

89th ANNUAL

SUMMARY OF
ILLINOIS
FARM BUSINESS
RECORDS
2013

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 2013
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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 --- 5,670 cooperating farmers and 59 member field staff*
 July 1, 2014, distribution of cooperators by counties and associations

Associations and Field Staff

Associations and Field Staff

BLACKHAWK

598
 Jeffery L. Johnson
 Alan A. Petersohn
 Rodney B. Gieseke
 David A. Goodell
 Tonya M. Wiersema
 Adam W. Drinkall
 Anthony J. Richard

WESTERN

783
 Roberta B. Boarman
 Robert L. Rhea
 Miriam M. Mock
 Mike R. Shepherd
 Nathan P. Edlefson
 Ruth Ann McGrew
 Brett W. Goodwin
 Nathan R. Janssen

SANGAMON VALLEY

579
 Todd F. Behrends
 James E. Phelan
 Kevin E. Coultas
 Kent D. Leesman
 Jessie N. Mowen

LINCOLN

729
 Thomas J. Nolte
 Michael E. Schmitz
 Dathel W. Davidson
 Daniel A. Doan
 Randall J. Harmon
 Mitchel W. Fickling
 Michael P. Bruns
 Ashley N. Westall

NORTHEASTERN

32

ILLINOIS VALLEY

605
 Scott M. Newport
 John A. Hudson
 Bradley G. Lenschow
 James P. McCabe
 Daniel G. Entile
 Alissa D. Fosdick

PIONEER

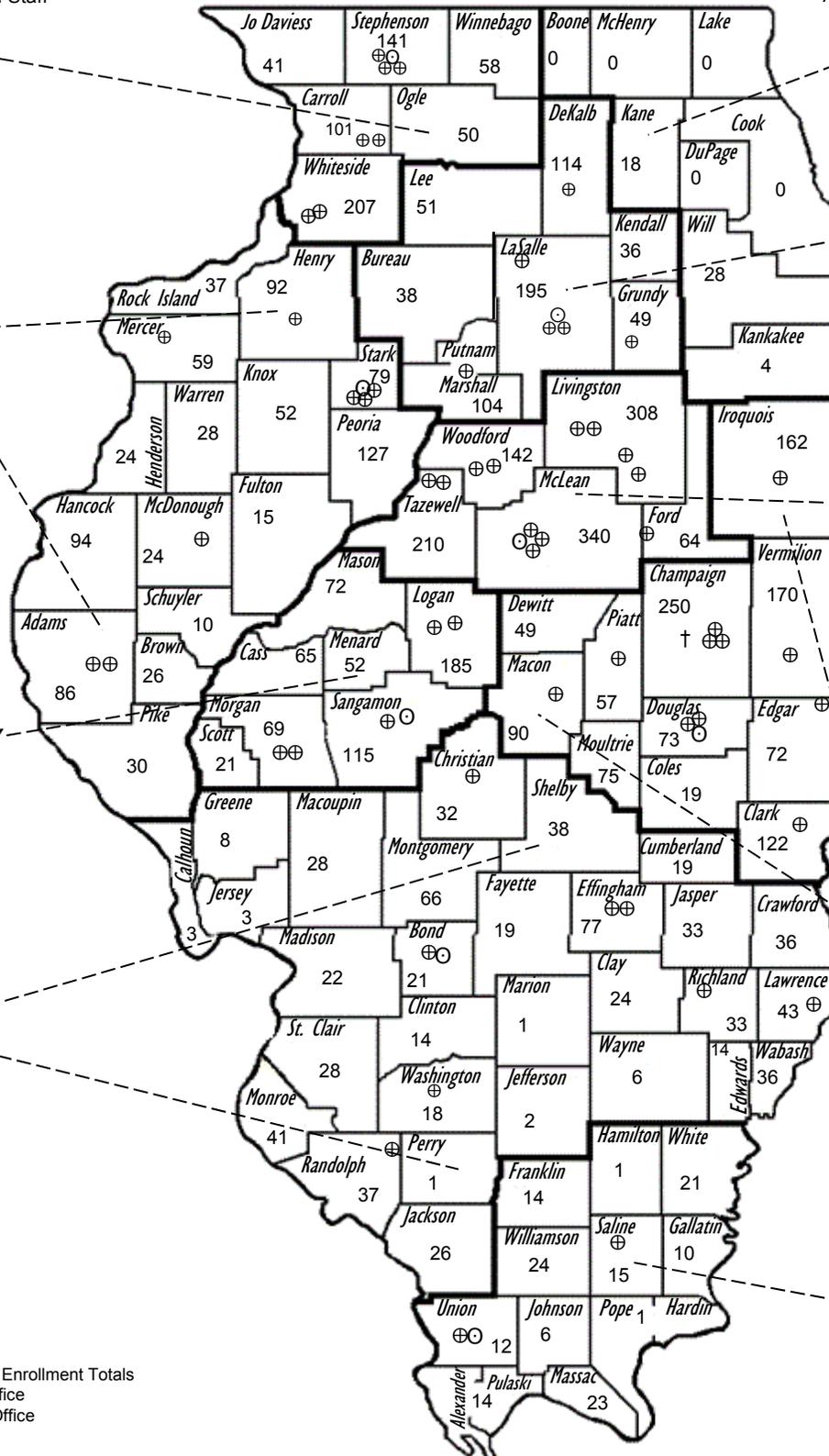
1,064
 Michael C. Heiser
 Kent V. Meister
 Darren L. Bray
 Brian J. Pulley
 Nathan A. Waibel
 Jeffrey A. Marquis
 Lowell J. Stoller
 Jacob M. Springer
 Carla S. Doubet
 Jedediah D. Metzger
 Brandon M. Tate
 Bradley A. Carroll

EAST CENTRAL

1139
 James E. Cullison
 Bruce E. Burk
 Donald E. Becker
 Mitchell A. Fruhling
 Jeffrey D. Lewis
 Robert D. Daggett
 Richard C. Thomas
 Gary L. Knoblett
 Christopher A. Leman
 Michael L. Clark
 Klayton M. Finley

SHAWNEE

141
 Douglas E. Hileman
 Brittany L. Cleeton



* Numbers are Enrollment Totals
 59 ⊕ Field Staff Office
 8 ⊙ Association Office
 † State Office

SOURCE OF DATA

This report is based on data obtained from farm business records on 5,670 Illinois farms. It is the 89th annual summary of such records obtained from farmers cooperating with the 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 and 2000, 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 2013, 9 associations in 102 counties were being served by 60 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 2013 indicate that over 95 percent of the 5,670 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 2013 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 2013 was 1,137 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 17) presents data on livestock enterprises. This information is the total of operator and landlord data. Beginning in 1995, the cost of production information presented in Tables 12, 14, and 16 excludes those enterprises with an operator-landlord live-stock lease, because landlord cost data are not available. 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 18 to 22a) 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. It also reports on hog farms with over and under 6,000 hundredweight of pork produced.

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 cows), 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 18; since 1978, from the grain farm sample in Table 19; 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, \$6.07; oats, \$3.93; and wheat, \$6.96. 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 18 to 22a 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 2013 at \$3,750 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 2013. 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 \$22,384.

Land charge or net rent is the bare land priced at current land values multiplied by 2.20 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 2013, using a base earning value of 1979 = 100, was 348.

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, including marketing loan gains, countercyclical payments, and loan deficiency payments (LDPs); 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 2013

Illinois agriculture is based largely on crop production, especially corn and soybeans. In 2013, Illinois ranked first in the nation in soybean production and second in corn production. 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. Cold and wet conditions in the first part of 2013 led to a slower start to planting, with only 1 percent of the corn crop being planted by May 5. As of May 12, 17 percent of the corn crop was planted, which was well below the historical 5-year average of 64 percent and well below the 2012 average of 94 percent. Eighty-nine percent of the corn was reported as planted by May 27, compared with 100 percent the year before. It was not until June 23 that soybeans were reported 96% planted. A cooler and drier growing season led to normal crop development. A dry fall allowed corn and soybean harvest to run about the same in 2013 as the five-year average, but slower than the drought year of 2012.

Crop yields. With a more normal yearly temperature and precipitation, corn yields were much higher in 2013 than in 2012. Cooler temperatures during pollination increased yields in all parts of the state. The average corn yield for Illinois farms reported by the Illinois Crop Reporting Service was 178 bushels per acre, 73 bushels above the previous year’s yield. This is the highest since 2008, when

it was 179 bushels. The average for 2009 through 2013 is 154 bushels per acre. Farmers participating in the Illinois FBFM program averaged 192 bushels of corn per acre in 2013, 72 bushels above the year before.

Soybean yields for all Illinois farms were reported at 49 bushels per acre in 2013. This was 6 bushels more than 2012 as well as 2 bushels more than the 5-year average and the highest since 2010, when it was 51.5 bushels. FBFM recordkeeping farms averaged 55 bushels of soybeans per acre in 2013, 3 bushels above their 5-year average and tied with 2010 for the highest yield ever. Crop yields on the 5,670 recordkeeping farms covered in this report averaged 8 to 12 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 \$1.57 cents to \$1.76 per bushel above 2012 prices (Table 1). Old-crop corn prices received in 2013 averaged 38 cents to 53 cents above those received in 2012. New-crop prices received were lower for soybeans and corn compared to the year before. The price received for new-crop corn averaged \$1.88 to \$1.91 lower than the year before, and new-crop soybeans averaged 87 cents to \$1.16 lower. Wheat sold for 38 to 52 cents less per bushel during the year. Prices received for old-crop corn sold in 2013 were below their inventory prices, resulting in a negative marketing margin and lower crop returns for corn. Old-crop soybeans, however, sold for more than their inventory price, resulting in a positive marketing margin. The year-end, new-crop inventory price for corn was \$2.90 lower than the year before; for soybeans it was \$1.25 lower. Both corn and soybean prices have been high enough that neither crop was eligible for loan deficiency payments. The national average marketing year price for corn and soybeans will be high enough that producers will not receive a countercyclical payment.

Crop production. Corn production totaled 2.10 billion bushels in 2013, 814 million bushels more than the previous year. The final yield was 178 bushels per acre, which was 73 bushels above the previous year's yield. The yield for the 2013 soybean crop was 49 bushels per acre, 6 bushels above the 2012 yield of 43 bushels per acre. Production totaled 462 million bushels, 20 percent above the previous year.

The 2013 yield for sorghum for grain was 94 bushels per acre, 34 bushels above the yield in 2012. Sorghum production, at 1.88 million bushels, was up 16 percent from the previous year. The yield for the 2013 winter wheat crop was 67 bushels per acre, 4 bushels per acre more than the previous year. Total production was 55.6 million bushels, 37 percent above the 2012 production of 40.6 million bushels. The oats yield, at 69 bushels per acre, was 7 bushels below 2012. Production of all hay in 2013 was 2.02 million tons, 36 percent above 2012. Alfalfa hay production was up 24 percent, to 1.22 million tons. All other hay production increased to 800,000 tons. The alfalfa yield increased from 3

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

	2013		2012	
	Northern & central	South-ern	Northern & central	South-ern
Grain prices per bushel				
Sold				
Corn, old crop	\$ 6.90	\$ 6.90	\$ 6.37	\$ 6.52
Corn, new crop	4.68	4.63	6.59	6.51
Soybeans, old crop	14.67	14.61	12.91	13.04
Soybeans, new crop	12.85	12.91	14.01	13.78
Wheat	6.70	6.76	7.22	7.14
Livestock prices per cwt				
Hogs, all weights	\$ 66.74		\$ 62.92	
Fed cattle, all weights	123.45		121.14	
Feeder cattle, all weights, prices paid	145.53		146.02	
Dairy cattle, all weights	77.74		78.74	
Milk per cwt	20.71		19.25	

to 3.6 tons per acre, as well as all other hay yields increasing from 2 to 2.5 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 2013 compared to 2012. With higher gross returns and similar feed costs, returns above feed cost were higher for all livestock enterprises. In 2013, the average prices received by farm recordkeepers in the Illinois FBFM Association were 6 percent higher for hogs, 2 percent higher for fed cattle, and 8 percent higher for milk than they were in 2012 (Table 1). The prices paid for all weights of feeder cattle purchases averaged 0.3 percent below the 2012 price for feeder cattle, and feeder pigs weighing below 20 pounds averaged 11 percent above the 2012 price. Higher returns and similar feed costs resulted in returns above feed and purchased animals for feeder cattle enterprises to increase from \$14.29 per hundredweight produced to \$21.12 (Table 10). This is below the 5-year average. Mainly due to the higher pig prices and lower feed costs, returns for farrow-to-finish hog producers increased returns above feed costs to \$18.33 per hundredweight produced in 2013. This was above the 5-year average. Higher milk prices and higher beef prices caused dairy returns above feed cost per cow to increase from \$1,519 in 2012 to \$1,846 in 2013. This is above the 5-year average. Returns for beef cow herds with calves sold increased to \$169, which is also above the 5-year average.

Labor and management income

The average operator's share of labor and management income for the 5-year period from 2009 through 2013 on

all northern Illinois grain farms (located north of a line from Kankakee to Moline) was \$149,302 (Table 2). Operators on about 1,500 grain farms in central Illinois had 5-year average earnings of \$133,037. 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 last couple of years have led to larger earnings from crops.

The grain farms in northern Illinois averaged 1,030 tillable acres per farm, compared with an average of 1,114 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 2009 through 2013, grain farm operators in southern Illinois averaged \$114,947 for labor and management. This average decreased by \$19,182 compared with the average for the 5-year period from 2008 through 2012.

When the average earnings on Illinois grain farms for the 5-year period from 2009 through 2013 are compared with the earnings from 2008 through 2012, earnings decreased in all areas of the state. The average for the 5-year period from 2009 through 2013 decreased 11 percent in northern Illinois, 15 percent in central Illinois, and 14 percent in southern Illinois as compared to the 5-year period 2008 through 2012. The 2013 return to operator’s labor and management was lower in all parts of the state than the 2012 earnings, and all areas were below the 2009–2013 5-year average. The year dropped from the 5-year average, 2008, averaged about \$108,000 higher earnings than in 2013.

When average earnings on Illinois livestock farms for the 5-year period from 2009 through 2013 are compared with the earnings from 2008 through 2012, earnings increased for hog enterprises but decreased for beef and dairy enterprises. The average for the 5-year period from 2009 through 2013 increased 3 percent for hog farms, decreased 37 percent for beef farms, and decreased 20 percent for dairy farms as compared to the 5-year period 2008 through 2012.

