

Kentucky Farm Business Management Program

Purchase Area Farms

2012



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Contents

| | |
|--|----|
| Acknowledgements | 3 |
| Source of Data | 4 |
| Uses for This Report | 5 |
| Management Returns and Net Farm Income | 6 |
| Farm Land Resources | 7 |
| Production | 8 |
| Crop Returns | 9 |
| Farm Costs | 10 |
| Appendix: | |
| Description of Tables | |
| Table 1 Income Statement Summary of Purchase Area Farms..... | 13 |
| Table 2A EMA Summary of Purchase Area Farms..... | 14 |
| Table 2B EMA Summary of Purchase Area Farms..... | 15 |
| Table 3 Purchase Area Management Returns and Net Farm Income | 16 |
| Table 4 Purchase Area Crop Yield Data | 16 |
| Table 5 Purchase Area Crop Price History | 17 |
| Definitions of Terms and Accounting Methods | 18 |
| Sampling Technique | |
| Type of Farm | |
| Accrual Accounting | |
| Expense/Cost Items | |
| Revenue Items | |
| Other Terms Used in This Report | |

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Special credit should be given to the farm business management specialists who supplied data used in this report. Their attention to details and accuracy of records are what make these results so valuable to farmers and to those working with farmers throughout the state. Specialists who served in 2012 and provided summary data are:

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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 2012 performance data, both financial and physical, on 256 Kentucky farm businesses. Some data are presented for previous years so that trends and changes can be studied. This is the 46th 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 2012, 493 farmers on 321 farms were members of the Kentucky Farm Business Management program keeping records under the direction of 8 Farm Business Management Specialists. The program serves farmers in 54 counties.

Uses for This Report

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 may provide 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.

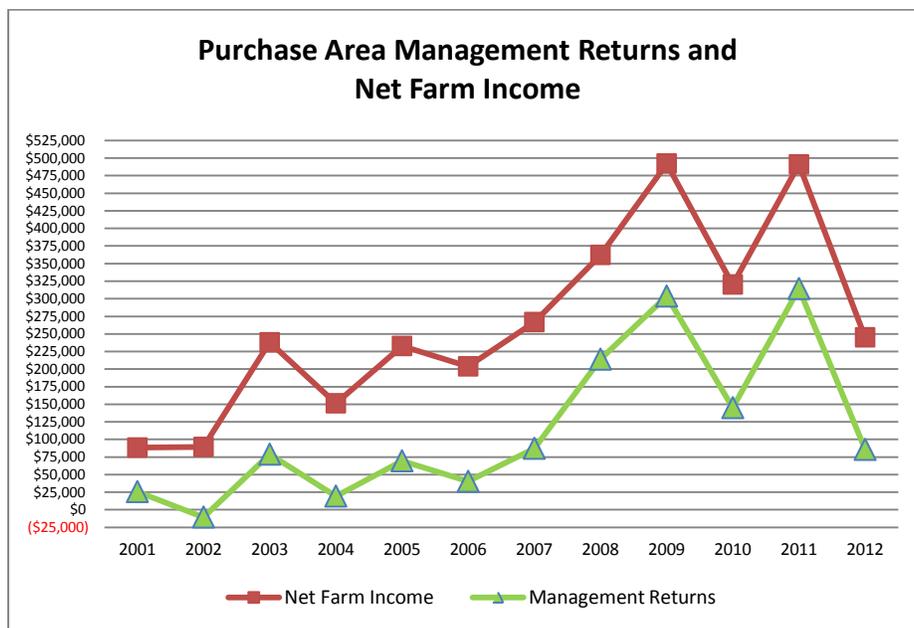
Trend analysis compares the farm's current year record summary with summaries from previous years. It allows farmers to identify trends and changes in their business over time and thereby detect improvements and deteriorations in various parts of the business.

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.

The Purchase Area of Kentucky is considered to be the western most eight counties, including: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Marshall, and McCracken. The Purchase Farm Analysis Group, Inc. serviced 34 farms in this area during 2012. These farms consisted of mostly grain production (corn, wheat, and soybeans). Other farm types include contract broiler production, contract hog production, dairy and beef cattle farms. Due to current Kentucky Farm Business Management (KFBM) Program data standards, only 18 of these farms were included in the average data. Contract broiler and hog production farms are not included in the data, unless the farm also qualifies as a grain farm, where broiler and hog returns are represented as livestock returns above feed costs. Limited data numbers prevents there from being average farm data for only the Purchase Area for dairy and beef farms. Please see the Kentucky Annual Summary Data, Extension Publication No. 2013-10 for state-wide average information for these farm types. It is important to note the farms represented in the KFBM dataset can change from year to year, and that fluctuations within the data could be due to this change of sample.

