,192,158</b>	<b>\$1,429,583</b>	<b>\$940,462</b>

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

exceeded money borrowed by \$1,761. For the 2012 through 2016 time period, money borrowed has exceeded principal payments by an average of \$31,755.

- Of the total living expenses—excluding family capital purchases—charitable contributions accounted for 5 percent, life insurance 6 percent, medical expenses 14 percent, and family living expendables the remaining 75 percent.
- Income and Social Security taxes paid decreased by \$6,926, and the total amount of taxes paid, \$25,512, was \$7,247 below the 5-year average for the period 2012 through 2016.
- Medical expenses averaged \$11,115, \$326 more than the five-year average from 2012 to 2016. Expenses were less than 1 percent higher than the year before.

The 2016 records from 3- to 5-member families were sorted into high one-third and low one-third groups according to total living expenses (Table 4). The total cash living expenses for the high-third group averaged \$126,941, compared with \$55,258 for the low-third group. The high-third group had gross farm receipts of \$839,276, compared to \$564,368 for the low-third group. The results indicate that the high-third group had more nonfarm taxable income 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-third group had \$11,710 more remaining than the high-third group. The high-third group had a balance remaining of \$25,289 compared to \$36,999 for the low-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 1,333 represents slightly smaller farms than the average size of all recordkeeping farms in the state. Management was 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 \$61,500 and \$65,400, or 15 to 20 percent below the average total living expenses of these 1,333 Illinois farms. When the \$44,503 net nonfarm income for 2016 is used for living expenses, the remaining \$37,748 must be generated from the farm business to pay the \$82,261 used for total living expenses, including family living capital purchases. The figure of \$37,748 amounts to 5.9 percent of total farm receipts.

**Income changes on Illinois farms**

The average operator’s net farm income for all farms in 2016 was \$86,731; it was a *negative* \$2,971 in 2015 (Table 5). The 2012 net farm income was the highest for any year out of at least the last 10 years. Generally, operator net farm incomes decrease steadily as a higher percent of gross farm returns is used to pay interest. Frequently, when more than 15 percent of the gross farm return is used to pay interest, the operator’s net farm income is usually negative. Interest paid as a part of gross farm returns for all operators averaged 3.9 percent in 2016, 4.2 percent in 2015, 3.0 percent in 2014, 2.8 percent in 2013, and 2.5 percent in 2012. The 2.5 percent figure for 2012 was one of the lowest for any year during the last 20 years.

Comparative costs and returns between years and among major types of farming operations are reported in Tables 6 and 8. The sample consisted of grain farms having between 800 and 1,199 acres, or an average of 985 tillable acres. It also includes hog, beef, and dairy farms with 180 or more acres. Labor available on farms of this size averaged 15 months on grain farms, 37 months on hog farms, 23 months on beef farms, and 49 months on dairy farms. These tables contain only operator data; landlord data are not included.

Size of farm, type of farm, and managerial inputs have been held reasonably constant by the sampling procedure used in selecting farms in each category. Variations among figures for 2016 are due to changes in farm prices and to

**Table 5. Percent of Illinois Farms and Operator Net Farm Income by Interest Paid as a Percent of Gross Farm Returns, 2012 Through 2016**

	Interest paid as a percent of gross farm returns						All
	Under 1	1–4.9	5–9.9	10–14.9	15–19.9	20+	
<b>Percent of farms</b>							
2012 .....	37	50	11	2	...a	... <sup>a</sup>	100
2013 .....	36	46	14	3	1	... <sup>a</sup>	100
2014 .....	33	48	15	3	1	... <sup>a</sup>	100
2015 .....	29	41	21	6	2	1	100
2016 .....	30	43	20	5	2	1	100
<b>Net farm income</b>							
2012 .....	296,370	329,186	197,285	217,127	(17,723)	(487,188)	298,028
2013 .....	144,794	135,286	83,677	65,677	(37,411)	(64,720)	127,664
2014 .....	128,273	109,973	76,491	34,470	(11,703)	(23,508)	107,290
2015 .....	37,764	7,585	(45,493)	(67,679)	(80,735)	(180,879)	(2,971)
2016 .....	108,927	104,247	53,163	18,422	( 9,101)	(151,119)	86,731

<sup>a</sup>Less than 1 percent.

costs, weather, and internal farming adjustments. The data in Tables 6 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 the value 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 except for using economic depreciation. An important difference in the accrual method of income tax accounting should be noted: the inclusion of interest paid as a farm expense. The operator's share of net farm income has the interest expense deducted from it.

The figures for net farm income are the amounts available from the farm business for living costs, income and Social Security taxes, debts, new investments, and savings. New capital investments for the farm business have been included with total cash expenditures. Although the cash balance reflects the cash position of the farm business, the figure is influenced by purchases and sales of feed and livestock and by changes in liabilities and borrowed funds.

**Grain farms.** The operator's net farm income for Illinois grain farms having 800 to 1,199 acres and no livestock averaged \$76,264 in 2016 (Table 6). This income was \$73,491 above that of 2015 and \$33,735 below the 5-year average income for 2012 through 2016. The 2012 net farm income of \$268,291 was the highest in the last 30 years. The value of farm production averaged \$606,854, which was \$76,176 above 2015 and \$37,771 below the 2012 through 2016 average. The value of farm production included a \$41,376 increase in inventory values compared to 2015, when the inventory value decreased by \$73,821. Net cash operating income (adjusted gross) was \$580,836, \$70,882 lower than the 5-year average. Total cash operating expenses were \$2,140 lower than the year before, while depreciation of \$75,401 was 6 percent higher than the year before and 9 percent higher than the 2012 through 2016 average. Total cash operating expenses for 2014 were the highest on record.

Incomes were higher on these farms in 2016 compared to 2015. Higher yields and positive marketing margins were the main factors for the higher incomes. The average soybean yield on these farms in 2016 was 64 bushels per acre, compared to 61 the year before. The average corn yield was 216 bushels per acre, compared to 187 the previous year. Corn was inventoried 30 cents lower at the end of 2016 compared to the beginning; soybeans were inventoried \$1.20 higher. The higher quantities in ending inventory

caused the value of inventories to increase \$41,376 at the end of the year compared to the beginning. Crop returns averaged \$737 per tillable acre in 2016 compared to \$653 in 2015. Crop expenses per acre decreased 3.5 percent. This was the third year for the Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) Program. The producer had to make a one-time election for either ARC or PLC. For the ARC program, producers would receive a payment the following year after the year of production if the county trigger or farm trigger was met (depending if the producer selected county or individual). For the PLC program, producers receive a payment the following year after the year of production if the effective price is less than the reference price. It is estimated there will be a few counties in Illinois that will see a county ARC payment for 2016. As in the old program, producers can also receive loan deficiency payments (LDPs) or take marketing loan gains when market prices are below the loan rate. All of these

**Table 6. Averages for Selected Total Farm Items on 800- to 1,199-Acre Illinois Grain Farms**

	2016	2015	2012-16 average
Number of farms .....	540	580	569
Total acres .....	1,038	1,007	1,029
Soil-productivity rating .....	82	81	82
Percent land owned.....	20	19	18
Percent land crop-shared ....	39	40	41
Percent land cash-rented ....	41	42	40
Cash operating income.....	\$589,835	\$605,887	\$664,767
Less purch. feed, livestock ..	<u>8,999</u>	<u>14,741</u>	<u>13,109</u>
Net cash operating income..	\$580,836	\$591,146	\$651,658
Accounts receivable chg.....	(15,358)	13,353	1,893
Inventory change .....	<u>41,376</u>	<u>(73,821)</u>	<u>(8,926)</u>
Value of farm prod .....	\$606,854	\$530,678	\$644,625
Total cash op. expenses.....	\$444,543	\$446,683	\$460,888
Prepaid-unpaid change .....	10,645	10,135	4,831
Annual depreciation.....	<u>75,401</u>	<u>71,088</u>	<u>68,908</u>
<b>Net farm income .....</b>	<b>\$76,264</b>	<b>\$2,773</b>	<b>\$109,999</b>
Net farm inc. per operator....	\$72,095	\$2,506	\$104,339
Unpaid labor charge .....	43,984	43,755	43,061
Returns to capital & mgmt ...	32,281	-40,983	66,938
Interest charge on capital .....	<u>54,324</u>	<u>57,717</u>	<u>57,388</u>
<b>Management returns .....</b>	<b>(\$22,044)</b>	<b>(\$98,699)</b>	<b>\$ 9,550</b>
Total cash income <sup>a</sup> .....	\$580,836	\$591,146	\$651,658
Total cash expenditures <sup>a</sup> .....	<u>505,134</u>	<u>506,963</u>	<u>555,556</u>
Cash balance.....	\$ 75,702	\$ 84,182	\$ 96,102
Capital purchases.....	60,591	60,281	94,669

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

receipts are included in net farm income and crop returns. Total tillable land planted to corn and soybeans in 2016 was 96.3 percent, the same as 2015. Corn acres decreased slightly from 52.0 percent of tillable acres in 2015 to 51.9 percent in 2016, while soybean acres increased from 44.3 to 44.4 percent.

The average prices received in 2016 for new-crop corn and soybeans of \$3.43 and \$9.69, respectively, were lower for corn and higher for soybeans than in the previous year. The average prices received for old-crop corn and soybeans, \$3.67 and \$9.39, respectively, were lower than the year before for corn and soybeans. Capital purchases of \$60,591 in 2016 were \$310 more than in 2015 and \$34,078 below the 2012 through 2016 average. Capital purchases of \$137,226 were the highest in 2013 of any year during the last 10 years.

While accrual net farm incomes averaged \$76,264, management returns were a *negative* \$22,044 in 2016, compared to a *negative* \$98,699 in 2015 and the 2012 through 2016 average of \$9,550. The value of farm production per man year was highest for any type of farm in Tables 6 and 8. Operators for these farms owned 20 percent of the land they farmed, crop-shared 39 percent, and cash-rented 41 percent. Of the total labor of 15.2 months, only 3.6 months were hired labor. The total months of labor used on these grain farms was the lowest for any type of farm.

A study of the cost to grow corn and soybeans on central Illinois farms is summarized in Table 7. These farms had a soil productivity index ranging from 86 to 100. The farms used 98.5 percent of their tillable land to grow corn and soybeans, with 53.1 percent of the acres in corn and 45.4 percent in soybeans. The table compares 2016 costs per acre with 2015 costs. In 2016, the total cost per acre averaged \$869 for corn and \$652 for soybeans. From 2015 to 2016, the total cost per acre decreased 3 percent for corn and 2 percent for soybeans.

Nonland costs of \$2.81 per bushel for corn and \$6.13 for soybeans in 2016 are the most relevant costs for continuing production in the short run, especially where land is free of debt. Total cost to produce a bushel decreased for corn and soybeans from 2015 to 2016. Costs per bushel for corn decreased due primarily to much higher yields and lower fertility costs. Total costs per bushel decreased 67 cents for corn and soybeans. If the 2016 yield for corn had been 189 bushels, the same as the average for the period from 2013 through 2016, the total cost per bushel would have been \$4.60. 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 4 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 land cost is the weighted average of owned,

crop-shared, and cash-rented land costs.

**Hog farms.** The operator's net farm income in 2016 for Illinois hog farms having 180 acres or more averaged a *negative* \$6,834 (Table 8). Net incomes were \$111,936 higher than net incomes in 2015 and \$150,094 lower than the average for the 5-year period from 2012 through 2016. The cash balance on these farms of a *negative* \$3,727 was \$74,120 less than in 2015 and \$88,361 below the average for the 5-year period from 2012 through 2016. Inventories on these farms increased \$171,316 in 2016, following a \$205,392 decrease in 2015. The value of farm production of \$1,068,889 was \$171,316 more than in 2015 and \$141,358 lower than the average for the 5-year period from 2012 through 2016. Farm production per man year was \$430,127. Incomes on hog farms increased in 2016 due to higher yields. Depreciation of \$96,757 was \$12,113 higher than in 2015.

Management returns were a *negative* \$111,866 in 2016 compared to a *negative* \$227,489 in 2016. Management returns were \$115,623 more than in 2015 and \$134,608

**Table 7. Average Cost per Tillable Acre to Grow Corn and Soybeans on Central Illinois Grain Farms with No Livestock**

	Corn		Soybeans	
	2016	2015	2016	2015
Number of farms.....	615	672	615	672
Acres grown per farm.....	722	698	617	628
Yield per acre, bu.....	228	200	69	66
<b>Variable nonland costs</b>				
Soil fertility.....	\$154	\$166	\$ 49	\$ 56
Pesticides.....	66	66	40	40
Seed.....	116	118	74	76
Drying and storage.....	27	29	9	9
Machinery repairs, fuel, and hire.....	55	58	48	50
Total, variable costs.....	\$418	\$437	\$220	\$231
<b>Other nonland costs</b>				
Labor.....	\$ 48	\$ 49	\$ 46	\$ 46
Buildings.....	16	17	14	14
Machinery depreciation..	66	65	58	57
Nonland interest.....	48	50	43	45
Overhead.....	44	47	42	44
Total, other costs.....	\$222	\$228	\$203	\$206
Total, nonland costs.....	\$640	\$665	\$423	\$437
<b>Land costs</b>				
Total land costs <sup>a</sup> .....	\$229	\$231	\$229	\$231
<b>Total, all costs.....</b>	<b>\$869</b>	<b>\$896</b>	<b>\$652</b>	<b>\$668</b>
Nonland cost per bu.....	\$2.81	\$3.33	\$6.13	\$ 6.62
Total, all costs per bu.....	\$3.81	\$4.48	\$9.45	\$10.12
-----				
Average yield, past 4 yrs ...	189	182	60	57
Total, all costs per bu.....	\$4.60	\$4.92	\$10.87	\$11.72

<sup>a</sup>Weighted average of owned, crop-shared, and cash-rented land costs.

below the average for 2012 through 2016. Capital purchases were \$88,932, which was \$22,285 lower than in 2015 and \$50,030 lower than the average for 2012 through 2016. Farm production per one dollar of nonfeed costs was 89 cents. Purchased feed and livestock for this group totaled \$890,766, \$5,387 less than in 2015. The average interest paid on these farms was \$53,916. That was the second highest for any type of farm in Table 8. Farm operators in this group owned 16 percent of the land they farmed, crop-shared 19 percent, and cash-rented 65 percent. Total labor was 36.7 months, 24.2 months of which was hired. Corn was planted on 64.2 percent of the acres and soybeans on 32.2 percent. The average corn yield was 222 bushels per acre and the average soybean yield 68 bushels per acre.

