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Kentucky Farm Business Management Program

Annual Summary Data

Kentucky Grain Farms - 2013

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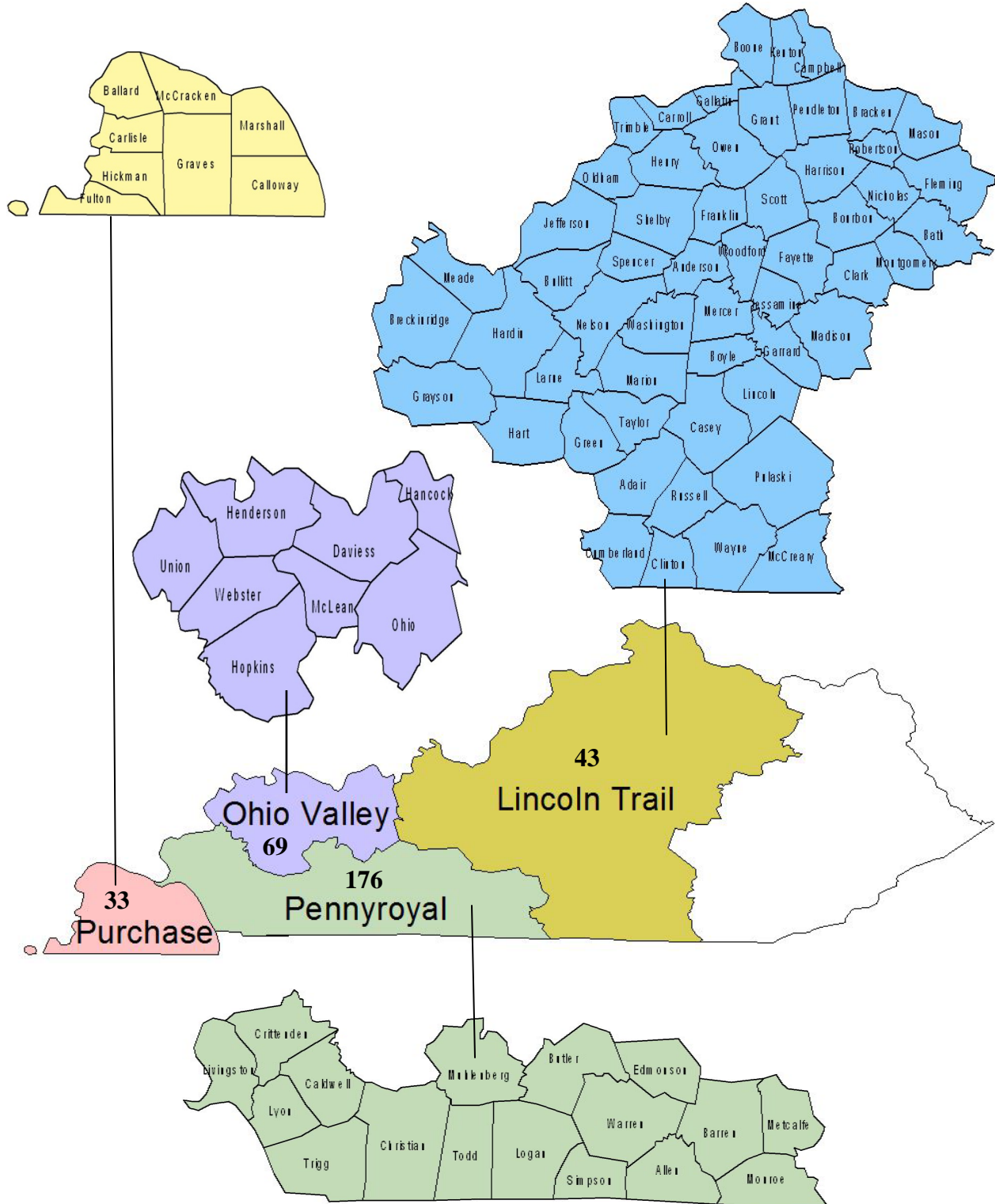
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Map of Area, Counties, and Number of Area Cooperators, 2014



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A Special Note to Our Readers

The data for this study are drawn from the detailed financial and production records of producers cooperating with the Kentucky Farm Business Management Program. The data are not drawn from a random sample of farms in the state. However, these data are the most accurate and detailed farm financial data available to researchers and educators. Every attempt has been made to select a set of farms for these research studies which are “typical” operations and have complete financial information available for analysis. These data are carefully cross-checked by our farm management specialists before inclusion in this analysis. It should be noted that farms included in this study are representative of commercial farms producing major commodities and livestock, but not of all farms in Kentucky.

Source of Data

This report presents the summarized 2013 performance data (financial and physical) on 340 Kentucky farm businesses. Some data are presented for previous years so that trends and changes can be studied. This is the 47th annual summary of records obtained from farmers participating in the Kentucky Farm Business Management (KFBM) program. The program is a cooperative effort between the Department of Agricultural Economics of the University of Kentucky and four incorporated Farm Analysis Groups. This program was initiated to improve Kentucky farm management in general and specifically to:

- Provide farmers with an individual farm analysis and comparative analysis of farm business records emphasizing information necessary for sound decision making and wise financial planning;
- Provide farmers with objective counseling in developing priorities and alternative plans;
- Provide the public with basic information about business conditions as well as costs and returns on Kentucky farms under current conditions.
- Provide Kentucky farmers, teachers, researchers and lending agencies actual on-farm information about Kentucky farm businesses.

In 2013, 548 farmers on 360 farms were members of the Kentucky Farm Business Management program keeping records under the direction of 9 Farm Business Management Specialists. The program serves farmers in 54 counties.

Uses for This Report

This annual summary is meant to be used as a reference for obtaining information about Kentucky farms. To see the complete publication of annual summary data, and for other, similar publications, go to <http://www.uky.edu/Ag/KFBM>.

Managing a farm business is almost impossible without a complete set of farm records. Records such as those underlying the KFBM program provide the essential information required by lenders and tax preparers, and also provide the means for farmers to fully analyze their businesses. Analyzing this complete record gives an accurate evaluation of how profitable and efficient the business is, indicates the business' weak points and strong points, and provides reliable data (particularly physical production data) for use in planning.

The farm business summaries in this report are used by individual farmers to analyze their business operations and to develop future plans for their farming operations. This report summarizes information so that specialists in agricultural extension, teaching, and research can use the data to enhance their programs. The definition of terms and income and expense measures below will be of assistance in using the data.

Farmers must be able to evaluate changes in their financial position. They must look at the interrelationships of the cash flow, income statement, and balance sheet to evaluate financial progress. For "real" progress to be made, the business must generate an increase in net worth as measured by a reconciled set of financial statements.

To thoroughly evaluate performance –to learn how the business is progressing– farmers need a record summary that includes considerable detail (i.e., production per person, yields per acre or head, feed conversion rates, etc.), and they must make trend and comparative analysis.

Trend analysis compares the farm's current year record summary with summaries from previous years. It allows farmers to identify trends and changes in their business over time and thereby detect improvements and deteriorations in various parts of the business.

Comparative analysis allows farmers to examine the similarities and differences in business performance between their farm and that of other similar farms. Comparative analysis is an important part of the work that Farm Business Management Specialists do with farmers in the program. The data presented here, however, can be useful to any farmer in Kentucky as a benchmark for performance.

Definition of Terms and Accounting Methods

Sampling Technique

Data from all farm business records certified to be usable for comparative analysis by field staff were aggregated by area, type of farm, size (i.e., tillable acres, number of animal production units, etc.), and management. Illinois Farm Business Farm Management Association's Farm Business Farm Management software was used to compile and summarize the data.

Type of Farm

Farm type is based on the percent feed fed. To determine percent feed fed, the total value of feed fed to all livestock enterprises is divided by the value of crop returns. However, tobacco revenue is excluded from crop returns for this calculation. Values for percent feed fed can range from zero to infinity. Large values are possible if a farm has limited grain production and thus purchases much of its feed.

Grain farms are defined as farms on which the value of feed fed was less than 40 percent of the crop returns and the value of feed fed to dairy was less than one-sixth of the crop returns.

Beef farms are defined as farms on which the value of feed fed was more than 40 percent of the crop returns and the beef enterprise utilized more than one-half of the value of feed fed.

Dairy farms are defined as farms on which the value of feed fed was more than 40 percent of the crop returns and the dairy enterprise utilized more than one-third of the value of feed fed.

Hog farms are defined as farms on which the value of feed fed was more than 40 percent of the crop returns and the hog enterprise utilized more than one-half of the value of feed fed.

Accrual Accounting

Accrual accounting matches the year's cost and returns to the farm's physical production. It differs from cash accounting, which records payments as made and income as received. For KFBM purposes, cash records are adjusted to approximate accrual accounting. Changes in inventories of commodities and livestock, accounts receivable, prepaid expenses, and accounts payable are added to or subtracted from cash income and expense records for the calendar or fiscal year. Accrual accounting provides a more realistic reflection of net farm income for the period as well as more accurate income statements and balance sheets in accordance with Farm Financial Standards Council recommendations.

Expense/Cost Items

Total operating expenses include cash operating expenses plus depreciation plus the net effect on expenses when accounting for the accrual change in accounts payable and prepaid expenses. Cash operating expenses include cash outlays for the following non-depreciable items:

- Fertilizer
- Pesticides
- Seed (including homegrown seed)
- Machinery repairs
- Machinery hire and leases
- Fuel and oil (lubricants)
- Farm share of utilities and light vehicle expenses
- Building repairs
- Drying and storage
- Hired labor
- Livestock expense
- Taxes
- Insurance
- Miscellaneous expenses

Purchased feed, grain and livestock are not included because they are deducted from Gross Revenue to calculate the Value of Farm Production.

Depreciation used here is Economic Depreciation. It is calculated on each item using the Alternative Depreciation System (ADS) under the Modified Accelerated Cost Recovery System of the Internal Revenue Code of 1986. ADS imposes straight line depreciation over a longer cost recovery period than the General Depreciation System and other expense deductions allowed for income tax purposes.

Total interest expense includes cash interest paid on operating and term debt plus the net change in accrued interest on farm business debt.

Interest on equity capital is a charge of 3.15 percent on the current value of land and 4.95 percent on non-land items less total interest expense. It is the opportunity cost of investing in the farm business. The non-land charge is calculated by multiplying 4.95 percent times: 1) the average of the beginning and ending of year value of livestock, economic book value of machinery, and building investment; 2) one-half of the average of the beginning and ending of year balance of inventory items; and 3) one-half of the total year's cash operating expense.

Land Charge Total is the sum of land equity charge, real estate taxes, cash rent, and lease cost. Lease cost is the cost calculated to be paid by the landlord for the operator(s) share of acres paid less costs paid by the operator(s) for the landlord on share crop acres.

Unpaid family and operator labor is the opportunity cost of using the operator's own and unpaid family labor in the farm business. A charge of \$2,755 per month for unpaid operator and family labor is made for each farm. This labor charge is per labor month and is based on unpaid labor of 2,500 hours per year. Part-time family labor is therefore prorated. (Like any other resource, unpaid labor must be accounted for when studying profitability of a farm business).

Revenue Items

Crop returns is the sum of the feed and grain sold, value of all feed fed (except milk), government crop subsidy program payments, and the change in value of feed and grain inventories less the value of crops and feed purchased. Tobacco revenue is excluded from crop returns for this calculation.