Management Returns and Net Farm Income

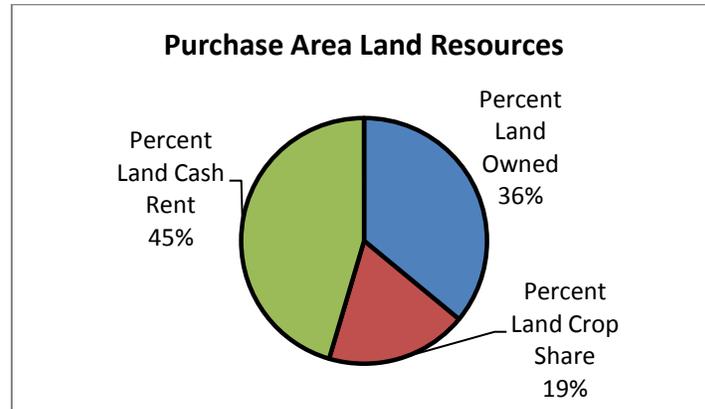
An exceptional drought during the summer and fall of 2012 caused many difficulties and much stress for Purchase Area farms. Despite the lack of rain, Management Returns (the residual after a charge for unpaid operator labor is deducted from operator(s) labor and management income) remained the sixth highest in area history at \$85,709. Net Farm Income (NFI), the net total earning to the farm operator(s) also remained at the sixth highest in area history at \$245,045. These levels of returns were made possible by the high commodity prices received and substantial crop insurance indemnity payments. (Appendix: Table 3)



Purchase Area grain farms had an average NFI of \$259,122 and average management returns of \$97,700 or \$46.62 per acre in 2012. When broken down between smaller and larger farms, those Purchase grain farms with greater than 1500 acres had lower management returns at \$40.88 per acre than those with less than 1500 acres at \$64.75. Crop Returns for smaller farms were \$760.74 per acre and these smaller farms also had Livestock Returns above Feed Cost of \$108.83. This added with other income equated to \$909.67 per acre of Gross Farm Returns. Larger farms had lower crop returns of \$692.79 and less Livestock Returns above feed cost at \$0.26 per acre. While the larger farms did experience lower non-feed costs at \$665.89 per acre versus the smaller farm total non-feed cost of \$847.71, this efficiency did not make up the difference in revenue per acre. Net Farm Incomes also varied due to size, with larger farms realizing NFI of \$464,125 on average and smaller farms averaging NFI of \$122,453 (Appendix: Table 1 and Table 2A).

Farm Land Resources

The average size of Purchase Area farms in 2012 was 2,236 acres. The average farm included 2,143 tillable acres. Tillable acres included 1,986 operator acres and 157 crop share acres. Operator tillable acres are those acres from which the producer receives 100% of the crop revenue. Land was split between 36% owned, 18.6% crop share, and 45.4% cash rented.



Compared to the KFBM Kentucky average, the Purchase Area uses less crop share rent and more cash rent basis (Appendix: Table 1).

When looking at only grain farms in the Purchase, the larger farms (those greater than 1500 acres) rent a greater percentage of the ground they farm: 70% rented versus 61.7% for farms less than 1500 acres. For both farm sizes, cash rent is the prevalent rental agreement (Appendix: Table 1).

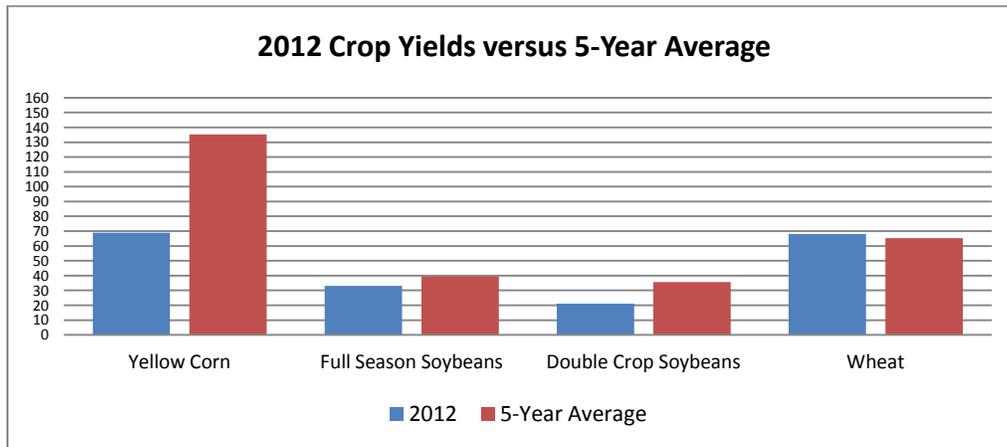
Production

Purchase Area average production data is only available for grain crops. A very dry June, July and August created much lower than average yields for corn and decreased yields for soybeans, both full season and double crop. Wheat produced fairly well, following a very fair weathered spring. Wheat harvest took place slightly earlier in June and was not affected by the drought conditions that plagued the summer crops.

Corn yield in 2012 was 69 bu/acre for all Purchase farms. This was a dismal failure by many accounts, and well below the 5-year average of 135.2bu/acre. The only positive thing about this corn crop was that most producers had insurance, and those with the harvest price guarantee came out much better than expected at harvest (Appendix: Table 4).