**Beef farms.** The operator's net farm income for Illinois beef farms having 180 acres or more averaged a *negative* \$62,296 in 2016 (Table 8). This figure was \$60,528 higher than the 2015 figure and \$119,393 lower than the average from 2012 through 2016. Higher grain yields contributed to

the higher earnings. Net farm income for these farms was the lowest of any type of livestock farm in the sort. Feed cost per hundredweight produced decreased 10 percent, while the average price received for market cattle decreased 20 percent in 2016 compared to 2015. The price paid for feeder cattle went down about 30 percent from the year before. The value of farm production for this group of farms averaged \$518,978, or \$257,336 more than in 2015. Cash operating income averaged \$1,977,097, purchased feed and livestock totaled \$1,291,727, and net cash operating income averaged \$685,370.

Management returns of a *negative* \$209,861 in 2016 for these farms were the lowest for any type of livestock farm in the study. Management returns averaged a *negative* \$70,019 for the period 2012 through 2016. Capital purchases were \$69,897 in 2016, compared to \$92,949 in 2015 and \$144,815 in 2014. The 2012 through 2016 average was \$111,829. Depreciation of \$79,300 was \$24,037 above 2015. Cash operating expenses, excluding purchases of

**Table 8. Averages for Selected Total Farm Items on Illinois Hog, Beef, and Dairy Farms**

	Hog farms			Beef farms			Dairy farms		
	2016	2015	2012-16 average	2016	2015	2012-16 average	2016	2015	2012-16 average
Number of farms .....	39	38	42	18	28	26	42	57	51
Total acres .....	1,058	999	1,069	727	562	679	601	572	603
Soil-productivity rating .....	84	79	80	68	55	69	70	66	69
Percent land owned.....	16	18	20	46	44	43	30	30	36
Percent land crop shared .....	19	17	19	3	23	16	3	4	4
Percent land cash rented.....	65	64	61	51	32	41	67	66	61
Cash operating income.....	\$1,933,851	\$1,988,755	\$2,220,902	\$1,977,097	\$1,249,794	\$1,509,975	\$1,101,361	\$907,361	\$1,101,361
Less purch. feed, livestock ....	<u>890,766</u>	<u>896,153</u>	<u>1,018,264</u>	<u>1,291,727</u>	<u>776,601</u>	<u>964,905</u>	<u>250,418</u>	<u>220,456</u>	<u>257,360</u>
Net cash oper. income.....	\$1,043,085	\$1,092,602	\$1,202,639	\$685,370	\$473,192	\$545,070	\$850,943	\$749,905	\$844,000
Accounts receivable change..	(17,777)	10,363	(310)	(3,182)	1,372	(1,262)	(8,828)	(4)	1,374
Inventory change .....	<u>43,581</u>	<u>(205,392)</u>	<u>7,918</u>	<u>(163,210)</u>	<u>(212,293)</u>	<u>3,006</u>	<u>(13,157)</u>	<u>(57,490)</u>	<u>6,785</u>
Value of farm prod .....	\$1,068,889	\$ 897,573	\$1,210,247	\$518,978	\$261,642	\$546,814	\$828,958	\$692,412	\$852,159
Total cash oper. expenses .....	\$957,880	\$ 910,992	\$979,043	\$487,284	\$322,804	\$425,755	\$691,871	\$596,526	\$653,899
Prepaid-unpaid change .....	21,085	20,707	2,889	14,690	6,399	2,629	13,943	19,803	821
Annual depreciation.....	<u>96,757</u>	<u>84,644</u>	<u>85,054</u>	<u>79,300</u>	<u>55,263</u>	<u>61,354</u>	<u>97,302</u>	<u>79,199</u>	<u>82,195</u>
<b>Net farm income .....</b>	<b>(\$6,834)</b>	<b>(\$118,770)</b>	<b>\$143,261</b>	<b>(\$62,296)</b>	<b>(\$122,824)</b>	<b>\$57,076</b>	<b>\$25,842</b>	<b>(\$ 3,116)</b>	<b>\$115,244</b>
Net farm inc. per operator.....	(\$4,913)	(\$80,298)	\$94,520	(\$63,147)	(\$90,329)	\$42,186	\$38,063	\$ 3,034	\$77,113
Unpaid labor charge .....	47,295	39,051	46,977	67,070	50,589	51,811	57,814	58,295	57,426
Returns to capital & mgmt.....	(54,129)	(157,822)	96,283	(129,366)	(173,413)	5,265	(31,972)	(61,411)	57,818
Interest charge on capital .....	<u>57,737</u>	<u>69,668</u>	<u>73,542</u>	<u>80,945</u>	<u>72,142</u>	<u>75,284</u>	<u>60,184</u>	<u>56,030</u>	<u>60,026</u>
<b>Management returns .....</b>	<b>(\$111,866)</b>	<b>(\$227,489)</b>	<b>\$22,741</b>	<b>(\$209,861)</b>	<b>(\$245,554)</b>	<b>(\$70,019)</b>	<b>(\$92,156)</b>	<b>(\$117,441)</b>	<b>(\$2,209)</b>
Total cash income <sup>a</sup> .....	\$1,043,085	\$1,092,602	\$1,202,639	\$685,370	\$473,192	\$545,070	\$850,943	\$749,905	\$844,000
Total cash expenditures <sup>a</sup> .....	<u>1,046,812</u>	<u>1,022,209</u>	<u>1,118,005</u>	<u>557,181</u>	<u>415,754</u>	<u>537,584</u>	<u>782,850</u>	<u>727,673</u>	<u>787,430</u>
Cash balance.....	(\$ 3,727)	\$ 70,393	\$ 84,634	\$128,169	\$57,439	\$ 7,486	\$ 68,093	\$ 22,232	\$56,570
Capital purchases.....	88,932	111,217	138,962	69,897	92,949	111,829	90,979	131,147	133,531

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

feed and livestock, totaled \$487,284. The net cash balance for these farms was \$128,189.

Costs and returns to produce beef from 2013 through 2016, based on a detailed breakdown of individual costs from a selected sample of beef farms, are shown in Table 14. Total returns exceeded total costs only in 2014, but in the other years, total costs exceeded total returns. An analysis of feeder cattle enterprises is discussed in detail under the livestock section.

Farm operators in this group owned 46 percent of the land they farmed. They crop-shared 3 percent and cash-rented 51 percent. The amount of interest paid was \$56,026, the highest of any livestock group in Table 8. They planted 54.5 percent of their tillable land to corn or corn silage. They also had 9.6 percent of their tillable land in hay and pasture. These farms used 22.6 months of total labor, with 5.0 of that hired labor. The average corn yield on these farms was 222 bushels per acre, and the average soybean yield was 67 bushels per acre. In 2015, corn and soybeans yields on these farms averaged 201 and 62 bushels per acre, respectively.

Farms where 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. In recent years, this type of farm has survived primarily where large amounts of debt-free capital have been combined with very high levels of management. Higher crop returns have helped them endure the volatile, cyclical nature of the cattle enterprise.

**Dairy farms.** The operator's net farm income for Illinois dairy farms having 180 acres or more averaged \$25,842 in 2016 (Table 8). This figure was \$28,958 above the 2015 figure and \$89,402 below the 5-year average from 2012 through 2016. The highest income was recorded in 2014. The farms averaged 45,653 hundredweight of milk produced.

The main factor for the increase in earnings was higher crop yields. The value of farm production was \$828,958. This was \$136,546 higher than 2015 and \$23,201 lower than the 2012 through 2016 average. The value of inventory decreased by \$13,157, while cash operating income increased by \$131,000, 13.5 percent more than in 2015. (A detailed breakdown of the cost of producing milk is given in Table 16.) Management returns of a *negative* \$92,156 were \$25,285 higher than the 2015 figure and \$89,947 lower than the 5-year average from 2012 through 2016. Capital purchases decreased to \$90,979 in 2016, compared to \$131,147 in 2015 and \$152,407 in 2014. The 2012 through 2016 average was \$133,531, and 2013 was the highest amount of capital purchases ever for these types of farms. Annual depreciation on these farms averaged \$97,302. These farms used 49.4 months of total labor, 34.2 months of which was hired labor. The total labor used was the highest for any type of livestock farm in the state. The average interest expense paid by these operators was \$37,122, the lowest for any livestock group in this study.

Farm operators in this group owned 30 percent of the land they farmed and cash-rented 67 percent. About 10.7 percent of the land they farmed was in hay ground; 50.3 percent was in corn and corn silage. Over 132 percent of the value of crop produced was fed to livestock. The average corn yield was 203 bushels per acre for these farms, which is 18 bushels per acre more than in 2015. The average price received for milk in 2016 was 9 percent lower than the average price received in 2015.

## LIVESTOCK ENTERPRISES

The returns 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. This table also shows 15-year and 5-year averages. The difference between the average return figure and a feed cost of \$100 represents the margin available for cash expenses other than feed, labor, depreciation on equipment, 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 2002 through 2016 represent the approximate level of return at which farmers have been willing to maintain livestock production. The average may not represent a breakeven 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 for livestock, they need only to cover direct operating costs to continue production. However, when livestock production is a new or a long-term enterprise, farmers hope to cover all fixed and variable costs. Otherwise, they should not undertake the enterprise.

### Patterns and fluctuations

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 1 or 2 years and then drop below this average for 1 or 2 years. Returns per \$100 of feed fed of \$147 in 2016 were the same as the most recent 5-year average. The 2016 return was below the 2002 through 2016 average. The 2004 and 2005 returns of \$216 were the highest for any year during the last 15 years.

The returns from feeder cattle vary greatly from year to year. The long-run averages shown in Table 9 indicate that the cattle-feeding business has not been paying average market rates for all resources used by the enterprise, although the 2003 through 2005 time period and 2014 resulted in some of the better returns on record. Table 9 shows

the return of \$136 per \$100 of feed fed for the most recent 5-year period (2012 through 2016) to be below the previous 5-year period and the 15-year average of \$143. The 2016 return of \$132 per \$100 of feed fed was \$4 below the most recent 5-year average. 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 average return above feed and purchased animal costs for dairy enterprises of \$1,936 per cow in 2016 was \$304 below the 5-year average of \$2,240 (Table 10). These returns indicate that the average dairy enterprise has not covered the total estimated cost of production of \$2,312 per cow from 2011 through 2015. The 2016 return per \$100 of feed fed of \$181 was above the past 5-year average of \$180.

For the beef-herd enterprise, the average returns above the cost of feed and purchased animals for the period from 2012 through 2016 showed great volatility. Historically, the beef-herd enterprises generate enough returns to cover cash costs but not total 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. This enterprise is most commonly found on farms with nontillable pasture that has limited alternative uses. In the

beef-cow enterprise, returns above the cost of feed per cow were \$206 during the past 5 years. The 2016 return of a *negative* \$94 did not cover feed costs or total nonfeed costs, estimated at \$305 per cow.

Raising livestock has become more competitive and specialized. Average profit margins are narrow. Fewer farmers are willing to stay in business, because returns in some enterprises barely cover direct operating costs. As an alternative, more producers are specializing in a certain phase of livestock production and entering contractual arrangements to guarantee a certain return. While these contracts may limit upside potential, they can also reduce risk during times of low prices. Expansion plans that require large investments for new facilities should be based on an estimated return high enough to cover all costs. Fluctuations in livestock returns can involve a risk in low-return years.

### Hog enterprises

The information on farrow-to-finish enterprises in Table 11 is based on a sample of 22 enterprises farrowing 10 litters or more a year. Farms were omitted from the sample if the number of hogs purchased exceeded 10 percent of pigs weaned, which eliminated farms with combined farrowing and feeder-pig operations. (Information on feeder-pig finishing enterprises is given in Table 13.) The average size of farrow-to-finish enterprises on all recordkeeping farms in 2016 was 377 litters. Average pigs weaned per litter, 9.88, was above the 2015 figure of 9.59. The 2,587 pounds of pork produced per litter was 56 pounds above 2015. The

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

	Farrow-to-finish hogs (\$)	Feeder pig finishing (\$)	Feeder cattle bought (\$)	Dairy cow herds (\$)	Beef cow herds (\$)	Native sheep raised (\$)	Yearly price of corn (\$)
2002 .....	151	121	128	198	130	154	2.19
2003.....	168	132	200	202	148	165	2.30
2004.....	216	158	165	222	178	161	2.49
2005.....	216	143	167	245	170	111	2.02
2006.....	183	121	124	192	137	117	2.41
2007.....	138	136	142	218	111	134	3.42
2008.....	115	131	102	172	86	106	4.70
2009.....	123	104	126	138	109	75	3.76
2010.....	156	127	163	168	135	139	3.86
2011.....	146	153	153	181	145	173	6.15
2012.....	120	127	117	146	125	79	6.74
2013.....	138	133	125	156	131	.. <sup>a</sup>	6.07
2014.....	196	187	215	228	260	122	4.14
2015.....	136	122	90	188	101	79	3.70
2016.....	147	132	132	181	184	63	3.55
<b>Averages</b>							
2002–2016.....	157	135	143	189	138	.. <sup>a</sup>	3.83
2002–2006.....	187	135	157	212	153	142	2.28
2007–2011.....	136	130	137	175	117	125	4.38
2012–2016.....	147	140	136	180	144	.. <sup>a</sup>	4.84

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

**Table 10. Variations in Returns to Livestock Enterprise Units, 2012 Through 2016**

	Hogs (per cwt)	Feeder-pig finishing (per cwt)	Feeder cattle (per cwt)	Dairy cattle (per cow)	Beef herd: calves sold (per cow) <sup>a</sup>
<b>Return above cost of feed and purchased animals</b>					
2012.....	\$ 9.98	\$10.17	\$14.29	\$1,519	\$145
2013.....	18.33	13.09	21.12	1,846	169
2014.....	37.12	29.37	70.06	3,734	842
2015.....	11.87	6.20	-5.75	2,167	-34
2016.....	<u>14.38</u>	<u>8.64</u>	<u>16.70</u>	<u>1,936</u>	<u>-94</u>
Five-year average.....	\$18.34	\$13.49	\$23.28	\$2,240	\$206
<b>Nonfeed costs, 2011 through 2015<sup>b</sup></b>					
Direct cash.....	\$11.14	\$ 7.12	\$19.20	\$1,695	\$189
Other costs.....	<u>8.41</u>	<u>3.85</u>	<u>14.24</u>	<u>617</u>	<u>116</u>
Total.....	\$19.55	\$10.97	\$33.44	\$2,312	\$305

<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.

2016 records summarized here for the “all farms” group show that the return of \$14.38 above feed costs per 100 pounds of pork produced was \$2.51 above the 2015 return of \$11.87. The 2016 return was below the 5-year average.