Livestock returns above feed is the sum of the sale of livestock and livestock products, value of livestock products consumed, and value of the livestock on hand at the end of the year minus livestock purchases and the value of the livestock on hand at the beginning of the year minus the cost of all feed fed, whether purchased or raised.

Gross farm returns is the sum of cash and accrued value of sales of farm products and services, government payments, and other farm-related revenue less the cost of purchased feed and livestock, plus the change in inventory value for grain and livestock, plus the value of farm products used. Farm products used are products used by the farm business and not sold. Also called *Value of farm production*.

Net Farm Income is the value of farm production less total operating expenses, less total interest expense plus net gain or loss on machinery and buildings sold. Net Farm Income includes returns to the farm for unpaid family and operator labor, the interest on invested capital, and management. It is the net total earnings to the farm operator(s).

Operator(s) labor and management income is Net Farm Income less the interest charge on equity capital, less the opportunity cost of unpaid family labor. It represents the operators' return to their labor and management.

Management return is the residual after a charge for unpaid operator labor is deducted from operator(s) labor and management income.

Operator-only refers to the revenue, costs, production, and returns that accrue to the farmer(s) involved in the farm's management and NOT that of landlords.

Financial Efficiency Ratios

Expense Ratios are measures of how economically farm businesses operate. Each ratio compares some aspect of expense or Net Farm Income to gross farm returns.

Other Terms Used in this Report

Inventory value of crops and livestock is based on average year-end prices reported for the four KFBM areas in the Kentucky Department of Agriculture Market Reports and the USDA Agriculture Marketing Service reports.

Old Crop is any crop that was produced in a prior year, but inventoried and held for sell in the current year.

New Crop is any crop that was produced in the current year.

Hi 1/3 and Lo 1/3 refer to groupings by management returns. Thirds are the net of Gross Farm Returns less Total Non-Feed Cost.

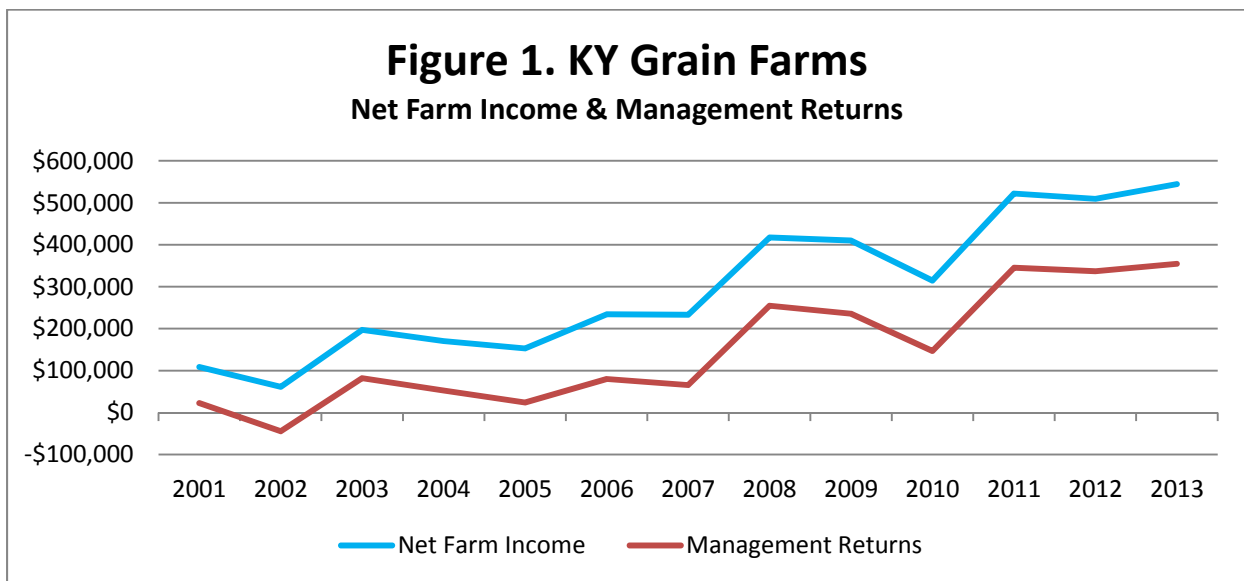
Operator Acres is owned and cash rented acres plus the operator's share of tillable acres under crop share leases.

Pasture Days is the number of days the operator(s) reported that livestock derived a significant portion of nutrition from pasture. The charge to livestock for pasture days is the number of days multiplied times the number of animal units involved at a calculated cost of \$0.31/day for producing grass in pasture.

Total Acres Planted – Selected Crops is the total number of acres planted to a particular crop divided by the number of farms that planted that crop for all farms in a particular comparative sort.

Management Returns and Net Farm Income

The number of grain farms included in the statewide average for the Kentucky Farm Business Management (KFBM) annual summary increased by 16 farms in 2013, to 222 farms. Crop insurance and high prices played a major role in high incomes for grain farms in 2012. However in 2013, higher yields produced an increase in the Kentucky Net Farm Income (NFI) average on those 222 grain farms increasing to \$544,511 in spite of lower prices.¹ This was 7% higher than the 2012 average and higher than the 5 and 10 year averages by 18% and 55%, respectively. Management returns increased 5% from 2012 to \$354,561.² Management returns in 2013 were higher than the 5 and higher than the 10 year averages by 25% and 87%, respectively. As seen in Figure 1, over the last 13 years shown, NFI and management returns were the highest in 2013 (Tables 1 & 2).



Farm Size and Ownership

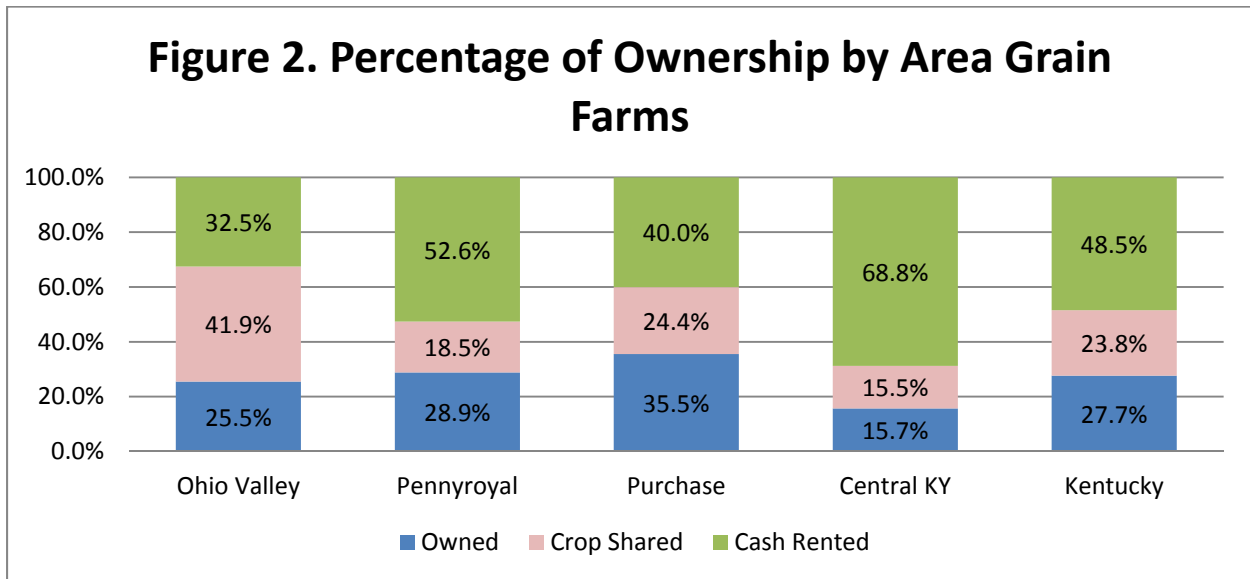
Kentucky grain farms averaged 2,404 tillable acres in 2013, slightly above the 2,289 acre average in 2012³. KFBM farms are divided into 4 main geographic areas: Ohio Valley, Pennyroyal, Purchase, and Central KY. In the Pennyroyal, Purchase, and Central KY areas, the number of tillable acres increased in 2013 over 2012. The only area with a decrease in average tillable acres was Ohio Valley. Changing member demographics plays a role in the inclines or declines in acres over the years, along with land ownership and percent of crop share acres.

¹ Net farm income includes returns to the farm for unpaid family and operator labor, the interest on invested capital, and management.

² Management returns are calculated by subtracting a capital investment charge for the operator's equity and a charge for operator's labor.

³ Tillable acres are the number of acres that are tilled or could be tilled to earn income off of.

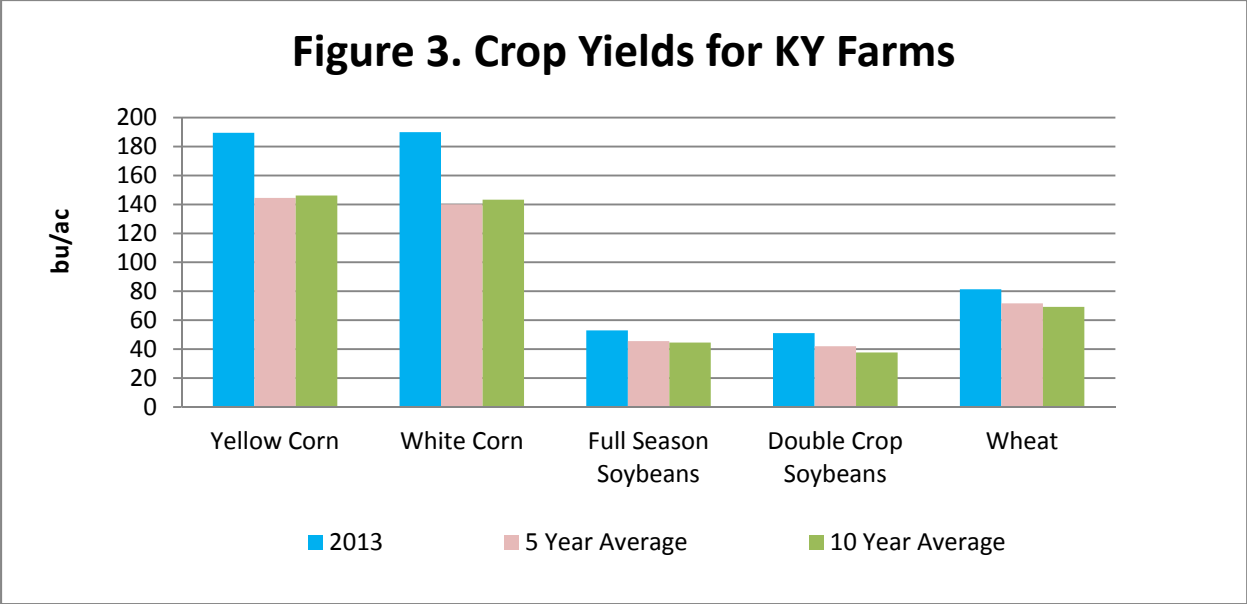
High grain prices in previous years lead to higher rents and landlords debating whether to use cash rent, crop share, or a flex lease which is a combination of cash rent and crop shares. In 2013, the average Kentucky grain farm cash rented 48%; crop shared 24%; and owned 28% of their tillable acres. Over the last few years, the percentage of cash rent acres has increased (46% in 2012) while the percentage of crop shared acres has decreased (26% in 2012). Just like every blueprint is different, each association has distinguished land ownership percentages. Ohio Valley area continues to have a larger percentage of crop shared acres, while the other areas are predominantly cash rented. Purchase area has the largest percentage of owned acres and is the only group where cash rented acres decreased from 2012 (Table 3 and Figure 2).