Full season soybeans had an average yield of 33 bu/acre for all Purchase Farms. This is below the 5-year average of 39.6 bu/acre but the same as experienced in 2010. Full season soybeans fared much better than double-crop plantings due to the drought conditions that were experienced during the summer months. Full season soybeans were planted early enough to receive at least some rain. Many fields of double crop soybeans received little to no rain; explaining the low yield of 21 bu/acre for all Purchase farms, well below the 5-year average of 35.6 bu/acre (Appendix: Table 4).

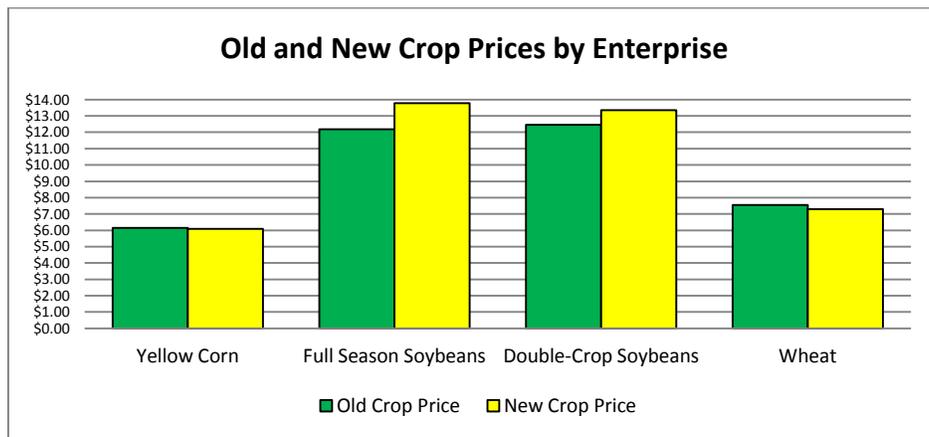
Wheat production was once again a bright spot for Purchase Area grain farms during 2012. Wheat produced an average of 68 bu/acre for all Purchase farms. This made wheat the only crop during 2012 to do better than the 5-year average of 65.4 bu/acre (Appendix: Table 4).



Crop Returns

Producers could not have asked for better crop and planting conditions in the spring of 2012. However, as the spring turned to summer the rain completely dried up, causing one of the driest crop years on record. With much of the country experiencing drought conditions, crop prices grew stronger into harvest. Despite low yields, crop returns remained relatively high thanks to the strong harvest prices and considerable crop insurance indemnities. Crop Returns per acre for Purchase Grain farms were \$709.13 per acre, with smaller farms averaging better than large farms at \$760.74 per acre versus \$692.79 per acre. Average Kentucky grain farms fared better than Purchase farms with average crop returns of \$861.18 per acre. (Appendix: Table 2A).

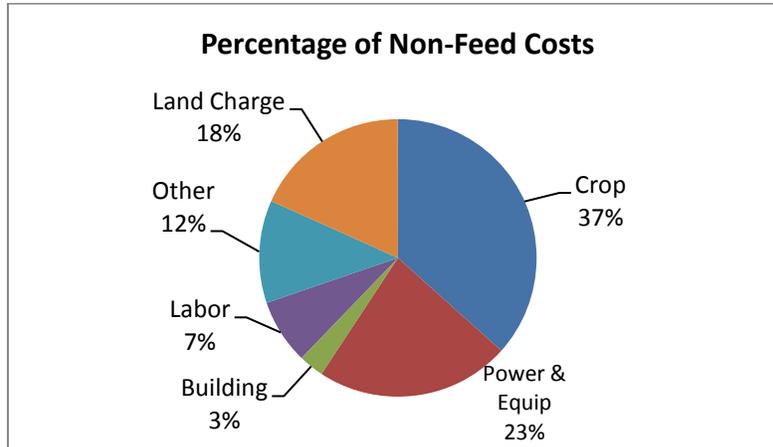
Prices received for all crops during 2012, both old crop and new crop prices, were higher than any of the previous five years prices for all Purchase farms. Corn prices received fell slightly during the year from \$6.15 for old crop corn to \$6.10 for new crop corn. Soybean prices received increased for both Full Season and Double Crop. Full Season soybeans started with an old crop price of \$12.19 and increased to \$13.79 for new crop sales. Old crop Double Crop Soybeans were sold for \$12.45 and increased to \$13.36 for new crop sales. While wheat was the bright spot as far as yields were concerned in 2012, price received dropped \$0.25 from an old crop price of \$7.55 to the new crop price received of \$7.30 (Appendix: Table 5).



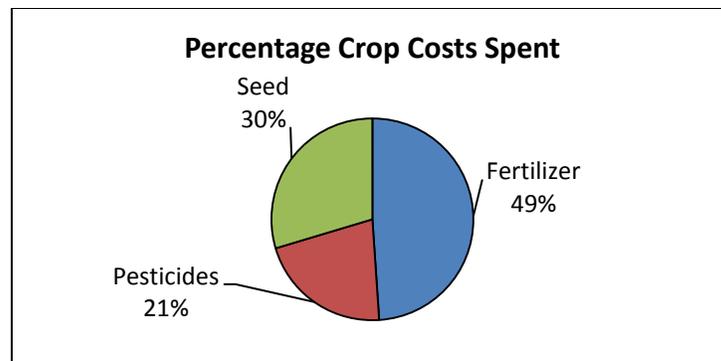
Low yields for corn and soybeans in some cases caused producers, who forward contract their crop, to lock in prices, to be over sold. This did not allow these producers to experience the highs in the market closer to harvest. Several producers were forced to buyout these contracts at the higher price, resulting in marketing losses, thus lowering crop returns.