The 5-year average return above feed costs per 100 pounds produced was \$18.34 (Table 10). Even the 5-year average can vary significantly because of wide fluctuations in returns from year to year. Detailed records show that an average farmer with existing facilities needed a return above feed costs of \$19.55 per 100 pounds to pay for all nonfeed costs in the 2011 through 2015 time period. The return above all costs during this 5-year period of a *negative* \$1.21 (\$18.34 minus \$19.55) has led to very little expansion but some increase in pork production. Pork production increased from 2014 to 2015, but increased only 1.8 percent from 2015 to 2016. Fortunately, strong export demand is expected to support pork prices. Pork production is expected to increase about 3.6 percent in 2017 due to higher pork prices, mainly due to higher exports (9.7% in 2017) and lower feed costs.

The large producers paid less per hundredweight for concentrates and had a higher feed conversion. The average price received for hogs sold by large producers, or the net at the farm, was 60 cents less than the average net received by all producers.

A substantial profit margin is required to compensate for the risk and detailed management involved in hog production compared with other resource uses. Large-scale hog production in modern confinement facilities requires high capital investment. The future recovery of this investment is uncertain. The salvage value of confinement hog facilities is low. In addition, acquiring the managerial skills for the large-scale production of hogs in confinement may discourage any rapid expansion of large hog-producing units. Pork production in 2016 increased only 1.8 percent. Pork production in 2017 is expected to increase compared to 2016. Hog prices should move higher due to greater

demand. Lower feed costs have decreased the cost of production, resulting in higher profit margins when combined with higher prices received.

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 2013, 2014, 2015, and 2016. The value of the feed fed to hogs was more than 40 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.

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.

As reported in Table 12, cash costs of production in 2016 were \$41.39 per 100 pounds of pork produced. Feed is included as a cash cost, although for some producers a share of the grain is raised on the farm. The readily available alternative cash market for grain makes 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.

Feed costs decreased 7 percent as one compared 2016 to 2015. Total nonfeed costs increased \$1.91 per 100 pounds of pork produced, with maintenance and power costs and livestock expenses representing most of the increase. Feed costs decreased as grain prices decreased. Total cost of production decreased from 2015 to 2016 by 7 cents (2 percent) per 100 pounds of pork produced.

From 2013 through 2016, the return above all costs averaged 51 cents per 100 pounds of pork produced. Management practices, such as the choice of building systems, 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 of hog enterprises.

**Feeder cattle and feeder pig finishing enterprises**

Data for 2016 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 1,582,692 pounds in 2016 (Table 13). At 240 pounds of gain per head, this figure amounted to 6,595 head fed per farm in 2016. These feeder pig enterprises represent those that buy weaner pigs and finish them.

The return above the cost of feed and purchased animals from 2012 through 2016 averaged \$13.49 per 100 pounds of gain. This return was \$2.52 above the \$10.97 of all nonfeed costs for the period 2011 through 2015 (Table 10). The 2016 return of \$8.64 was \$2.44 above the 2015 return and \$4.85 below the 2012 through 2016 return. Lower feed costs were the main reason for the higher returns.

Given that a 475-pound unit of gain equals one head of feeder cattle, the average of 229,922 pounds of beef produced per farm in 2016 (Table 13) equals 484 head of feeder cattle per farm. That figure is lower than the year before. The return per \$100 of feed for feeder cattle enterprises was

**Table 11. Hog Enterprises, 2016 Averages per Farm**

	All farms	Farrow-to-finish enterprises <sup>a</sup>
Number of farms.....	22	7
Pork produced, lbs.....	975,904	2,330,827
Pork prod. per litter, lbs.....	2,587	2,699
Total returns.....	\$440,953	\$1,044,572
Value of feed fed.....	\$300,599	\$691,026
Returns per \$100 feed fed.....	\$147	\$151
Number litters farrowed.....	377	864
Pigs farrowed per litter.....	11.60	12.02
Pigs weaned per litter.....	9.88	10.23
Litters per female year.....	1.85	1.92
Pigs weaned per female year...	20.78	19.41
Number pigs weaned.....	3,725	8,839
Death loss, % lbs produced.....	3.2	3.4
Wt per market hog sold, lbs.....	271	272
----- per cwt produced -----		
Price received—market.....	\$48.84	\$48.24
Total returns.....	45.18	44.82
Feed costs.....	<u>30.80</u>	<u>29.65</u>
Return above feed.....	\$14.38	\$15.17
Farm grains/complete feed, lbs	216	216
Commercial feed, lbs.....	<u>84</u>	<u>79</u>
Total concentrates, lbs.....	300	295
Cost per cwt supplement.....	\$20.40	\$20.33
Cost per cwt concentrates.....	\$10.25	\$10.05

<sup>a</sup>350 or more litters per farm.

**Table 12. Average Costs and Returns for Farrow-to-Finish Hog Enterprises, 2013 Through 2016**

	2016	2015	2014	2013	2013–16 average
Number of farms.....	10	13	12	14	12
Tillable acres.....	632	398	553	823	602
Number of litters.....	492	583	494	422	498
Total returns.....	\$46.63	\$46.96	\$74.52	\$63.96	\$58.02
----- per cwt pork produced -----					
<b>Cash costs</b>					
Feed.....	\$29.54	\$31.71	\$38.59	\$49.71	\$37.39
Operating expenses					
Maintenance and power <sup>a</sup> .....	\$ 5.17	\$ 4.55	\$ 6.10	\$ 4.36	\$ 5.05
Livestock expenses.....	5.21	4.63	5.28	5.23	5.09
Insurance, taxes, and overhead.....	<u>1.47</u>	<u>1.40</u>	<u>1.18</u>	<u>1.11</u>	<u>1.29</u>
Total operating expenses.....	\$11.85	\$10.59	\$12.56	\$10.70	\$11.42
Total cash costs.....	\$41.39	\$42.30	\$51.15	\$60.41	\$48.81
<b>Other costs</b>					
Depreciation <sup>b</sup> .....	\$1.75	\$1.38	\$1.74	\$1.86	\$1.68
Labor.....	6.05	5.94	5.49	5.03	5.63
Interest charge on all capital.....	<u>1.51</u>	<u>1.34</u>	<u>1.59</u>	<u>1.11</u>	<u>1.39</u>
Total other costs.....	\$9.31	\$8.66	\$8.82	\$8.00	\$8.70
Total nonfeed costs.....	\$21.16	\$19.25	\$21.38	\$18.70	\$20.12
Total all costs.....	\$50.70	\$50.96	\$59.97	\$68.41	\$57.51
Return above all costs.....	(\$4.07)	(\$4.00)	\$14.55	(\$4.45)	\$ 0.51

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

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

\$132 in 2016, in comparison with a 5-year average of \$136 and a 15-year average of \$143 (Table 9).

The price paid for feeders was \$62.63 per 100 pounds lower in 2016 than it was in 2015; the price received for cattle sold in 2016 was \$30.16 lower per 100 pounds than the price received in 2015. The average weight of purchased animals was 687 pounds; the average weight of animals sold was 1,351 pounds. Feed costs were \$51.87 per 100 pounds produced in 2016; they were \$57.41 in 2015. Feed costs decreased in 2016 and were below the last 5-year average of \$68.17. Smaller differences in the price paid and received for market cattle as well as lower feed costs resulted in much higher returns above feed in 2016.

Each 100 pounds of beef produced required 663 pounds of concentrates and 65 pounds of hay. The amount of corn silage used in 2016 averaged 213 pounds; other silage averaged 41 pounds, for a total of 254 pounds. Silage use by the feeder cattle enterprise had been decreasing slightly in the prior 10 years, except for 2015; the 10-year average for the period 1997 through 2006 was 432 pounds per 100 pounds of beef produced, compared to 288 pounds for the period 2007 through 2016. The use of 254 pounds of silage per 100 pounds of beef produced in 2016 was the second lowest amount fed on record. The high initial investment required for many silage feeding operations may denote more reliance on higher concentrate and dry roughage facilities.

This data does not show the wide variation in profits among cattle-feeding programs. The data on Illinois feeder cattle enterprises in Tables 9, 10, and 13 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 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 \$23.28 per 100 pounds of beef produced from 2012 through 2016 (Table 10). During this period, returns ranged from a *negative* \$5.75 in 2015 to \$70.06 in 2014. The 5-year average returns above feed costs are below the estimated cost of \$33.44 per 100 pounds produced required to pay for all nonfeed costs for the average cattle feeder for the past 5 years. The returns above feed costs are higher than in 2015 because of the lower feed costs and smaller difference between purchase and received prices.

The data in Table 14 show a detailed breakdown for the period from 2013 through 2016 on costs 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 shows that these farms were finishing an average of 1,110 feeders each year from 2013 through 2016.

The 4-year average total cash cost including feed and interest charged on cattle, was \$88.36 per 100 pounds of beef produced. The average total returns of \$89.97 for the same period was more than total cash costs by \$1.61 per 100 pounds produced, or about \$10.82 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 to invest in cattle without paying interest. Total other costs of \$12.94 per 100 pounds of beef produced, or \$87 per feeder (\$12.94 multiplied by 6.72 hundredweight of gain per feeder), include depreciation, labor, and interest. Adding the other costs to cash costs results in total costs of \$101.30 per hundredweight over the 4-year period. This was \$11.33 per hundredweight more than the average total returns of \$89.97.

A number of cattle feeders in Illinois apparently will feed cattle as long as their return covers feed and cash costs even if it falls short of paying market rates for some nonmarketable roughage and fixed and overhead costs; however, this number is declining.

Farmers' 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

**Table 13. Feeder Cattle and Feeder Pig Finishing Enterprises, 2016 Averages per Farm**

	Feeder cattle	Feeder-pig finishing <sup>a</sup>
Number of farms.....	63	32
Total lbs produced .....	229,922	1,582,692
Total returns.....	\$157,651	\$570,049
Value of feed fed.....	\$119,266	\$433,372
Returns per \$100 of feed fed.....	\$132	\$132
Death loss, % lbs produced.....	2.2	1.9
Average weight purchased.....	687	13
Price paid per 100 lbs.....	\$144.16	\$288.69
Price received per 100 lbs.....	\$120.52	\$ 49.73
Average weight sold.....	1,351	268
	<b>-- per cwt produced --</b>	
Total returns.....	\$68.57	\$36.02
Feed costs.....	<u>51.87</u>	<u>27.38</u>
Return above feed.....	\$16.70	\$ 8.64
Farm grains/complete feed, lbs....	611	188
Supplement, lbs.....	<u>52</u>	<u>88</u>
Total concentrates, lbs.....	663	276
Hay, lbs.....	65	.. <sup>b</sup>
Corn silage, lbs.....	213	.. <sup>b</sup>
Other silage, lbs.....	41	.. <sup>b</sup>
Hay equivalent, lbs.....	160	.. <sup>b</sup>

<sup>a</sup>Purchase weight of 20 lbs and less.

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

of beef consumers want 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 building new facilities.

**Dairy enterprises**

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. Herd size remained steady, between 63 and 70 cows, up to 1994. From 1994 until 2004, herd size had been between 75 and 85 cows. From 2004 through 2009, herd size was around 100 cows. Since 2012, the herd size has been variable, but it averages around 145 cows. The 2016 average herd size is 162.7 cows. There continue to be fewer and fewer dairy herds in Illinois. A few dairy producers have decided to expand their herds and make a long-term commitment to the dairy industry.

The return per \$100 of feed fed to dairy cattle in 2016 was \$181. The average for the period from 2012 through

2016 was \$180 (Table 9). In 2016, milk prices per hundredweight decreased from \$17.89 to \$16.27. From 2015 to 2016, beef prices for market animals sold decreased \$96.95 per hundred pounds, while feed costs decreased 38 cents per milk equivalent. Milk production per cow in 2016 of 23,969 pounds was up 659 pounds from 2015 and the highest on record.

Dairy farmers have reduced the amounts of pasture and dry hay and 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 4 in 2016. This shift indicates that significant pasture days are a thing of the past on nearly all dairy farms in this sample. However, some producers are beginning to experiment again with intensive rotational grazing as a means of lowering costs.

The herds in Table 15 were divided into groups based on size: the two groups had 40 to 79 cows and 150+ cows. The larger herds averaged 340 cows, and the smaller herds averaged 60 cows. The return above feed costs per cow was higher for the larger herds, at \$2,209, compared to a return

**Table 14. Average Costs and Returns for Beef-Feeding Enterprises, 2013 Through 2016**

	2016	2015	2014	2013	2013–16 average
Number of farms.....	9	12	15	14	13
Average per farm					
Tillable acres.....	458	575	570	704	577
Hundredweight beef produced .....	4,082	5,929	5,843	5,241	5,274
Number head at 475-lb gain equivalents.....	859	1,248	1,230	1,103	1,110
Average weight purchased, lbs.....	652	650	635	659	649
Average weight sold, lbs.....	1,341	1,348	1,324	1,270	1,321
Price received per 100 lbs sold .....	\$118.53	\$149.47	\$147.19	\$122.87	\$134.52
Price paid per 100 lbs purchased.....	\$149.69	\$210.69	\$206.98	\$141.12	\$177.12
----- per cwt beef produced -----					
<b>Cash costs</b>					
Feed .....	\$53.16	\$58.25	\$61.32	\$91.53	\$66.07
Operating expenses					
Maintenance and power <sup>b</sup> .....	\$ 8.41	\$ 8.68	\$ 8.61	\$ 8.45	\$ 8.54
Livestock expense.....	5.43	7.88	6.20	6.93	6.61
Insurance, taxes, and overhead .....	2.44	1.23	0.85	0.94	1.37
Interest on cattle <sup>c</sup> .....	<u>4.76</u>	<u>7.11</u>	<u>6.23</u>	<u>5.02</u>	<u>5.78</u>
Total operating expenses.....	\$21.04	\$24.90	\$21.89	\$ 21.34	\$22.29
Total cash costs.....	\$74.20	\$83.15	\$83.21	\$112.87	\$88.36
<b>Other costs</b>					
Depreciation <sup>d</sup> .....	\$ 4.72	\$ 3.93	\$ 3.64	\$ 3.37	\$ 3.92
Labor .....	6.11	6.09	5.88	6.47	6.14
Interest on other capital.....	<u>4.01</u>	<u>2.78</u>	<u>2.61</u>	<u>2.16</u>	<u>2.89</u>
Total other costs .....	\$ 14.84	\$12.81	\$ 12.13	\$ 12.00	\$ 12.94
Total all costs.....	\$ 89.04	\$95.96	\$95.34	\$124.87	\$101.30
Total returns <sup>e</sup> .....	\$ 68.79	\$50.67	\$131.16	\$109.27	\$ 89.97
Return above all costs.....	(\$20.25)	(\$45.29)	\$ 35.82	(\$ 15.60)	(\$11.33)

<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 4.0% for 2013 to 2016.

<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.

of \$1,451 for the smaller herds. The larger herds averaged 26,014 pounds of milk produced per cow, compared to 21,354 pounds for the smaller herds. Feed cost per milk equivalent was lower for the larger herds, at \$8.85, compared to \$10.12 for the smaller herds.