Production

After the drought in 2012, farmers welcomed the rain and cooler temperatures in 2013. Rains in both the spring and fall led to later planting and harvesting than in 2012. Yields for yellow and white corn and full season and double crop soybeans were records highs looking back over the last 16 years. Wheat tied for the highest yield with 2006 and 2008.

Yields increased for all grain crops, with yellow corn increasing by 143% to 190 bushels per acre. Average yield for white corn was the same as yellow corn in 2013, a 175% increase over 2012. Wheat yield increased 23% over 2012 to 81 bushels per acre. Full season and double crop soybeans saw an increase yield in 2013 of 18% and 16%, respectively. As seen in Figure 3, all grain crop yields were above the 5 and 10 year averages (Table 4 and Figure 3).



Crop Returns

Gross farm returns includes crop returns, tobacco returns, miscellaneous income, patronage dividends, etc. In 2013, average gross farm returns increased 10% from 2012, to \$2,338,302 (Table 3). Kentucky grain farms had an average per acre gross farm return of \$1028, a 6% increase from 2012’s \$967 per acre (Table 3A). Prices were reduced in 2013 compared to what was received in 2012, but the record production played a major role in higher gross farm returns. Crop returns made up 91% of gross farm returns in 2013 compared to 89% in 2012 (Figure 4).

As seen in Figure 4, Pennyroyal area grain farms had the highest gross farm returns and gross farm returns per acre. Purchase area grain farms had the largest percentage increase of gross farm returns per acre from 2012 to 2013, about 23% increase from \$755 to \$928. Central KY area grain farms were the only area to have a slight decrease in gross farm returns per acre; gross farm returns of \$899 per acre compared to \$910 in 2012, a decrease of 1%. Central KY and Ohio Valley areas have less wheat and double crop soybeans than the Purchase and Pennyroyal areas. In 2013, Central KY had lower wheat and double crop soybean crop value per acre than the other areas (Table 3B).

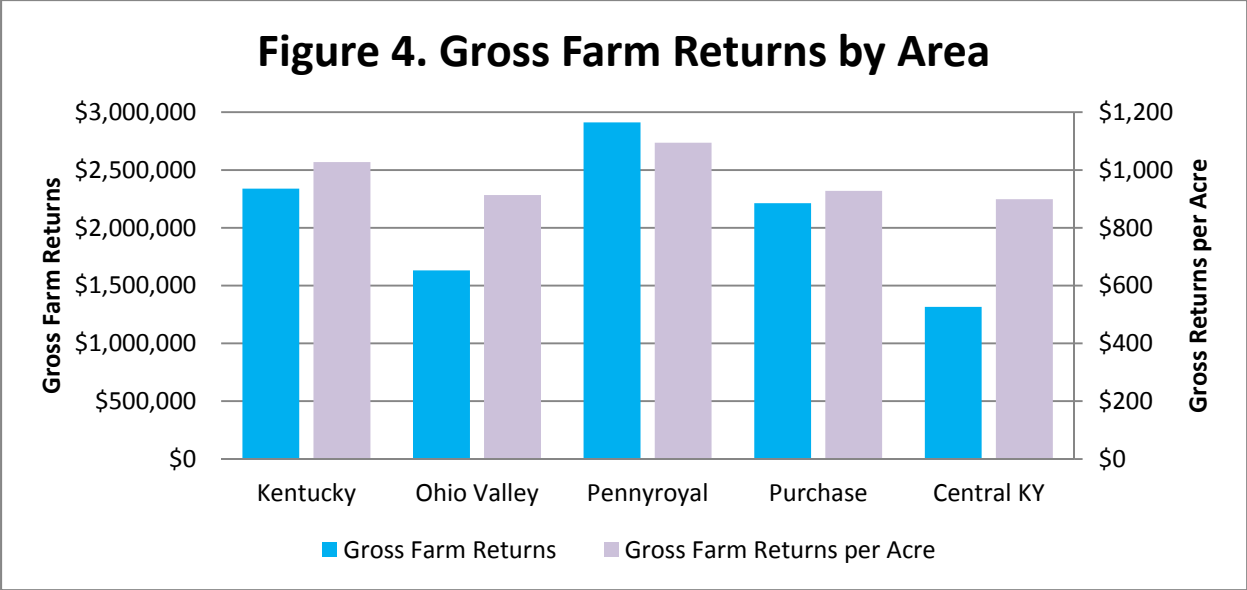
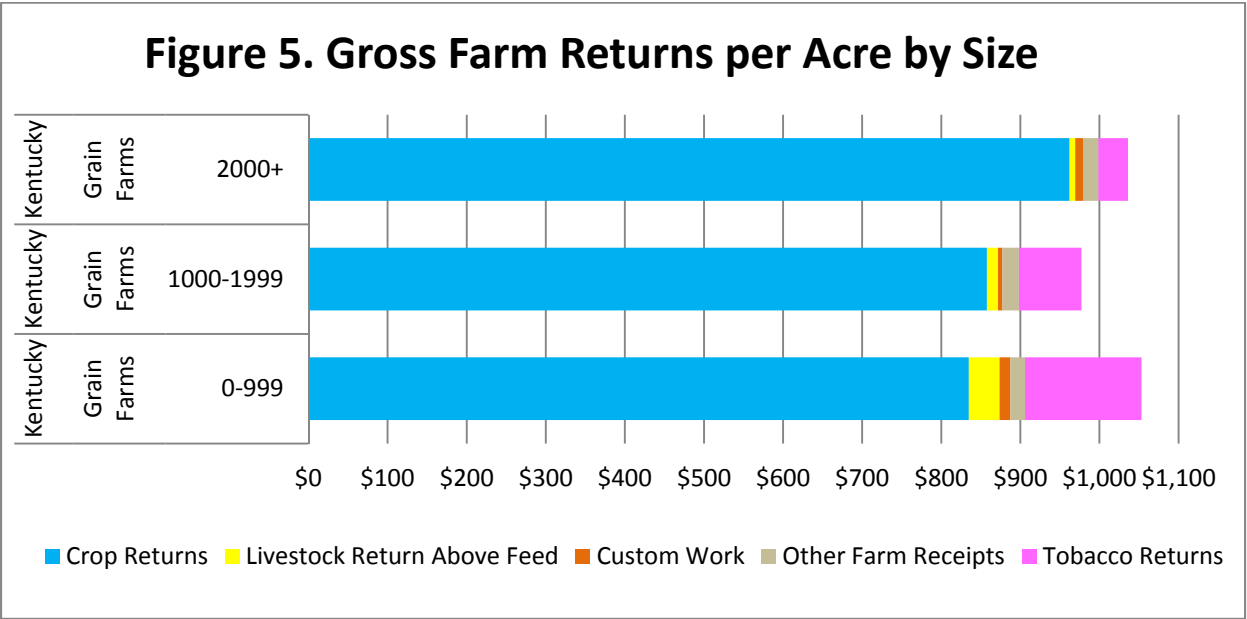


Figure 5 displays Kentucky grain farms gross farm returns per acre for 2013. Farms were categorized into 3 groups based on acreage: farms with less than 1,000 acres (small), farms between 1,000 and 2,000 acres (mid-range), and farms with more than 2,000 acres (large). In 2013, crop returns per acre were highest for the large farms, \$962, then the mid-range farms \$858, and lowest for the small farms of \$835. Unlike in 2012, large farms grossed less per acre than small farms, \$1036 and \$1053, respectively. In 2013, small farms had higher livestock returns above feed and tobacco returns than the large farm group, which had higher crop returns. Once again farms in the mid-range group had the lowest gross farm returns, \$977 per acre (Table 5A and Figure 5).



Farm Cost

Along with gross farm returns, input costs continue to rise for Kentucky grain producers in 2013. Gross farm returns per acre increased 6%; while, non-feed costs per acre increased 8% from 2012. Depreciation costs have increased 17% from 2012. For expense purposes, depreciation is calculated on an economic basis, not an accelerated tax basis. Total expenses for 2013 were \$1,803,323, which included \$1,599,860 in operating expenses and \$203,464 in depreciation expense (Table 6).

When reviewing farm costs, six categories are analyzed. An accrual adjustment was made to each of the costs, both cash and non-cash. Accrual adjustments are used to account for changes in prepaid expenses and accrued interest and expenses. These six categories include: crop expense, power and equipment, building, labor, other expenses, and land charges. Other expenses include vet, medicine, and livestock supplies, insurance, miscellaneous, and interest charge non-land. Non-cash costs include: depreciation, unpaid labor, non-land interest, and interest on owned land.

Average non-feed costs per acre increased in 2013 to \$871 per acre from \$809 per acre in 2012. On a per acre basis, non-feed costs account for 85% of gross farm returns. Thirty-three percent of expenses were spent on crop inputs, the largest expense for grain farmers. The percentage of crop expenses decreased in 2013 compared to 2012, which was 35%. Power and equipment and building expenses increased in 2013 compared to 2012 (Table 6A and Figure 6).

Insurance includes crop, liability, and property insurance on farm assets. Crop insurance increased for the average Kentucky grain farm in 2013 and in all size groups except for the average mid-range farm. The average small farm had the largest percentage increase in crop insurance with an increase of 26%. The average large farm had the highest per acre cost for crop insurance of \$23.91 per acre compared to the average mid-range farm with \$17.44 per acre.

Land costs include: charges for land equity, cash rent, lease cost, property taxes, and non-cash interest on owned tillable acres. Crop prices fell in 2013, but cash rents rose. Since crop prices are continually changing, cash rents play a major role in expenses each year. On the average Kentucky grain farm, cash rent saw an increase of 13% in 2013 over the cost in 2012. The average small farm had the largest percentage increase of 44% from 2012 to 2013, with the average large farm having the smallest increase of 10%.

When comparing non-feed costs for the different size farms in Figure 7, farms in the mid-range group had the highest percentage of crop expenses out of the three size groups. Farms in the small group had higher power and equipment and labor costs but had lower crop expenses and land charges than the other two groups. Labor costs (paid and unpaid) were the lowest for the large farm group. Higher labor costs for the small farm group can, at least partially, be attributed to a higher land use percentage for tobacco (2.4%) compared to the mid-range and large groups, 1.5% and 0.7%, respectively (Tables 5 & 5A and Figure 7). Another reason for the difference in

labor costs is unpaid labor accounts for the opportunity cost of using the operator’s own and unpaid family labor in the farm business; therefore, the small group has fewer acres to spread the cost over.