In 2013, the labor and management income for all areas of Illinois averaged \$62,642 per farm. This figure is \$172,790 below the 2012 state average. Returns averaged \$82,596 below the average for the 5-year period 2009 through 2013. Lower new-crop prices was the main reason for the lower incomes, even with higher yields. The new-crop grain prices resulted in minimum farm program payments in 2013, just like in 2012.

Corn yields were well above the yields recorded the year before. The average corn yield on the 2,597 farms in 2013 was 192 bushels per acre, 72 bushels above the 2012 yield. The average soybean yield in 2013 was 55 bushels per acre, 7 bushels higher than the 48 reported in 2012. Corn and soybean yields were generally highest in the central part of the state from north to south. Wet conditions in the spring led to later planting, especially in the eastern and western portions of the state. The average corn yield was the highest

Table 2. Operator’s 5-Year Average Share of Labor and Management Income by Size and Type of Farm, 2009 Through 2013

	Number of acres per farm ^a			
	Under 800	800 to 1,199	1,200+	All
Northern Illinois				
Tillable acres	475	993	2,100	1,030
Labor and management earnings by type of farm				
Grain.....	\$70,419	\$152,403	\$295,077	\$149,302
Central Illinois				
Tillable acres	519	878	1,911	1,114
Labor and management earnings by type of farm				
Grain ^b	\$76,213	\$139,928	\$229,823	\$151,869
Grain ^c	62,111	109,487	164,594	101,363
All.....	70,156	127,385	211,784	133,037
Southern Illinois				
Tillable acres	498	984	2,106	1,344
Labor and management earnings by type of farm				
Grain.....	\$43,199	\$97,125	\$172,350	\$114,947
Illinois livestock				
Labor and management earnings by type of farm				
Hog.....	.. ^d	.. ^d	.. ^d	\$79,981
Beef.....	.. ^d	.. ^d	.. ^d	20,739
Dairy.....	.. ^d	.. ^d	.. ^d	29,020

^aTillable acres.

^bHighly productive soils, with soil productivity ratings from 86 to 100.

^cHeavy-till and transition soils, with soil productivity ratings from 56 to 85.

^dData not available.

since 2008, and the average soybean yield was tied with 2010 for the highest yield.

Year-end inventory price for the 2013 corn crop of \$4.10 per bushel was \$2.90 cents per bushel lower than a year earlier. Soybeans were inventoried at \$13.00 per bushel, \$1.24 lower than December 31, 2012. The average sales price received for the 2012 corn crop sold in 2013 was below the inventory price, resulting in a negative marketing margin, unlike the 2012 soybean crop sold in 2013, which had a positive marketing margin. Crop returns averaged \$740 per tillable acre, \$157 per acre lower than the 2012 crop returns. The average crop returns per acre were the third highest on record.

The income or salary of the farm operator, whether tenant or part-owner, is the return for the labor and management provided by the operator. The level of income received is a measure of overall farming efficiency and includes compensation for the risk involved. The income includes the operator’s gross sales and the net change in inventory. This income is reduced by operating expenses, depreciation, a charge for unpaid family labor, 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 2009 to 2012.

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 \$60,000 of the return for equity capital, depending on location and type of farm. Some 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 2,519 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 2,519 farms was \$329,910, down 17 percent from \$396,050 a year earlier. Grain farms had the greatest working capital, averaging \$340,280, while dairy farms had the least, averaging \$86,778. 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 2.62, down from 3.07 a year ago. Grain farms recorded the highest (most healthy) current ratio, and beef farms the lowest. The 2013 current ratio was the third highest for any year during the last 15 years.

Solvency is a measure of the farm’s overall financial strength and risk-taking ability. The average net worth of the 2,519 farms at the end of 2013 was \$2,851,045, up from \$2,750,068 the year before. Average farm and nonfarm incomes in 2013 were above family living requirements, thus enabling net worth increases. Increasing land values have also boosted net worths for those operators who own land. Grain farms had the highest net worth, followed by hog 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 18.5. The debt-to-farm asset percentage ranged from 18 for grain farms to 28.2 for dairy farms. The average debt-to-farm asset level of 18.2 from 2012 was at its lowest level for at least 15 years.

Table 3. Financial Characteristics of Illinois Farms for 2013 by Type of Farm

	All farms	Grain farms	Hog farms	Dairy farms	Beef farms
Number of farms.....	2,519	2,398	28	57	36
Liquidity					
Working capital.....	\$329,910	\$340,280	\$336,910	\$86,778	\$153,224
Current ratio.....	2.62	2.65	2.22	2.11	1.63
Solvency					
Net worth (market).....	\$2,851,045	\$2,889,508	\$2,391,198	\$1,808,433	\$2,297,360
Debt-farm equity (%).....	22.6	22.0	30.1	39.2	39.1
Debt-farm asset (%).....	18.5	18.0	23.0	28.2	28.1
Profitability					
Farm operating income.....	\$98,414	\$100,364	\$77,558	\$49,985	\$61,469
Return on farm assets (%).....	2.5	2.5	3.0	0.4	1.3
Return on farm equity (%).....	2.3	2.4	2.8	-0.7	0.4
Financial efficiency					
Interest expense ratio (%).....	2.0	2.0	3.4	4.6	5.1
Operating expense ratio (%).....	68.6	68.3	75.2	75.1	68.5
Depreciation expense ratio (%)..	10.0	10.0	6.9	10.4	9.1
Farm operating income ratio (%)	17.1	17.4	12.9	11.3	11.6
Asset turnover ratio.....	0.23	0.23	0.23	0.21	0.15

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 2,519 farms was 2.5 percent, down from 8.3 percent a year earlier. Hog farms recorded the highest returns, averaging 3 percent, while dairy farms recorded the lowest, averaging 0.4 percent. Return on farm equity in 2013 ranged from 2.8 percent for hog farms to a *negative* 0.7 percent for dairy farms. The average was 2.3 percent, down from 9.8 percent in 2012.

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 2 percent for the 2,519 farms, ranging from 2 percent for grain farms to 5.1 percent for beef farms. The 2 percent was up from 1.9 percent in 2012. The 2012 figure is the

lowest since at least 1995. The farm operating income ratio ranged from a high of 17.4 percent for grain farms to 11.3 percent for dairy farms. The average for all farms in 2013 was 17.1 percent, down from 33.5 percent in 2012. The 2009 through 2013 5-year average farm operating income ratio is 26.9 percent. The 2013 farm operating income ratio is below the 5-year average.

Family living expenditures

Total cash living expenditures for a sample of 1,307 Illinois sole-proprietor, farm-operator families in 2013 averaged \$80,716 (Table 4). This figure is 5.3 percent higher than the 2012 average. Capital purchases for family living expenses of \$8,414 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 9.4 percent of the total cash outlay for all family living expenditures in 2013.

The average farmer in this sample paid \$20,530 in interest in 2013 on operating, machinery, and long-term real estate debts. This interest expense was 4 percent of total operating expense (including interest paid) and 2.8 percent

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, 2013 ^a	
	2013	2012	2011	2010	High-third	Low-third
Number of farms.....	1,307	1,300	1,273	1,200	148	148
Age of operator.....	55	56	55	55	50	48
Number in family.....	2.7	2.8	2.9	2.9	4.0	3.7
Net farm income	\$105,902	\$262,917	\$242,735	\$176,886	\$148,633	\$91,470
Source of dollars						
Net nonfarm income	\$ 38,019	\$ 36,778	\$ 35,454	\$ 35,976	\$ 53,629	\$ 27,342
Money borrowed.....	418,038	428,234	398,860	361,671	636,381	310,956
Farm receipts.....	<u>736,101</u>	<u>777,953</u>	<u>669,116</u>	<u>563,312</u>	<u>1,029,299</u>	<u>654,670</u>
Total sources	\$1,192,158	\$1,242,965	\$1,103,430	\$960,959	\$1,719,309	\$992,968
Use of dollars						
Interest paid.....	\$ 20,530	\$ 22,425	\$ 22,749	\$ 22,388	\$ 29,584	\$ 16,721
Cash operating expenses.....	497,855	491,725	451,756	388,256	706,647	442,165
Capital farm purchases.....	130,006	119,816	104,621	84,055	180,019	113,391
Payments on principal	365,513	396,479	370,759	327,000	506,491	283,973
Income and Social Security taxes	40,328	26,718	19,726	20,064	55,103	34,365
Net new savings and investments.....	48,796	100,790	54,161	44,987	94,175	46,783
Contributions	3,874	3,823	3,066	2,935	6,214	1,843
Medical expenses.....	10,417	10,100	9,322	8,928	13,345	7,034
Life insurance	4,492	4,036	3,702	3,442	6,323	2,750
Expendables.....	<u>61,933</u>	<u>58,709</u>	<u>55,839</u>	<u>52,300</u>	<u>107,362</u>	<u>39,363</u>
Total living expenses	(\$ 80,716)	(\$ 76,668)	(\$ 71,929)	(\$ 67,605)	(\$ 133,244)	(\$ 50,990)
Living—capital purchases.....	<u>8,414</u>	<u>8,344</u>	<u>7,729</u>	<u>6,604</u>	<u>14,046</u>	<u>4,580</u>
Total uses	\$1,192,158	\$1,242,965	\$1,103,430	\$960,959	\$1,719,309	\$992,968

^aRecords were sorted into thirds according to total noncapital living expenses.

of total farm receipts. The average amount of interest paid in 2013 was \$1,895 less than the amount paid in 2012. Here are the most significant financial facts about 2013:

- Net farm income plus net nonfarm income was \$14,463 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 \$103,596 more than family living expense and taxes for the period 2009 through 2013. The 2012 figure of \$187,966 is the largest positive margin ever.
- Net nonfarm income averaged \$38,019 and was the highest amount since this study began. This was \$1,241 more than the 2012 figure of \$36,778.
- Capital purchases were \$130,006, compared to \$119,816 in 2012, or 8.5 percent more. They were \$25,282 higher than the average for 2009 through 2013 and at their highest level ever.
- The amount of money borrowed exceeded principal payments for the 25th year in a row. Money borrowed exceeded principal payments by \$52,525. For the 2009 through 2013 time period, money borrowed has exceeded principal payments by an average of \$33,671.
- Of the total living expenses—excluding family capital purchases—charitable contributions accounted for 5 percent, life insurance 5 percent, medical expenses 13 percent, and family living expendables the remaining 77 percent.
- Income and Social Security taxes paid increased by \$13,610, and the total amount of taxes paid, \$40,328, was \$14,827 above the 5-year average for the period 2009 through 2013.
- Medical expenses averaged \$10,417, the second time the average has exceeded \$10,000. Expenses were 3.1 percent higher than the year before.

The 2013 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 \$133,244, compared with \$50,990 for the low-third group. The high-third group had gross farm receipts of \$1,029,299, compared to \$654,670 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 \$29,008 more remaining than the high-third group. The high-third group had a balance remaining of a *negative* \$131 compared to \$28,877 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 1,307 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 \$64,500 and \$68,600, or 15 to 20 percent below the average total living expenses of these 1,307 Illinois farms. When the \$38,019 net nonfarm income for 2013 is used for living expenses, the remaining \$51,111 must be generated from the farm business to pay the \$89,130 used for total living expenses, including family living capital purchases. The figure of \$51,111 amounts to 6.9 percent of total farm receipts.

Income changes on Illinois farms

The average operator’s net farm income for all farms in 2013 was \$127,664; it was \$298,028 in 2012 (Table 5). The 2012 net farm income was the highest for any year out of at least the last 10 years. Operator net farm incomes decrease steadily as a higher percent of gross farm returns is used to pay interest. Frequently, when more than 20 percent of the gross farm return is used to pay interest, the operator’s net

Table 5. Percent of Illinois Farms and Operator Net Farm Income by Interest Paid as a Percent of Gross Farm Returns, 2009 Through 2013

	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+	
Percent of farms							
2009	27	43	21	6	1	2	100
2010	30	47	18	4	1	1	100
2011	33	50	13	3	... ^a	... ^a	100
2012	37	50	11	2	... ^a	... ^a	100
2013	36	46	14	3	1	... ^a	100
Net farm income							
2009	111,504	100,971	43,854	4,597	(9,926)	(56,892)	84,202
2010	227,690	223,370	172,298	95,174	55,317	6,334	204,631
2011	270,468	305,089	227,664	158,433	42,705	(51,794)	273,612
2012	296,370	329,186	197,285	217,127	(17,723)	(487,188)	298,028
2013	144,794	135,286	108,968	115,281	93,162	(64,720)	127,664

^aLess than 1 percent.

farm income is usually negative. Interest paid as a part of gross farm returns for all operators averaged 2.8 percent in 2013, 2.5 percent in 2012, 2.8 percent in 2011, 3.3 percent in 2010, and 3.8 percent in 2009. 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 987 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, 38 months on hog farms, 19 months on beef farms, and 43 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 2013 are due to changes in farm prices and to 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. 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 \$110,635 in 2013 (Table 6). This income was \$157,656 below that of 2012 and \$66,630 below the 5-year average income for 2009 through 2013. The 2012 net farm income was the highest in the last 30 years. The value of farm production averaged \$655,732, which was \$127,429 below 2012 and \$26,115 above the 2009 through 2013 average. The 2012 value of farm production was the

highest since this study began. The value of farm production included an \$11,390 increase in inventory values compared to 2012, when the inventory value decreased by \$14,785. Net cash operating income (adjusted gross) was \$698,730, \$94,974 higher than the 5-year average. Total cash operating expenses were \$10,426 higher than the year before, while depreciation of \$68,769 was 18 percent higher than the year before and 44 percent higher than the 2009 through 2013 average. Total cash operating expenses for 2013 were the highest on record.

Incomes were lower on these farms in 2013 compared to 2012. Lower prices, a negative marketing margin on corn, and higher drying costs were the main factors for the lower incomes. The average soybean yield on these farms in 2013 was 54 bushels per acre, compared to 48 the year before. The average corn yield was 192 bushels per acre, compared to 119 the previous year. Corn was inventoried \$2.90 lower at the end of 2013 compared to the beginning; soybeans were inventoried \$1.25 lower.