The average return above feed costs per cow for all dairy herds was \$1,936 in 2016 (Table 15). This figure compares with the recent 5-year average of \$2,240 per cow (Table 10). For the years 2011 through 2015, the 5-year average return above feed costs required to pay market prices for all nonfeed costs is estimated to be about \$2,312 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.

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 from 2014 through 2016. 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 sold, which was valued at the average price received for all weights of dairy animals sold from 2012 through 2016. The residual costs, amounting to about 87 percent of the total enterprise costs, were then considered the net cost of producing milk.

The differences between the herds with 40 to 79 cows and those with 80 or more for the period from 2014 through 2016 is a combination of lower feed costs and lower other costs for the larger herds. For the 3-year period, the milk price for the larger herds is 39 cents per 100 pounds lower than that for the smaller herds, while feed costs per 100 pounds of milk sold for the larger herds were \$1.52 lower than for the smaller herds. Total nonfeed costs were 67 cents lower for the larger herds.

In 2016, feed costs per 100 pounds of milk produced decreased for small herds (\$1.30) and for large herds (43 cents). The cost of feed averaged about 49 percent of total production costs in Illinois dairy enterprises. Compared with 2015, total nonfeed costs decreased 6 percent for the large herds and only a small increase for the small herds. The total cost of producing 100 pounds of milk in 2016 was \$19.51 for the small herds and \$17.80 for the large herds. The average price received for milk in 2016 decreased for both groups of dairy enterprises. With lower milk prices, returns were not able to cover total production costs for either group in 2016. Returns were a *negative* \$3.29 per 100 pounds of milk produced for the small herds and a *negative* \$1.50 for the large herds. The returns above all costs per 100 pounds of milk produced had averaged \$1.80 more for the large group than the small group from 2014 through 2016. Margin Protection Program for Dairy Producers

**Table 15. Dairy Cattle Enterprises, 2016 Averages per Farm**

	All farms	40-79 cows	150+ cows
Number of farms.....	57	13	17
Number of cows.....	162.7	59.6	333.9
Milk cows dry, % .....	12.4	16.0	11.3
Animal units in herd.....	305	115	660
Total returns.....	\$705,470	\$229,793	\$1,607,479
Value of feed fed.....	\$390,435	\$143,291	\$856,526
Return per \$100 of feed fed	\$181	\$160	\$188
Return above feed per cow .	\$1,936	\$1,451	\$2,209
Total milk produced, cwt .....	39,001	12,727	88,422
Lbs of milk per cow.....	23,969	21,354	26,014
Lbs of butterfat per cow.....	896	828	967
Total beef produced, lbs .....	111,669	43,469	233,445
Pounds of beef per cow.....	686	729	687
Death loss, % lbs produced.	13.4	14.8	11.7
Price received for:			
cwt milk.....	\$ 16.27	\$16.00	\$ 16.41
cwt beef .....	\$129.03	\$119.46	\$141.47
Per cwt milk equivalent <sup>a</sup>			
Feed cost.....	\$9.16	\$10.12	\$8.85
Grain/complete feed, lbs....	22	24	20
Protein and minerals, lbs...	19	17	20
Total concentrates, lbs.....	41	41	40
Hay and dry roughage, lbs	13	29	8
Corn silage, lbs.....	87	79	87
Other silage, lbs.....	51	57	52
Pasture days per animal unit	4	9	3
Hay equivalent per cow, tons	8.4	9.4	8.5
Concentrates per cow, lbs ...	10,611	9,740	11,357

<sup>a</sup>Milk equivalent equals value of beef produced divided by average price received per cwt milk plus cwt of milk produced.

(MPP-Dairy) payments from the Farm Service Agency and patronage returns related to the dairy enterprise were not included in returns. This would add about 25 cents per 100 pounds of milk produced to returns.

**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. From 1956 through 1969, the average size of the herd on all farms ranged from 25 to 30 cows. From 1970 to 1973, the average grew to about 40 cows per herd and remained stable through 1989. Since 2001, the herd size has been about 50 to 60 cows. The herd size was 65 cows in 2016, 2 more than in 2015. Most Illinois farmers who maintain a beef-cow herd do so as a supplemental enterprise to market nonsalable feeds and labor.

The return per \$100 of feed fed to beef-cow herds where the calves are sold averaged \$104 in 2016. The returns for the 5-year period from 2012 through 2016 averaged \$144, which is above the 15-year average of \$138 for the period from 2002 through 2016 (Table 9). Beef prices received in

**Table 16. Average Milk Production Costs and Returns by Size of Herd, 2014 through 2016**

	40–79 cows in herd			80 or more cows in herd		
	2016	2015	2014	2016	2015	2014
Number of farms	7	7	9	28	29	27
Tillable acres	140	182	198	490	475	442
Number of cows	61.7	57.4	64.0	230.3	210.0	216.7
Milk per cow, lbs	21,680	20,299	19,434	24,538	24,092	23,826
	----- per 100 lbs of milk produced -----					
Price received	\$16.22	\$16.79	\$25.29	\$16.30	\$17.48	\$25.16
<b>Cash costs</b>						
Feed	\$9.40	\$10.70	\$12.73	\$8.66	\$9.09	\$11.06
Operating expenses						
Maintenance and power <sup>a</sup>	2.39	2.84	3.07	2.25	2.40	3.03
Livestock expense	2.80	2.52	3.13	2.53	2.68	2.91
Insurance, taxes, and overhead	0.19	0.09	0.19	0.24	0.24	0.26
Total operating expenses	\$ 5.38	\$ 5.46	\$ 6.39	\$ 5.02	\$ 5.32	\$ 6.20
Total cash costs	\$14.78	\$16.16	\$19.12	\$13.68	\$14.41	\$17.26
<b>Other costs</b>						
Depreciation <sup>b</sup>	\$ 0.89	\$ 0.96	\$ 0.85	\$ 0.87	\$ 0.96	\$ 0.98
Labor	3.09	2.90	3.11	2.44	2.58	2.72
Interest charge on all capital	0.75	0.77	0.83	0.81	0.83	0.87
Total other costs	\$ 4.73	\$ 4.63	\$ 4.79	\$ 4.12	\$ 4.37	\$ 4.57
Total nonfeed costs	\$10.11	\$10.09	\$11.18	\$ 9.14	\$ 9.69	\$10.77
Total all costs	\$19.51	\$20.79	\$23.91	\$17.80	\$18.78	\$21.83
Return above all costs	(\$3.29)	(\$4.00)	\$1.38	(\$1.50)	(\$ 1.30)	\$ 3.33

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

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

2016 averaged \$135.18 per hundredweight, a decrease of \$51 from prices in 2015. Feed costs per 100 pounds of beef produced decreased by \$14.83 to \$74.45 in 2016.

In addition to all farms, Table 17 gives an analysis of cow herds in which calves were sold at weaning time, comparing them with cow herds in which calves were finished to slaughter weights. Comparing the two groups, there are 61 cows in the calves-sold group and 63 cows in the calves-fed-out group. The value of feed fed for the calves-fed-out group was \$23,349 higher than for the calves-sold group, but the feed cost per hundredweight produced is \$25.36 less. More hay and dry roughages are fed to the calves-sold group, 437 pounds per hundredweight produced more than the calves-fed-out group, and the total silage fed is 22 pounds more per hundredweight produced.

Since 2012, the difference in returns above feed costs per cow for the average farmer to feed out calves rather than sell them at weaning has been about \$254 per cow. Additional returns are needed for the added costs of labor, buildings, and capital required to feed out the calves. In 2016, the return above feed costs per cow for feeding calves to market weight was \$165 more than selling them at weaning.

**Sheep enterprises**

Sheep production is a minor enterprise on Illinois record-keeping farms. The minimum size of enterprise in Table 18

**Table 17. Beef-Cow Enterprises, 2016 Averages per Farm**

	All farms	Calves sold	Calves fed out
Number of farms	150	57	37
Number of cows in herd	65	61	63
Animal units in herd	101	70	116
Total lbs produced	46,350	26,441	70,286
Beef per cow, lbs	712	433	1,108
Total returns	\$35,852	\$19,105	\$52,711
Value of feed fed	\$34,507	\$24,831	\$48,180
Return per \$100 feed fed	\$104	\$77	\$109
Return above feed per cow	\$21	-\$94	\$71
Death loss, lbs	2,140	1,965	2,903
% lbs produced	4.6	7.4	4.1
Weight per animal sold, lbs	745	557	1,077
Price per cwt sold—market	\$135.18	\$140.34	\$125.06
	----- per cwt produced -----		
Feed costs	\$74.45	\$93.91	\$68.55
Grain/complete feed, lbs	185	152	243
Protein and minerals, lbs	65	67	59
Total concentrates, lbs	250	219	291
Hay and dry roughage, lbs	716	1,017	580
Corn silage, lbs	356	390	363
Other silage, lbs	119	90	95
Pasture days	26	38	19
Pasture days per animal unit	119	142	114
Hay equivalent per cow, tons	5.1	4.3	6.3

<sup>a</sup>Insufficient data.

is 3 animal units. One animal unit of sheep is defined as 750 pounds, liveweight. The return per \$100 of feed fed in 2016 was \$63 for native flocks. The average return for the 4-year period from 2012 through 2016, minus 2013, is \$86 per \$100 feed fed (Table 9). The pounds of wool and mutton produced per farm have remained fairly constant for the past 10 years. The price received for sheep increased from \$143.22 per hundredweight in 2015 to \$215.30 in 2016, while feed costs per hundredweight produced increased by \$29.96 to \$130.22, or 30 percent. Most Illinois farmers who keep sheep do so as a supplemental enterprise in order to market nonsalable feeds and labor.

**Table 18. Sheep Enterprises, 2016 Averages per Farm (Native Flocks)**

Number of farms.....	8
Number of ewes in flock.....	38
Wool and mutton produced, lbs.....	6,729
Total returns.....	\$5,481
Value of feed fed.....	\$8,763
Return per \$100 of feed fed.....	\$63
Percent lamb crop.....	143
Death loss, lbs.....	624
Percent lbs produced.....	9.3
Weight per market animal sold, lbs.....	128
----- per cwt produced -----	
Price received—market.....	\$215.30
Feed costs.....	\$130.22
Concentrates, lbs.....	434
Hay, lbs.....	546
Pasture days.....	47
Hay equivalent, lbs.....	1,380

## **Appendix A**

Costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of Illinois farms are reported in Tables 19 through 23a.

**Table 19. 2016 Operator Average Returns, Costs, and Financial Summary by Size and by Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 86 to 100**

Range in size (total tillable acres)	180-799		800-1,199		1,200-1,999		> 1,999		Your farm		All farms		800-1,199	
	Management returns	Number of farms	180-799	800-1,199	1,200-1,999	> 1,999	Your farm	All farms	Low 33%	High 33%				
Total acres in farm	398	1,007	239	244	131	1,012	983	1,255	79	79				
Acres of tillable land	537	1,562	3,319	3,268	2,814	91	1,225	988	1,023	988				
Operator tillable acres	417	1,192	91	91	10	37	91	722	91	91				
Soil rating on tillable land	21	17	12	12	27	14	27	11	27	11				
Percent land owned	39	42	44	44	62	49	34	53	39	36				
Percent land crop shared	40	41	6.8	6.8	20.7	5.6	5.4	2.3	5.4	2.3				
Percent land cash rented	1.1	3.5	18.7	18.7	36.2	16.3	15.6	13.1	15.6	13.1				
Months of hired labor	9.7	14.2	929,191	2,270,758	75	780,818	592,420	572,525	45	45				
Total months labor	-13	-12	336	12	75	14,081	12,060	7,864	12,060	7,864				
Dollar returns	3,953	9,272	11,369	58,680	14,081	13,465	11,404	8,141	11,404	8,141				
Crop returns	5,785	10,182	13,961	42,048	13,465	808,438	615,928	588,448	615,928	588,448				
Livestock returns above feed	<b>323,601</b>	<b>609,704</b>	<b>954,757</b>	<b>2,371,498</b>	<b>808,438</b>	<b>808,438</b>	<b>615,928</b>	<b>588,448</b>	<b>615,928</b>	<b>588,448</b>				
Custom work	105,428	199,143	306,818	686,601	251,347	251,347	223,299	170,186	223,299	170,186				
Other farm receipts	59,326	102,400	155,529	381,272	134,369	134,369	130,691	75,985	130,691	75,985				
<b>Value of farm production</b>	16,257	28,999	36,728	103,656	35,513	35,513	35,953	21,157	35,953	21,157				
Dollar costs	29,432	43,310	57,133	120,966	51,237	51,237	50,125	36,706	50,125	36,706				
Crop expenses	15,774	26,886	42,868	97,834	35,553	35,553	31,729	23,182	31,729	23,182				
Power and equipment	262	541	865	475	475	475	277	471	277	471				
Building and fence	18,339	34,658	53,173	127,604	44,736	44,736	41,854	27,749	41,854	27,749				
Labor	6,580	9,773	10,646	21,666	10,267	10,267	14,595	6,922	14,595	6,922				
Insurance and miscellaneous	47,874	98,808	178,671	586,545	161,168	161,168	96,217	83,879	96,217	83,879				
Livestock services and supplies	47,643	77,567	99,741	154,811	81,144	81,144	101,148	64,721	101,148	64,721				
Interest on nonland capital	<b>346,916</b>	<b>623,085</b>	<b>941,855</b>	<b>2,281,821</b>	<b>805,812</b>	<b>805,812</b>	<b>725,888</b>	<b>510,958</b>	<b>725,888</b>	<b>510,958</b>				
Real estate taxes	2,659	2,147	10,144	11,152	5,442	5,442	4,758	-854	4,758	-854				
Cash rent	<b>-20,656</b>	<b>-10,233</b>	<b>23,046</b>	<b>100,829</b>	<b>8,068</b>	<b>8,068</b>	<b>-105,202</b>	<b>76,636</b>	<b>-105,202</b>	<b>76,636</b>				
Other land charges	0.93	0.98	1.01	1.04	1.00	1.00	0.85	1.15	0.85	1.15				
<b>Total nonfeed costs</b>	379,934	659,228	847,274	1,031,977	642,978	642,978	594,161	716,899	594,161	716,899				
Capital account adjustment	318,778	582,544	912,811	2,194,324	767,079	767,079	622,000	529,645	622,000	529,645				
Management returns	16,822	48,165	71,457	247,225	67,222	67,222	19,683	75,086	19,683	75,086				
Farm production per \$1.00	-11,326	-19,978	-28,395	-59,274	-23,692	-23,692	-23,915	-15,604	-23,915	-15,604				
of nonfeed costs	505	145	813	4,022	950	950	249	85	249	85				
Farm production per man	171	248	216	216	213	213	268	240	268	240				
Financial summary	<b>323,598</b>	<b>610,337</b>	<b>954,814</b>	<b>2,378,037</b>	<b>809,447</b>	<b>809,447</b>	<b>617,251</b>	<b>588,803</b>	<b>617,251</b>	<b>588,803</b>				
Cash operating income	235,023	441,825	703,499	1,812,107	600,964	600,964	484,550	377,188	484,550	377,188				
Inventory change	4,150	6,874	10,400	24,738	8,965	8,965	18,018	-1,423	18,018	-1,423				
Accts. receivable (net change)	443	3,371	5,064	6,068	2,977	2,977	3,899	2,759	3,899	2,759				
Less purchased feed	<b>239,616</b>	<b>452,070</b>	<b>718,963</b>	<b>1,842,913</b>	<b>612,906</b>	<b>612,906</b>	<b>506,467</b>	<b>378,524</b>	<b>506,467</b>	<b>378,524</b>				
Less purchased livestock	83,982	158,267	235,851	535,125	196,541	196,541	110,784	210,279	196,541	210,279				
Gross farm returns	39,003	75,841	114,344	254,941	93,821	93,821	103,043	54,195	103,043	54,195				
Cash operating expenses	2,659	2,147	10,144	11,152	5,442	5,442	4,758	-854	4,758	-854				
Prepaid expenses (- if increased)	<b>47,639</b>	<b>84,573</b>	<b>131,651</b>	<b>291,336</b>	<b>108,163</b>	<b>108,163</b>	<b>12,499</b>	<b>155,230</b>	<b>12,499</b>	<b>155,230</b>				
Accts. payable (+ if increased)	46,365	81,905	122,068	211,844	94,432	94,432	13,089	150,597	13,089	150,597				
Total operating expenses	11,159	31,263	66,298	110,718	42,089	42,089	-59,868	115,057	-59,868	115,057				
Income before depreciation	318,778	582,544	912,811	2,194,324	767,079	767,079	622,000	529,645	622,000	529,645				
Less depreciation	16,822	48,165	71,457	247,225	67,222	67,222	19,683	75,086	19,683	75,086				
Capital account adjustment	-11,326	-19,978	-28,395	-59,274	-23,692	-23,692	-23,915	-15,604	-23,915	-15,604				
Net farm income	505	145	813	4,022	950	950	249	85	249	85				
Net farm income per operator	171	248	216	216	213	213	268	240	268	240				
Labor & mgt. income per operator	<b>323,598</b>	<b>610,337</b>	<b>954,814</b>	<b>2,378,037</b>	<b>809,447</b>	<b>809,447</b>	<b>617,251</b>	<b>588,803</b>	<b>617,251</b>	<b>588,803</b>				
Labor & mgt. income per man	235,023	441,825	703,499	1,812,107	600,964	600,964	484,550	377,188	484,550	377,188				
Net farm income per man	4,150	6,874	10,400	24,738	8,965	8,965	18,018	-1,423	18,018	-1,423				
Labor & mgt. income per man	443	3,371	5,064	6,068	2,977	2,977	3,899	2,759	3,899	2,759				
Net farm income per man	<b>239,616</b>	<b>452,070</b>	<b>718,963</b>	<b>1,842,913</b>	<b>612,906</b>	<b>612,906</b>	<b>506,467</b>	<b>378,524</b>	<b>506,467</b>	<b>378,524</b>				
Labor & mgt. income per man	83,982	158,267	235,851	535,125	196,541	196,541	110,784	210,279	196,541	210,279				
Labor & mgt. income per man	39,003	75,841	114,344	254,941	93,821	93,821	103,043	54,195	103,043	54,195				
Labor & mgt. income per man	2,659	2,147	10,144	11,152	5,442	5,442	4,758	-854	4,758	-854				
Labor & mgt. income per man	<b>47,639</b>	<b>84,573</b>	<b>131,651</b>	<b>291,336</b>	<b>108,163</b>	<b>108,163</b>	<b>12,499</b>	<b>155,230</b>	<b>12,499</b>	<b>155,230</b>				
Labor & mgt. income per man	46,365	81,905	122,068	211,844	94,432	94,432	13,089	150,597	13,089	150,597				
Labor & mgt. income per man	11,159	31,263	66,298	110,718	42,089	42,089	-59,868	115,057	-59,868	115,057				