Farm Costs

Farm costs are analyzed using six categories: crop expense, power and equipment, building, labor, other expenses, and land charges. These costs include cash and non-cash costs and are all accrual adjusted. Non-cash costs include depreciation, unpaid labor, non-land interest, and interest on owned land. For 2012, average non-feed costs for Purchase Area grain farms were \$709.62. Of this total, crop expenses made up 37%, Power and Equipment 23%, Building 3%, Labor 7%, Other Costs 12%, and Land Charge 18% (Appendix: Table 2A).



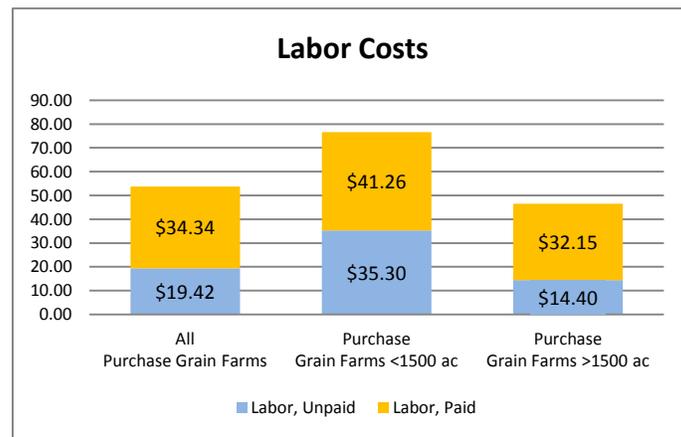
Crop expenses are typically very important when performing a cost analysis of the farming operation as they indicate the level of inputs for the farm and can be somewhat easily changed from one year to the next to affect the cost structure of the farm. For the average Purchase Area grain farm the average crop cost was \$260.03 per acre in 2012. Both large and small farms spent relatively the same per acre with smaller farms spending \$259.72 per acre larger farms spending \$260.12 per acre. Of the total crop cost spent in 2012 on average, 49% was spent on fertilizer, 21% on pesticides, and 30% on seed (Appendix: Table 2A).



Power and Equipment costs can be hard to analyze because of the different practices of farms. Some farms continuously upgrade equipment, creating low repair costs and high depreciation. Quite the opposite, other farms hold onto equipment for several years, most often resulting in higher repair costs and lower depreciation. The number of acres on which equipment is used can also impact the repair cost incurred. For Purchase Area grain farms, a few of the costs under power and equipment can be skewed by the poultry farms included in the average. Utility cost and machine hire will both typically be higher for those grain farms that also include contract broiler production. In 2012, the average power and equipment cost was \$160.46 for all grain farms, with smaller farms averaging higher at \$220.27 per acre and larger farms averaging lower at \$141.51 per acre (Appendix: Table 2A).

Building costs average \$20.76 per acre for the average Purchase grain farm. Building costs include drying and storage, building repairs and building depreciation. Again, contract broiler production on some of the smaller farms included can skew these costs. Building cost for the smaller farms is \$29.71 per acre, higher than larger farms with a cost of \$17.93 per acre (Appendix: Table 2A).

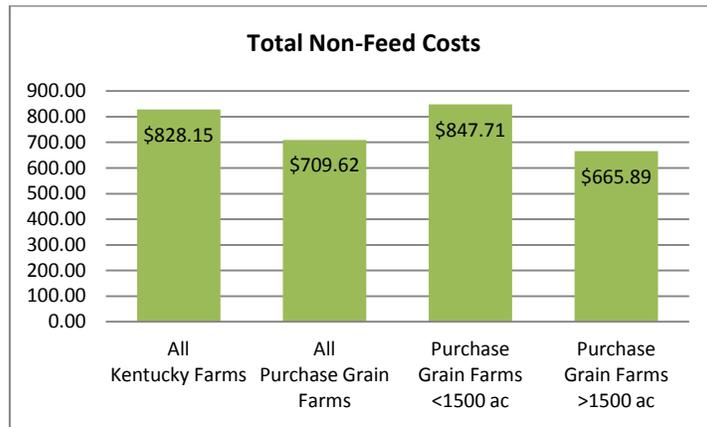
Labor has been an issue on almost all Purchase Area farms in recent years. Good labor is hard to find. With high demand for qualified farm labor in the area, it can be an expensive challenge to keep around. The average cost for Purchase Area grain farm labor is \$53.77 per acre, well below the Kentucky average of \$83.56 (most likely due to the lack of tobacco labor, a very labor intensive crop). Smaller farms in the Purchase spent \$76.56 per acre on labor, while larger farms spent \$46.55 per acre. The majority of the difference is in unpaid labor, where 12 months of labor is charged at the same rate for small and large farm owner. The smaller farm has fewer acres over which to spread labor, making it more expensive per acre. The influence of contract broiler production labor can also be seen in the smaller farm hired labor cost (Appendix: Table 2A).