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

	2013	2012	2009–13 average
Number of farms	566	600	621
Total acres	1,037	1,039	1,003
Soil-productivity rating	82	82	79
Percent land owned.....	18	17	17
Percent land crop-shared....	44	44	43
Percent land cash-rented	38	39	37
Cash operating income.....	\$711,372	\$745,654	\$615,426
Less purch. feed, livestock ..	<u>12,641</u>	<u>12,226</u>	<u>11,670</u>
Net cash operating income..	\$698,730	\$733,428	\$603,756
Accounts receivable chg.....	(54,388)	64,518	928
Inventory change	<u>11,390</u>	<u>(14,785)</u>	<u>24,933</u>
Value of farm prod	\$655,732	\$783,161	\$629,617
Total cash op. expenses.....	\$474,266	\$463,840	\$408,138
Prepaid-unpaid change	2,061	(7,192)	(3,639)
Annual depreciation.....	<u>68,769</u>	<u>58,223</u>	<u>47,853</u>
Net farm income	\$110,635	\$268,291	\$177,265
Net farm inc. per operator....	\$105,711	\$254,810	\$168,858
Unpaid labor charge	42,754	41,165	37,051
Returns to capital & mgmt ...	67,881	227,126	140,215
Interest charge on capital	<u>58,467</u>	<u>55,069</u>	<u>45,855</u>
Management returns	\$ 9,414	\$172,057	\$ 94,360
Total cash income ^a	\$698,730	\$733,428	\$603,756
Total cash expenditures ^a	<u>611,493</u>	<u>589,561</u>	<u>514,185</u>
Cash balance.....	\$ 87,238	\$143,868	\$ 89,571
Capital purchases.....	137,226	125,721	106,047

^aIncludes sales or purchases of capital items.

The higher quantities in ending inventory caused the value of inventories to increase \$11,390 at the end of the year compared to the beginning. Crop returns averaged \$820 per tillable acre in 2013 compared to \$990 in 2012. Crop expenses per acre increased 3.3 percent. This was the fifth year for the Average Crop Revenue Election (ACRE) Program. Producers would receive a payment the following year after the year of production if the state trigger and farm triggers are met. This program is voluntary, and producers who signed up for it had 20 percent less direct payment rates. Producers receive a guaranteed direct payment based on their program yield, base acres, and a set payment rate per bushel. Countercyclical payments are made if market prices fall below a certain “trigger level.” Countercyclical payments are not expected for corn, soybeans, or wheat for the 2013 crop. 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 receipts are included in net farm income and crop returns. Total tillable land planted to corn and soybeans in 2013 was 95.4 percent, down from 96.1 percent in 2012. Corn acres decreased slightly from 54.5 percent of tillable acres in 2012 to 53 percent in 2013, while soybean acres increased from 41.6 to 42.4 percent.

The average prices received in 2013 for new-crop corn and soybeans of \$4.64 and \$12.87, respectively, were much lower for corn and soybeans than in the previous year. The average prices received for old-crop corn and soybeans, \$6.92 and \$14.68, respectively, were higher than the year before for soybeans and corn. The corn price received was less than the inventory price, while the soybean price was above the inventory price. Capital purchases of \$137,226 in 2013 were \$11,505 more than in 2012 and \$31,179 above the 2009 through 2013 average. Capital purchases were the highest of any year during the last 10 years.

While accrual net farm incomes averaged \$110,635, management returns were \$9,414 in 2013, compared to \$172,057 in 2012 and the 2009 through 2013 average of \$94,360. The value of farm production per man year was \$692,609. The amount of interest paid of \$16,921 was the lowest for any type of farm in Tables 6 and 8. Operators for these farms owned 18 percent of the land they farmed, crop-shared 44 percent, and cash-rented 38 percent. Of the total labor of 14.8 months, only 3.4 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 53.8 percent of the acres in corn and 44.7 percent in soybeans. The table compares 2013 costs per acre with 2012 costs. In 2013, the total cost per acre averaged \$966 for corn and \$715 for soybeans. From 2012 to 2013, the total cost per acre increased 4 percent for corn and soybeans.

Nonland costs of \$3.53 per bushel for corn and \$7.67 for soybeans in 2013 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 2012 to 2013. Costs per bushel for corn decreased due primarily to much higher yields. Total costs per bushel decreased \$2.47 for corn and \$1.43 for soybeans. If the 2013 yield for corn had been 163 bushels, the same as the average for the period from 2010 through 2013, the total cost per bushel would have been \$5.93. 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 adjusted net rent was the average net rent received by crop-share landlords as reported on recordkeeping farms for the period 2009 through 2012.

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

	Corn		Soybeans	
	2013	2012	2013	2012
Number of farms.....	641	680	641	680
Acres grown per farm	698	707	580	541
Yield per acre, bu	197	126	58	50
Variable nonland costs				
Soil fertility	\$193	\$200	\$ 65	\$ 68
Pesticides	66	59	40	36
Seed	114	108	73	69
Drying and storage	32	23	5	5
Machinery repairs, fuel, and hire.....	63	61	55	53
Total, variable costs.....	\$468	\$451	\$238	\$231
Other nonland costs				
Labor	\$ 48	\$ 45	\$ 45	\$ 43
Buildings	16	17	14	14
Machinery depreciation .	63	55	55	48
Nonland interest	51	55	46	49
Overhead.....	50	47	47	44
Total, other costs	\$228	\$219	\$207	\$198
Total, nonland costs.....	\$696	\$670	\$445	\$429
Land costs				
Taxes	\$ 40	\$ 39	\$ 40	\$ 39
Adjusted net rent.....	230	220	230	220
Total, land costs.....	\$270	\$259	\$270	\$259
Total, all costs	\$966	\$929	\$715	\$688
Nonland cost per bu	\$3.53	\$5.32	\$ 7.67	\$8.58
Total, all costs per bu.....	\$4.90	\$7.37	\$12.33	\$13.76

Average yield, past 4 yrs ...	163	181	55	56
Total, all costs per bu.....	\$5.93	\$5.13	\$13.00	\$12.29

Hog farms. The operator’s net farm income in 2013 for Illinois hog farms having 180 acres or more averaged \$116,789 (Table 8). Net incomes were \$112,540 lower than net incomes in 2012 and \$52,777 lower than the average for the 5-year period from 2009 through 2013. The cash balance on these farms of \$94,142 was \$29,518 less than in 2012 and \$24,663 above the average for the 5-year period from 2009 through 2013. Inventories on these farms increased \$66,471 in 2013, following a \$27,289 decrease in 2012. The value of farm production of \$1,069,954 was \$253,540 less than in 2012 and \$877 lower than the average for the 5-year period from 2009 through 2013. Farm production per man year was \$433,962. Incomes on hog farms decreased in 2013 due to lower crop returns. Depreciation of \$77,938 was \$2,097 higher than in 2012.

Management returns were a *negative* \$16,093 in 2013 compared to \$105,313 in 2012. Management returns were \$121,406 less than in 2012 and \$82,892 below the average for 2009 through 2013. Capital purchases were \$128,261,

which was \$3,986 lower than in 2012 and \$17,588 higher than the average for 2009 through 2013. Farm production per one dollar of nonfeed costs of 96 cents was the highest for any type of livestock farm in Illinois. Purchased feed and livestock for this group totaled \$926,013, \$235,646 less than in 2012. The average interest paid on these farms was \$31,519. That was the lowest of the livestock farms in this size range. Farm operators in this group owned 24 percent of the land they farmed, crop-shared 18 percent, and cash-rented 57 percent. Total labor was 37.5 months, 23.9 months of which was hired. Corn was planted on 61.7 percent of the acres and soybeans on 32.8 percent. The average corn yield was 193 bushels per acre and the average soybean yield 57 bushels per acre.

Beef farms. The operator’s net farm income for Illinois beef farms having 180 acres or more averaged \$55,217 in 2013 (Table 8). This figure was \$98,993 lower than the 2012 figure and \$46,753 lower than the average from 2009 through 2013. Lower crop returns contributed to the

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

	Hog farms			Beef farms			Dairy farms		
	2013	2012	2009–13 average	2013	2012	2009–13 average	2013	2012	2009–13 average
Number of farms	47	47	50	30	29	23	56	49	56
Total acres	1,046	1,133	1,011	700	715	686	616	640	561
Soil-productivity rating	79	80	80	75	73	74	70	68	69
Percent land owned.....	24	20	22	40	44	41	38	39	41
Percent land crop shared	18	24	21	18	16	16	3	3	4
Percent land cash rented.....	57	56	57	42	40	43	59	58	55
Cash operating income.....	\$2,015,377	\$2,442,387	\$1,839,823	\$1,737,974	\$1,442,508	\$1,337,746	\$1,107,839	\$1,138,496	\$859,617
Less purch. feed, livestock	<u>926,013</u>	<u>1,161,659</u>	<u>843,209</u>	<u>1,135,013</u>	<u>867,650</u>	<u>804,520</u>	<u>277,881</u>	<u>263,984</u>	<u>198,732</u>
Net cash oper. income.....	\$1,089,365	\$1,280,728	\$996,615	\$602,961	\$574,858	\$533,226	\$829,958	\$874,512	\$660,885
Accounts receivable change..	(85,882)	70,185	(5,349)	(52,008)	54,293	733	(33,722)	54,024	2,739
Inventory change	<u>66,471</u>	<u>(27,289)</u>	<u>49,565</u>	<u>23,496</u>	<u>24,259</u>	<u>32,632</u>	<u>13,471</u>	<u>(22,023)</u>	<u>17,257</u>
Value of farm prod	\$1,069,954	\$1,323,624	\$1,070,831	\$574,449	\$653,410	\$566,591	\$809,707	\$906,513	\$680,881
Total cash oper. expenses	\$866,962	\$1,024,821	\$816,462	\$459,461	\$448,344	\$422,135	\$653,006	\$653,396	\$519,709
Prepaid-unpaid change	8,265	(6,366)	(6,612)	(1,352)	(2,733)	(4,644)	2,514	(13,227)	(1,425)
Annual depreciation.....	<u>77,938</u>	<u>75,841</u>	<u>61,415</u>	<u>61,123</u>	<u>53,590</u>	<u>47,130</u>	<u>82,188</u>	<u>73,325</u>	<u>56,408</u>
Net farm income	\$116,789	\$229,329	\$169,566	\$55,217	\$154,210	\$101,970	\$71,998	\$193,018	\$106,189
Net farm inc. per operator.....	\$75,445	\$152,737	\$109,698	\$47,112	\$109,016	\$82,033	\$53,434	\$107,317	\$68,705
Unpaid labor charge	51,008	46,287	44,773	48,375	48,786	44,970	53,973	60,098	51,217
Returns to capital & mgmt.....	65,781	183,042	124,793	6,842	105,423	57,000	18,025	132,920	54,972
Interest charge on capital	<u>81,874</u>	<u>77,729</u>	<u>57,994</u>	<u>75,570</u>	<u>70,057</u>	<u>60,003</u>	<u>56,249</u>	<u>64,375</u>	<u>47,170</u>
Management returns	(\$16,093)	\$105,313	\$66,799	(\$68,728)	\$ 35,366	(\$ 3,002)	(\$38,223)	\$ 68,544	\$ 7,802
Total cash income ^a	\$1,089,365	\$1,280,728	\$996,615	\$602,961	\$574,858	\$533,226	\$829,958	\$874,512	\$660,885
Total cash expenditures ^a	<u>995,223</u>	<u>1,157,068</u>	<u>927,135</u>	<u>564,777</u>	<u>581,594</u>	<u>520,551</u>	<u>806,495</u>	<u>784,488</u>	<u>619,912</u>
Cash balance.....	\$ 94,142	\$ 123,660	\$ 69,479	\$ 38,184	(\$ 6,737)	\$ 12,675	\$ 23,463	\$ 90,024	\$ 40,973
Capital purchases.....	128,261	132,247	110,673	105,315	133,251	98,416	153,488	131,093	100,203

^aIncludes sales or purchases of capital items.

lower earnings. Net farm income for these farms was the lowest of any type of livestock farm in the sort. Feed cost per hundredweight produced increased 2 percent, while the average price received for market cattle increased 1.9 percent in 2013 compared to 2012. The price paid for feeder cattle went down about 0.3 percent from the year before. The value of farm production for this group of farms averaged \$574,449, or \$78,961 less than in 2012. Cash operating income averaged \$1,737,974, purchased feed and livestock totaled \$1,135,013, and net cash operating income averaged \$602,961.

Management returns of a *negative* \$68,728 in 2013 for these farms were the lowest for any type of livestock farm in the study. Management returns averaged a *negative* \$3,002 for the period 2009 through 2013. Capital purchases were \$105,315 in 2013, compared to \$133,251 in 2012 and \$113,484 in 2011. The 2009 through 2013 average was \$98,416. Depreciation of \$61,123 was \$7,533 above 2012. Cash operating expenses, excluding purchases of feed and livestock, totaled \$459,461. The net cash balance for these farms was \$38,184.

Costs and returns to produce beef from 2010 through 2013, 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 in 2011 and 2010, 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 40 percent of the land they farmed. They crop-shared 18 percent and cash-rented 42 percent. The amount of interest paid was \$41,553. They planted 61.9 percent of their tillable land to corn or corn silage. They also had 9.4 percent of their tillable land in hay and pasture. These farms used 18.6 months of total labor, with 5.7 of that hired labor. The average corn yield on these farms was 184 bushels per acre, and the average soybean yield was 58 bushels per acre. In 2012, corn and soybeans yields on these farms averaged 106 and 51 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 \$71,998 in 2013 (Table 8). This figure was \$121,020 below the 2012 figure and \$34,191 below the 5-year average from 2009 through 2013. The highest income was recorded in 2011. The farms averaged 36,020 hundredweight of milk produced.

Lower crop returns was the main factor for the decrease in earnings. The value of farm production was \$809,707. This was \$96,806 lower than 2012 and \$128,826 higher than the 2009 through 2013 average. The value of inventory increased by \$13,471, while cash operating income decreased by \$30,657. Cash operating expense totaled \$653,006, 0.1 percent less than in 2012. (A detailed breakdown of the cost of producing milk is given in Table 16.) Management returns of a *negative* \$38,223 were \$106,767 lower than the 2012 figure and \$46,025 lower than the 5-year average from 2009 through 2013. Capital purchases increased to \$153,488 in 2013, compared to \$131,093 in 2012 and \$111,238 in 2011. The 2009 through 2013 average was \$100,203. This is the highest amount of capital purchases ever for these types of farms. Annual depreciation on these farms averaged \$82,188. These farms used 43 months of total labor, 28.6 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 \$32,951.

Farm operators in this group owned 38 percent of the land they farmed and cash-rented 59 percent. About 11 percent of the land they farmed was in hay ground; 50.6 percent was in corn and corn silage. Over 125 percent of the value of crop produced was fed to livestock. The average corn yield was 184 bushels per acre for these farms, which is 80 bushels per acre more than in 2012. The average price received for milk in 2013 was 6 percent higher than the average price received in 2012.