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 19a. 2016 Operator Average Operating Costs, Land Use, Yields, and Prices Received by Size and by Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 86 to 100**

Range in size (total tillable acres)	180-799		800-1,199		1,200-1,999		> 1,999		All farms	
	398	239	244	131	1,012	Low 33%	High 33%			
Management returns						79	79			
Number of farms										
Selected returns and costs per operator tillable acre										
Crop returns	752.17	767.19	779.44	807.01	782.79	752.26	792.82			
Livestock returns above feed	-0.03	-0.02	0.28	0.00	0.07	0.06	-0.12			
Custom work, other receipts	23.34	25.28	21.16	35.80	27.62	29.79	22.16			
<b>Value of farm production</b>	<b>775.47</b>	<b>792.46</b>	<b>800.88</b>	<b>842.81</b>	<b>810.48</b>	<b>782.11</b>	<b>814.87</b>			
Soil fertility	102.11	108.49	106.36	105.03	105.56	118.60	98.58			
Pesticides	53.71	52.64	53.81	46.76	51.01	60.65	47.76			
Seed and other crop expense	96.82	97.70	97.20	92.22	95.41	104.30	89.32			
<b>Crop total</b>	<b>252.64</b>	<b>258.84</b>	<b>257.37</b>	<b>244.01</b>	<b>251.98</b>	<b>283.55</b>	<b>235.67</b>			
Light vehicle and utilities	11.37	8.21	6.54	6.78	7.73	8.87	8.28			
Machinery repairs, supplies	32.30	25.60	26.60	22.83	25.98	28.03	21.55			
Machinery hire, lease	16.90	15.37	14.34	14.89	18.80	18.99	12.73			
Fuel and oil	14.63	15.34	15.06	17.44	15.91	17.03	13.87			
Machinery depreciation	66.97	68.58	67.92	63.56	66.29	93.03	48.80			
<b>Power and equipment total</b>	<b>142.17</b>	<b>133.09</b>	<b>130.46</b>	<b>135.50</b>	<b>134.71</b>	<b>165.95</b>	<b>105.22</b>			
Drying and storage	21.54	21.55	17.46	15.20	18.05	23.48	17.78			
Building repair and rent	5.75	4.57	3.97	5.34	4.87	5.47	3.73			
Building depreciation	11.66	11.57	9.38	16.30	12.68	16.70	7.78			
<b>Building total</b>	<b>38.96</b>	<b>37.69</b>	<b>30.81</b>	<b>36.84</b>	<b>35.61</b>	<b>45.65</b>	<b>29.30</b>			
Labor, unpaid	62.75	41.19	29.28	17.52	32.66	39.84	41.25			
Labor, paid	7.78	15.10	18.64	25.47	18.70	23.81	9.58			
<b>Labor total</b>	<b>70.53</b>	<b>56.29</b>	<b>47.93</b>	<b>42.99</b>	<b>51.37</b>	<b>63.65</b>	<b>50.83</b>			
Insurance and miscellaneous	37.80	34.95	35.96	34.77	35.64	40.29	32.10			
Livestock services and supplies	0.63	0.70	0.46	0.31	0.48	0.35	0.65			
Interest on nonland capital	43.95	45.05	44.60	45.35	44.85	53.15	38.43			
<b>Other costs total</b>	<b>82.38</b>	<b>80.69</b>	<b>81.02</b>	<b>80.43</b>	<b>80.97</b>	<b>93.79</b>	<b>71.18</b>			
Land charge	244.66	241.95	242.47	271.17	253.22	269.15	215.36			
<b>Total nonfeed costs</b>	<b>831.34</b>	<b>808.55</b>	<b>790.06</b>	<b>810.94</b>	<b>807.85</b>	<b>921.74</b>	<b>707.56</b>			
Capital account adjustment	6.37	2.79	8.51	3.96	5.46	6.04	-1.18			
<b>Management returns</b>	<b>-49.50</b>	<b>-13.30</b>	<b>19.33</b>	<b>35.83</b>	<b>8.09</b>	<b>-133.59</b>	<b>106.12</b>			
Percent crop returns fed	0.01	0.01	0.02	0.02	0.01	0.00	0.01			
Capital purchases	30,604	60,916	88,457	231,066	77,661	77,359	58,758			
Interest paid	10,422	20,209	33,346	73,276	26,397	24,552	14,349			
Percent tillable land in										
Corn and corn silage	52.8	53.8	53.9	58.5	55.1	57.0	51.5			
Soybeans	45.6	44.6	44.9	39.6	43.0	42.1	48.3			
Wheat	0.5	0.3	0.2	0.1	0.2	0.6	0.0			
Other small grains	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
CRP acres	0.3	0.2	0.2	0.1	0.2	0.1	0.2			
All hay and pasture	0.2	0.1	0.1	0.0	0.1	0.1	0.0			
Crop yields, bushels per acre										
Corn	226	227	226	228	227	226	227			
Soybeans	66	67	68	69	68	67	69			
Wheat	96	97	93	107	98	104	0			
Prices received										
Corn (old crop)	3.64	3.64	3.70	3.77	3.70	3.60	3.67			
Corn (new crop)	3.42	3.46	3.47	3.55	3.49	3.40	3.50			
Soybeans (old crop)	9.33	9.43	9.39	9.57	9.44	9.38	9.45			
Soybeans (new crop)	9.79	9.85	9.74	9.90	9.83	9.73	9.99			

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. 2016 Operator Average Returns, Costs, and Financial Summary by Size and by Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 56 to 85**

	180-799		800-1,199		1,200-1,999		> 1,999		Your farm		All farms		800-1,199	
	Range in size (total tillable acres)	Number of farms	180-799	800-1,199	1,200-1,999	> 1,999	Your farm	All farms	Low 33%	High 33%				
Management returns			348	162	160	80		750	53	53				
Total acres in farm			520	1,029	1,616	3,089		1,138	1,013	1,043				
Acres of tillable land			495	986	1,563	3,006		1,097	968	996				
Operator tillable acres			420	821	1,319	2,663		938	841	791				
Soil rating on tillable land			77	78	78	78		78	78	79				
Percent land owned			27	21	18	17		20	29	16				
Percent land crop shared			31	34	31	23		29	26	41				
Percent land cash rented			43	46	51	60		51	45	43				
Months of hired labor			0.9	2.6	5.2	18.0		4.0	3.9	1.6				
Total months labor			10.0	14.5	18.4	33.3		15.3	15.4	13.9				
Dollar returns														
Crop returns			304,557	608,837	976,364	1,996,278		694,051	606,987	595,592				
Livestock returns above feed			-22	-66	1,024	383		235	-77	32				
Custom work			4,116	9,563	13,894	36,227		10,804	8,518	12,720				
Other farm receipts			4,755	9,994	14,560	28,546		10,516	11,541	9,194				
<b>Value of farm production</b>			<b>313,407</b>	<b>628,328</b>	<b>1,005,842</b>	<b>2,061,434</b>		<b>715,606</b>	<b>626,968</b>	<b>617,539</b>				
Dollar costs														
Crop expenses			105,864	207,363	325,244	674,045		235,195	227,414	184,004				
Power and equipment			63,030	116,142	175,333	351,186		129,197	136,514	92,825				
Building and fence			14,422	27,920	42,597	90,726		31,487	36,542	20,561				
Labor			32,288	45,326	60,517	111,854		49,614	49,669	40,286				
Insurance and miscellaneous			15,959	29,692	47,772	99,003		34,570	35,769	24,182				
Livestock services and supplies			236	537	743	404		427	1,250	209				
Interest on nonland capital			17,489	35,549	56,879	114,970		40,191	40,254	30,766				
Real estate taxes			5,880	8,609	12,125	21,548		9,473	12,008	6,632				
Cash rent			42,841	101,557	185,568	455,868		130,028	100,280	92,872				
Other land charges			41,135	72,868	98,807	156,080		72,553	88,499	64,493				
<b>Total nonfeed costs</b>			<b>339,144</b>	<b>645,561</b>	<b>1,005,581</b>	<b>2,075,684</b>		<b>732,735</b>	<b>728,199</b>	<b>556,831</b>				
Capital account adjustment			4,325	2,599	3,928	8,112		4,272	4,765	757				
<b>Management returns</b>			<b>-21,412</b>	<b>-14,635</b>	<b>4,189</b>	<b>-6,138</b>		<b>-12,857</b>	<b>-96,467</b>	<b>61,465</b>				
Farm production per \$1.00 of nonfeed costs			0.92	0.97	1.00	0.99		0.98	0.86	1.11				
Farm production per man			350,929	634,099	829,494	925,511		575,476	582,629	676,089				
Financial summary														
Cash operating income			305,822	601,726	979,161	2,019,076		696,130	629,440	564,697				
Inventory change			17,874	46,534	57,265	107,811		42,062	26,297	69,627				
Accts. receivable (net change)			-9,705	-17,281	-27,387	-49,072		-19,313	-22,200	-15,827				
Less purchased feed			102	190	474	5,212		746	367	159				
Less purchased livestock			342	479	768	666		497	144	799				
<b>Gross farm returns</b>			<b>313,547</b>	<b>630,310</b>	<b>1,007,796</b>	<b>2,071,939</b>		<b>717,636</b>	<b>633,026</b>	<b>617,539</b>				
Cash operating expenses			227,400	457,312	754,101	1,639,038		539,999	514,061	395,785				
Prepaid expenses (- if increased)			6,017	13,509	4,030	17,606		8,448	15,900	6,813				
Accts. payable (+ if increased)			684	527	640	7,646		1,773	1,773	160				
<b>Total operating expenses</b>			<b>234,102</b>	<b>471,347</b>	<b>758,772</b>	<b>1,664,289</b>		<b>549,830</b>	<b>531,734</b>	<b>402,757</b>				
Income before depreciation			79,445	158,962	249,025	407,649		167,806	101,292	214,782				
Less depreciation			37,619	76,579	125,003	231,429		85,349	89,399	65,138				
Capital account adjustment			4,325	2,599	3,928	8,112		4,272	4,765	757				
<b>Net farm income</b>			<b>46,151</b>	<b>84,982</b>	<b>127,949</b>	<b>184,332</b>		<b>86,729</b>	<b>16,658</b>	<b>150,400</b>				
Net farm income per operator			44,431	77,794	114,639	140,834		76,898	13,238	136,198				
Labor & mgt. income per operator			11,979	26,798	46,947	37,930		25,408	-52,556	98,335				

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.