Figure 6. Percentage of Non-Feed Costs KY Grain Farms

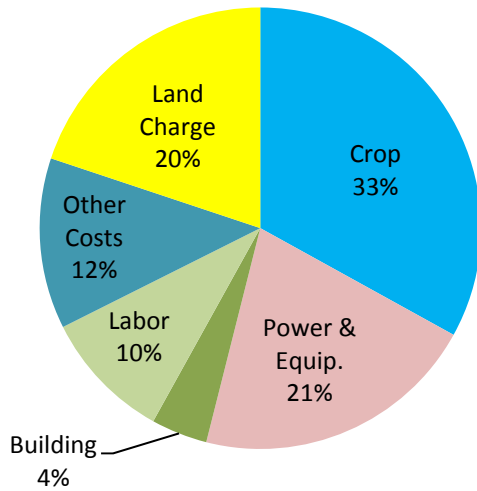
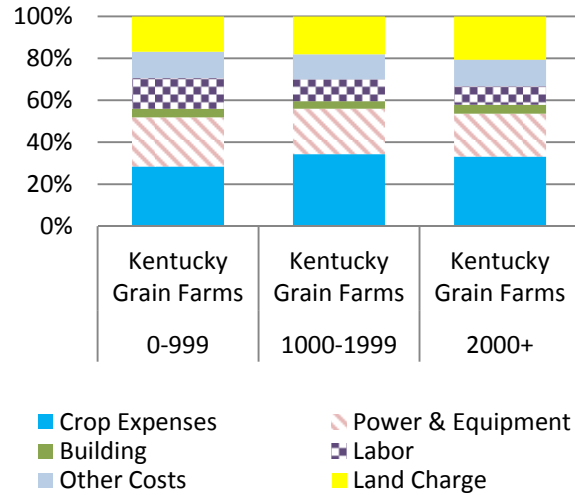


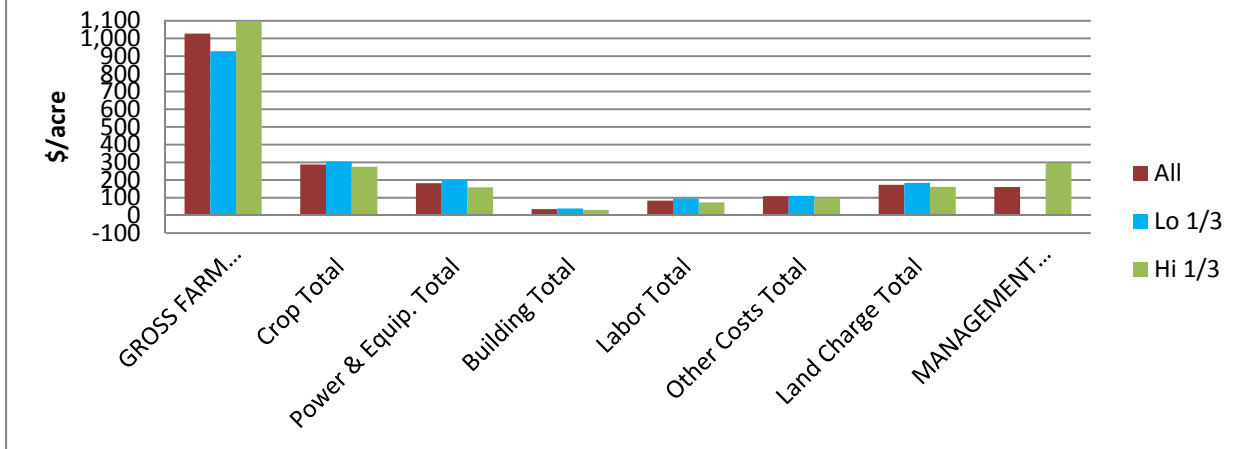
Figure 7. Percentage Non-Feed Cost by Size



Management Return Comparisons

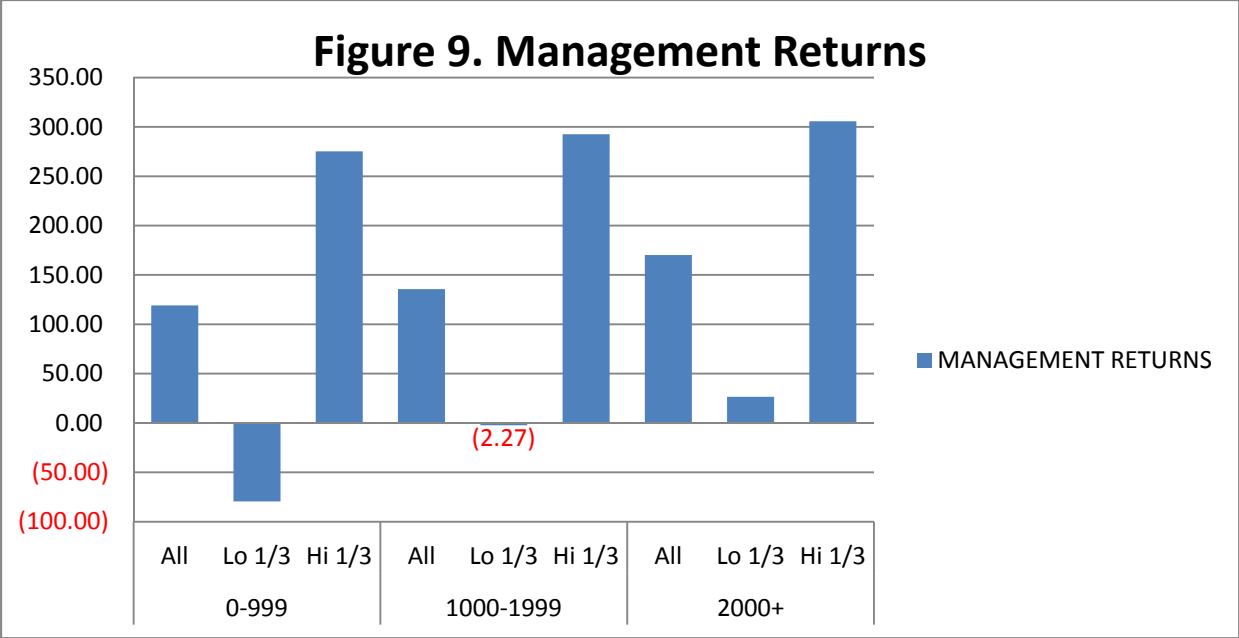
Management returns represents the residual after a charge for unpaid operator labor is deducted from operator(s) labor and management income. Kentucky grain farms were broken into management returns by thirds: high third, average third, and low third. This breakage allows for comparisons and can be used as a performance gauge. All management groups for the average Kentucky grain farm had similar management returns compared to 2012. Management returns for the low third Kentucky grain farms were slightly negative in 2013, unlike in 2012. The high third group experienced management returns of \$297 per acre while the low third had management returns of -\$0.33 (Figure 8).

Figure 8. KY Grain Farms Hi 1/3 vs Lo 1/3: Gross Returns, Cost Differences, & Management Returns



The gap between the low and high thirds for gross farm returns and total non-feed expenses increased in 2013 compared to 2012. Crop returns played the largest part in the difference between the high third and low third group with about \$156 per acre difference, which was less than the difference in 2012 (\$222). However, non-feed costs differed by about \$133 per acre, higher than in 2012 (\$81) (Table 6A). The high third group had higher yields than the low third group for all grain crops. Unlike 2012, there was more variance between the high and low third groups for old crop prices than new crop prices (Table 6B).

Comparing farms of similar size gives another perspective on management. Management returns for all sizes were positive except for those small and mid-range farms that were in the low third group. The high third group of large farms had the highest management returns for all the groups with \$306 per acre which was a decrease of \$5 from 2012 (Figure 9). The high third group of small farms had the highest gross farm returns of all groups of \$1,178. The high third group of large farms had the lowest non-feed costs of all groups and management levels. These results show that some small producers are as efficient and profitable as large producers on a per acre basis. They also reveal that not all large producers are very efficient. It is important to evaluate a producer's performance over several years to determine success because a farmer may be in a high third group one year, but not in the next year (Table 5A).

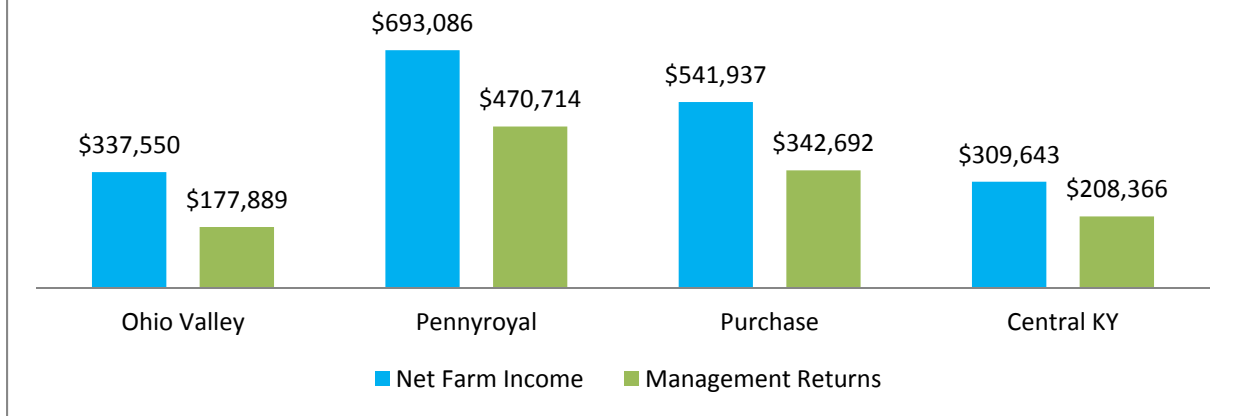


The high third sorts for each size group had an operating expense ratio between 53 and 56 percent. The high third group of mid-range farms had the lowest operating expense ratio of 52.7%; meaning that 52.7 cents of every dollar of farm production is spent on operating expenses. All high third groups had similar net farm income from operations ratio with the mid-range farms having the highest at 36.1%. For every dollar of farm production, 36.1 cents is realized as net farm income after operating expense, depreciation, and interest have been paid. The high third group of large farms was slightly less at 35.5% and the small farm group at 34.2% (Table 5).

Income by Area

In 2013, Pennyroyal area’s NFI remained about the same as 2012 and showed a decrease in management returns. Ohio Valley area saw an increase in NFI and had similar management returns as in 2012. Purchase and Central KY areas showed an increase in both NFI and management returns (Figure 10). The Pennyroyal, Purchase, and Central KY area grain farms had NFI and management returns greater than the 5 and 10 year averages. Ohio Valley was below the 5 year average and above the 10 year average (Table 1 & 2). As seen in Figure 10, Central KY grain farmers had the lowest NFI but Ohio Valley grain farmers had the lowest management returns. Purchase area grain farmers had the largest percentage increase of NFI and management returns of all Associations, 109% and 251%, respectively. For more information regarding each area, please see the detailed analysis for each Association.

Figure 10. 2013 Net Farm Income & Management Returns by Area



Conclusions

Prices were not as strong for 2013’s crops as they were for 2012’s, but high yields were seen across the state for Kentucky grain farmers. Net farm income increased by 7% and management returns increased 5% from 2012 to 2013 which was the highest on record for both. Average tillable acres increased by 115 acres to 2,404 in 2013 for the average Kentucky grain farms. The majority of those tillable acres were rented, either cash or crop shared versus owned. The percentage of crop shared acres has been on a steady decline over the last couple of years; while, the percentage of cash rented acres has increased in recent years. In 2013, all grain crops had an increase in yield compared to the drought in 2012. Even though prices were down, gross farm returns averaged \$1028 per acre which was an increase of 6% from 2012. Along with increased gross farm returns per acre, total non-feed costs per acre showed an increase of 8%. Even though prices were not like they were in 2012, Kentucky grain farmers managed to deliver positive results.