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 1999 through 2013 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 \$138 in 2013 were above the 5-year average of \$137. The 2013 return was below the 1999 through 2013 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 resulted in some of the better returns on record. Table 9 shows the return of \$137 per \$100 of feed fed for the most recent 5-year period (2009 through 2013) to be below the previous 5-year period and below the 15-year average of \$143. The 2013 return of \$125 per \$100 of feed fed was \$12 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 \$1,846 per cow in 2013 was \$263 above the 5-year average of \$1,583 (Table 10). These returns indicate that the average dairy enterprise has not covered the total estimated cost of production of \$2,071 per cow from 2008 through 2012. The 2013 return per \$100 of feed fed of \$156 was below the past 5-year average of \$158.

For the beef-herd enterprise, the average returns above the cost of feed and purchased animals for the period from 2009 through 2013 showed great volatility. Producers in 2009 would have been hard-pressed to cover feed costs. 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 \$130 during the past 5 years. The 2013 return of \$169 covered feed costs, but not total nonfeed costs, estimated at \$235 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

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

	Farrow-to-finish hogs (\$)	Feeder pig finishing (\$)	Feeder pig production (\$)	Feeder cattle bought (\$)	Dairy cow herds (\$)	Beef cow herds (\$)	Native sheep raised (\$)	Yearly price of corn (\$)
1999.....	178	150	374	160	233	149	131	1.97
2000.....	212	166	327	147	197	141	140	1.89
2001.....	203	150	331	128	233	138	97	1.94
2002.....	151	121	433	128	198	130	154	2.19
2003.....	168	132	314	200	202	148	165	2.30
2004.....	216	158	287	165	222	178	161	2.49
2005.....	216	143	347	167	245	170	111	2.02
2006.....	183	121	349	124	192	137	117	2.41
2007.....	138	136	249	142	218	111	134	3.42
2008.....	115	131	149	102	172	86	106	4.70
2009.....	123	104	... ^a	126	138	109	75	3.76
2010.....	156	127	... ^a	163	168	135	139	3.86
2011.....	146	153	... ^a	153	181	145	173	6.15
2012.....	120	127	... ^a	117	146	125	79	6.74
2013.....	138	133	... ^a	125	156	131	... ^a	6.07
Averages								
1999–2013.....	164	137	... ^a	143	193	136	... ^a	3.46
1999–2003.....	182	144	356	153	213	141	137	2.06
2004–2008.....	174	138	276	140	210	136	126	3.01
2009–2013.....	137	129	... ^a	137	158	129	... ^a	5.32

^aData not available.

Table 10. Variations in Returns to Livestock Enterprise Units, 2009 Through 2013

	Hogs (per cwt)	Feeder-pig finishing (per cwt)	Feeder cattle (per cwt)	Dairy cattle (per cow)	Beef herd: calves sold (per cow) ^a
Return above cost of feed and purchased animals					
2009.....	\$ 7.50	\$ 3.46	\$13.43	\$ 838	\$ 32
2010.....	19.71	15.36	35.94	1,506	115
2011.....	20.18	18.88	36.77	2,205	189
2012.....	9.98	10.17	14.29	1,519	145
2013.....	<u>18.33</u>	<u>13.09</u>	<u>21.12</u>	<u>1,846</u>	<u>169</u>
Five-year average.....	\$15.14	\$12.19	\$24.31	\$1,583	\$130
Nonfeed costs, 2008 through 2012^b					
Direct cash.....	\$10.79	\$ 6.75	\$15.67	\$1,467	\$147
Other costs.....	<u>8.26</u>	<u>3.99</u>	<u>11.81</u>	<u>604</u>	<u>88</u>
Total.....	\$19.05	\$10.74	\$27.48	\$2,071	\$235

^aThe feed cost for beef herds includes up to \$60 of hay equivalent from salvage roughage.

^bEstimates of annual nonfeed costs are based on enterprise cost studies of operative units.

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 26 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 2013 was 327 litters. Average pigs weaned per litter, 9.87, was above the 2012 figure of 9.59. The 2,561 pounds of pork produced per litter was 144 pounds higher than in 2012. The 2013 records summarized here for the “all farms” group show that the return of \$18.32 above feed costs per 100 pounds of pork produced was \$8.34 above the 2012 return of \$9.98. The 2013 return was above the 5-year average.

The 5-year average return above feed costs per 100 pounds produced was \$15.14 (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 \$19.05 per 100 pounds to pay for all nonfeed costs in the 2008 through 2012 time period. The return above all costs during this 5-year period of *negative* \$3.91 (\$15.14 minus \$19.05) has led to very little expansion and increase in pork production. Pork production has turned from a profitable industry to an unprofitable

one, mainly due to higher feed costs. Despite the negative returns, pork production has continued to increase until this year. Fortunately, strong export demand has supported pork prices. Depending on adjustments in pork production levels due to the outbreak of porcine epidemic diarrhea virus (PEDv), the pork industry may return to profitability in 2014. Pork production was up 2.2 percent in 2012, but down 0.3 percent in 2013. It is expected to decrease about 1.8 percent in 2014 due to PEDv.

The farrow-to-finish enterprise records for 2013 reported in Table 11 were also sorted by the number of litters produced. The group farrowing 350 or more litters averaged 683 litters. Compared with the average feed cost for all farrow-to-finish enterprises, feed cost per 100 pounds of pork produced was \$1.44 lower for the 350-or-more litter group.

The large producers paid less per hundredweight for concentrates and had a slightly higher feed conversion. The average price received for hogs sold by large producers, or the net at the farm, was 3 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 2013 decreased 0.3 percent due to more efficient production, primarily more pigs farrowed and weaned, causing producers to slow down production. Pork production in 2014 is expected to decrease compared to 2013. Hog prices have moved higher due to greater demand over the last couple of years. Higher feed and fixed

costs have increased the cost of production, resulting in lower profit margins.

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 2010, 2011, 2012, and 2013. 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 2013 were \$60.41 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 less than 1 percent as one compared 2013 to 2012. Total nonfeed costs decreased 73 cents per 100 pounds of pork produced, with maintenance and

Table 11. Hog Enterprises, 2013 Averages per Farm

	All farms	Farrow-to-finish enterprises ^a
Number of farms.....	26	9
Pork produced, lbs.....	837,232	1,805,397
Pork prod. per litter, lbs.....	2,561	2,643
Total returns.....	\$552,269	\$1,185,336
Value of feed fed.....	\$398,840	\$834,038
Returns per \$100 feed fed.....	\$138	\$142
Number litters farrowed.....	327	683
Pigs farrowed per litter.....	11.45	11.89
Pigs weaned per litter.....	9.87	10.26
Litters per female year.....	1.92	1.99
Pigs weaned per female year...	17.67	18.72
Number pigs weaned.....	3,227	7,008
Death loss, % lbs produced.....	2.9	2.6
Wt per market hog sold, lbs.....	266	265
----- per cwt produced -----		
Price received—market.....	\$67.19	\$67.16
Total returns.....	65.96	65.66
Feed costs.....	<u>47.64</u>	<u>46.20</u>
Return above feed.....	\$18.32	\$19.46
Farm grains/complete feed, lbs	235	234
Commercial feed, lbs.....	<u>82</u>	<u>76</u>
Total concentrates, lbs.....	317	310
Cost per cwt supplement.....	\$26.91	\$27.32
Cost per cwt concentrates.....	\$15.04	\$14.93

^a350 or more litters per farm.

Table 12. Average Costs and Returns for Farrow-to-Finish Hog Enterprises, 2010 Through 2013

	2013	2012	2011	2010	2010–13 average
Number of farms.....	14	13	9	9	11
Tillable acres.....	823	765	734	720	761
Number of litters.....	422	660	736	818	659
Total returns.....	\$63.96	\$60.19	\$65.35	\$53.69	\$60.80
----- per cwt pork produced -----					
Cash costs					
Feed.....	\$49.71	\$49.74	\$41.68	\$32.95	\$43.52
Operating expenses					
Maintenance and power ^a	\$ 4.36	\$ 5.15	\$ 5.45	\$ 6.39	\$ 5.34
Livestock expenses.....	5.23	4.69	4.22	3.92	4.52
Insurance, taxes, and overhead.....	<u>1.11</u>	<u>1.04</u>	<u>1.39</u>	<u>1.36</u>	<u>1.23</u>
Total operating expenses.....	\$10.70	\$10.88	\$11.06	\$11.67	\$11.08
Total cash costs.....	\$60.41	\$60.62	\$52.74	\$44.62	\$54.60
Other costs					
Depreciation ^b	\$1.86	\$1.88	\$1.76	\$1.89	\$1.85
Labor.....	5.03	4.95	4.43	4.59	4.75
Interest charge on all capital.....	<u>1.11</u>	<u>1.72</u>	<u>1.75</u>	<u>1.75</u>	<u>1.58</u>
Total other costs.....	\$8.00	\$8.55	\$7.94	\$8.23	\$8.18
Total nonfeed costs.....	\$18.70	\$19.43	\$19.00	\$19.90	\$19.26
Total all costs.....	\$68.41	\$69.17	\$60.68	\$52.85	\$62.78
Return above all costs.....	(\$4.45)	(\$8.98)	\$ 4.67	\$ 0.84	(\$ 1.98)

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

^bIncludes machinery, equipment, and building depreciation.

power costs representing most of the decrease. Feed costs decreased as grain prices decreased. Total cost of production decreased from 2012 to 2013 by 76 cents (1 percent) per 100 pounds of pork produced.

From 2010 through 2013, the return above all costs averaged a *negative* \$1.98 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 2013 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 1,439,609 pounds in 2013 (Table 13). At 240 pounds of gain per head, this figure amounted to 5,998 head fed per farm in 2013. These feeder pig enterprises represent those that buy weaner pigs and finish them.

The return above the cost of feed and purchased animals from 2009 through 2013 averaged \$12.19 per 100 pounds of gain. This return was \$1.45 above the \$10.74 of all nonfeed costs for the period 2008 through 2012 (Table 10). The 2013 return of \$13.09 was \$2.92 above the 2012 return and 90 cents above the 2009 through 2013 return. Higher price received was the main reason for the higher returns.

Given that a 475-pound unit of gain equals one head of feeder cattle, the average of 200,502 pounds of beef produced per farm in 2013 (Table 13) equals 422 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 \$125 in 2013, in comparison with a 5-year average of \$137 and a 15-year average of \$143 (Table 9).

The price paid for feeders was 49 cents per 100 pounds lower in 2013 than it was in 2012; the price received for cattle sold in 2013 was \$2.31 higher per 100 pounds than the price received in 2012. The average weight of purchased animals was 656 pounds; the average weight of animals sold was 1,289 pounds. Feed cost was \$86.10 per 100 pounds produced in 2013; it was \$84.37 in 2012. Feed costs increased in 2013 and were considerably above the last 10-year average. Higher market cattle prices did offset an increase in feed costs of \$1.73 per 100 pounds produced, resulting in higher returns above feed in 2013.

Each 100 pounds of beef produced required 681 pounds of concentrates and 67 pounds of hay. The amount of corn silage used in 2013 averaged 244 pounds; other silage averaged 50 pounds, for a total of 294 pounds. Silage use by the feeder cattle enterprise has been rising slightly in the past

4 years; the 10-year average for the period 1994 through 2003 was 479 pounds per 100 pounds of beef produced, compared to 324 pounds for the period 2004 through 2013. The use of 294 pounds of silage per 100 pounds of beef produced in 2013 was the highest amount fed since 2008. 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 \$24.31 per 100 pounds of beef produced from 2009 through 2013 (Table 10). During this period, returns ranged from \$13.43 in 2009 to \$36.77 in 2011. The returns above feed costs are below the estimated cost of \$27.48 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 2012 because of the higher price received for cattle in 2013.

The data in Table 14 show a detailed breakdown for the period from 2010 through 2013 on costs and returns

Table 13. Feeder Cattle and Feeder Pig Finishing Enterprises, 2013 Averages per Farm

	Feeder cattle	Feeder-pig finishing ^a
Number of farms.....	74	28
Total lbs produced	200,502	1,439,609
Total returns.....	\$214,969	\$765,420
Value of feed fed.....	\$172,632	\$577,023
Returns per \$100 of feed fed.....	\$125	\$133
Death loss, % lbs produced.....	2.5	1.9
Average weight purchased.....	656	14
Price paid per 100 lbs.....	\$145.53	\$306.88
Price received per 100 lbs.....	\$123.45	\$ 67.15
Average weight sold	1,289	271
-- per cwt produced --		
Total returns.....	\$107.22	\$53.17
Feed costs	<u>86.10</u>	<u>40.08</u>
Return above feed.....	\$21.12	\$13.09
Farm grains/complete feed, lbs	636	176
Supplement, lbs.....	<u>45</u>	<u>83</u>
Total concentrates, lbs.....	681	259
Hay, lbs.....	67	.. ^b
Corn silage, lbs.....	244	.. ^b
Other silage, lbs.....	50	.. ^b
Hay equivalent, lbs	180	.. ^b

^aPurchase weight of 20 lbs and less.
^bData not available.

to produce beef on beef-feeding farms. The farms included had no other livestock. All costs were accounted for, either in crops or in the beef-feeding enterprise. The figure for feed costs is based on the assumption that all the grain and roughage fed was produced on the farm and was marketable.

The data show that these farms were finishing an average of 1,070 feeders each year from 2010 through 2013. The 4-year average total cash cost including feed and interest charged on cattle, was \$98.77 per 100 pounds of beef produced. The average total returns of \$100.86 for the same period was more than total cash costs by \$2.09 per 100 pounds produced, or about \$14.17 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 \$10.59 per 100 pounds of beef produced, or \$72 per feeder (\$10.59 multiplied by 6.78 hundredweight of gain per feeder), include depreciation, labor, and interest.

Adding the other costs to cash costs results in total costs of \$109.38 per hundredweight over the 4-year period. This was \$8.50 per hundredweight more than the average total returns of \$100.86.

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 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.