**Table 20a. 2016 Operator Average Operating Costs, Land Use, Yields, and Prices Received by Size and by Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 56 to 85**

Range in size (total tillable acres)	180-799		800-1,199		1,200-1,999		> 1,999		All farms	
	348	162	160	80	750	Low 33%	High 33%			
Management returns						53	53			
Number of farms						53	53			
Selected returns and costs										
per operator tillable acre										
Crop returns	725.06	741.80	740.43	749.51	740.25					722.05
Livestock returns above feed	-0.05	-0.08	0.78	0.14	0.25					-0.09
Custom work, other receipts	21.12	23.83	21.58	24.32	22.74					23.86
<b>Value of farm production</b>	<b>746.13</b>	<b>765.54</b>	<b>762.79</b>	<b>773.97</b>	<b>763.24</b>					<b>745.82</b>
Soil fertility	103.58	106.93	100.85	104.80	103.77					115.84
Pesticides	52.78	51.46	52.44	53.35	52.60					56.29
Seed and other crop expense	95.67	94.26	93.36	94.92	94.48					98.39
<b>Crop total</b>	<b>252.03</b>	<b>252.65</b>	<b>246.65</b>	<b>253.07</b>	<b>250.85</b>					<b>270.52</b>
Light vehicle and utilities	13.23	10.18	6.83	6.66	8.74					11.09
Machinery repairs, supplies	31.56	30.08	26.00	24.18	27.38					34.74
Machinery hire, lease	22.23	17.88	15.91	20.76	19.07					22.75
Fuel and oil	14.14	15.47	15.17	16.50	15.41					16.45
Machinery depreciation	68.89	67.90	69.06	63.75	67.20					77.36
<b>Power and equipment total</b>	<b>150.06</b>	<b>141.51</b>	<b>132.97</b>	<b>131.85</b>	<b>137.80</b>					<b>162.39</b>
Drying and storage	17.54	17.60	14.31	14.23	15.58					21.42
Building repair and rent	6.06	4.61	4.74	4.94	5.05					6.05
Building depreciation	10.74	11.81	13.25	14.89	12.95					16.00
<b>Building total</b>	<b>34.33</b>	<b>34.02</b>	<b>32.30</b>	<b>34.06</b>	<b>33.58</b>					<b>43.47</b>
Labor, unpaid	71.35	45.72	32.16	19.10	38.91					44.65
Labor, paid	5.52	9.51	13.73	22.90	14.00					14.44
<b>Labor total</b>	<b>76.87</b>	<b>55.22</b>	<b>45.89</b>	<b>42.00</b>	<b>52.92</b>					<b>59.08</b>
Insurance and miscellaneous	37.99	36.18	36.23	37.17	36.87					42.55
Livestock services and supplies	0.56	0.65	0.56	0.15	0.46					1.49
Interest on nonland capital	41.64	43.31	43.13	43.17	42.87					47.88
<b>Other costs total</b>	<b>80.19</b>	<b>80.14</b>	<b>79.93</b>	<b>80.49</b>	<b>80.19</b>					<b>91.92</b>
Land charge	213.92	223.01	224.85	237.85	226.17					238.85
<b>Total nonfeed costs</b>	<b>807.40</b>	<b>786.54</b>	<b>762.59</b>	<b>779.33</b>	<b>781.51</b>					<b>866.24</b>
Capital account adjustment	10.30	3.17	2.98	3.05	4.56					5.67
<b>Management returns</b>	<b>-50.98</b>	<b>-17.83</b>	<b>3.18</b>	<b>-2.30</b>	<b>-13.71</b>					<b>-114.75</b>
Percent crop returns fed	0.02	0.04	0.03	0.03	0.03					0.06
Capital purchases	29,411	51,735	99,001	207,353	68,059					50,667
Interest paid	11,735	23,441	40,212	83,463	27,990					30,283
Percent tillable land in										
Corn and corn silage	55.1	53.8	56.1	57.5	55.8					55.3
Soybeans	42.9	44.1	41.7	39.8	41.8					43.1
Wheat	0.7	0.3	0.7	0.7	0.6					0.7
Other small grains	0.0	0.0	0.0	0.0	0.0					0.0
CRP acres	0.6	0.5	0.4	0.9	0.6					0.9
All hay and pasture	0.2	0.1	0.1	0.1	0.1					0.0
Crop yields, bushels per acre										
Corn	215	218	219	223	219					220
Soybeans	62	63	64	65	64					63
Wheat	80	88	79	90	84					90
Prices received										
Corn (old crop)	3.63	3.68	3.66	3.74	3.68					3.64
Corn (new crop)	3.40	3.42	3.40	3.27	3.36					3.36
Soybeans (old crop)	9.20	9.32	9.31	9.55	9.36					9.22
Soybeans (new crop)	9.66	9.56	9.57	9.65	9.61					9.46

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.

**Table 21. 2016 Operator Average Returns, Costs, and Financial Summary by Size and by Management Returns for Southern Illinois Grain Farms with Soil Ratings from 36 to 85**

Range in size (total tillable acres)	180-799		800-1,199		1,200-1,999		> 1,999		Your farm		All farms		800-1,199		High 33%	
	180-799	92	1,104	69	86	62	62	62	62	62	62	309	23	23	23	23
Management returns		549	1,627	3,287	1,196	1,090	1,444	1,026	1,444	1,026	1,444	1,026	1,444	1,026	1,444	1,026
Number of farms		484	834	59	58	58	59	58	59	58	59	58	59	58	59	58
Total acres in farm		426	1,353	21	21	22	22	21	22	21	22	21	22	21	22	21
Acres of tillable land		59	58	39	39	33	36	39	36	39	36	39	36	39	36	39
Operator tillable acres		35	25	41	41	48	42	48	42	48	42	48	42	48	42	48
Soil rating on tillable land		34	34	34	34	41	36	41	36	41	36	41	36	41	36	41
Percent land owned		31	31	31	31	41	36	41	36	41	36	41	36	41	36	41
Percent land crop shared		2.3	11.9	5.9	21.0	21.0	9.5	21.0	9.5	21.0	9.5	21.0	9.5	21.0	9.5	21.0
Percent land cash rented		11.6	18.2	25.1	39.9	39.9	22.5	39.9	22.5	39.9	22.5	39.9	22.5	39.9	22.5	39.9
Months of hired labor		260,333	534,199	862,589	1,878,308	813,748	599,542	813,748	599,542	813,748	599,542	813,748	599,542	813,748	599,542	813,748
Total months labor		-1,193	-2,139	1,553	13,225	-3,570	-453	13,225	-3,570	-453	13,225	-3,570	-453	13,225	-3,570	-453
Dollar returns		2,405	4,421	16,021	30,024	12,186	4,485	30,024	12,186	4,485	30,024	12,186	4,485	30,024	12,186	4,485
Crop returns		6,467	5,423	23,317	52,951	6,548	6,192	52,951	6,548	6,192	52,951	6,548	6,192	52,951	6,548	6,192
Livestock returns above feed		<b>268,011</b>	<b>541,904</b>	<b>903,480</b>	<b>1,974,508</b>	<b>848,437</b>	<b>609,766</b>									
Custom work		95,769	187,988	314,521	617,763	281,981	178,772	617,763	281,981	178,772	617,763	281,981	178,772	617,763	281,981	178,772
Other farm receipts		68,808	123,565	196,379	388,550	180,696	116,560	388,550	180,696	116,560	388,550	180,696	116,560	388,550	180,696	116,560
<b>Value of farm production</b>		10,263	19,427	30,827	75,644	31,151	19,231	75,644	31,151	19,231	75,644	31,151	19,231	75,644	31,151	19,231
Dollar costs		37,941	54,430	80,549	147,164	75,397	57,564	147,164	75,397	57,564	147,164	75,397	57,564	147,164	75,397	57,564
Crop expenses		17,486	33,207	51,094	95,057	45,915	29,502	95,057	45,915	29,502	95,057	45,915	29,502	95,057	45,915	29,502
Power and equipment		522	1,328	3,438	5,785	2,570	554	5,785	2,570	554	5,785	2,570	554	5,785	2,570	554
Building and fence		17,761	36,021	56,187	115,151	52,074	34,480	115,151	52,074	34,480	115,151	52,074	34,480	115,151	52,074	34,480
Labor		4,075	7,104	9,431	17,258	8,887	7,235	17,258	8,887	7,235	17,258	8,887	7,235	17,258	8,887	7,235
Insurance and miscellaneous		19,641	47,774	97,077	264,725	96,650	52,291	264,725	96,650	52,291	264,725	96,650	52,291	264,725	96,650	52,291
Livestock services and supplies		42,819	74,441	109,286	186,551	97,219	62,259	186,551	97,219	62,259	186,551	97,219	62,259	186,551	97,219	62,259
Interest on nonland capital		<b>315,084</b>	<b>585,284</b>	<b>948,790</b>	<b>1,913,648</b>	<b>872,539</b>	<b>558,447</b>									
Real estate taxes		2,098	3,442	3,191	4,883	3,261	1,476	4,883	3,261	1,476	4,883	3,261	1,476	4,883	3,261	1,476
Cash rent		<b>-44,976</b>	<b>-39,938</b>	<b>-42,118</b>	<b>65,742</b>	<b>-20,840</b>	<b>52,794</b>									
Other land charges		0.85	0.93	0.95	1.03	0.97	1.09	1.03	0.97	1.09	0.97	1.09	0.97	1.09	0.97	1.09
<b>Total nonfeed costs</b>		273,121	468,965	555,423	723,364	485,763	510,117	723,364	485,763	510,117	723,364	485,763	510,117	723,364	485,763	510,117
Capital account adjustment																
<b>Management returns</b>																
Farm production per \$1.00 of nonfeed costs		264,338	516,608	908,541	1,951,963	838,580	524,710	1,951,963	838,580	524,710	1,951,963	838,580	524,710	1,951,963	838,580	524,710
Farm production per man		8,802	33,950	27,063	113,294	40,466	83,119	113,294	40,466	83,119	113,294	40,466	83,119	113,294	40,466	83,119
Financial summary		813	750	10,553	24,583	8,279	4,085	24,583	8,279	4,085	24,583	8,279	4,085	24,583	8,279	4,085
Cash operating income		3,161	4,820	32,719	94,733	30,131	2,507	94,733	30,131	2,507	94,733	30,131	2,507	94,733	30,131	2,507
Inventory change		2,916	4,256	9,021	14,988	7,337	109	14,988	7,337	109	14,988	7,337	109	14,988	7,337	109
Accts. receivable (net change)		<b>267,877</b>	<b>542,232</b>	<b>904,417</b>	<b>1,980,119</b>	<b>849,857</b>	<b>609,298</b>									
Less purchased feed		203,402	407,731	693,308	1,490,994	643,730	400,521	1,490,994	643,730	400,521	1,490,994	643,730	400,521	1,490,994	643,730	400,521
Less purchased livestock		2,457	2,735	16,052	-18,296	2,139	-2,168	-18,296	2,139	-2,168	-18,296	2,139	-2,168	-18,296	2,139	-2,168
<b>Gross farm returns</b>		1,390	-2,501	6,379	5,129	-891	-7,578	6,379	-891	-7,578	6,379	-891	-7,578	6,379	-891	-7,578
Cash operating expenses		<b>207,249</b>	<b>407,964</b>	<b>702,982</b>	<b>1,477,827</b>	<b>644,978</b>	<b>390,775</b>									
Prepaid expenses (- if increased)		60,627	134,268	201,435	502,293	204,879	218,523	502,293	204,879	218,523	502,293	204,879	218,523	502,293	204,879	218,523
Accts. payable (+ if increased)		42,209	83,340	131,492	254,443	118,827	75,547	254,443	118,827	75,547	254,443	118,827	75,547	254,443	118,827	75,547
<b>Total operating expenses</b>		2,098	3,442	3,191	4,883	3,261	1,476	4,883	3,261	1,476	4,883	3,261	1,476	4,883	3,261	1,476
Income before depreciation		<b>20,516</b>	<b>54,370</b>	<b>73,134</b>	<b>252,732</b>	<b>89,313</b>	<b>144,452</b>									
Less depreciation		20,130	50,378	68,764	163,741	69,235	135,234	163,741	69,235	135,234	163,741	69,235	135,234	163,741	69,235	135,234
Capital account adjustment		-9,229	5,343	11,004	85,559	18,675	94,033	85,559	18,675	94,033	85,559	18,675	94,033	85,559	18,675	94,033
<b>Net farm income</b>																
Net farm income per operator																
Labor & mgt. income per operator																

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

**Table 21a. 2016 Operator Average Operating Costs, Land Use, Yields, and Prices Received by Size and by Management Returns for Southern Illinois Grain Farms with Soil Ratings from 36 to 85**