Table 1 - Kentucky Grain Farms Net Farm Income

| YEAR | Kentucky | Ohio Valley | Pennyroyal | Purchase | Central KY |
|-----------------|----------|-------------|------------|----------|------------|
| 2001 | 108,637 | 92,863 | 161,685 | 3,068 | 4,154 |
| 2002 | 61,336 | 5,753 | 94,443 | 87,718 | 18,596 |
| 2003 | 197,037 | 131,733 | 239,454 | 249,018 | 162,149 |
| 2004 | 170,471 | 119,207 | 218,835 | 173,042 | 85,462 |
| 2005 | 152,752 | 148,194 | 170,965 | 261,965 | 56,122 |
| 2006 | 233,969 | 133,641 | 314,921 | 246,760 | 142,718 |
| 2007 | 232,933 | 321,385 | 198,216 | 328,581 | 132,238 |
| 2008 | 417,300 | 335,096 | 528,491 | 416,261 | 204,352 |
| 2009 | 410,073 | 412,464 | 422,866 | 557,707 | 284,266 |
| 2010 | 314,375 | 193,071 | 357,704 | 364,988 | 347,884 |
| 2011 | 521,947 | 436,820 | 624,354 | 561,418 | 227,320 |
| 2012 | 509,550 | 323,687 | 694,739 | 259,122 | 152,949 |
| 2013 | 544,511 | 337,550 | 693,086 | 541,937 | 309,643 |
| 5 Year Average | 460,091 | 340,718 | 558,550 | 457,034 | 264,412 |
| 10 Year Average | 350,788 | 276,111 | 422,418 | 371,178 | 194,295 |

Table 2 - Kentucky Grain Farms Management Returns

| YEAR | Kentucky | Ohio Valley | Pennyroyal | Purchase | Central KY |
|-----------------|----------|-------------|------------|----------|------------|
| 2001 | 22,318 | 554 | 46,021 | 25,727 | (158) |
| 2002 | (44,832) | (88,122) | (18,358) | (10,424) | (71,922) |
| 2003 | 82,090 | 24,485 | 114,644 | 84,665 | 64,181 |
| 2004 | 52,732 | 24,263 | 87,486 | 16,787 | 3,442 |
| 2005 | 24,099 | 35,416 | 28,312 | 78,969 | (35,527) |
| 2006 | 79,913 | 6,896 | 142,852 | 57,598 | 40,186 |
| 2007 | 65,630 | 154,915 | 19,443 | 115,657 | 13,278 |
| 2008 | 254,653 | 182,207 | 343,136 | 255,516 | 101,989 |
| 2009 | 235,659 | 248,294 | 229,231 | 357,317 | 175,312 |
| 2010 | 146,777 | 58,356 | 161,043 | 172,079 | 238,898 |
| 2011 | 345,124 | 280,817 | 424,096 | 375,027 | 114,999 |
| 2012 | 336,830 | 177,144 | 490,760 | 97,700 | 78,199 |
| 2013 | 354,561 | 177,889 | 470,714 | 342,692 | 208,366 |
| 5 Year Average | 283,790 | 188,500 | 355,169 | 268,963 | 163,155 |
| 10 Year Average | 189,598 | 134,620 | 239,707 | 186,934 | 93,914 |

Table 3 - Summary of Kentucky Grain Farms by Area 2013

| | Ohio Valley | Pennyroyal | Purchase | Central KY | Kentucky |
|------------------------------------|------------------|------------------|------------------|------------------|------------------|
| | Grain | Grain | Grain | Grain | Grain |
| Range in Size (Acres) | All | All | All | All | All |
| Management Returns | All | All | All | All | All |
| Number of Farms | 56 | 121 | 18 | 27 | 222 |
| Total Acres in Farm | 2,170 | 2,937 | 2,682 | 1,630 | 2,564 |
| Tillable Acres in Farm | 2,051 | 2,730 | 2,582 | 1,553 | 2,404 |
| Operator Tillable Acres | 1,756 | 2,556 | 2,364 | 1,464 | 2,206 |
| Percent Land Owned | 25.5% | 28.9% | 35.5% | 15.7% | 27.7% |
| Percent Land Crop Share | 41.9% | 18.5% | 24.4% | 15.5% | 23.8% |
| Percent Land Cash Rent | 32.5% | 52.6% | 40.0% | 68.8% | 48.5% |
| Months of Hired Labor | 30.1 | 67.1 | 35.2 | 41.4 | 52.1 |
| Months of Unpaid Labor | 17.8 | 18.6 | 20.4 | 11.1 | 17.6 |
| Total Months Labor | 47.9 | 85.7 | 55.6 | 52.5 | 69.7 |
| FARM RETURNS | | | | | |
| Total Cash Operating | 1,570,956 | 2,789,302 | 1,919,897 | 1,284,501 | 2,228,463 |
| Inventory Change | 172,412 | 301,170 | 394,178 | 205,638 | 264,613 |
| Accounts Receivable Change | (60,480) | (74,320) | 5,080 | (117,167) | (69,602) |
| Farm Products Used | 0 | 0 | 0 | 0 | 0 |
| Less Purchased Feed & Grain | 49,992 | 93,447 | 105,721 | 45,332 | 77,629 |
| Less Purchased Livestock | 1,189 | 10,619 | 938 | 11,339 | 7,543 |
| GROSS FARM RETURNS | 1,631,707 | 2,912,086 | 2,212,497 | 1,316,300 | 2,338,302 |
| FARM COSTS | | | | | |
| Total Cash Operating | 1,147,356 | 2,083,568 | 1,341,244 | 932,347 | 1,647,205 |
| Farm Products Used | 0 | 0 | 0 | 0 | 0 |
| Prepaid Expense Change | (21,814) | (101,144) | 110,740 | (25,855) | (54,796) |
| Accounts Payable Change | 3,103 | 9,257 | 9,062 | 7,305 | 7,452 |
| TOTAL OPERATING EXPENSE | 1,128,644 | 1,991,681 | 1,461,045 | 913,797 | 1,599,860 |
| INCOME BEFORE DEPRECIATION | 503,063 | 920,404 | 751,452 | 402,503 | 738,442 |
| Less Depreciation | 174,952 | 238,666 | 207,389 | 102,224 | 203,464 |
| FARM OPERATING INCOME | 328,110 | 681,738 | 544,063 | 300,279 | 534,978 |
| Capital Account Adjustment | 9,439 | 11,348 | (2,126) | 9,364 | 9,533 |
| NET FARM INCOME (NFI) | 337,550 | 693,086 | 541,937 | 309,643 | 544,511 |
| Less Unpaid Family Labor | 0 | 1,981 | 5,204 | 1,020 | 1,626 |
| RETURNS TO OPERATOR LABOR | | | | | |
| CAPITAL, & MANAGEMENT | 337,550 | 691,105 | 536,733 | 308,623 | 542,885 |
| Less Unpaid Operator Labor | 48,975 | 49,248 | 50,968 | 29,591 | 46,928 |
| RETURNS TO EQUITY CAPITAL | | | | | |
| & MANAGEMENT | 288,575 | 641,856 | 485,766 | 279,032 | 495,957 |
| Less Equity Capital Charge | 110,685 | 171,142 | 143,074 | 70,665 | 141,396 |
| MANAGEMENT RETURNS | 177,889 | 470,714 | 342,692 | 208,366 | 354,561 |
| FINANCIAL EFFICIENCY RATIOS | | | | | |
| Operating Expense Ratio (%) | 65.74% | 65.50% | 62.40% | 67.03% | 65.41% |
| Depreciation Expense Ratio (%) | 10.72% | 8.20% | 9.37% | 7.77% | 8.70% |
| Interest Expense Ratio (%) | 3.43% | 2.89% | 3.64% | 2.39% | 3.01% |
| NFI from Operations Ratio (%) | 20.11% | 23.41% | 24.59% | 22.81% | 22.88% |

| Table 3A - Economic Management Analysis per Operator Acre: All Kentucky Grain Farms by Area 2013 | | | | | |
|---|--------------------|-------------------|-----------------|-------------------|-----------------|
| | Ohio Valley | Pennyroyal | Purchase | Central KY | Kentucky |
| | Grain | Grain | Grain | Grain | Grain |
| Range in Size (Acres) | All | All | All | All | All |
| Management Returns | All | All | All | All | All |
| Number of Farms | 56 | 121 | 18 | 27 | 222 |
| Total Acres in Farm | 2,170 | 2,937 | 2,682 | 1,630 | 2,564 |
| Tillable Acres in Farm | 2,051 | 2,730 | 2,582 | 1,553 | 2,404 |
| Operator Tillable Acres | 1,756 | 2,556 | 2,364 | 1,464 | 2,206 |
| Percent Land Owned | 25.5% | 28.9% | 35.5% | 15.7% | 27.7% |
| Percent Land Crop Share | 41.9% | 18.5% | 24.4% | 15.5% | 23.8% |
| Percent Land Cash Rent | 32.5% | 52.6% | 40.0% | 68.8% | 48.5% |
| Months of Hired Labor | 30.1 | 67.1 | 35.2 | 41.4 | 52.1 |
| Months of Unpaid Labor | 17.8 | 18.6 | 20.4 | 11.1 | 17.6 |
| Total Months Labor | 47.9 | 85.7 | 55.6 | 52.5 | 69.7 |
| FARM RETURNS | | | | | |
| Crop Returns | 856.86 | 991.80 | 860.74 | 773.35 | 935.68 |
| Livestock Return Above Feed | 16.00 | 6.33 | 27.02 | 12.43 | 10.57 |
| Custom Work | 6.35 | 9.49 | 20.33 | 11.63 | 9.98 |
| Other Farm Receipts | 3.60 | 24.54 | 16.49 | 17.36 | 19.05 |
| Tobacco Returns | 30.45 | 62.00 | 3.42 | 84.34 | 52.38 |
| GROSS FARM RETURNS | 913.27 | 1,094.17 | 928.00 | 899.11 | 1,027.66 |
| FARM COSTS | | | | | |
| Soil Fertility | 145.65 | 142.66 | 117.26 | 114.45 | 138.77 |
| Pesticides | 61.55 | 66.52 | 69.00 | 49.17 | 64.34 |
| Seed | 88.34 | 84.42 | 83.92 | 78.45 | 84.68 |
| Crop Total | 295.54 | 293.60 | 270.18 | 242.07 | 287.79 |
| Utilities | 7.44 | 9.82 | 10.29 | 7.78 | 9.22 |
| Machine Repairs | 37.98 | 39.00 | 33.58 | 38.83 | 38.31 |
| Machine Hire & Lease | 16.91 | 25.48 | 35.82 | 17.63 | 24.02 |
| Fuel & Oil | 34.86 | 44.17 | 33.52 | 35.40 | 40.67 |
| Light Vehicle | 0.10 | 0.08 | 0.03 | 0.35 | 0.10 |
| Machine Depreciation | 71.93 | 70.79 | 70.68 | 57.32 | 69.92 |
| Power & Equip. Total | 169.20 | 189.35 | 183.92 | 157.32 | 182.25 |
| Drying | 5.98 | 9.00 | 9.55 | 8.62 | 8.41 |
| Storage | 0.32 | 1.22 | 1.75 | 0.78 | 1.05 |
| Building Repair & Rent | 12.79 | 9.25 | 6.56 | 10.89 | 9.86 |
| Building Depreciation | 16.57 | 18.00 | 11.02 | 10.50 | 16.50 |
| Building Total | 35.65 | 37.47 | 28.87 | 30.78 | 35.82 |
| Labor, Unpaid | 23.80 | 18.45 | 21.96 | 20.00 | 19.95 |
| Labor, Paid | 37.28 | 72.96 | 44.35 | 72.29 | 63.26 |
| Labor Total | 61.08 | 91.41 | 66.30 | 92.29 | 83.21 |
| Vet, Med, Livestock Supply | 0.76 | 1.26 | 3.09 | 1.30 | 1.32 |
| Insurance | 29.67 | 37.77 | 36.39 | 38.73 | 36.10 |
| Miscellaneous | 9.07 | 12.52 | 11.50 | 15.62 | 11.99 |
| Interest Charge - Non land | 60.39 | 61.81 | 49.56 | 50.67 | 59.56 |
| Other Costs Total | 99.88 | 113.36 | 100.54 | 106.32 | 108.97 |
| Land Charge Total | 155.98 | 189.28 | 132.34 | 134.66 | 173.23 |
| TOTAL NON-FEED COSTS | 817.33 | 914.46 | 782.15 | 763.45 | 871.26 |
| Gain/loss Capital Sales | 5.38 | 4.44 | -0.90 | 6.40 | 4.32 |
| MANAGEMENT RETURNS | 101.32 | 184.15 | 144.95 | 142.06 | 160.72 |