Other costs include: vet, medicine and livestock supplies; insurance; miscellaneous expenses; and non-land interest. Non-land interest makes up the bulk of this category and is the non-cash interest charged on capital that is tied up by the farming operation. If this money was not being used to farm, it is assumed that it would be used in another way to make a return. In 2012 this charge was 4.95%. For the average Purchase grain farm in 2012, other costs were \$84.80 per acre. Smaller farms average \$107.26 per acre, while larger farms averaged \$77.69 per acre (Appendix: Table 2A).

Land costs include charges for rent, property taxes, and non-cash interest per tillable acre owned. The interest on land owned is meant to account for the opportunity cost of owning land for farming, assuming that the capital investment in land could be invested elsewhere for a return. In 2012, the interest per tillable acre owned was charged at 3.5%. The average Purchase grain farm land cost was \$129.81, with smaller farms averaging \$154.19 and larger farms averaging \$122.09. (Appendix: Table 2A)

Total non-feed costs average \$709.62 for the average Purchase grain farm. This is significantly less than the average Kentucky farm at \$828.15. Smaller Purchase grain farms averaged 21.4% more non-feed costs at \$847.71 than larger Purchase grain farms at \$665.89. (Appendix: Table 2A)



APPENDIX

| Table 1- Income Statement Summary of Purchase Area Farms | | | | | | |
|---|-----------------------------------|-----------------------------------|---|---|---|--|
| | All Kentucky Farms | All Purchase Farms | All Kentucky Grain Farms | All Purchase Grain Farms | Purchase Grain Farms <1500 ac | Purchase Grain Farms >1500ac |
| Number of Farms | 256 | 18 | 206 | 15 | 9 | 6 |
| Total Acres in Farm | 2,151 | 2,236 | 2,441 | 2,373 | 960 | 4,493 |
| Tillable Acres in Farm | 1,980 | 2,143 | 2,289 | 2,275 | 889 | 4,355 |
| Operator Tillable Acres | 1,820 | 1,986 | 2,095 | 2,095 | 840 | 3,979 |
| Percent Land Owned | 33.4% | 36.0% | 27.7% | 35.0% | 38.3% | 30.1% |
| Percent Land Crop Share | 22.7% | 18.6% | 26.6% | 20.7% | 17.5% | 25.6% |
| Percent Land Cash Rent | 44.0% | 45.4% | 45.7% | 44.3% | 44.2% | 44.4% |
| Months of Hired Labor | 43.5 | 27.9 | 46.1 | 29.2 | 15.1 | 50.3 |
| Months of Unpaid Labor | 17.2 | 17.8 | 17.5 | 16.9 | 11.9 | 24.3 |
| Total Months Labor | 60.7 | 45.8 | 63.6 | 46.0 | 27.0 | 74.6 |
| FARM RETURNS | | | | | | |
| Total Cash Operating | 1,964,582 | 1,817,841 | 2,175,285 | 1,935,703 | 882,609 | 3,515,347 |
| Inventory Change | (23,215) | (300,048) | (27,511) | (306,740) | (99,082) | (618,227) |
| Accounts Receivable Change | 38,555 | (6,129) | 45,722 | (36,944) | 0 | (92,360) |
| Farm Products Used | 0 | 0 | 0 | 0 | 0 | 0 |
| Less Purchased Feed & Grain | 112,230 | 25,230 | 64,454 | 18,523 | 22,685 | 12,280 |
| Less Purchased Livestock | 14,826 | 3,441 | 8,039 | 3,349 | 0 | 8,372 |
| GROSS FARM RETURNS | 1,852,867 | 1,482,994 | 2,121,004 | 1,570,147 | 760,841 | 2,784,109 |
| FARM COSTS | | | | | | |
| Total Cash Operating | 1,335,605 | 1,250,579 | 1,516,406 | 1,340,098 | 605,726 | 2,441,657 |
| Farm Products Used | 0 | 0 | 0 | 0 | 0 | 0 |
| Prepaid Expense Change | (62,425) | (171,780) | (74,650) | (198,129) | (37,700) | (438,773) |
| Accounts Payable Change | 514 | 3,480 | 1,631 | 4,798 | 4,048 | 5,923 |
| TOTAL OPERATING EXPENSE | 1,273,695 | 1,082,279 | 1,443,388 | 1,146,766 | 572,074 | 2,008,806 |
| INCOME BEFORE DEPRECIATION | 579,171 | 400,715 | 677,616 | 423,381 | 188,767 | 775,302 |
| Less Depreciation | 151,727 | 157,941 | 173,364 | 166,984 | 68,664 | 314,464 |
| FARM OPERATING INCOME | 427,444 | 242,774 | 504,252 | 256,397 | 120,103 | 460,838 |
| Capital Account Adjustment | 5,705 | 2,271 | 5,382 | 2,725 | 2,350 | 3,287 |
| NET FARM INCOME (NFI) | 433,150 | 245,045 | 509,633 | 259,122 | 122,453 | 464,125 |
| Less Unpaid Family Labor | 1,860 | 1,200 | 1,573 | 0 | 0 | 0 |
| RETURNS TO OPERATOR LABOR | | | | | | |
| CAPITAL, & MANAGEMENT | 431,289 | 243,845 | 508,061 | 259,122 | 122,453 | 464,125 |
| Less Unpaid Operator Labor | 44,472 | 46,950 | 45,652 | 45,540 | 32,100 | 65,700 |
| RETURNS TO EQUITY CAPITAL | | | | | | |
| & MANAGEMENT | 386,817 | 196,895 | 462,408 | 213,582 | 90,353 | 398,425 |
| Less Equity Capital Charge | 115,518 | 111,186 | 125,495 | 115,882 | 35,970 | 235,751 |
| MANAGEMENT RETURNS | 271,299 | 85,709 | 336,913 | 97,700 | 54,383 | 162,674 |
| FINANCIAL EFFICIENCY RATIOS | | | | | | |
| Operating Expense Ratio (%) | 65.62% | 67.97% | 65.01% | 67.89% | 68.83% | 67.50% |
| Depreciation Expense Ratio (%) | 8.19% | 10.65% | 8.17% | 10.63% | 9.02% | 11.29% |
| Interest Expense Ratio (%) | 3.12% | 5.01% | 3.05% | 5.15% | 6.36% | 4.65% |
| NFI from Operations Ratio (%) | 23.07% | 16.37% | 23.77% | 16.33% | 15.79% | 16.55% |