Table 14. Average Costs and Returns for Beef-Feeding Enterprises, 2010 Through 2013

	2013	2012	2011	2010	2010-13 average
Number of farms.....	14	9	9	6	10
Average per farm					
Tillable acres.....	704	724	438	423	572
Hundredweight beef produced	5,241	6,441	4,233	4,406	5,080
Number head at 475-lb gain equivalents.....	1,103	1,356	891	928	1,070
Average weight purchased, lbs.....	659	553	497	529	560
Average weight sold, lbs.....	1,270	1,254	1,212	1,216	1,238
Price received per 100 lbs sold	\$122.87	\$116.58	\$108.46	\$ 88.40	\$109.08
Price paid per 100 lbs purchased.....	\$141.12	\$137.24	\$108.60	\$102.37	\$122.33
----- per cwt beef produced -----					
Cash costs					
Feed	\$91.53	\$93.39	\$75.62	\$55.24	\$78.95
Operating expenses					
Maintenance and power ^b	\$ 8.45	\$ 7.61	\$ 8.17	\$ 8.11	\$ 8.09
Livestock expense.....	6.93	5.32	5.97	3.96	5.55
Insurance, taxes, and overhead	0.94	1.13	1.16	1.19	1.11
Interest on cattle ^c	5.02	6.03	4.62	4.69	5.09
Total operating expenses.....	\$ 21.34	\$ 20.09	\$19.92	\$17.95	\$19.83
Total cash costs.....	\$112.87	\$113.48	\$95.54	\$73.19	\$98.77
Other costs					
Depreciation ^d	\$ 3.37	\$ 3.61	\$ 2.33	\$ 2.10	\$ 2.85
Labor	6.47	6.69	5.25	5.15	5.89
Interest on other capital.....	2.16	2.45	1.81	0.97	1.85
Total other costs	\$ 12.00	\$ 12.75	\$ 9.39	\$ 8.22	\$ 10.59
Total all costs.....	\$124.87	\$126.23	\$104.93	\$81.41	\$109.36
Total returns ^e	\$109.27	\$104.98	\$105.11	\$84.09	\$100.86
Return above all costs.....	(\$ 15.60)	(\$21.25)	\$ 0.19	\$ 2.68	(\$ 8.50)

^aAll 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.

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

^cInterest is a charge on the average value of beginning- and end-of-year inventories on hand. The rate was 5.0% for 2010, 4.5% for 2011 and 2012, and 4.0% for 2013.

^dIncludes machinery, equipment, and building depreciation.

^eSales 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.

Dairy enterprises

The minimum size for a herd included in this analysis was 10 milk cows. The average herd size on recordkeeping farms increased steadily at an average of 1.8 cows per year, from 42 in 1970 to 63 in 1982. 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 2010, the herd size has been variable, but it averages around 127 cows. The 2013 average herd size is 135.6 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 2013 was \$156. The average for the period from 2009 through 2013 was \$158 (Table 9). In 2013, milk prices per hundredweight increased from \$19.25 to \$20.71. From 2012 to 2013, beef prices for market animals sold increased 51 cents per hundred pounds, while feed costs decreased 10 cents per milk equivalent. Milk production per cow in 2013 of 22,145 pounds was down 140 pounds from 2012 and the third 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 10 in 2013. 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 “high efficiency” groups had 40 to 79 cows and 80 to 149 cows. Efficiency is measured by the return above cost of feed per cow, and the top one-third in efficiency makes up these two groups. The larger herds averaged 121 cows, and the smaller herds averaged 69 cows. The return above feed costs per cow was higher for the larger herds, at \$2,279, compared to a return of \$1,619 for the smaller herds. The larger herds averaged 20,598 pounds of milk produced per cow, compared to 19,095 pounds for the smaller herds. Feed cost per milk equivalent was lower for the larger herds, at \$11.28, compared to \$13.09 for the smaller herds.

The average return above feed costs per cow for all dairy herds was \$1,846 in 2013 (Table 15). This figure compares with the recent 5-year average of \$1,583 per cow (Table 10). For the years 2008 through 2012, the 5-year average return above feed costs required to pay market prices for all nonfeed costs is estimated to be about \$2,071 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

Table 15. Dairy Cattle Enterprises, 2013 Averages per Farm

	All farms	High efficiency	
		40–79 cows	80–149 cows
Number of farms.....	63	6	8
Number of cows.....	135.6	68.9	120.8
Milk cows dry, %.....	11.8	12.5	12.5
Animal units in herd.....	261	123	205
Total returns.....	\$696,411	\$300,762	\$585,674
Value of feed fed.....	\$446,078	\$189,256	\$310,461
Return per \$100 of feed fed	\$156	\$159	\$189
Return above feed per cow .	\$1,846	\$1,619	\$2,279
Total milk produced, cwt	30,026	13,153	24,874
Lbs of milk per cow.....	22,145	19,095	20,598
Lbs of butterfat per cow.....	859	739	792
Total beef produced, lbs	90,621	45,348	85,050
Pounds of beef per cow.....	668	658	704
Death loss, % lbs produced.	15.7	18.9	14.8
Price received for:			
cwt milk.....	\$ 20.71	\$20.33	\$ 20.37
cwt beef	\$113.95	\$98.81	\$104.32
Per cwt milk equivalent ^a			
Feed cost.....	\$13.47	\$13.09	\$11.28
Grain/complete feed, lbs....	24	23	22
Protein and minerals, lbs...	18	16	14
Total concentrates, lbs.....	42	39	36
Hay and dry roughage, lbs	19	23	29
Corn silage, lbs.....	86	97	104
Other silage, lbs.....	44	41	35
Pasture days per animal unit	10	0	10
Hay equivalent per cow, tons	8.2	7.5	8.7
Concentrates per cow, lbs ...	10,399	8,107	8,154

^aMilk equivalent equals value of beef produced divided by average price received per cwt milk plus cwt of milk produced.

farms by the number of cows in the herd from 2011 through 2013. 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 2009 through 2013. The residual costs, amounting to about 92 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 2011 through 2013 is a combination of slightly higher returns and lower feed costs for the larger herds. For the 3-year period, the milk price for the larger herds is 37 cents per 100 pounds higher than that for the smaller herds, while feed costs per 100 pounds of milk sold for the larger herds were \$3.58 lower than for the smaller herds. Total nonfeed costs were \$1.06 lower for the larger herds.

In 2013, feed costs per 100 pounds of milk produced decreased for small herds (\$2.04) and increased for large herds (71 cents). The cost of feed averaged about 56 percent

Table 16. Average Milk Production Costs and Returns by Size of Herd, 2011 through 2013

	40–79 cows in herd			80 or more cows in herd		
	2013	2012	2011	2013	2012	2011
Number of farms	9	12	9	30	24	21
Tillable acres	176	212	181	483	472	431
Number of cows.....	69.0	63.8	61.6	209.5	232.0	230.9
Milk per cow, lbs.....	18,662	18,391	18,431	23,631	24,094	23,736
	----- per 100 lbs of milk produced -----					
Price received.....	\$20.41	\$19.02	\$20.73	\$20.69	\$19.47	\$20.76
Cash costs						
Feed	\$14.81	\$16.85	\$15.10	\$13.06	\$12.35	\$10.57
Operating expenses						
Maintenance and power ^a	2.68	2.28	2.34	2.65	2.46	2.53
Livestock expense.....	3.14	2.58	3.17	2.70	2.65	2.79
Insurance, taxes, and overhead	0.18	0.24	0.13	0.23	0.34	0.24
Total operating expenses.....	\$ 6.00	\$ 5.10	\$ 5.64	\$ 5.58	\$ 5.45	\$ 5.56
Total cash costs.....	\$20.81	\$21.95	\$20.74	\$18.64	\$17.80	\$16.13
Other costs						
Depreciation ^b	\$ 1.10	\$ 0.97	\$ 1.06	\$ 1.03	\$ 0.84	\$ 0.80
Labor	3.93	3.60	3.14	2.63	2.64	2.56
Interest charge on all capital.....	0.85	0.72	0.90	0.76	0.87	0.89
Total other costs	\$ 5.88	\$ 5.29	\$ 5.10	\$ 4.42	\$ 4.35	\$ 4.25
Total nonfeed costs.....	\$11.88	\$10.39	\$10.74	\$10.00	\$ 9.80	\$ 9.81
Total all costs.....	\$26.69	\$27.24	\$25.84	\$23.06	\$22.15	\$20.38
Return above all costs.....	(\$ 6.28)	(\$8.22)	(\$5.11)	(\$ 2.37)	(\$2.68)	\$0.38

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

^bIncludes machinery, equipment, and building depreciation.

of total production costs in Illinois dairy enterprises. Compared with 2012, total nonfeed costs increased 14 percent for the small herds, whereas the large herds increased by 2 percent. The total cost of producing 100 pounds of milk in 2013 was \$26.69 for the small herds and \$23.06 for the large herds. The average price received for milk in 2013 increased for both groups of dairy enterprises. With higher milk prices and higher nonfeed costs, returns still did not cover total production costs for either group in 2013. Returns were a *negative* \$6.28 per 100 pounds of milk produced for the small herds and a *negative* \$2.37 for the large herds. The returns above all costs per 100 pounds of milk produced had averaged \$5.01 more for the large group than the small group from 2011 through 2013. Dairy assistance payments from the Farm Service Agency and patronage returns related to the dairy enterprise were not included in returns. This would add about 35 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. 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.

Table 17. Beef-Cow Enterprises, 2013 Averages per Farm

	All farms	Calves sold	Calves fed out
Number of farms.....	146	53	31
Number of cows in herd.....	60	58	55
Animal units in herd.....	.. . ^a	81	.. . ^a
Total lbs produced	43,111	27,506	61,254
Beef per cow, lbs.....	720	473	1,105
Total returns.....	\$59,402	\$42,112	\$71,176
Value of feed fed.....	\$43,545	\$32,263	\$48,347
Return per \$100 feed fed.....	\$136	\$131	\$147
Return above feed per cow	\$265	\$169	\$412
Death loss, lbs.....	2,450	2,128	2,233
% lbs produced.....	5.7	7.7	3.6
Weight per animal sold, lbs	718	548	975
Price per cwt sold—market.....	\$141.67	\$153.74	\$132.58
	----- per cwt produced -----		
Feed costs.....	\$101.01	\$117.29	\$78.93
Grain/complete feed, lbs.....	155	98	182
Protein and minerals, lbs.....	76	104	70
Total concentrates, lbs.....	231	202	252
Hay and dry roughage, lbs	705	1,113	414
Corn silage, lbs.....	485	366	440
Other silage, lbs.....	102	137	93
Pasture days.....	31	47	22
Pasture days per animal unit... ^a	161	.. . ^a
Hay equivalent per cow, tons...	5.8	5.5	6.0

^aInsufficient data.

Summary of Illinois Farm Business Records for 2013

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 60 cows in 2013, 3 more than in 2012. 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 \$131 in 2013. The returns for the 5-year period from 2009 through 2013 averaged \$129, which is below the 15-year average of \$136 for the period

from 1999 through 2013 (Table 9). Beef prices received in 2013 averaged \$141.67 per hundredweight, an increase of \$6.12 from prices in 2012. Feed costs per 100 pounds of beef produced increased by 67 cents to \$101.01 in 2013.

Since 2009, the return above feed costs per cow for the average farmer to feed out calves rather than sell them at weaning has been about \$224 per cow. Additional returns are needed for the added costs of labor, buildings, and capital required to feed out the calves. In 2013, the return above feed costs per cow for feeding calves to market weight was \$243 more than selling them at weaning.

Appendix A REVISED November 2014

Costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of Illinois farms are reported in Tables 18 through 22a.

Table 18. 2013 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

	180-799		800-1,199		1,200-1,999		> 1,999		All farms	
	Number of farms	Range in size (total tillable acres)	Number of farms	Range in size (total tillable acres)	Number of farms	Range in size (total tillable acres)	Number of farms	Range in size (total tillable acres)	Low 33%	High 33%
Management returns	446	244	246	111	1,047	1,007	81	81	1,007	81
Total acres in farm	538	1,024	1,548	3,113	1,162	1,007	81	81	1,007	81
Acres of tillable land	519	989	1,515	3,045	1,130	973	732	732	973	732
Operator tillable acres	411	761	1,181	2,487	894	802	91	91	802	91
Soil rating on tillable land	92	91	91	91	91	91	21	11	91	11
Percent land owned	23	15	12	12	18	21	36	54	21	11
Percent land crop shared	40	46	44	39	42	36	43	35	36	54
Percent land cash rented	37	39	44	48	40	43	4.6	2.3	43	35
Months of hired labor	1.2	3.5	6.6	14.8	4.4	4.6	15.1	12.8	4.6	2.3
Total months labor	9.9	14.1	18.7	30.6	15.1	15.1	15.1	12.8	15.1	12.8
Dollar returns										
Crop returns	353,362	657,731	1,036,379	2,301,284	791,286	653,812	664,449	664,449	653,812	664,449
Livestock returns above feed	104	1,367	202	282	440	3,446	35	35	3,446	35
Custom work	4,329	8,224	11,653	32,414	9,935	9,820	6,813	6,813	9,820	6,813
Other farm receipts	4,817	8,978	13,961	50,167	12,743	6,918	7,989	7,989	6,918	7,989
Value of farm production	362,612	676,300	1,062,195	2,384,147	814,405	673,996	679,287	679,287	673,996	679,287
Dollar costs										
Crop expenses	115,104	217,823	345,790	710,305	256,345	249,527	189,428	189,428	249,527	189,428
Power and equipment	61,401	109,678	161,147	324,533	123,984	127,952	87,256	87,256	127,952	87,256
Building and fence	17,480	30,629	42,994	91,711	34,409	39,801	21,454	21,454	39,801	21,454
Labor	29,410	40,242	55,013	104,153	45,874	45,951	35,448	35,448	45,951	35,448
Insurance and miscellaneous	17,417	30,718	49,474	100,218	36,827	34,794	26,344	26,344	34,794	26,344
Livestock services and supplies	308	477	371	1,628	502	271	386	386	271	386
Interest on nonland capital	19,439	38,344	57,183	121,954	43,954	43,948	33,034	33,034	43,948	33,034
Real estate taxes	5,233	6,774	9,059	18,981	7,949	8,875	4,893	4,893	8,875	4,893
Cash rent	48,091	100,213	196,912	478,967	140,885	118,154	90,961	90,961	118,154	90,961
Other land charges	49,607	79,294	104,651	197,268	85,113	90,060	69,897	69,897	90,060	69,897
Total nonfeed costs	363,490	654,193	1,022,595	2,149,718	775,469	759,332	559,102	559,102	759,332	559,102
Capital account adjustment	2,237	2,936	6,082	7,245	3,834	1,739	4,320	4,320	1,739	4,320
Management returns	1,360	25,043	45,682	241,675	42,770	-83,598	124,505	124,505	-83,598	124,505
Farm production per \$1.00 of nonfeed costs	1.00	1.03	1.04	1.11	1.05	0.89	1.21	1.21	0.89	1.21
Farm production per man	431,613	750,211	932,106	1,250,042	710,223	665,081	837,717	837,717	665,081	837,717
Financial summary										
Cash operating income	388,960	731,423	1,117,428	2,429,122	856,221	762,658	685,370	685,370	762,658	685,370
Inventory change	-1,874	-9,677	23,994	152,180	18,718	-19,930	27,876	27,876	-19,930	27,876
Accts. receivable (net change)	-23,982	-43,492	-78,081	-176,325	-57,391	-63,208	-33,743	-33,743	-63,208	-33,743
Less purchased feed	93	854	488	346	390	2,483	29	29	2,483	29
Less purchased livestock	300	452	225	759	367	1,088	187	187	1,088	187
Gross farm returns	362,711	676,948	1,062,629	2,403,873	816,792	675,949	679,287	679,287	675,949	679,287
Cash operating expenses	255,674	485,268	788,521	1,727,890	590,457	555,161	419,792	419,792	555,161	419,792
Prepaid expenses (- if increased)	139	-2,813	-1,096	-6,413	-1,534	2,344	-7,484	-7,484	2,344	-7,484
Accts. payable (+ if increased)	1,424	488	3,060	20,755	3,640	5,172	-457	-457	5,172	-457
Total operating expenses	257,237	482,942	790,485	1,742,233	592,562	562,677	411,851	411,851	562,677	411,851
Income before depreciation	105,474	194,006	272,144	661,640	224,230	113,272	267,436	267,436	113,272	267,436
Less depreciation	34,898	73,107	107,954	213,383	79,890	82,775	58,715	58,715	82,775	58,715
Capital account adjustment	2,237	2,936	6,082	7,245	3,834	1,739	4,320	4,320	1,739	4,320
Net farm income	72,813	123,835	170,272	455,503	148,174	32,235	213,041	213,041	32,235	213,041
Net farm income per operator	71,283	117,759	158,588	322,120	129,220	30,743	200,548	200,548	30,743	200,548
Labor & mgt. income per operator	33,043	60,882	87,768	207,610	70,896	-43,724	154,286	154,286	-43,724	154,286