| Table 3B - Economic Management Analysis per Operator Acre: All Kentucky Grain Farms by Area 2013 | | | | | |
|---|--------------------|-------------------|-----------------|-------------------|-----------------|
| | Ohio Valley | Pennyroyal | Purchase | Central KY | Kentucky |
| | Grain | Grain | Grain | Grain | Grain |
| Range in Size (Acres) | All | All | All | All | All |
| Management Returns | All | All | All | All | All |
| Number of Farms | 56 | 121 | 18 | 27 | 222 |
| Crop Yields | | | | | |
| Yellow Corn | 188 | 190 | 190 | 191 | 190 |
| Full Season Soybeans | 55 | 52 | 48 | 55 | 53 |
| Wheat | 82 | 82 | 83 | 72 | 82 |
| Double Crop Soybeans | 48 | 52 | 49 | 40 | 51 |
| White Corn | | 190 | | | 190 |
| Total Acres Planted-Selected Crops | | | | | |
| Yellow Corn | 1,013 | 1,220 | 1,015 | 696 | 1,086 |
| Full Season Soybeans | 783 | 413 | 662 | 644 | 563 |
| Wheat | 305 | 1,031 | 683 | 257 | 769 |
| Double Crop Soybeans | 298 | 1,074 | 691 | 278 | 806 |
| White Corn | | 1,261 | | | 1,169 |
| Land Use % | | | | | |
| Yellow Corn | 50.3% | 42.8% | 43.1% | 44.8% | 44.6% |
| Full Season Soybeans | 38.2% | 13.1% | 25.0% | 38.1% | 21.3% |
| Wheat | 9.9% | 33.6% | 27.4% | 11.9% | 26.3% |
| Double Crop Soybeans | 10.0% | 35.0% | 27.7% | 10.0% | 27.1% |
| White Corn | | 4.3% | | | 2.7% |
| Crop Value Per Acre | | | | | |
| Yellow Corn | 853 | 891 | 868 | 863 | 878 |
| Full Season Soybeans | 729 | 670 | 593 | 740 | 694 |
| Wheat | 567 | 563 | 570 | 449 | 560 |
| Double Crop Soybeans | 630 | 683 | 628 | 527 | 670 |
| White Corn | | 1,032 | | | 1,029 |
| Price Received - Old Crop | | | | | |
| Yellow Corn | 6.91 | 6.65 | 6.98 | 7.05 | 6.78 |
| Soybeans | 14.61 | 14.95 | 13.72 | 14.81 | 14.71 |
| Wheat | 7.21 | 7.82 | 8.12 | 8.32 | 7.82 |
| White Corn | | 7.26 | | | 7.26 |
| Price Received - New Crop | | | | | |
| Yellow Corn | 4.68 | 5.05 | 4.91 | 4.79 | 4.95 |
| Soybeans | 12.87 | 12.86 | 12.74 | 13.18 | 12.90 |
| Wheat | 6.99 | 7.16 | 6.87 | 6.43 | 7.07 |
| White Corn | | 5.96 | | | 5.96 |

Table 4 - Historic Crop Yield: All Kentucky Farms (bu/ac)

| YEAR | Yellow Corn | White Corn | Soybeans | | Wheat |
|-----------------|-------------|------------|-------------|-------------|-------|
| | | | Full Season | Double Crop | |
| 1998 | 128 | 122 | 33 | 28 | 51 |
| 1999 | 121 | 110 | 27 | 12 | 74 |
| 2000 | 126 | 127 | 44 | 31 | 64 |
| 2001 | 155 | 152 | 44 | 35 | 78 |
| 2002 | 115 | 110 | 36 | 38 | 60 |
| 2003 | 151 | 134 | 47 | 45 | 69 |
| 2004 | 166 | 152 | 47 | 43 | 58 |
| 2005 | 137 | 143 | 48 | 38 | 79 |
| 2006 | 157 | 161 | 48 | 41 | 81 |
| 2007 | 129 | 132 | 33 | 14 | 35 |
| 2008 | 150 | 145 | 42 | 31 | 81 |
| 2009 | 180 | 184 | 52 | 46 | 65 |
| 2010 | 130 | 117 | 37 | 28 | 69 |
| 2011 | 145 | 141 | 41 | 41 | 77 |
| 2012 | 78 | 69 | 45 | 44 | 66 |
| 2013 | 190 | 190 | 53 | 51 | 81 |
| 5 Year Average | 145 | 140 | 46 | 42 | 72 |
| 10 Year Average | 146 | 143 | 45 | 38 | 69 |

Table 4.1 - 2013 Crop Yields: All Farms by Area (bu/ac)

| | Kentucky | Purchase | Pennyroyal | Ohio Valley | Central KY |
|----------------------|----------|----------|------------|-------------|------------|
| Yellow Corn | 190 | 190 | 190 | 188 | 189 |
| White Corn | 190 | | 190 | | |
| Full Season Soybeans | 53 | 48 | 52 | 55 | 55 |
| Double Crop Soybeans | 51 | 48 | 52 | 47 | 42 |
| Wheat | 81 | 83 | 82 | 82 | 72 |

Table 5 - Summary of Kentucky Grain Farms by Size & Management: 2013

| | Grain | Grain | Grain | Grain | Grain | Grain | Grain | Grain | Grain |
|------------------------------------|----------------|-----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Range in Size (Acres) | 0-999 | 0-999 | 0-999 | 1000-1999 | 1000-1999 | 1000-1999 | 2000+ | 2000+ | 2000+ |
| Management Returns | All | Lo 1/3 | Hi 1/3 | All | Lo 1/3 | Hi 1/3 | All | Lo 1/3 | Hi 1/3 |
| Number of Farms | 61 | 20 | 20 | 64 | 21 | 21 | 97 | 32 | 32 |
| Total Acres in Farm | 728 | 676 | 791 | 1,511 | 1,517 | 1,520 | 4,412 | 4,614 | 4,636 |
| Tillable Acres in Farm | 634 | 536 | 740 | 1,392 | 1,387 | 1,415 | 4,184 | 4,382 | 4,358 |
| Operator Tillable Acres | 586 | 508 | 666 | 1,265 | 1,271 | 1,254 | 3,845 | 4,032 | 3,996 |
| Percent Land Owned | 37.2% | 37.2% | 35.5% | 28.1% | 27.1% | 30.8% | 26.7% | 19.9% | 37.4% |
| Percent Land Crop Share | 22.9% | 17.5% | 30.6% | 28.5% | 28.4% | 34.1% | 22.9% | 23.9% | 22.2% |
| Percent Land Cash Rent | 39.9% | 45.2% | 33.9% | 43.4% | 44.6% | 35.1% | 50.4% | 56.2% | 40.5% |
| Months of Hired Labor | 19.4 | 18.7 | 20.2 | 33.9 | 42.6 | 29.8 | 84.6 | 84.3 | 71.7 |
| Months of Unpaid Labor | 13.2 | 12.5 | 12.9 | 15.5 | 17.6 | 14.9 | 21.8 | 20.7 | 20.6 |
| Total Months Labor | 32.7 | 31.2 | 33.1 | 49.4 | 60.2 | 44.7 | 106.3 | 105.0 | 92.2 |
| FARM RETURNS | | | | | | | | | |
| Total Cash Operating | 594,580 | 430,005 | 740,400 | 1,202,032 | 1,212,300 | 1,224,729 | 3,933,190 | 4,147,747 | 3,996,288 |
| Inventory Change | 49,461 | 32,421 | 71,178 | 138,124 | 67,376 | 202,056 | 483,371 | 211,575 | 696,817 |
| Accounts Receivable Change | (5,754) | 3,052 | (4,923) | (47,763) | (33,915) | (22,949) | (124,163) | (140,053) | (85,981) |
| Farm Products Used | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Less Purchased Feed & Grain | 11,073 | 6,658 | 14,953 | 29,173 | 28,374 | 35,490 | 151,455 | 170,364 | 134,158 |
| Less Purchased Livestock | 5,503 | 8,569 | 810 | 4,031 | 9,010 | 2,405 | 11,143 | 8,207 | 3,023 |
| GROSS FARM RETURNS | 621,710 | 450,252 | 790,891 | 1,259,190 | 1,208,377 | 1,365,941 | 4,129,800 | 4,040,699 | 4,469,943 |
| FARM COSTS | | | | | | | | | |
| Total Cash Operating | 417,768 | 353,132 | 480,826 | 875,276 | 986,713 | 784,253 | 2,929,669 | 3,339,350 | 2,795,802 |
| Farm Products Used | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Prepaid Expense Change | (1,299) | 11,915 | (22,175) | (25,555) | (31,853) | (29,196) | (107,732) | (28,344) | (304,459) |
| Accounts Payable Change | 3,021 | 5,959 | 1,634 | 7,722 | 21,954 | 1,597 | 10,059 | (49,688) | 78,539 |
| TOTAL OPERATING EXPENSE | 419,490 | 371,006 | 460,284 | 857,444 | 976,814 | 756,654 | 2,831,996 | 3,261,318 | 2,569,881 |
| INCOME BEFORE DEPRECIATION | 202,220 | 79,246 | 330,607 | 401,746 | 231,564 | 609,287 | 1,297,803 | 779,381 | 1,900,060 |
| Less Depreciation | 55,872 | 48,421 | 60,488 | 111,210 | 121,743 | 116,761 | 357,148 | 431,872 | 315,261 |
| FARM OPERATING INCOME | 146,348 | 30,825 | 270,118 | 290,536 | 109,821 | 492,526 | 940,655 | 347,508 | 1,584,799 |
| Capital Account Adjustment | 5,554 | 2,479 | 4,483 | 5,253 | 2,746 | 7,479 | 14,859 | 23,197 | 16,197 |
| NET FARM INCOME (NFI) | 151,902 | 33,304 | 274,601 | 295,789 | 112,567 | 500,005 | 955,514 | 370,705 | 1,600,996 |
| Less Unpaid Family Labor | 1,671 | 0 | 3,444 | 344 | 0 | 1,050 | 2,443 | 0 | 2,238 |
| RETURNS TO OPERATOR LABOR | | | | | | | | | |
| CAPITAL, & MANAGEMENT | 150,231 | 33,304 | 271,157 | 295,444 | 112,567 | 498,955 | 953,071 | 370,705 | 1,598,758 |
| Less Unpaid Operator Labor | 34,799 | 34,438 | 32,027 | 42,401 | 48,409 | 39,882 | 57,543 | 56,994 | 54,411 |
| RETURNS TO EQUITY CAPITAL | | | | | | | | | |
| & MANAGEMENT | 115,432 | (1,133) | 239,130 | 253,043 | 64,158 | 459,073 | 895,529 | 313,711 | 1,544,347 |
| Less Equity Capital Charge | 45,636 | 39,220 | 55,914 | 81,406 | 67,037 | 92,278 | 241,196 | 206,364 | 322,980 |
| MANAGEMENT RETURNS | 69,796 | (40,353) | 183,216 | 171,637 | (2,879) | 366,795 | 654,332 | 107,348 | 1,221,367 |
| FINANCIAL EFFICIENCY RATIOS | | | | | | | | | |
| Operating Expense Ratio (%) | 64.14% | 78.45% | 55.81% | 65.01% | 76.46% | 52.73% | 65.61% | 76.94% | 55.24% |
| Depreciation Expense Ratio (%) | 8.99% | 10.75% | 7.65% | 8.83% | 10.07% | 8.55% | 8.65% | 10.69% | 7.05% |
| Interest Expense Ratio (%) | 3.34% | 3.95% | 2.39% | 3.09% | 4.37% | 2.67% | 2.96% | 3.77% | 2.25% |
| NFI from Operations Ratio (%) | 23.54% | 6.85% | 34.15% | 23.07% | 9.09% | 36.06% | 22.78% | 8.60% | 35.45% |