APPENDIX

| Table 2A - EMA Summary of Purchase Area Farms - 2012 | | | | | | |
|---|---------------------------|---------------------------|---------------------------------|---------------------------------|---|---|
| | All Kentucky Farms | All Purchase Farms | All Kentucky Grain Farms | All Purchase Grain Farms | Purchase Grain Farms <1500 ac | Purchase Grain Farms >1500 ac |
| Range in Size (Acres) | All | All | All | All | 0-1499 | 1500+ |
| Management Returns | All | All | All | All | All | All |
| Number of Farms | 256 | 18 | 206 | 15 | 9 | 6 |
| Total Acres in Farm | 2,151 | 2,236 | 2,441 | 2,373 | 960 | 4,493 |
| Tillable Acres in Farm | 1,980 | 2,143 | 2,289 | 2,275 | 889 | 4,355 |
| Operator Tillable Acres | 1,820 | 1,986 | 2,095 | 2,095 | 840 | 3,979 |
| Percent Land Owned | 33.4% | 36.0% | 27.7% | 35.0% | 38.3% | 30.1% |
| Percent Land Crop Share | 22.7% | 18.6% | 26.6% | 20.7% | 17.5% | 25.6% |
| Percent Land Cash Rent | 44.0% | 45.4% | 45.7% | 44.3% | 44.2% | 44.4% |
| Months of Hired Labor | 43.5 | 27.9 | 46.1 | 29.2 | 15.1 | 50.3 |
| Months of Unpaid Labor | 17.2 | 17.8 | 17.5 | 16.9 | 11.9 | 24.3 |
| Total Months Labor | 60.7 | 45.8 | 63.6 | 46.0 | 27.0 | 74.6 |
| FARM RETURNS | | | | | | |
| Crop Returns | 840.67 | 697.10 | 861.18 | 709.13 | 760.74 | 692.79 |
| Livestock Return Above Feed | 40.13 | 33.59 | 11.76 | 26.37 | 108.83 | 0.26 |
| Custom Work | 9.33 | 3.85 | 9.37 | 4.38 | 1.79 | 5.20 |
| Other Farm Receipts | 34.29 | 14.68 | 33.17 | 11.42 | 23.13 | 7.71 |
| Tobacco Returns | 49.60 | 3.21 | 51.99 | 3.65 | 15.18 | 0.00 |
| GROSS FARM RETURNS | 974.01 | 752.42 | 967.47 | 754.94 | 909.67 | 705.95 |
| FARM COSTS | | | | | | |
| Soil Fertility | 145.88 | 126.35 | 149.12 | 127.21 | 118.29 | 130.03 |
| Pesticides | 49.74 | 53.81 | 51.03 | 55.75 | 61.68 | 53.88 |
| Seed | 79.27 | 76.72 | 80.80 | 77.06 | 79.75 | 76.21 |
| Crop Total | 274.88 | 256.89 | 280.94 | 260.03 | 259.72 | 260.12 |
| Utilities | 10.47 | 13.00 | 8.43 | 13.23 | 32.09 | 7.25 |
| Machine Repairs | 35.56 | 32.08 | 34.24 | 32.90 | 47.09 | 28.41 |
| Machine Hire & Lease | 23.66 | 25.81 | 19.01 | 27.18 | 57.05 | 17.72 |
| Fuel & Oil | 40.48 | 25.59 | 39.51 | 24.14 | 25.56 | 23.70 |
| Light Vehicle | 0.15 | 0.23 | 0.11 | 0.12 | 0.00 | 0.16 |
| Machine Depreciation | 63.19 | 63.16 | 62.86 | 62.88 | 58.49 | 64.27 |
| Power & Equip. Total | 173.51 | 159.88 | 164.17 | 160.46 | 220.27 | 141.51 |
| Drying | 2.74 | 0.88 | 2.84 | 0.98 | 0.66 | 1.08 |
| Storage | 1.12 | 0.89 | 0.87 | 0.96 | 0.57 | 1.08 |
| Building Repair & Rent | 9.13 | 8.34 | 8.57 | 8.17 | 9.21 | 7.85 |
| Building Depreciation | 15.19 | 10.78 | 14.63 | 10.65 | 19.28 | 7.92 |
| Building Total | 28.19 | 20.89 | 26.92 | 20.76 | 29.71 | 17.93 |
| Labor, Unpaid | 23.32 | 22.11 | 20.39 | 19.42 | 35.30 | 14.40 |
| Labor, Paid | 60.24 | 36.44 | 55.94 | 34.34 | 41.26 | 32.15 |
| Labor Total | 83.56 | 58.55 | 76.33 | 53.77 | 76.56 | 46.55 |
| Vet, Med, Livestock Supply | 7.74 | 4.61 | 1.32 | 1.85 | 6.69 | 0.32 |
| Insurance | 32.32 | 24.38 | 32.98 | 25.10 | 36.84 | 21.39 |
| Miscellaneous | 10.63 | 8.47 | 10.65 | 8.62 | 12.95 | 7.24 |
| Interest Charge - Nonland | 56.79 | 49.51 | 54.55 | 49.24 | 50.79 | 48.75 |
| Other Costs Total | 107.48 | 86.97 | 99.51 | 84.80 | 107.26 | 77.69 |
| Land Charge Total | 160.54 | 127.22 | 161.41 | 129.81 | 154.19 | 122.09 |
| TOTAL NON-FEED COSTS | 828.15 | 710.41 | 809.28 | 709.62 | 847.71 | 665.89 |
| Gain/loss Capital Sales | 3.13 | 1.14 | 2.57 | 1.30 | 2.80 | 0.83 |
| MANAGEMENT RETURNS | 149.00 | 43.16 | 160.76 | 46.62 | 64.75 | 40.88 |