Range in size (total tillable acres)	180-799		800-1,199		1,200-1,999		> 1,999		All farms	
	92	69	86	62	62	309	Low 33%	High 33%		
Management returns							23	23		
Number of farms										
Selected returns and costs										
per operator tillable acre										
Crop returns	611.08	640.64	637.67	674.45		651.87	594.87	683.49		
Livestock returns above feed	-2.80	-2.57	1.15	4.75		1.80	-4.41	-0.52		
Custom work, other receipts	20.82	11.81	29.08	29.79		25.98	10.47	12.17		
<b>Value of farm production</b>	<b>629.10</b>	<b>649.88</b>	<b>667.90</b>	<b>708.99</b>		<b>679.66</b>	<b>600.92</b>	<b>695.15</b>		
Soil fertility	84.19	86.36	93.54	85.74		88.02	95.90	74.74		
Pesticides	55.92	51.18	58.03	54.36		55.15	58.51	40.04		
Seed and other crop expense	84.69	87.90	80.95	81.73		82.71	88.95	89.03		
<b>Crop total</b>	<b>224.80</b>	<b>225.44</b>	<b>232.51</b>	<b>221.82</b>		<b>225.89</b>	<b>243.35</b>	<b>203.81</b>		
Light vehicle and utilities	14.74	9.68	9.04	8.61		9.52	11.07	6.87		
Machinery repairs, supplies	37.53	31.72	31.83	30.03		31.58	38.91	27.68		
Machinery hire, lease	14.23	11.62	13.43	16.50		14.61	13.29	12.66		
Fuel and oil	17.57	19.06	18.49	18.95		18.69	18.75	19.04		
Machinery depreciation	77.44	76.11	72.39	65.43		70.34	80.83	66.62		
<b>Power and equipment total</b>	<b>161.51</b>	<b>148.19</b>	<b>145.17</b>	<b>139.52</b>		<b>144.75</b>	<b>162.85</b>	<b>132.88</b>		
Drying and storage	5.81	6.36	4.50	4.44		4.89	4.67	5.75		
Building repair and rent	5.66	5.26	6.03	5.30		5.55	8.05	4.42		
Building depreciation	12.61	11.67	12.26	17.43		14.52	15.69	11.76		
<b>Building total</b>	<b>24.09</b>	<b>23.30</b>	<b>22.79</b>	<b>27.16</b>		<b>24.95</b>	<b>28.42</b>	<b>21.92</b>		
Labor, unpaid	72.49	48.07	31.49	22.39		34.06	50.90	46.53		
Labor, paid	16.57	17.20	28.05	30.45		26.34	18.92	19.10		
<b>Labor total</b>	<b>89.06</b>	<b>65.27</b>	<b>59.55</b>	<b>52.84</b>		<b>60.40</b>	<b>69.82</b>	<b>65.62</b>		
Insurance and miscellaneous	41.04	39.82	37.77	34.13		36.78	48.28	33.63		
Livestock services and supplies	1.23	1.59	2.54	2.08		2.06	3.64	0.63		
Interest on nonland capital	41.69	43.20	41.54	41.35		41.72	48.43	39.31		
<b>Other costs total</b>	<b>83.96</b>	<b>84.61</b>	<b>81.85</b>	<b>77.56</b>		<b>80.55</b>	<b>100.36</b>	<b>73.57</b>		
Land charge	156.18	155.09	168.24	162.24		162.84	168.99	138.84		
<b>Total nonfeed costs</b>	<b>739.60</b>	<b>701.90</b>	<b>701.39</b>	<b>687.13</b>		<b>698.97</b>	<b>773.80</b>	<b>636.64</b>		
Capital account adjustment	4.92	4.13	2.36	1.75		2.61	2.44	1.68		
<b>Management returns</b>	<b>-105.57</b>	<b>-47.90</b>	<b>-31.14</b>	<b>23.61</b>		<b>-16.69</b>	<b>-170.44</b>	<b>60.19</b>		
Percent crop returns fed	2.50	1.28	2.70	0.64		1.91	2.35	0.49		
Capital purchases	39,580	63,491	92,048	199,191		91,548	58,005	69,290		
Interest paid	11,989	22,859	39,574	93,437		38,436	30,947	17,509		
Percent tillable land in										
Corn and corn silage	41.7	42.2	44.1	43.8		43.1	40.5	43.3		
Soybeans	49.5	49.3	48.8	48.5		48.5	51.5	48.0		
Wheat	6.5	7.3	5.4	6.7		6.3	6.6	8.6		
Other small grains	0.0	0.0	0.0	0.0		0.0	0.0	0.0		
CRP acres	0.3	0.2	0.6	0.1		0.3	0.2	0.1		
All hay and pasture	1.7	0.7	0.8	0.0		0.7	1.0	0.0		
Crop yields, bushels per acre										
Corn	158	165	157	162		161	154	170		
Soybeans	56	55	56	55		55	51	57		
Wheat	73	77	82	83		81	78	78		
Prices received										
Corn (old crop)	3.68	3.74	3.84	3.98		3.88	3.80	3.71		
Corn (new crop)	3.43	3.52	3.50	3.74		3.60	3.57	3.44		
Soybeans (old crop)	9.38	9.47	9.50	9.66		9.55	9.81	9.36		
Soybeans (new crop)	9.71	9.58	9.69	9.79		9.72	9.40	9.61		

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

**Table 22. 2016 Operator Average Returns, Costs, and Financial Summary by Size and by Cwt of Pork Produced for Illinois Hog Farms**

Range in size (total tillable acres)	60-799		> 799	Your farm	All farms	Cwt of pork produced	
	60-799	> 799	> 799	Your farm	All farms	< 6,000 cwt	> 6,000 cwt
Cwt of pork produced						5	8
Number of farms	22	21	21		43		
Total acres in farm	439	1,534	1,534		974		
Acres of tillable land	420	1,506	1,506		950		
Operator tillable acres	372	1,389	1,389		868		
Soil rating on tillable land	82	83	83		82		
Percent land owned	34	11	11		17		
Percent land crop shared	24	17	17		18		
Percent land cash rented	42	72	72		65		
Months of hired labor	12.7	32.0	32.0		22.1		
Total months labor	23.5	45.0	45.0		34.0		
Dollar returns							
Crop returns	263,617	1,125,276	1,125,276		684,427		
Livestock returns above feed	155,640	368,517	368,517		259,603		
Custom work	6,938	17,863	17,863		12,274		
Other farm receipts	5,577	57,609	57,609		30,988		
<b>Value of farm production</b>	<b>431,772</b>	<b>1,569,264</b>	<b>1,569,264</b>		<b>987,292</b>		
Dollar costs							
Crop expenses	84,692	332,205	332,205		205,570		
Power and equipment	95,037	312,875	312,875		201,423		
Building and fence	45,973	216,455	216,455		129,232		
Labor	77,246	168,133	168,133		121,633		
Insurance and miscellaneous	21,068	77,629	77,629		48,691		
Livestock services and supplies	44,491	104,927	104,927		74,006		
Interest on nonland capital	31,082	106,896	106,896		68,108		
Real estate taxes	14,537	15,752	15,752		15,130		
Cash rent	36,661	302,348	302,348		166,415		
Other land charges	53,812	68,855	68,855		61,159		
<b>Total nonfeed costs</b>	<b>504,599</b>	<b>1,706,076</b>	<b>1,706,076</b>		<b>1,091,367</b>		
Capital account adjustment	1,974	4,462	4,462		3,189		
<b>Management returns</b>	<b>-70,853</b>	<b>-132,350</b>	<b>-132,350</b>		<b>-100,887</b>		
Farm production per \$1.00 of nonfeed costs	0.86	0.92	0.92		0.90		
Farm production per man	233,126	591,099	591,099		407,950		
Financial summary							
Cash operating income	808,025	2,823,253	2,823,253		1,792,206		
Inventory change	15,361	73,419	73,419		43,715		
Accts. receivable (net change)	-14,763	-18,113	-18,113		-16,399		
Less purchased feed	251,241	769,076	769,076		504,137		
Less purchased livestock	125,610	540,219	540,219		328,093		
<b>Gross farm returns</b>	<b>431,772</b>	<b>1,569,265</b>	<b>1,569,265</b>		<b>987,292</b>		
Cash operating expenses	366,583	1,418,542	1,418,542		880,330		
Prepaid expenses (- if increased)	8,559	21,684	21,684		14,969		
Accts. payable (+ if increased)	2,110	5,958	5,958		3,989		
<b>Total operating expenses</b>	<b>377,251</b>	<b>1,446,184</b>	<b>1,446,184</b>		<b>899,288</b>		
Income before depreciation	54,521	123,080	123,080		88,003		
Less depreciation	46,080	141,064	141,064		92,467		
Capital account adjustment	1,974	4,462	4,462		3,189		
<b>Net farm income</b>	<b>10,414</b>	<b>-13,521</b>	<b>-13,521</b>		<b>-1,275</b>		
Net farm income per operator	1,149	-247	-247		467		
Labor & mgt. income per operator	-35,740	-27,509	-27,509		-31,721		

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

**Table 22a. 2016 Operator Average Operating Costs, Land Use, Yields, and Prices Received by Size and by Cwt of Pork Produced for Illinois Hog Farms**

Range in size (total tillable acres) Cwt of pork produced Number of farms	60-799		> 799	Your farm	All farms	Cwt of pork produced	
	22	21	21		43	< 6,000 cwt	> 6,000 cwt
<b>Selected returns and costs</b>							
per operator tillable acre							
Crop returns	708.56	810.41			788.09		
Livestock returns above feed	418.33	265.40			298.92		
Custom work, other receipts	33.64	54.35			49.81		
<b>Value of farm production</b>	<b>1160.54</b>	<b>1130.17</b>			<b>1136.82</b>		
Soil fertility	77.33	89.59			86.91		
Pesticides	51.81	42.01			44.16		
Seed and other crop expense	98.50	107.64			105.64		
<b>Crop total</b>	<b>227.64</b>	<b>239.25</b>			<b>236.71</b>		
Light vehicle and utilities	47.89	20.97			26.87		
Machinery repairs, supplies	37.94	49.16			46.70		
Machinery hire, lease	66.68	56.87			59.02		
Fuel and oil	25.68	33.16			31.52		
Machinery depreciation	77.25	65.17			67.82		
<b>Power and equipment total</b>	<b>255.44</b>	<b>225.33</b>			<b>231.93</b>		
Drying and storage	9.84	13.01			12.32		
Building repair and rent	79.22	111.75			104.62		
Building depreciation	34.51	31.13			31.87		
<b>Building total</b>	<b>123.57</b>	<b>155.89</b>			<b>148.80</b>		
Labor, unpaid	99.42	33.79			48.17		
Labor, paid	108.21	87.30			91.88		
<b>Labor total</b>	<b>207.62</b>	<b>121.09</b>			<b>140.05</b>		
Insurance and miscellaneous	56.63	55.91			56.07		
Livestock services and supplies	119.58	75.57			85.22		
Interest on nonland capital	83.54	76.99			78.42		
<b>Other costs total</b>	<b>259.76</b>	<b>208.46</b>			<b>219.70</b>		
Land charge	282.25	278.68			279.46		
<b>Total nonfeed costs</b>	<b>1356.28</b>	<b>1228.70</b>			<b>1256.66</b>		
Capital account adjustment	5.31	3.21			3.67		
<b>Management returns</b>	<b>-190.44</b>	<b>-95.32</b>			<b>-116.17</b>		
Percent crop returns fed	183.93	89.49			137.81		
Capital purchases	34,847	130,120			81,376		
Interest paid	26,862	73,986			49,876		
Percent tillable land in							
Corn and corn silage	60.8	65.7			64.6		
Soybeans	33.1	32.4			32.5		
Wheat	3.4	1.9			2.3		
Other small grains	0.0	0.0			0.0		
CRP acres	0.0	0.0			0.0		
All hay and pasture	2.7	0.0			0.6		
Crop yields, bushels per acre							
Corn	216	224			222		
Soybeans	67	68			68		
Wheat	85	77			79		
Prices received							
Corn (old crop)	3.68	3.75			3.74		
Corn (new crop)	3.27	3.44			3.38		
Soybeans (old crop)	9.40	9.37			9.37		
Soybeans (new crop)	9.43	9.38			9.39		

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

**Table 23. 2016 Operator Average Returns, Costs, and Financial Summary for Illinois Dairy and Beef Farms**

Type of Farm	Dairy (by Number of Cows in Herd)				Beef (by Size)			
	10-79	12	> 79	All farms	180-799	> 799	Your farm	All farms
Number of cows in herd				50	12	6		18
Range in size (total tillable acres)								
Number of farms	265	597	38	518	556	1,071		727
Total acres in farm	224	544		467	424	1,019		622
Acres of tillable land	224	536		461	417	1,007		613
Operator tillable acres	74	68		69	66	73		68
Soil rating on tillable land	38	31		31	58	36		46
Percent land owned	1	3		3	4	2		3
Percent land crop shared	62	66		66	38	61		51
Percent land cash rented	3.3	37.0		28.9	1.4	12.2		5.0
Months of hired labor	16.8	52.7		44.1	17.0	33.9		22.6
Total months labor								
Dollar returns								
Crop returns	149,308	393,360		334,788	253,486	813,944		440,306
Livestock returns above feed	74,288	427,296		342,574	39,744	104,900		61,463
Custom work	320	4,243		3,302	5,898	4,289		5,361
Other farm receipts	2,091	24,099		18,817	6,255	23,462		11,990
<b>Value of farm production</b>	<b>226,007</b>	<b>848,998</b>		<b>699,480</b>	<b>305,383</b>	<b>946,594</b>		<b>519,120</b>
Dollar costs								
Crop expenses	40,669	109,811		93,217	80,524	218,668		126,572
Power and equipment	77,226	227,243		191,239	100,336	311,316		170,662
Building and fence	13,475	55,576		45,472	23,844	98,169		48,619
Labor	61,589	187,000		156,901	62,618	121,678		82,305
Insurance and miscellaneous	12,295	30,780		26,344	20,130	51,475		30,578
Livestock services and supplies	35,628	147,568		120,702	40,353	68,993		49,900
Interest on nonland capital	19,470	69,664		57,618	48,350	129,858		75,519
Real estate taxes	5,239	9,462		8,448	8,797	20,308		12,634
Cash rent	20,781	68,878		57,335	28,582	155,413		70,859
Other land charges	17,161	34,310		30,194	58,311	73,003		63,208
<b>Total nonfeed costs</b>	<b>303,532</b>	<b>940,293</b>		<b>787,470</b>	<b>471,844</b>	<b>1,248,881</b>		<b>730,856</b>
Capital account adjustment	266	783		659	977	3,672		1,875
<b>Management returns</b>	<b>-77,259</b>	<b>-90,511</b>		<b>-87,331</b>	<b>-165,485</b>	<b>-298,614</b>		<b>-209,861</b>
Farm production per \$1.00 of nonfeed costs	0.74	0.90		0.89	0.65	0.76		0.71
Farm production per man	173,945	196,939		191,420	255,387	369,602		293,458
Financial summary								
Cash operating income	290,231	1,167,716		957,119	1,338,013	3,255,265		1,977,097
Inventory change	-4,202	-12,001		-10,129	-98,433	-292,764		-163,210
Accts. receivable (net change)	-2,841	-8,759		-7,338	1,217	-11,980		-3,182
Less purchased feed	51,774	257,201		207,899	238,924	444,173		307,340
Less purchased livestock	5,407	19,519		16,132	696,704	1,559,753		984,387
<b>Gross farm returns</b>	<b>226,007</b>	<b>870,236</b>		<b>715,621</b>	<b>305,169</b>	<b>946,595</b>		<b>518,978</b>
Cash operating expenses	190,409	726,920		598,158	291,695	878,463		487,284
Prepaid expenses (- if increased)	1,922	9,874		7,965	1,167	16,896		6,410
Accts. payable (+ if increased)	15	3,061		2,330	8,342	8,157		8,280
<b>Total operating expenses</b>	<b>192,346</b>	<b>739,854</b>		<b>608,453</b>	<b>301,203</b>	<b>903,515</b>		<b>501,974</b>
Income before depreciation	33,661	130,382		107,168	3,966	43,079		17,004
Less depreciation	34,089	99,146		83,532	44,275	154,975		81,175
Capital account adjustment	266	783		659	977	3,672		1,875
<b>Net farm income</b>	<b>-162</b>	<b>32,019</b>		<b>24,296</b>	<b>-39,333</b>	<b>-108,224</b>		<b>-62,296</b>
Net farm income per operator	377	45,549		34,708	-32,712	-124,016		-63,147
Labor & mgt. income per operator	-26,415	-128		-6,437	-89,156	-174,771		-117,695