Table 5A - Economic Management Analysis per Operator Acre: Kentucky Grain Farms by Size & Management 2013

| | Grain | Grain | Grain | Grain | Grain | Grain | Grain | Grain | Grain |
|---------------------------------|-----------------|----------------|-----------------|---------------|---------------|-----------------|-----------------|---------------|-----------------|
| Range in Size (Acres) | 0-999 | 0-999 | 0-999 | 1000-1999 | 1000-1999 | 1000-1999 | 2000+ | 2000+ | 2000+ |
| Management Returns | All | Lo 1/3 | Hi 1/3 | All | Lo 1/3 | Hi 1/3 | All | Lo 1/3 | Hi 1/3 |
| Number of Farms | 61 | 20 | 20 | 64 | 21 | 21 | 97 | 32 | 32 |
| Total Acres in Farm | 728 | 676 | 791 | 1,511 | 1,517 | 1,520 | 4,412 | 4,614 | 4,636 |
| Tillable Acres in Farm | 634 | 536 | 740 | 1,392 | 1,387 | 1,415 | 4,184 | 4,382 | 4,358 |
| Operator Tillable Acres | 586 | 508 | 666 | 1,265 | 1,271 | 1,254 | 3,845 | 4,032 | 3,996 |
| Percent Land Owned | 37.2% | 37.2% | 35.5% | 28.1% | 27.1% | 30.8% | 26.7% | 19.9% | 37.4% |
| Percent Land Crop Share | 22.9% | 17.5% | 30.6% | 28.5% | 28.4% | 34.1% | 22.9% | 23.9% | 22.2% |
| Percent Land Cash Rent | 39.9% | 45.2% | 33.9% | 43.4% | 44.6% | 35.1% | 50.4% | 56.2% | 40.5% |
| Months of Hired Labor | 19.4 | 18.7 | 20.2 | 33.9 | 42.6 | 29.8 | 84.6 | 84.3 | 71.7 |
| Months of Unpaid Labor | 13.2 | 12.5 | 12.9 | 15.5 | 17.6 | 14.9 | 21.8 | 20.7 | 20.6 |
| Total Months Labor | 32.7 | 31.2 | 33.1 | 49.4 | 60.2 | 44.7 | 106.3 | 105.0 | 92.2 |
| FARM RETURNS | | | | | | | | | |
| Crop Returns | 834.80 | 699.98 | 956.14 | 857.78 | 764.27 | 955.46 | 962.26 | 914.39 | 1,018.07 |
| Livestock Return Above Feed | 38.90 | 4.67 | 33.82 | 14.00 | 3.15 | 23.52 | 7.10 | 5.68 | 4.53 |
| Custom Work | 13.79 | 6.96 | 14.96 | 5.55 | 8.17 | 2.67 | 10.57 | 13.86 | 8.30 |
| Other Farm Receipts | 18.47 | 12.87 | 23.97 | 20.79 | 16.40 | 25.36 | 18.73 | 14.00 | 20.92 |
| Tobacco Returns | 147.22 | 151.05 | 149.45 | 79.16 | 124.10 | 75.01 | 37.48 | 16.25 | 31.35 |
| GROSS FARM RETURNS | 1,053.19 | 875.53 | 1,178.34 | 977.28 | 916.10 | 1,082.01 | 1,036.14 | 964.18 | 1,083.16 |
| FARM COSTS | | | | | | | | | |
| Soil Fertility | 131.77 | 135.20 | 130.07 | 144.71 | 153.95 | 137.04 | 138.16 | 147.86 | 128.64 |
| Pesticides | 59.90 | 58.03 | 63.88 | 62.93 | 63.03 | 58.99 | 65.07 | 67.76 | 61.20 |
| Seed | 77.34 | 72.94 | 77.62 | 83.07 | 87.03 | 80.97 | 85.74 | 88.19 | 82.23 |
| Crop Total | 269.01 | 266.18 | 271.58 | 290.71 | 304.00 | 277.01 | 288.96 | 303.82 | 272.07 |
| Utilities | 17.50 | 16.30 | 12.92 | 10.24 | 12.15 | 9.35 | 8.20 | 7.27 | 8.40 |
| Machine Repairs | 57.08 | 69.07 | 45.19 | 45.07 | 57.50 | 34.90 | 35.05 | 39.63 | 27.43 |
| Machine Hire & Lease | 37.97 | 35.80 | 42.92 | 21.67 | 26.91 | 15.27 | 23.20 | 30.01 | 20.56 |
| Fuel & Oil | 38.00 | 44.98 | 32.86 | 38.17 | 40.05 | 37.53 | 41.46 | 44.72 | 37.35 |
| Light Vehicle | 0.20 | 0.10 | 0.40 | 0.20 | 0.13 | 0.02 | 0.07 | 0.01 | 0.01 |
| Machine Depreciation | 70.31 | 74.31 | 63.76 | 68.06 | 76.06 | 70.20 | 70.29 | 80.19 | 59.66 |
| Power & Equip. Total | 221.07 | 240.57 | 198.04 | 183.42 | 212.80 | 167.28 | 178.27 | 201.83 | 153.42 |
| Drying | 4.72 | 3.77 | 4.54 | 6.29 | 6.12 | 6.47 | 9.23 | 11.58 | 8.00 |
| Storage | 0.47 | 1.21 | 0.34 | 0.76 | 0.45 | 1.53 | 1.17 | 1.96 | 0.56 |
| Building Repair & Rent | 14.03 | 14.44 | 12.09 | 10.22 | 14.53 | 7.03 | 9.38 | 9.06 | 7.64 |
| Building Depreciation | 19.76 | 18.23 | 19.73 | 12.80 | 13.22 | 13.78 | 16.99 | 20.70 | 14.43 |
| Building Total | 38.99 | 37.64 | 36.70 | 30.07 | 34.32 | 28.81 | 36.76 | 43.30 | 30.63 |
| Labor, Unpaid | 57.85 | 63.39 | 48.40 | 30.34 | 34.52 | 28.40 | 14.06 | 12.74 | 12.69 |
| Labor, Paid | 80.27 | 83.41 | 73.36 | 58.22 | 75.62 | 48.34 | 62.72 | 66.24 | 51.96 |
| Labor Total | 138.12 | 146.80 | 121.76 | 88.56 | 110.14 | 76.74 | 76.78 | 78.98 | 64.65 |
| Vet, Med, Livestock Supply | 3.49 | 2.18 | 0.69 | 1.09 | 1.35 | 1.04 | 1.16 | 0.69 | 1.57 |
| Insurance | 39.64 | 41.05 | 41.53 | 32.17 | 36.65 | 31.21 | 36.62 | 42.76 | 29.87 |
| Miscellaneous | 12.76 | 11.70 | 13.09 | 9.49 | 10.05 | 8.18 | 12.46 | 13.08 | 11.50 |
| Interest Charge - Non land | 62.26 | 59.31 | 63.41 | 57.58 | 59.02 | 59.78 | 59.73 | 63.67 | 55.97 |
| Other Costs Total | 118.14 | 114.24 | 118.72 | 100.34 | 107.07 | 100.21 | 109.96 | 120.20 | 98.90 |
| Land Charge Total | 158.27 | 154.41 | 163.10 | 152.60 | 152.19 | 145.41 | 179.14 | 195.29 | 161.91 |
| TOTAL NON-FEED COSTS | 943.60 | 959.84 | 909.89 | 845.71 | 920.53 | 795.45 | 869.87 | 943.41 | 781.59 |
| Gain/loss Capital Sales | 9.47 | 4.88 | 6.73 | 4.15 | 2.16 | 5.96 | 3.86 | 5.75 | 4.05 |
| MANAGEMENT RETURNS | 119.06 | (79.43) | 275.18 | 135.73 | (2.27) | 292.52 | 170.13 | 26.51 | 305.63 |