APPENDIX

| Table 2B - EMA Summary Purchase Area Farms - 2012 (continued) | | | | | | |
|--|-----------------------------------|-----------------------------------|---|---|---|---|
| | All Kentucky Farms | All Purchase Farms | All Kentucky Grain Farms | All Purchase Grain Farms | Purchase Grain Farms <1500 ac | Purchase Grain Farms >1500 ac |
| Number of Farms | 256 | 18 | 206 | 15 | 9 | 6 |
| Crop Yields | | | | | | |
| Yellow Corn | 78 | 69 | 78 | 71 | 69 | 72 |
| Full Season Soybeans | 45 | 33 | 45 | 33 | 27 | 34 |
| Wheat | 66 | 68 | 66 | 68 | 69 | 68 |
| Double Crop Soybeans | 44 | 21 | 44 | 20 | 26 | 17 |
| Milo | 59 | 82 | 63 | 82 | | 82 |
| White Corn | 69 | | 69 | | | |
| Barley | 77 | 56 | 80 | | | |
| Tobacco - Burley | 2,268 | | 2,297 | | | |
| Tobacco - Dark Air Cured | 2,771 | 2,044 | 2,779 | | | |
| Tobacco - Dark Fire Cured | 3,125 | 2,240 | 3,123 | | | |
| Land Use % | | | | | | |
| Yellow Corn | 45.9% | 40.3% | 47.7% | 41.0% | 45.0% | 39.9% |
| Full Season Soybeans | 21.3% | 33.5% | 21.9% | 35.5% | 24.8% | 38.6% |
| Wheat | 21.7% | 20.9% | 22.6% | 20.3% | 25.9% | 18.7% |
| Double Crop Soybeans | 22.5% | 21.5% | 23.2% | 20.7% | 27.1% | 18.9% |
| Milo | 0.1% | 0.2% | 0.1% | 0.2% | | 0.2% |
| White Corn | 2.4% | | 2.6% | | | |
| Barley | 0.9% | 0.2% | 0.9% | | | |
| Tobacco - Burley | 0.5% | | 0.5% | | | |
| Tobacco - Dark Air Cured | 0.1% | 0.0% | 0.1% | | | |
| Tobacco - Dark Fire Cured | 0.2% | 0.0% | 0.3% | | | |
| Forages | 6.8% | 4.9% | 3.4% | | | |
| Crop Value Per Acre | | | | | | |
| Yellow Corn | 518 | 446 | 518 | 460 | 478 | 455 |
| Full Season Soybeans | 658 | 466 | 657 | 465 | 426 | 473 |
| Wheat | 502 | 508 | 504 | 521 | 499 | 530 |
| Double Crop Soybeans | 651 | 308 | 653 | 290 | 348 | 266 |
| Milo | 337 | 545 | 358 | 545 | | 545 |
| White Corn | 556 | | 556 | | | |
| Barley | 339 | 260 | 353 | | | |
| Tobacco - Burley | 4,436 | | 4,486 | | | |
| Tobacco - Dark Air Cured | 6,095 | 4,655 | 6,112 | | | |
| Tobacco - Dark Fire Cured | 7,833 | 6,203 | 7,833 | | | |
| Price Received - Old Crop | | | | | | |
| Yellow Corn | 6.25 | 6.15 | 6.25 | 6.16 | 6.57 | 6.06 |
| Soybeans | 12.42 | 12.19 | 12.37 | 12.19 | 12.92 | 12.00 |
| Wheat | 7.32 | 7.55 | 7.33 | 7.55 | 8.34 | 7.30 |
| Milo | | | | | | |
| White Corn | 6.90 | | 6.90 | | | |
| Barley | 5.79 | | 5.79 | | | |
| Tobacco - Burley | 1.79 | | 1.79 | | | |
| Tobacco - Dark Air Cured | 2.22 | 2.29 | 2.22 | | | |
| Tobacco - Dark Fire Cured | 2.44 | 2.55 | 2.44 | | | |
| Price Received - New Crop | | | | | | |
| Yellow Corn | 6.50 | 6.10 | 6.50 | 6.14 | 5.99 | 6.31 |
| Soybeans | 13.88 | 13.79 | 13.85 | 13.82 | 14.25 | 13.73 |
| Wheat | 7.35 | 7.30 | 7.35 | 7.40 | 6.89 | 7.63 |
| Milo | 5.61 | 6.64 | 5.61 | 6.64 | | 6.64 |
| White Corn | 8.89 | | 8.89 | | | |
| Barley | 4.35 | | 4.35 | | | |
| Tobacco - Burley | 1.97 | | 1.97 | | | |
| Tobacco - Dark Air Cured | 2.22 | | 2.22 | | | |
| Tobacco - Dark Fire Cured | 2.35 | | 2.35 | | | |