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 18a. 2013 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	
	Number of farms	446	244	246	111	1,047	Low 33%	High 33%	81	81
Selected returns and costs per operator tillable acre										
Crop returns	859.39	864.21	877.81	925.21		885.48	814.75	908.24		
Livestock returns above feed	0.25	1.80	0.17	0.11		0.49	4.29	0.05		
Custom work, other receipts	22.24	22.60	21.70	33.20		25.38	20.86	20.23		
Value of farm production	881.88	888.61	899.67	958.52		911.36	839.90	928.52		
Soil fertility	132.38	138.32	141.50	140.79		138.87	146.95	127.37		
Pesticides	53.85	52.50	54.16	51.39		52.95	62.05	42.83		
Seed and other crop expense	93.71	95.38	97.23	93.38		95.04	101.95	88.72		
Crop total	279.94	286.20	292.88	285.57		286.86	310.95	258.93		
Light vehicle and utilities	12.66	8.35	6.71	5.83		7.94	8.32	7.83		
Machinery repairs, supplies	33.21	28.94	25.71	22.98		27.02	31.07	24.21		
Machinery hire, lease	17.46	13.21	12.15	12.57		13.53	16.46	8.57		
Fuel and oil	25.85	25.86	26.97	30.04		27.44	27.38	23.51		
Machinery depreciation	60.14	67.74	64.94	59.06		62.82	76.22	55.15		
Power and equipment total	149.33	144.11	136.49	130.48		138.74	159.45	119.27		
Drying and storage	24.01	25.20	21.58	18.58		21.89	31.78	20.04		
Building repair and rent	8.10	6.10	6.21	6.41		6.62	7.04	3.63		
Building depreciation	10.40	8.95	8.62	11.88		10.00	10.79	5.65		
Building total	42.51	40.24	36.42	36.87		38.51	49.60	29.33		
Labor, unpaid	62.98	39.54	29.79	19.10		35.08	39.66	39.15		
Labor, paid	8.54	13.34	16.81	22.77		16.26	17.60	9.30		
Labor total	71.53	52.88	46.60	41.87		51.34	57.26	48.45		
Insurance and miscellaneous	42.36	40.36	41.90	40.29		41.21	43.36	36.01		
Livestock services and supplies	0.75	0.63	0.31	0.65		0.56	0.34	0.53		
Interest on nonland capital	47.28	50.38	48.43	49.03		48.77	54.77	45.15		
Other costs total	90.38	91.37	90.65	89.98		90.54	98.46	81.69		
Land charge	250.33	244.76	263.09	279.50		261.80	270.53	226.57		
Total nonfeed costs	884.02	859.56	866.13	864.27		867.78	946.24	764.24		
Capital account adjustment	5.44	3.86	5.15	2.91		4.29	2.17	5.90		
Management returns	3.31	32.90	38.69	97.16		47.86	-104.18	170.19		
Percent crop returns fed	0.01	0.01	0.01	0.02		0.01	0.00	0.01		
Capital purchases	60,225	134,019	180,300	385,012		140,068	167,308	100,575		
Interest paid	8,553	15,392	25,015	60,765		19,550	20,136	10,567		
Percent tillable land in										
Corn and corn silage	52.9	55.1	56.4	59.2		56.3	57.2	51.8		
Soybeans	45.0	42.9	41.7	37.8		41.5	41.0	45.9		
Wheat	0.5	0.3	0.4	0.4		0.4	0.7	0.0		
Other small grains	0.0	0.0	0.0	0.0		0.0	0.0	0.0		
CRP acres	0.3	0.3	0.3	0.2		0.3	0.2	0.4		
All hay and pasture	0.2	0.1	0.1	0.0		0.1	0.1	0.3		
Crop yields, bushels per acre										
Corn	199	202	200	204		201	199	202		
Soybeans	58	58	58	59		59	57	59		
Wheat	71	74	67	81		73	72	100		
Prices received										
Corn (old crop)	6.95	6.92	6.91	6.95		6.93	6.86	7.04		
Corn (new crop)	4.61	4.64	4.69	4.80		4.70	4.42	4.79		
Soybeans (old crop)	14.69	14.79	14.72	14.85		14.76	14.63	14.94		
Soybeans (new crop)	13.11	12.74	12.90	12.77		12.88	12.80	13.08		

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 19. 2013 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	
	Number of farms	357	173	167	82	1,012	57	57	Low 33%	High 33%				
Range in size (total tillable acres)														
Management returns														
Number of farms		357	173	167	82	1,012	57	57						
Total acres in farm		527	1,027	1,600	3,050	1,134	1,029							
Acres of tillable land		483	980	1,539	2,905	1,075	989							
Operator tillable acres		410	766	1,268	2,544	897	739							
Soil rating on tillable land		77	78	79	78	78	80							
Percent land owned		31	18	18	16	23	11							
Percent land crop shared		29	42	35	28	33	51							
Percent land cash rented		40	40	47	56	43	38							
Months of hired labor		1.0	2.2	5.4	17.1	3.9	2.9							
Total months labor		10.3	13.9	18.3	33.3	15.2	12.4							
Dollar returns														
Crop returns		323,988	620,847	1,076,373	2,203,689	749,072	622,898							
Livestock returns above feed		133	779	-156	160	217	670							
Custom work		4,734	6,605	13,384	40,871	10,808	4,478							
Other farm receipts		5,824	8,643	10,617	26,295	9,632	8,100							
Value of farm production		334,678	636,875	1,100,218	2,271,014	769,730	636,146							
Dollar costs														
Crop expenses		115,050	222,223	370,447	767,745	262,307	192,210							
Power and equipment		65,753	111,366	179,337	365,882	131,825	88,370							
Building and fence		16,458	28,266	44,642	89,490	32,810	22,898							
Labor		32,633	40,036	58,031	106,458	47,493	34,167							
Insurance and miscellaneous		16,491	31,754	53,357	110,847	37,716	28,261							
Livestock services and supplies		345	432	464	814	439	314							
Interest on nonland capital		18,431	35,246	57,924	116,667	40,972	30,410							
Real estate taxes		4,724	5,381	8,361	16,788	6,920	3,810							
Cash rent		41,721	87,255	179,252	464,657	125,856	81,296							
Other land charges		43,360	74,043	105,230	164,248	76,163	61,087							
Total nonfeed costs		354,967	636,003	1,057,045	2,203,595	762,482	542,823							
Capital account adjustment		3,033	5,294	5,028	7,226	4,404	3,284							
Management returns		-17,255	6,166	48,201	74,645	11,652	96,606							
Farm production per \$1.00														
of nonfeed costs		0.94	1.00	1.04	1.03	1.01	1.17							
Farm production per man		369,770	700,748	937,547	1,030,064	634,497	772,171							
Financial summary														
Cash operating income		366,149	669,482	1,144,342	2,421,398	816,682	593,489							
Inventory change		-9,189	18,661	75,763	172,346	34,317	86,439							
Accts. receivable (net change)		-21,874	-48,712	-116,599	-292,091	-76,585	-43,384							
Less purchased feed		152	392	221	3,159	537	52							
Less purchased livestock		193	745	575	2,087	597	346							
Gross farm returns		334,741	638,293	1,102,708	2,296,406	773,279	636,145							
Cash operating expenses		246,682	460,226	823,335	1,805,533	581,817	397,976							
Prepaid expenses (- if increased)		1,057	6,066	-4,833	-1,606	627	-2,334							
Accts. payable (+ if increased)		157	2,948	481	3,426	1,190	7,162							
Total operating expenses		247,896	469,241	818,983	1,807,354	583,634	402,805							
Income before depreciation		86,845	169,052	283,725	489,052	189,645	233,340							
Less depreciation		34,830	69,482	111,592	213,796	77,820	56,634							
Capital account adjustment		3,033	5,294	5,028	7,226	4,404	3,284							
Net farm income		55,048	104,865	177,161	282,482	116,230	179,991							
Net farm income per operator		53,989	101,078	161,070	214,379	104,285	174,583							
Labor & mgt. income per operator		17,568	48,138	87,018	99,741	47,895	134,369							

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 19a. 2013 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	
	180-799	357	800-1,199	173	1,200-1,999	167	82	Your farm	Low 33%	High 33%
Management returns									57	57
Number of farms									57	57
Selected returns and costs										
per operator tillable acre										
Crop returns	791.13		810.54		848.64		866.40		834.69	843.43
Livestock returns above feed	0.32		1.02		-0.12		0.06		0.24	0.91
Custom work, other receipts	25.78		19.91		18.92		26.41		22.78	17.03
Value of farm production	817.23		831.47		867.44		892.87		857.71	861.37
Soil fertility	134.62		141.68		138.77		152.59		142.58	126.63
Pesticides	52.34		53.02		56.95		53.75		54.29	46.64
Seed and other crop expense	93.97		95.43		96.35		95.50		95.42	87.00
Crop total	280.93		290.12		292.07		301.85		292.29	260.26
Light vehicle and utilities	13.57		9.49		7.40		6.68		8.87	8.24
Machinery repairs, supplies	35.60		29.61		27.56		25.86		29.13	23.26
Machinery hire, lease	20.19		16.68		16.29		18.31		17.78	13.68
Fuel and oil	25.51		24.59		26.07		29.38		26.66	22.34
Machinery depreciation	65.69		65.02		64.07		63.62		64.45	52.13
Power and equipment total	160.56		143.39		141.39		143.85		146.89	119.66
Drying and storage	19.55		19.88		15.88		17.01		17.74	19.70
Building repair and rent	10.65		8.45		7.61		5.99		7.92	5.31
Building depreciation	9.99		8.58		11.71		12.18		10.90	5.99
Building total	40.19		36.90		35.20		35.18		36.56	31.00
Labor, unpaid	73.28		44.67		31.32		20.92		39.52	42.89
Labor, paid	6.40		7.60		14.43		20.94		13.40	9.60
Labor total	79.68		52.27		45.75		41.85		52.92	46.26
Insurance and miscellaneous	40.27		41.46		42.07		43.58		42.03	38.27
Livestock services and supplies	0.84		0.56		0.37		0.52		0.49	0.43
Interest on nonland capital	45.01		46.02		45.67		45.87		45.66	41.18
Other costs total	86.12		88.04		88.10		89.77		88.17	79.87
Land charge	219.29		217.61		230.88		253.86		232.86	197.95
Total nonfeed costs	866.77		830.33		833.40		866.36		849.63	735.01
Capital account adjustment	7.41		6.91		3.96		2.84		4.91	4.45
Management returns	-42.14		8.05		38.00		29.35		12.98	130.81
Percent crop returns fed	0.02		0.04		0.02		0.06		0.03	0.02
Capital purchases	63,703		128,261		230,069		424,052		151,637	102,245
Interest paid	10,081		16,073		33,699		70,887		22,875	11,479
Percent tillable land in										
Corn and corn silage	53.7		55.2		56.2		57.9		55.9	51.8
Soybeans	42.5		41.6		39.6		36.6		39.7	45.0
Wheat	1.0		1.0		1.1		1.1		1.0	0.8
Other small grains	0.0		0.0		0.0		0.0		0.0	0.0
CRP acres	0.5		0.4		0.4		0.8		0.5	0.5
All hay and pasture	0.4		0.2		0.1		0.1		0.2	0.2
Crop yields, bushels per acre										
Corn	186		186		190		191		189	188
Soybeans	53		53		55		54		54	53
Wheat	65		63		71		62		66	76
Prices received										
Corn (old crop)	6.93		6.94		6.82		6.82		6.87	7.00
Corn (new crop)	4.57		4.67		4.64		4.88		4.72	4.55
Soybeans (old crop)	14.51		14.57		14.69		14.76		14.64	14.58
Soybeans (new crop)	12.81		12.96		12.79		12.84		12.84	12.99