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

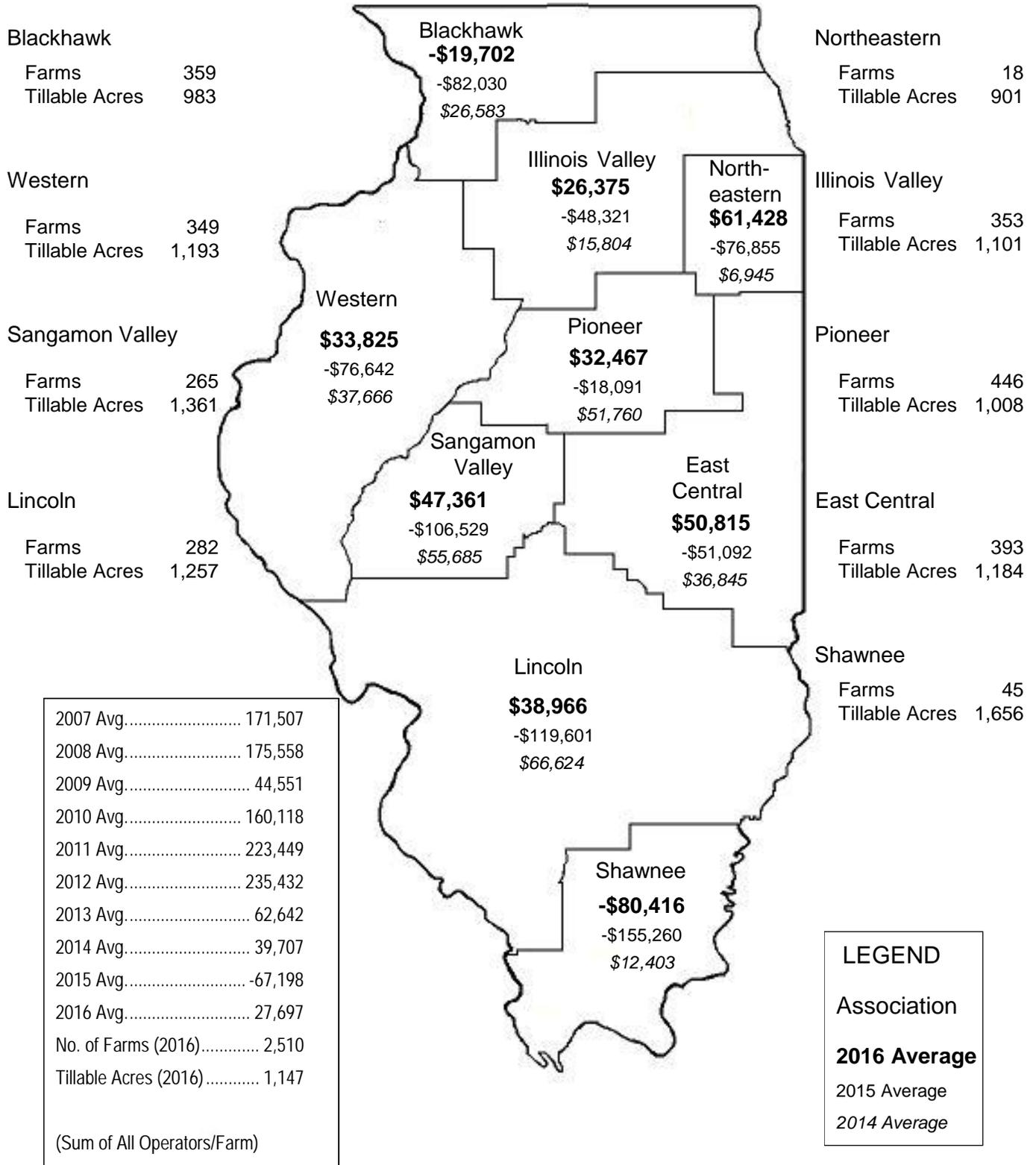
**Table 23a. 2016 Operator Average Operating Costs, Land Use, Yields, and Prices Received for Illinois Dairy and Beef Farms**

Type of Farm	Dairy (by Number of Cows in Herd)			Beef (by Size)		
	10-79	> 79	All farms	180-799	> 799	All farms
Number of cows in herd	12	38	50	12	6	18
Range in size (total acres)						
Number of farms	12	38	50	12	6	18
<b>Selected returns and costs per operator tillable acre</b>						
Crop returns	667.55	733.74	726.03	608.61	808.15	717.82
Livestock returns above feed	332.13	797.04	742.92	95.42	104.15	100.20
Custom work, other receipts	10.78	52.87	47.97	29.18	27.55	28.29
<b>Value of farm production</b>	<b>1,010.46</b>	<b>1,583.64</b>	<b>1,516.92</b>	<b>733.21</b>	<b>939.86</b>	<b>846.31</b>
Soil fertility	75.44	79.35	78.89	70.85	78.74	75.17
Pesticides	31.00	38.83	37.92	43.49	48.95	46.48
Seed and other crop expense	75.39	86.65	85.34	78.99	89.42	84.70
<b>Crop total</b>	<b>181.83</b>	<b>204.83</b>	<b>202.15</b>	<b>193.33</b>	<b>217.11</b>	<b>206.35</b>
Light vehicle and utilities	51.33	53.78	53.49	17.68	25.10	21.74
Machinery repairs, supplies	74.34	83.00	81.99	40.51	56.38	49.20
Machinery hire, lease	61.26	118.11	111.49	73.51	77.13	75.49
Fuel and oil	33.24	45.04	43.66	24.95	34.18	30.00
Machinery depreciation	125.11	123.96	124.09	84.26	116.31	101.80
<b>Power and equipment total</b>	<b>345.27</b>	<b>423.88</b>	<b>414.73</b>	<b>240.90</b>	<b>309.10</b>	<b>278.23</b>
Drying and storage	12.34	7.68	8.22	8.94	14.88	12.19
Building repair and rent	20.89	36.49	34.68	26.66	46.14	37.32
Building depreciation	27.02	59.50	55.72	21.64	36.45	29.75
<b>Building total</b>	<b>60.25</b>	<b>103.67</b>	<b>98.61</b>	<b>57.25</b>	<b>97.47</b>	<b>79.26</b>
Labor, unpaid	229.15	109.64	123.55	140.53	81.75	108.36
Labor, paid	46.21	239.17	216.71	9.82	39.06	25.82
<b>Labor total</b>	<b>275.36</b>	<b>348.81</b>	<b>340.26</b>	<b>150.34</b>	<b>120.81</b>	<b>134.18</b>
Insurance and miscellaneous	54.97	57.41	57.13	48.33	51.11	49.85
Livestock services and supplies	159.29	275.26	261.76	96.89	68.50	81.35
Interest on nonland capital	87.05	129.94	124.95	116.09	128.93	123.12
<b>Other costs total</b>	<b>301.31</b>	<b>462.62</b>	<b>443.84</b>	<b>261.30</b>	<b>248.54</b>	<b>254.32</b>
Land charge	193.06	210.13	208.14	229.75	246.95	239.16
<b>Total nonfeed costs</b>	<b>1357.07</b>	<b>1753.93</b>	<b>1707.73</b>	<b>1132.88</b>	<b>1239.99</b>	<b>1191.51</b>
Capital account adjustment	1.19	1.46	1.43	2.35	3.65	3.06
<b>Management returns</b>	<b>-345.42</b>	<b>-168.83</b>	<b>-189.39</b>	<b>-397.32</b>	<b>-296.49</b>	<b>-342.13</b>
Percent crop returns fed	127.60	146.83	142.21	131.32	94.09	118.91
Capital purchases	41,486	97,831	84,308	52,840	104,011	69,897
Interest paid	10,670	37,211	30,841	37,918	92,242	56,026
<b>Percent tillable land in</b>						
Corn and corn silage	50.5	51.3	51.0	54.3	66.8	58.3
Soybeans	17.4	21.4	20.9	23.1	33.2	26.1
Wheat	4.2	5.0	4.9	0.0	0.0	5.1
Other small grains	0.0	0.0	0.4	0.0	0.0	0.0
CRP acres	0.0	0.0	0.0	0.6	0.0	0.3
All hay and pasture	17.3	10.6	11.3	21.9	0.0	10.3
<b>Crop yields, bushels per acre</b>						
Corn	188	203	201	219	224	222
Soybeans	58	66	65	68	67	67
Wheat	78	80	80	0	0	89
<b>Prices received</b>						
Corn (old crop)	3.49	3.66	3.64	3.56	3.44	3.49
Corn (new crop)	3.22	3.17	3.18	3.47	3.26	3.37
Soybeans (old crop)	9.15	9.49	9.46	8.77	9.88	9.53
Soybeans (new crop)	9.59	9.67	9.66	9.58	8.92	9.20

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

## Illinois FBFM Association

### Operators' Share of Labor and Management Income per Farm---2014, 2015, and 2016 (Sum of All Operators/Farm)



## Financial Characteristics of Illinois FBFM Grain Farms

	2016	2015	2014	2013	4-Year Average	My Farm
Number of Farms	2,371	2,462	2,532	2,440	<b>2,451</b>	
<b>Liquidity</b>						
Working Capital	\$242,058	\$241,637	\$295,956	\$336,712	<b>\$279,091</b>	
Current Ratio						
Upper Quartile	NA	5.84	5.79	6.51	<b>6.05</b>	
Median	2.13	2.05	2.32	2.59	<b>2.27</b>	
<b>Solvency</b>						
Net Worth (Market)	\$2,986,042	\$2,993,163	\$2,973,330	\$2,880,432	<b>\$2,958,242</b>	
Debt/Equity Ratio (%)						
Upper Quartile	NA	7.9	8.5	8.5	<b>8.3</b>	
Median	24.8	25.5	23.5	22.5	<b>24.1</b>	
Debt/Total Asset Ratio (%)						
Upper Quartile	NA	7.4	7.8	7.8	<b>7.7</b>	
Median	19.9	20.4	19.0	18.4	<b>19.4</b>	
<b>Profitability</b>						
Net Farm Income	\$71,349	\$3,694	\$79,348	\$105,027	<b>\$64,855</b>	
Return on Farm Assets (%)						
Upper Quartile	NA	1.3	3.9	5.5	<b>3.6</b>	
Median	1.6	-0.7	1.6	2.6	<b>1.3</b>	
Return on Farm Equity (%)						
Upper Quartile	NA	0.8	4.2	6.5	<b>3.8</b>	
Median	1.1	-1.7	1.2	2.6	<b>0.8</b>	
<b>Repayment Capacity</b>						
Debt/Farm Operating Income	11.06	60.34	7.78	5.40	<b>21.15</b>	
<b>Financial Efficiency (as a % of Gross Farm Returns)</b>						
Interest Expense Ratio						
Upper Quartile	NA	0.8	0.6	0.5	<b>0.6</b>	
Median	2.9	2.9	2.3	2.0	<b>2.5</b>	
Operating Expense Ratio						
Upper Quartile	NA	70.3	61.9	60.0	<b>64.1</b>	
Median	70.4	80.6	71.7	68.3	<b>72.8</b>	
Depreciation Expense Ratio						
Upper Quartile	NA	9.2	7.6	6.9	<b>7.9</b>	
Median	11.8	13.2	11.0	10.0	<b>11.5</b>	
Farm Operating Income Ratio						
Upper Quartile	NA	13.5	24.5	27.9	<b>22.0</b>	
Median	13.3	2.5	14.2	18.1	<b>12.0</b>	
Asset Turnover Ratio						
Upper Quartile	NA	0.30	0.35	0.37	<b>0.34</b>	
Median	0.21	0.18	0.22	0.24	<b>0.21</b>	

NA = not available yet.

## Recently Retired

**Kent Meister** was raised on a grain and livestock farm in Monroe County near Valmeyer. After finishing high school, he enrolled at the University of Illinois, graduating in January 1978 with a bachelor's degree in agricultural education.

Kent began his professional career as a vocational agriculture teacher at Normal Community High School. While teaching, he earned a master's degree in agricultural education at the University of Illinois in 1980. In January of 1983, Kent began working for the Pioneer FBFM Association, mainly responsible for southeastern McLean County. Kent used his expertise in agricultural education to communicate with cooperators and help them in their farm businesses.

Kent is involved in his community and church. In 2009, he was awarded the Outstanding Service to Agriculture Award for McLean County, primarily for the work he has done for his cooperators. Kent retired from FBFM in spring 2016 after 33 years of dedicated service.



## In Memory



**Don Becker** (1957–2017) was raised near Urbana in Champaign County. After finishing high school, he enrolled in Illinois State University, where he earned a bachelor's degree in agribusiness in 1979.

After graduation Don became an Illini FS Salesman in Champaign. In 1989 he was employed by the East Central FBFM Association, responsible for Iroquois County.

Don was very active in his church and community and enjoyed fishing, gardening, and spending time with his family. Don was in his 28th year of dedicated service to FBFM at his untimely death in February 2017. Don's desire to serve others combined with his knowledge made him a valuable asset to his cooperators and to fellow field staff. He will long be remembered for his contributions to the Watseka community.





*Illinois Farm Business  
Farm Management Association*

FBFM is a cooperative educational-service program designed to assist farmers with management decision making. It is available to all farm operators in Illinois. There are nine local not-for-profit associations organized to provide services throughout the state. The FBFM program provides:

- Financial and production business analysis reports.
- Experienced Farm Analysis Specialist to help interpret analysis reports and counsel on management problems.
- Computer-assisted record-processing options—on-farm or service center.
- Assistance with business and family records.
- Assistance with income tax management.

To find out more about FBFM, contact the Illinois FBFM Association state office or one of the local associations listed below.

Jeffery Johnson  
Blackhawk FBFM  
115 S. Walnut Avenue  
Freeport, IL 61032  
815-369-2243

Jim Cullison  
East Central FBFM  
900 S. Washington St., Ste. B  
Tuscola, IL 61953  
217-253-5227

Scott Newport  
Illinois Valley FBFM  
4201 N. Columbus St.  
Ottawa, IL 61350  
815-433-1635

Tom Nolte  
Lincoln FBFM  
707 IL Rt. 127 S, PO Box 37  
Greenville, IL 62246  
618-664-2419

Mike Heiser  
Pioneer FBFM  
300 East Locust St.  
Fairbury, IL 61739  
815-692-3906

Kent Leesman  
Sangamon Valley FBFM  
1042 N. Grand Ave. West  
Springfield, IL 62702  
217-523-0639

Doug Hileman  
Shawnee FBFM  
710 Balcom Rd.  
Anna, IL 62906  
618-833-3790

Roberta Boarman  
Western FBFM  
101 East Main, Box 489  
Toulon, IL 61483  
309-286-2811

State office: Illinois FBFM Association, 1301 W. Gregory Dr., Urbana, IL 61801  
Dwight Raab—217-333-5511 Brad Zwilling—217-333-8346 Brandy Krapf—217-265-5629  
Email: [dwight.raab@fbfm.org](mailto:dwight.raab@fbfm.org)

Visit our Web site at  
<http://www.fbfm.org>

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For U of I farm management information see  
<http://www.farmdoc.illinois.edu>

*Cooperating with University of Illinois Extension and the University of Illinois  
Department of Agricultural and Consumer Economics*