APPENDIX

| YEAR | Management Returns | | Net Farm Income | |
|-----------------|--------------------|----------|-----------------|----------|
| | Kentucky | Purchase | Kentucky | Purchase |
| 2001 | 15,557 | 25,727 | 112,832 | 88,324 |
| 2002 | (48,294) | (10,424) | 48,653 | 89,201 |
| 2003 | 49,032 | 78,959 | 152,018 | 237,939 |
| 2004 | 41,968 | 19,394 | 144,669 | 151,237 |
| 2005 | 17,728 | 69,476 | 132,867 | 232,674 |
| 2006 | 55,984 | 40,423 | 193,375 | 203,740 |
| 2007 | 35,153 | 87,280 | 232,824 | 266,712 |
| 2008 | 168,343 | 213,986 | 311,469 | 362,214 |
| 2009 | 152,237 | 303,716 | 307,633 | 492,110 |
| 2010 | 127,940 | 145,034 | 282,523 | 320,122 |
| 2011 | 289,936 | 314,362 | 453,814 | 490,896 |
| 2012 | 271,239 | 85,709 | 433,090 | 245,045 |
| 5 Year Average | 201,939 | 212,561 | 357,706 | 382,077 |
| 10 Year Average | 120,956 | 135,834 | 264,428 | 300,269 |

| | Yellow Corn | Full Season Soybeans | Double Crop Soybeans | Wheat |
|----------------|-------------|----------------------|----------------------|-------|
| 2008 | 151 | 39 | 35 | 68 |
| 2009 | 168 | 50 | 46 | 52 |
| 2010 | 133 | 33 | 31 | 68 |
| 2011 | 155 | 43 | 45 | 71 |
| 2012 | 69 | 33 | 21 | 68 |
| 5 Year Average | 135.2 | 39.6 | 35.6 | 65.4 |

APPENDIX

| Table 5 - Purchase Area Crop Price History | | | | | | | | |
|---|----------|----------|----------------------|----------|----------------------|----------|----------|----------|
| | CORN | | FULL SEASON SOYBEANS | | DOUBLE CROP SOYBEANS | | WHEAT | |
| | Old Crop | New Crop | Old Crop | New Crop | Old Crop | New Crop | Old Crop | New Crop |
| 2008 | 4.37 | 4.38 | 8.70 | 9.34 | 9.26 | 8.40 | 5.38 | 6.52 |
| 2009 | 4.20 | 3.62 | 9.74 | 10.15 | 10.47 | 10.08 | 4.37 | 4.52 |
| 2010 | 3.80 | 4.25 | 9.75 | 10.70 | 10.17 | 12.60 | 4.79 | 5.63 |
| 2011 | 4.93 | 5.63 | 11.44 | 12.28 | 11.83 | 12.64 | 5.43 | 7.08 |
| 2012 | 6.15 | 6.10 | 12.19 | 13.79 | 12.45 | 13.36 | 7.55 | 7.30 |
| 5 Year Average | 4.69 | 4.80 | 10.36 | 11.25 | 10.84 | 11.42 | 5.50 | 6.21 |

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. It is important to note the farms represented in the KFBM dataset can change from year to year, and that fluctuations within the data could be due to this change of sample.

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:

APPENDIX

- 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 expense

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 3.5 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 \$2,700 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.

APPENDIX

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 consumed on farm 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.

APPENDIX

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.