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 20. 2013 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		All farms	
	Number of farms	88	72	79	57	79	57	79	57	306
Management returns										
Number of farms		98	72	79	57	79	57	79	57	306
Total acres in farm		564	1,047	1,673	2,988	1,673	2,988	1,673	2,988	1,416
Acres of tillable land		498	981	1,602	2,884	1,602	2,884	1,602	2,884	1,341
Operator tillable acres		433	829	1,326	2,390	1,326	2,390	1,326	2,390	1,121
Soil rating on tillable land		58	59	58	58	58	58	58	58	58
Percent land owned		37	24	19	19	19	19	19	19	26
Percent land crop shared		34	42	44	41	44	41	44	41	40
Percent land cash rented		29	33	36	40	36	40	36	40	34
Months of hired labor		3.0	5.7	11.2	20.3	11.2	20.3	11.2	20.3	9.0
Total months labor		12.4	18.2	24.7	41.3	24.7	41.3	24.7	41.3	22.3
Dollar returns										
Crop returns		304,801	578,150	971,726	1,856,260	971,726	1,856,260	971,726	1,856,260	830,296
Livestock returns above feed		53	2,878	5,119	-27	5,119	-27	5,119	-27	2,011
Custom work		3,352	5,084	11,748	37,322	11,748	37,322	11,748	37,322	12,255
Other farm receipts		7,302	8,024	20,016	38,591	20,016	38,591	20,016	38,591	16,583
Value of farm production		315,508	594,136	1,008,610	1,932,146	1,008,610	1,932,146	1,008,610	1,932,146	861,144
Dollar costs										
Crop expenses		109,533	202,979	328,386	610,957	328,386	610,957	328,386	610,957	281,424
Power and equipment		71,823	129,162	195,317	377,486	195,317	377,486	195,317	377,486	174,135
Building and fence		11,272	20,533	34,200	68,294	34,200	68,294	34,200	68,294	29,992
Labor		40,260	54,125	69,747	135,215	69,747	135,215	69,747	135,215	68,823
Insurance and miscellaneous		18,442	30,448	49,321	102,266	49,321	102,266	49,321	102,266	44,853
Livestock services and supplies		576	993	2,265	1,598	2,265	1,598	2,265	1,598	1,301
Interest on nonland capital		17,875	36,583	55,288	102,537	55,288	102,537	55,288	102,537	47,706
Real estate taxes		3,391	4,478	7,090	14,041	7,090	14,041	7,090	14,041	6,586
Cash rent		18,488	46,179	82,896	202,351	82,896	202,351	82,896	202,351	75,881
Other land charges		47,878	79,207	112,106	188,155	112,106	188,155	112,106	188,155	97,961
Total nonfeed costs		339,538	604,689	936,616	1,802,898	936,616	1,802,898	936,616	1,802,898	828,661
Capital account adjustment		3,239	3,563	8,658	15,558	3,563	8,658	15,558	15,558	7,009
Management returns		-20,791	-6,989	80,651	144,807	80,651	144,807	80,651	144,807	39,493
Farm production per \$1.00 of nonfeed costs		0.93	0.98	1.08	1.07	1.08	1.07	1.08	1.07	1.04
Farm production per man		322,617	498,570	707,813	752,051	707,813	752,051	707,813	752,051	543,456
Financial summary										
Cash operating income		325,077	627,404	1,032,785	2,055,053	1,032,785	2,055,053	1,032,785	2,055,053	901,172
Inventory change		53,032	98,655	159,209	368,087	159,209	368,087	159,209	368,087	149,865
Accts. receivable (net change)		-60,266	-119,738	-157,794	-377,238	-157,794	-377,238	-157,794	-377,238	-158,482
Less purchased feed		1,872	10,954	21,187	92,558	21,187	92,558	21,187	92,558	25,888
Less purchased livestock		881	1,655	5,462	4,287	5,462	4,287	5,462	4,287	2,880
Gross farm returns		315,091	593,713	1,007,551	1,949,056	1,007,551	1,949,056	1,007,551	1,949,056	863,787
Cash operating expenses		229,850	426,513	706,473	1,415,422	706,473	1,415,422	706,473	1,415,422	620,015
Prepaid expenses (- if increased)		-2,643	-3,230	-13,702	-39,420	-13,702	-39,420	-13,702	-39,420	-12,487
Accts. payable (+ if increased)		-1,067	-268	3,420	5,047	3,420	5,047	3,420	5,047	1,418
Total operating expenses		226,140	423,015	696,190	1,381,049	696,190	1,381,049	696,190	1,381,049	608,947
Income before depreciation		88,951	170,698	311,360	568,007	311,360	568,007	311,360	568,007	254,840
Less depreciation		39,739	76,769	115,219	228,599	115,219	228,599	115,219	228,599	103,118
Capital account adjustment		3,239	3,563	8,658	15,558	3,563	8,658	8,658	15,558	7,009
Net farm income		52,452	97,492	204,800	354,967	204,800	354,967	204,800	354,967	158,731
Net farm income per operator		49,204	93,230	173,574	203,251	173,574	203,251	173,574	203,251	120,367
Labor & mgt. income per operator		13,912	37,589	109,185	122,718	109,185	122,718	109,185	122,718	64,347

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

Table 20a. 2013 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	
	98	72	79	57	79	57	79	57	306	24
Management returns	Low 33%		High 33%		Low 33%		High 33%		Low 33%	
Number of farms	24		24		24		24		24	
Selected returns and costs										
per operator tillable acre										
Crop returns	704.56	697.37	733.03	776.63	733.03	776.63	733.03	776.63	740.62	655.06
Livestock returns above feed	0.12	3.47	3.86	-0.01	3.86	-0.01	3.86	-0.01	1.79	-1.64
Custom work, other receipts	24.63	15.81	23.96	31.76	23.96	31.76	23.96	31.76	25.72	15.18
Value of farm production	729.31	716.65	760.86	808.38	760.86	808.38	760.86	808.38	768.14	668.60
Soil fertility	117.56	115.41	116.86	129.24	116.86	129.24	116.86	129.24	121.61	125.46
Pesticides	53.06	47.44	51.83	49.65	51.83	49.65	51.83	49.65	50.35	57.52
Seed and other crop expense	82.57	81.99	79.04	76.72	79.04	76.72	79.04	76.72	79.07	87.20
Crop total	253.19	244.84	247.72	255.61	247.72	255.61	247.72	255.61	251.03	270.18
Light vehicle and utilities	12.85	9.31	8.29	8.50	8.29	8.50	8.29	8.50	9.12	11.53
Machinery repairs, supplies	37.62	35.77	33.79	32.88	33.79	32.88	33.79	32.88	34.25	38.93
Machinery hire, lease	14.52	9.14	10.77	13.10	10.77	13.10	10.77	13.10	11.88	14.57
Fuel and oil	28.66	30.89	30.19	34.12	30.19	34.12	30.19	34.12	31.68	33.16
Machinery depreciation	72.37	70.68	64.30	68.41	64.30	68.41	64.30	68.41	68.41	73.81
Power and equipment total	166.02	155.80	147.34	157.93	147.34	157.93	147.34	157.93	155.33	172.00
Drying and storage	6.93	8.80	8.97	8.88	8.97	8.88	8.97	8.88	8.65	8.45
Building repair and rent	9.95	5.90	6.99	6.32	6.99	6.32	6.99	6.32	6.90	6.04
Building depreciation	9.17	10.07	9.84	10.37	9.84	10.37	9.84	10.37	11.20	13.00
Building total	26.06	24.77	25.80	28.57	25.80	28.57	25.80	28.57	26.75	27.49
Labor, unpaid	71.55	48.08	31.54	27.38	31.54	27.38	31.54	27.38	37.71	50.36
Labor, paid	21.52	17.20	21.08	29.19	21.08	29.19	21.08	29.19	23.68	17.66
Labor total	93.06	65.29	52.61	56.57	52.61	56.57	52.61	56.57	61.39	68.02
Insurance and miscellaneous	42.63	36.73	37.21	42.79	37.21	42.79	37.21	42.79	40.01	40.66
Livestock services and supplies	1.33	1.20	1.71	0.67	1.71	0.67	1.71	0.67	1.16	1.46
Interest on nonland capital	41.32	44.13	41.71	42.90	41.71	42.90	41.71	42.90	42.55	46.32
Other costs total	85.28	82.05	80.62	86.35	80.62	86.35	80.62	86.35	83.72	88.45
Land charge	161.25	156.64	152.45	169.26	152.45	169.26	152.45	169.26	160.94	162.56
Total nonfeed costs	784.86	729.38	706.55	754.30	706.55	754.30	706.55	754.30	739.16	788.69
Capital account adjustment	7.49	4.30	6.53	6.51	6.53	6.51	6.53	6.51	6.25	1.63
Management returns	-48.06	-8.43	60.84	60.58	60.84	60.58	60.84	60.58	35.23	-118.46
Percent crop returns fed	0.93	1.62	2.20	0.71	2.20	0.71	2.20	0.71	1.38	2.20
Capital purchases	71,166	142,304	233,519	429,430	233,519	429,430	233,519	429,430	196,554	139,055
Interest paid	8,506	15,986	30,990	54,769	30,990	54,769	30,990	54,769	24,688	19,049
Percent tillable land in										
Corn and corn silage	41.1	40.3	39.8	45.4	39.8	45.4	39.8	45.4	42.3	40.6
Soybeans	43.9	43.5	43.6	39.8	43.6	39.8	43.6	39.8	42.1	41.8
Wheat	9.7	10.4	10.2	10.1	10.2	10.1	10.2	10.1	10.1	11.1
Other small grains	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CRP acres	0.7	0.2	0.7	0.3	0.7	0.3	0.7	0.3	0.5	0.6
All hay and pasture	1.3	1.5	1.7	0.8	1.7	0.8	1.7	0.8	1.2	0.7
Crop yields, bushels per acre										
Corn	159	162	170	169	170	169	170	169	167	156
Soybeans	45	45	49	49	49	49	49	49	48	42
Wheat	70	72	74	75	74	75	74	75	74	75
Prices received										
Corn (old crop)	6.97	6.83	6.92	7.04	6.92	7.04	6.92	7.04	6.96	6.89
Corn (new crop)	4.33	4.92	4.56	4.80	4.56	4.80	4.56	4.80	4.68	4.67
Soybeans (old crop)	14.76	14.60	14.83	14.48	14.83	14.48	14.83	14.48	14.64	14.97
Soybeans (new crop)	12.98	13.14	12.94	12.81	12.94	12.81	12.94	12.81	12.92	12.79

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

Table 21. 2013 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		
	Number of farms	24	28	28					< 6,000 cwt	8	> 6,000 cwt
Total acres in farm	431	1,410	958	52	1,157				359	1,136	1,061
Acres of tillable land	407	1,355	918		1,136				330	1,061	78
Operator tillable acres	376	1,259	852		78				272	46	12
Soil rating on tillable land	77	79	21		18				37	71	37.0
Percent land owned	37	21	16		55				1.9	14.0	50.7
Percent land crop shared	17	63	21.7		34.9						
Percent land cash rented	46	29.6									
Months of hired labor	12.4										
Total months labor	23.6										
Dollar returns											
Crop returns	305,369	1,015,579	687,790		181,781				181,781	867,357	325,754
Livestock returns above feed	179,757	335,888	263,827		33,858				33,858	2,676	37,718
Custom work	3,882	3,737	3,804		3,708				3,708		
Other farm receipts	16,292	18,066	17,248								
Value of farm production	505,299	1,373,270	972,668		222,715				222,715	1,233,504	
Dollar costs											
Crop expenses	88,629	340,452	224,226		59,059				59,059	260,568	201,804
Power and equipment	97,869	266,260	188,541		47,942				47,942	81,891	160,147
Building and fence	41,886	121,004	84,488		15,636				15,636	54,387	88,487
Labor	77,076	151,050	116,908		49,039				49,039	69,239	11,171
Insurance and miscellaneous	22,232	62,155	43,729		11,494				11,494	14,488	219,272
Livestock services and supplies	38,779	87,690	65,116		13,851				13,851	46,200	1,193,167
Interest on nonland capital	30,525	85,023	59,870		4,342				4,342	3,973	44,310
Real estate taxes	10,097	10,821	10,487		18,208				18,208		
Cash rent	49,547	204,797	133,143		40,092				40,092		
Other land charges	43,967	88,410	67,898								
Total nonfeed costs	500,606	1,417,664	994,406		274,150				274,150	1,193,167	
Capital account adjustment	298	7,715	4,292		164				164		
Management returns	4,991	-36,679	-17,447		-51,271				-51,271		
Farm production per \$1.00 of nonfeed costs	1.01	0.97	0.98		0.81				0.81	1.03	339,449
Farm production per man	272,712	515,138	403,249		206,264				206,264		
Financial summary											
Cash operating income	1,048,959	2,537,258	1,850,351		332,627				332,627	1,869,184	-21,371
Inventory change	21,930	93,223	60,319		1,175				1,175	-88,923	494,854
Accis. receivable (net change)	-46,592	-107,435	-79,354		-23,636				-23,636	77,730	30,533
Less purchased feed	369,893	761,867	580,956		77,730				77,730	9,761	
Less purchased livestock	149,118	377,653	272,176		9,761				9,761		
Gross farm returns	505,286	1,383,526	978,185		222,675				222,675	1,233,504	
Cash operating expenses	379,714	1,145,261	791,931		171,875				171,875	961,261	26,524
Prepaid expenses (- if increased)	3,637	14,703	9,595		731				731	3,859	
Accis. payable (+ if increased)	-2,379	-1,963	-2,155		150				150		
Total operating expenses	380,971	1,158,001	799,372		172,755				172,755	991,644	
Income before depreciation	124,314	225,525	178,813		49,920				49,920	241,860	81,513
Less depreciation	37,052	108,452	75,498		21,526				21,526	164	3,973
Capital account adjustment	298	7,715	4,292								
Net farm income	87,561	124,789	107,607		28,559				28,559	164,320	
Net farm income per operator	84,755	57,795	70,238		28,559				28,559	100,933	56,142
Labor & mgt. income per operator	43,028	17,713	29,397		-9,084				-9,084		