| Table 5B - Economic Management Analysis per Operator Acre: Kentucky Grain Farms by Size & Management 2013 | | | | | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Grain | Grain | Grain | Grain | Grain | Grain | Grain | Grain | Grain |
| Range in Size (Acres) | 0-999 | 0-999 | 0-999 | 1000-1999 | 1000-1999 | 1000-1999 | 2000+ | 2000+ | 2000+ |
| Management Returns | All | Lo 1/3 | Hi 1/3 | All | Lo 1/3 | Hi 1/3 | All | Lo 1/3 | Hi 1/3 |
| Number of Farms | 61 | 20 | 20 | 64 | 21 | 21 | 97 | 32 | 32 |
| Crop Yields | | | | | | | | | |
| Yellow Corn | 184 | 163 | 194 | 188 | 180 | 195 | 191 | 183 | 197 |
| Full Season Soybeans | 49 | 50 | 53 | 56 | 56 | 57 | 53 | 52 | 56 |
| Wheat | 80 | 71 | 85 | 80 | 76 | 82 | 82 | 78 | 84 |
| Double Crop Soybeans | 51 | 49 | 52 | 49 | 47 | 52 | 51 | 48 | 55 |
| Total Acres Planted-Selected Crops | | | | | | | | | |
| Yellow Corn | 272 | 215 | 343 | 618 | 607 | 668 | 1,893 | 2,105 | 1,947 |
| Full Season Soybeans | 217 | 187 | 199 | 370 | 357 | 288 | 861 | 1,129 | 686 |
| Wheat | 204 | 176 | 259 | 391 | 336 | 454 | 1,278 | 1,305 | 1,358 |
| Double Crop Soybeans | 208 | 174 | 270 | 406 | 344 | 481 | 1,329 | 1,383 | 1,413 |
| Land Use % | | | | | | | | | |
| Yellow Corn | 40.8% | 37.7% | 44.9% | 43.4% | 44.6% | 43.7% | 45.2% | 45.0% | 46.1% |
| Full Season Soybeans | 26.3% | 25.5% | 21.9% | 24.7% | 25.0% | 18.8% | 20.1% | 23.3% | 16.3% |
| Wheat | 22.5% | 18.9% | 28.5% | 22.5% | 18.8% | 28.2% | 27.6% | 23.1% | 31.2% |
| Double Crop Soybeans | 22.9% | 16.9% | 29.7% | 22.0% | 18.0% | 28.2% | 28.7% | 24.5% | 32.4% |
| Crop Value Per Acre | | | | | | | | | |
| Yellow Corn | 812 | 696 | 886 | 831 | 793 | 872 | 894 | 854 | 942 |
| Full Season Soybeans | 659 | 698 | 710 | 731 | 731 | 747 | 688 | 660 | 755 |
| Wheat | 517 | 463 | 557 | 524 | 487 | 557 | 569 | 555 | 582 |
| Double Crop Soybeans | 654 | 610 | 673 | 636 | 601 | 669 | 677 | 637 | 713 |
| Price Received - Old Crop | | | | | | | | | |
| Yellow Corn | 6.99 | 7.34 | 6.98 | 6.91 | 6.99 | 6.81 | 6.74 | 6.39 | 6.98 |
| Soybeans | 14.63 | 14.89 | 14.47 | 14.60 | 14.34 | 14.57 | 14.76 | 15.11 | 14.65 |
| Wheat | 7.75 | | 7.73 | 7.82 | 7.82 | 7.79 | 7.83 | 8.14 | 7.90 |
| Price Received - New Crop | | | | | | | | | |
| Yellow Corn | 4.63 | 4.24 | 4.86 | 4.61 | 4.48 | 4.78 | 5.05 | 5.01 | 5.08 |
| Soybeans | 13.12 | 13.50 | 13.26 | 12.56 | 12.67 | 12.65 | 12.97 | 12.97 | 13.25 |
| Wheat | 6.97 | 6.65 | 7.45 | 6.71 | 6.56 | 6.90 | 7.15 | 7.20 | 7.01 |

Table 6 - Summary of Kentucky Grain Farms by Returns to Non-Feed Costs 2013

| | Grain | Grain | Grain |
|------------------------------------|------------------|------------------|------------------|
| Range in Size (Acres) | All | All | All |
| Management Returns | All | Lo 1/3 | Hi 1/3 |
| Number of Farms | 222 | 73 | 73 |
| Total Acres in Farm | 2,564 | 2,208 | 2,942 |
| Tillable Acres in Farm | 2,404 | 2,039 | 2,746 |
| Operator Tillable Acres | 2,206 | 1,869 | 2,501 |
| Percent Land Owned | 27.7% | 21.9% | 35.5% |
| Percent Land Crop Share | 23.8% | 25.9% | 24.9% |
| Percent Land Cash Rent | 48.5% | 52.2% | 39.5% |
| Months of Hired Labor | 52.1 | 48.8 | 53.4 |
| Months of Unpaid Labor | 17.6 | 16.3 | 18.0 |
| Total Months Labor | 69.7 | 65.1 | 71.4 |
| FARM RETURNS | | | |
| Total Cash Operating | 2,228,463 | 1,794,066 | 2,550,033 |
| Inventory Change | 264,613 | 89,158 | 428,499 |
| Accounts Receivable Change | (69,602) | (68,810) | (55,157) |
| Farm Products Used | 0 | 0 | 0 |
| Less Purchased Feed & Grain | 77,629 | 42,441 | 81,204 |
| Less Purchased Livestock | 7,543 | 7,660 | 8,251 |
| GROSS FARM RETURNS | 2,338,302 | 1,764,313 | 2,833,920 |
| FARM COSTS | | | |
| Total Cash Operating | 1,647,205 | 1,452,556 | 1,764,430 |
| Farm Products Used | 0 | 0 | 0 |
| Prepaid Expense Change | (54,796) | (14,899) | (152,553) |
| Accounts Payable Change | 7,452 | (1,512) | 35,501 |
| TOTAL OPERATING EXPENSE | 1,599,860 | 1,436,145 | 1,647,378 |
| INCOME BEFORE DEPRECIATION | 738,442 | 328,167 | 1,186,542 |
| Less Depreciation | 203,464 | 191,591 | 204,543 |
| FARM OPERATING INCOME | 534,978 | 136,576 | 981,999 |
| Capital Account Adjustment | 9,533 | 10,422 | 11,163 |
| NET FARM INCOME (NFI) | 544,511 | 146,999 | 993,162 |
| Less Unpaid Family Labor | 1,626 | 75 | 2,000 |
| RETURNS TO OPERATOR LABOR | | | |
| CAPITAL, & MANAGEMENT | 542,885 | 146,923 | 991,162 |
| Less Unpaid Operator Labor | 46,928 | 44,835 | 47,646 |
| RETURNS TO EQUITY CAPITAL | | | |
| & MANAGEMENT | 495,957 | 102,089 | 943,515 |
| Less Equity Capital Charge | 141,396 | 102,516 | 199,992 |
| MANAGEMENT RETURNS | 354,561 | (427) | 743,523 |
| FINANCIAL EFFICIENCY RATIOS | | | |
| Operating Expense Ratio (%) | 65.41% | 77.64% | 55.91% |
| Depreciation Expense Ratio (%) | 8.70% | 10.86% | 7.22% |
| Interest Expense Ratio (%) | 3.01% | 3.76% | 2.22% |
| NFI from Operations Ratio (%) | 22.88% | 7.74% | 34.65% |

**Table 6A - Economic Management Analysis per Operator Acre:
Kentucky Grain Farms by Returns to Non-Feed Costs 2013**

| | Grain | Grain | Grain |
|---------------------------------|-----------------|---------------|-----------------|
| Range in Size (Acres) | All | All | All |
| Management Returns | All | Lo 1/3 | Hi 1/3 |
| Number of Farms | 222 | 73 | 73 |
| Total Acres in Farm | 2,564 | 2,208 | 2,942 |
| Tillable Acres in Farm | 2,404 | 2,039 | 2,746 |
| Operator Tillable Acres | 2,206 | 1,869 | 2,501 |
| Percent Land Owned | 27.7% | 21.9% | 35.5% |
| Percent Land Crop Share | 23.8% | 25.9% | 24.9% |
| Percent Land Cash Rent | 48.5% | 52.2% | 39.5% |
| Months of Hired Labor | 52.1 | 48.8 | 53.4 |
| Months of Unpaid Labor | 17.6 | 16.3 | 18.0 |
| Total Months Labor | 69.7 | 65.1 | 71.4 |
| FARM RETURNS | | | |
| Crop Returns | 935.68 | 843.09 | 999.18 |
| Livestock Return Above Feed | 10.57 | 5.73 | 8.69 |
| Custom Work | 9.98 | 9.48 | 7.12 |
| Other Farm Receipts | 19.05 | 14.46 | 23.19 |
| Tobacco Returns | 52.38 | 54.99 | 55.53 |
| GROSS FARM RETURNS | 1,027.66 | 927.75 | 1,093.71 |
| FARM COSTS | | | |
| Soil Fertility | 138.77 | 149.86 | 132.26 |
| Pesticides | 64.34 | 68.11 | 61.39 |
| Seed | 84.68 | 86.93 | 81.98 |
| Crop Total | 287.79 | 304.90 | 275.64 |
| Utilities | 9.22 | 9.43 | 8.78 |
| Machine Repairs | 38.31 | 44.30 | 29.49 |
| Machine Hire & Lease | 24.02 | 24.29 | 21.23 |
| Fuel & Oil | 40.67 | 43.66 | 36.81 |
| Light Vehicle | 0.10 | 0.05 | 0.05 |
| Machine Depreciation | 69.92 | 78.53 | 61.83 |
| Power & Equip. Total | 182.25 | 200.26 | 158.19 |
| Drying | 8.41 | 8.18 | 7.62 |
| Storage | 1.05 | 1.71 | 0.69 |
| Building Repair & Rent | 9.86 | 11.78 | 8.24 |
| Building Depreciation | 16.50 | 17.54 | 14.27 |
| Building Total | 35.82 | 39.20 | 30.82 |
| Labor, Unpaid | 19.95 | 21.81 | 17.73 |
| Labor, Paid | 63.26 | 73.28 | 55.85 |
| Labor Total | 83.21 | 95.09 | 73.58 |
| Vet, Med, Livestock Supply | 1.32 | 1.07 | 1.49 |
| Insurance | 36.10 | 37.28 | 30.90 |
| Miscellaneous | 11.99 | 11.00 | 11.25 |
| Interest Charge - Non land | 59.56 | 61.40 | 57.43 |
| Other Costs Total | 108.97 | 110.74 | 101.07 |
| Land Charge Total | 173.23 | 183.45 | 161.62 |
| TOTAL NON-FEED COSTS | 871.26 | 933.66 | 800.91 |
| Gain/loss Capital Sales | 4.32 | 5.58 | 4.46 |
| MANAGEMENT RETURNS | 160.72 | (0.33) | 297.26 |

**Table 6B - Economic Management Analysis per Operator Acre:
Kentucky Grain Farms by Returns to Non-Feed Costs 2013**

| | Grain | Grain | Grain |
|---|-------|--------|--------|
| Range in Size (Acres) | All | All | All |
| Management Returns | All | Lo 1/3 | Hi 1/3 |
| Number of Farms | 222 | 73 | 73 |
| Crop Yields | | | |
| Yellow Corn | 190 | 179 | 197 |
| Full Season Soybeans | 53 | 51 | 55 |
| Wheat | 82 | 74 | 84 |
| Double Crop Soybeans | 51 | 47 | 54 |
| Total Acres Planted-Selected Crops | | | |
| Yellow Corn | 1,086 | 935 | 1,246 |
| Full Season Soybeans | 563 | 616 | 505 |
| Wheat | 769 | 561 | 905 |
| Double Crop Soybeans | 806 | 587 | 951 |
| Land Use % | | | |
| Yellow Corn | 44.6% | 43.9% | 45.1% |
| Full Season Soybeans | 21.3% | 25.9% | 17.5% |
| Wheat | 26.3% | 20.1% | 30.3% |
| Double Crop Soybeans | 27.1% | 20.7% | 31.4% |
| Crop Value Per Acre | | | |
| Yellow Corn | 878 | 807 | 928 |
| Full Season Soybeans | 694 | 664 | 746 |
| Wheat | 560 | 526 | 575 |
| Double Crop Soybeans | 670 | 619 | 706 |
| Price Received - Old Crop | | | |
| Yellow Corn | 6.78 | 6.37 | 6.92 |
| Soybeans | 14.71 | 14.92 | 14.65 |
| Wheat | 7.82 | 7.76 | 7.89 |
| Price Received - New Crop | | | |
| Yellow Corn | 4.95 | 4.81 | 5.02 |
| Soybeans | 12.90 | 12.94 | 13.18 |
| Wheat | 7.07 | 7.05 | 7.03 |

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