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

Table 21a. 2013 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)	60-799		> 799		Your farm		All farms	
	24	28	28	28			52	
Cwt of pork produced							Cwt of pork produced	
Number of farms							< 6,000 cwt	
							8	
							> 6,000 cwt	
							10	
Selected returns and costs per operator tillable acre								
Crop returns	812.06	806.50					807.63	668.93
Livestock returns above feed	478.02	266.74					309.80	124.59
Custom work, other receipts	53.65	17.31					24.72	26.04
Value of farm production	1343.73	1090.55					1142.14	819.56
Soil fertility	90.50	121.25					114.98	102.03
Pesticides	52.42	48.01					48.91	40.50
Seed and other crop expense	92.77	101.11					99.41	74.79
Crop total	235.69	270.36					263.29	217.33
Light vehicle and utilities	45.91	20.20					25.44	30.68
Machinery repairs, supplies	54.67	42.92					45.32	35.88
Machinery hire, lease	55.23	42.58					45.16	23.15
Fuel and oil	42.16	47.04					46.05	32.73
Machinery depreciation	62.29	58.70					59.43	53.98
Power and equipment total	260.26	211.44					221.39	176.42
Drying and storage	18.26	22.67					21.77	22.80
Building repair and rent	61.28	51.49					53.48	20.63
Building depreciation	31.85	21.94					23.96	14.11
Building total	111.39	96.09					99.21	57.54
Labor, unpaid	102.06	40.95					53.40	150.06
Labor, paid	102.91	79.00					83.87	30.40
Labor total	204.97	119.95					137.28	180.46
Insurance and miscellaneous	59.12	49.36					51.35	42.30
Livestock services and supplies	103.12	69.64					76.46	50.97
Interest on nonland capital	81.17	67.52					70.30	53.31
Other costs total	243.42	186.52					198.11	146.58
Land charge	275.53	241.44					248.38	230.51
Total nonfeed costs	1331.25	1125.80					1167.67	1008.83
Capital account adjustment	0.79	6.13					5.04	0.60
Management returns	13.27	-29.13					-20.49	-188.67
Percent crop returns fed	187.84	111.76					146.88	111.68
Capital purchases	62,459	165,183					117,772	19,701
Interest paid	21,538	35,362					28,981	5,341
Percent tillable land in								
Corn and corn silage	58.0	62.5					61.6	48.0
Soybeans	32.9	32.6					32.7	40.5
Wheat	5.5	3.1					3.6	5.9
Other small grains	0.2	0.0					0.0	0.6
CRP acres	0.5	0.3					0.3	0.0
All hay and pasture	1.7	0.1					0.4	4.8
Crop yields, bushels per acre								
Corn	201	191					193	160
Soybeans	59	56					57	47
Wheat	78	74					75	61
Prices received								
Corn (old crop)	6.79	6.11					6.17	6.97
Corn (new crop)	4.32	4.82					4.74	4.14
Soybeans (old crop)	14.21	14.03					14.07	14.63
Soybeans (new crop)	12.93	12.93					12.93	13.07

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

Table 22. 2013 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		> 79		All farms		> 799		All farms
	Number of farms	Range in size (total tillable acres)	Your farm	All farms	Your farm	All farms	Your farm	All farms	
Number of cows in herd	22		42	64			7	30	
Range in size (total tillable acres)									
Number of farms	279		679	542			1,410	700	
Total acres in farm	238		622	490			1,216	631	
Acres of tillable land	231		617	484			1,052	572	
Operator tillable acres	71		70	70			81	75	
Soil rating on tillable land	56		36	43			35	40	
Percent land owned	7		2	4			34	18	
Percent land crop shared	37		62	53			31	42	
Percent land cash rented	3.1		36.7	25.2			15.9	5.7	
Months of hired labor	17.1		51.1	39.4			34.1	18.6	
Total months labor									
Dollar returns									
Crop returns	171,336		535,740	410,477			1,009,693	453,704	
Livestock returns above feed	52,350		372,189	262,244			183,030	108,929	
Custom work	576		10,594	7,150			9,951	5,298	
Other farm receipts	2,072		18,567	12,897			5,654	6,124	
Value of farm production	226,335		937,090	692,768			1,210,343	574,054	
Dollar costs									
Crop expenses	42,269		147,295	111,192			266,124	147,344	
Power and equipment	66,252		247,200	184,999			310,997	139,695	
Building and fence	14,332		59,910	44,243			46,733	32,298	
Labor	58,939		173,196	133,920			110,433	61,235	
Insurance and miscellaneous	10,627		31,465	24,302			49,840	26,419	
Livestock services and supplies	26,028		130,624	94,669			70,560	29,463	
Interest on nonland capital	17,008		67,093	49,876			156,762	63,962	
Real estate taxes	3,927		9,899	7,846			16,887	8,774	
Cash rent	15,228		85,085	61,071			100,998	59,530	
Other land charges	25,021		37,383	33,133			162,359	75,627	
Total nonfeed costs	279,631		989,150	745,253			1,291,693	644,347	
Capital account adjustment	3,230		3,922	3,684			1,299	1,565	
Management returns	-50,065		-48,139	-48,801			-80,050	-68,728	
Farm production per \$1.00 of nonfeed costs	0.81		0.95	0.93			0.94	0.89	
Farm production per man	171,664		235,848	213,785			584,078	391,202	
Financial summary									
Cash operating income	296,310		1,340,444	981,523			4,163,894	1,737,974	
Inventory change	-231		3,965	2,522			122,160	23,496	
Accts. receivable (net change)	-6,392		-46,573	-32,761			-158,750	-52,008	
Less purchased feed	54,773		328,526	234,423			1,095,147	379,483	
Less purchased livestock	8,592		17,214	14,250			1,821,813	755,530	
Gross farm returns	226,321		952,097	702,611			1,210,343	574,449	
Cash operating expenses	176,162		777,338	570,683			887,468	459,461	
Prepaid expenses (- if increased)	739		3,335	2,443			2,849	1,529	
Accts. payable (+ if increased)	-876		494	23			2,978	-2,880	
Total operating expenses	176,025		781,167	573,149			893,295	458,109	
Income before depreciation	50,297		170,930	129,462			317,048	116,340	
Less depreciation	25,505		101,359	75,284			164,783	62,688	
Capital account adjustment	3,230		3,922	3,684			1,299	1,565	
Net farm income	28,022		73,492	57,862			153,564	55,217	
Net farm income per operator	24,028		50,831	41,618			117,689	47,112	
Labor & mgt. income per operator	-5,085		-1,516	-2,743			18,803	-7,931	

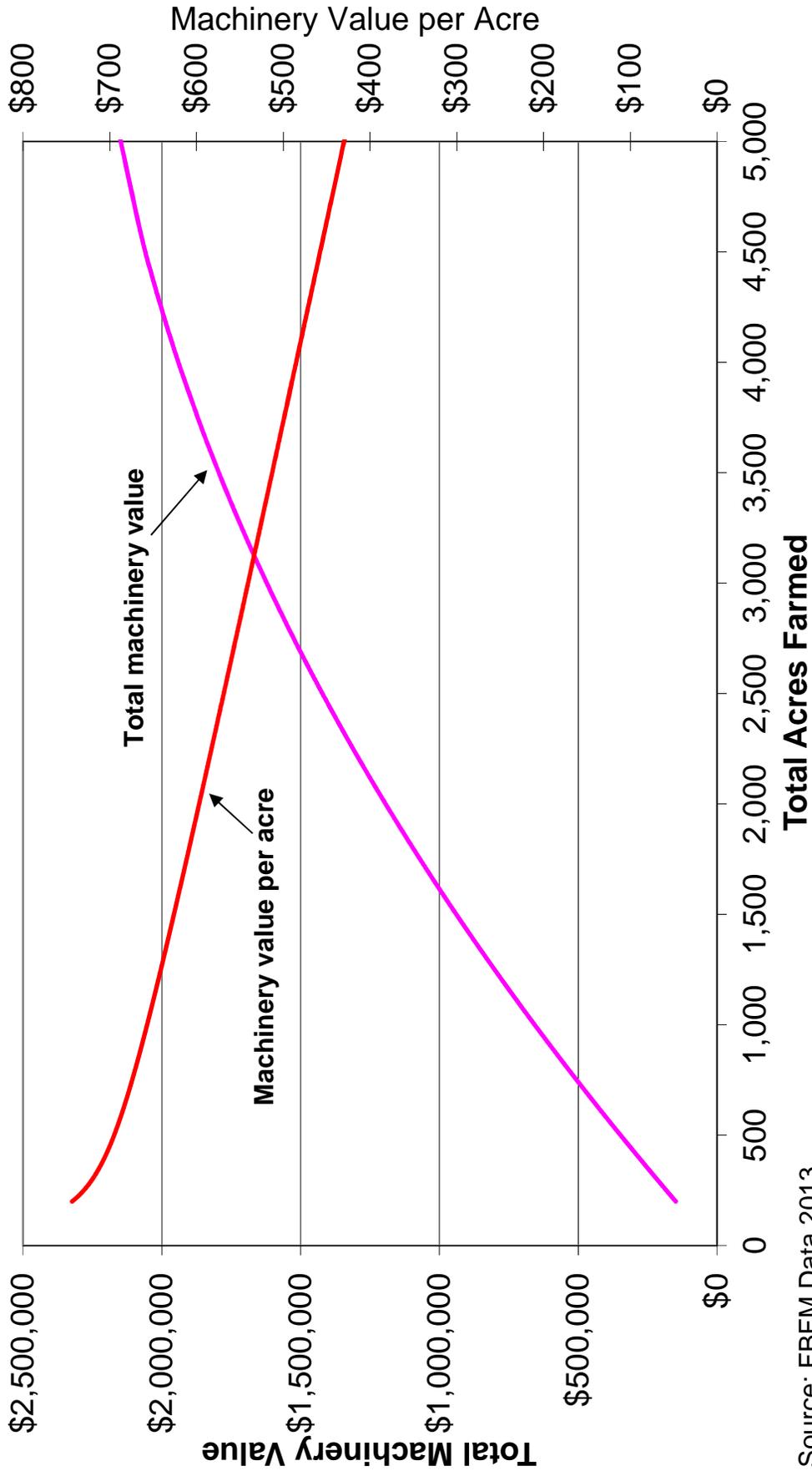
Note: Variations in totals due to rounding to the nearest dollar.

Table 22a. 2013 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				23	7	30
Range in size (total acres)						
Number of farms	22	42	64	0	0	0
Selected returns and costs						
per operator tillable acre						
Crop returns	741.13	868.10	847.27	668.77	960.05	793.84
Livestock returns above feed	226.45	603.08	541.30	203.05	174.03	190.59
Custom work, other receipts	11.46	47.25	41.38	22.41	16.75	19.98
Value of farm production	979.03	1,518.43	1,429.95	894.24	1,150.83	1,004.41
Soil fertility	79.27	111.42	106.15	122.74	130.69	126.16
Pesticides	33.62	42.45	41.00	49.05	39.44	44.92
Seed and other crop expense	69.95	84.80	82.37	89.60	82.91	86.73
Crop total	182.84	238.67	229.51	261.39	253.04	257.81
Light vehicle and utilities	42.57	39.60	40.09	17.01	10.37	14.16
Machinery repairs, supplies	77.90	74.40	74.98	45.15	58.75	50.99
Machinery hire, lease	32.73	99.58	88.62	51.82	48.58	50.43
Fuel and oil	51.03	76.17	72.04	35.21	50.52	41.78
Machinery depreciation	82.35	110.80	106.13	56.64	127.49	87.06
Power and equipment total	286.58	400.56	381.86	205.83	295.70	244.42
Drying and storage	8.23	13.08	12.29	28.53	13.73	22.17
Building repair and rent	27.24	31.29	30.62	24.47	14.08	20.01
Building depreciation	26.53	52.70	48.41	12.59	16.63	14.33
Building total	62.00	97.08	91.32	65.60	44.43	56.51
Labor, unpaid	220.35	86.72	108.64	89.55	57.82	75.92
Labor, paid	34.59	193.92	167.79	19.20	47.18	31.22
Labor total	254.95	280.64	276.43	108.75	105.00	107.14
Insurance and miscellaneous	45.97	50.99	50.16	45.35	47.39	46.22
Livestock services and supplies	112.59	211.66	195.41	39.86	67.09	51.55
Interest on nonland capital	73.57	108.72	102.95	83.97	149.05	111.91
Other costs total	232.12	371.36	348.52	169.17	263.53	209.69
Land charge	191.09	214.48	210.64	240.82	266.46	251.83
Total nonfeed costs	1209.57	1602.79	1538.29	1051.57	1228.18	1127.40
Capital account adjustment	13.97	6.35	7.60	3.87	1.24	2.74
Management returns	-216.56	-78.00	-100.73	-153.46	-76.11	-120.25
Percent crop returns fed	105.30	140.98	128.72	87.18	105.47	91.45
Capital purchases	31,778	186,347	133,214	59,922	254,466	105,315
Interest paid	13,804	33,803	26,928	23,103	102,173	41,553
Percent tillable land in						
Corn and corn silage	45.4	50.6	49.8	62.0	61.7	61.9
Soybeans	18.1	18.4	18.3	19.5	25.9	22.4
Wheat	2.0	5.0	4.5	4.2	0.6	2.6
Other small grains	3.5	0.2	0.8	0.1	0.0	0.1
CRP acres	0.2	0.0	0.1	0.3	0.0	0.1
All hay and pasture	22.2	9.2	11.3	12.5	5.6	9.4
Crop yields, bushels per acre						
Corn	162	189	184	196	170	184
Soybeans	53	54	54	56	60	58
Wheat	55	75	74	74	73	74
Prices received						
Corn (old crop)	6.55	6.94	6.90	6.67	6.64	6.65
Corn (new crop)	4.37	4.47	4.45	4.65	4.90	4.72
Soybeans (old crop)	14.89	14.25	14.31	14.39	15.40	15.00
Soybeans (new crop)	12.68	12.71	12.70	12.74	12.77	12.75

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

Average Machinery Values FBFM Grain Farms



Source: FBFM Data 2013

Recently Retired

Bob Kieseccoms was raised in Christian County near Assumption. After finishing high school, Bob enrolled at Southern Illinois University, graduating in 1970 with a bachelor's degree in agricultural economics.

Bob began his professional career in April 1970, working as the Randolph County assistant extension advisor. In September 1975, he began working for the Shawnee FBFM Association. His area included Hamilton, Franklin, Gallatin, Johnson, Saline, and White counties. Bob used his expertise in debt reduction and farm appraisal to assist cooperators in these counties. In 1986, he became the executive fieldstaff for Shawnee FBFM Association and served in this capacity for over 26 years.

Bob was involved in the community and an avid hunter. He retired from FBFM in the spring of 2013 after 37 years of dedicated service.



Danny Stetson was raised on a grain and beef farm in Bureau County near Neponset. After finishing high school, he enrolled at Black Hawk College and later transferred to Western Illinois University, graduating in November 1970 with a bachelor's degree in agricultural economics.

After serving in the U.S. Army for almost 2 years, Danny went back to school at WIU and received a graduate degree in business administration in November 1974. Danny began his professional career in April 1975, working for the Illinois Valley FBFM Association. His area included Marshall, Putnam and Bureau Counties. Danny used his expertise in financial management and estate planning to assist cooperators in these counties. In 1988, he became the executive fieldstaff for Illinois Valley FBFM Association and served in this capacity for over 25 years.

Danny was involved in the community and was very active in his church. He balanced his family life with his work and made it a point never to miss one of his kids' events as they grew up. Danny retired from FBFM in the summer of 2013 after 38 years of dedicated service.



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.

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

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*