

2016

FARM
BUSINESS
SUMMARY

Missouri

EXECUTIVE SUMMARY
2016 ANNUAL REPORT OF MISSOURI
FARM BUSINESS MANAGEMENT ANALYSIS PROGRAM

By
 Bruce Fowler, Missouri FBMA Specialist

The average net farm income (NFI) for the 108 farms included in the 2016 annual report of the Missouri Farm Business Management Analysis Program was \$51,920. As is the case every year, there was a wide range in income among program participants. The lowest 20% of the farms (21) showed an average NFI of -\$96,808, while the highest 20% (22) averaged \$235,266. Of the 108 farms, 24 had a negative net farm income.

Median net farm income, or the income earned by the middle farm, was \$33,576.

2016 Distribution of Net Farm Income (Cost)
 (NFI from all farms are included in the Median and Average figures.)

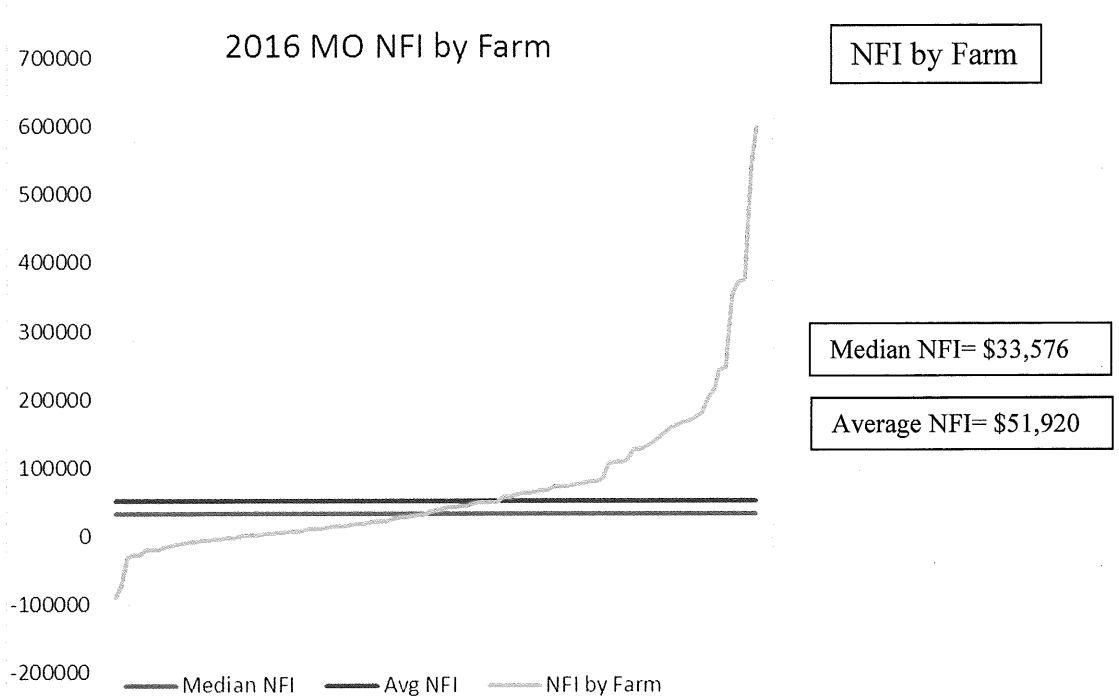


Figure 1

Highlights

- The average age of the operator on the 137 FBMA farms was 51.6 years, with a range from 87 years old down to 18 years old. The average years in farming was 28.2 years, with a range from 73 years to 1 year.
- The net farm income/unpaid labor hour averaged \$35.63 and ranged from -\$71.20 in the low profit group to \$110.79 in the high profit group. This figure is used for comparison

to a per-hour wage in non-farm occupations. Average hourly hired labor wage paid was \$18.30.

- Government payments (including CRP, but not crop insurance proceeds) averaged \$14,977, representing approximately 2.86% of the gross cash farm income.
- The relationship of farm income and expense sources as compared to gross farm income and total farm expenses maintains a very durable pattern from year to year. Even though some new farms are added to the group each year while others drop out, the income and expense patterns change slowly.
 - As an example, the only income sources that increased its share of the total by more than two percentage points from 2015 was soybean crop income which increased from 22.4% in 2015 to 26.4% in 2016. Other Crop income was the only income source that decreased by more than two percentage points dropping to 1.7% in 2016 from 5.9% of gross income in 2015. All other income sources remained within two percent of where they were in 2015.
 - Likewise, there were only two expense sources that changed more than two percentage point's share of the total from 2015 to 2016. Other direct livestock expense increased from 3.28% in 2015 to 6.11% in 2016, and other expenses decreased from 13.61% to 9.06%.

2016 Missouri FBMA Income Sources

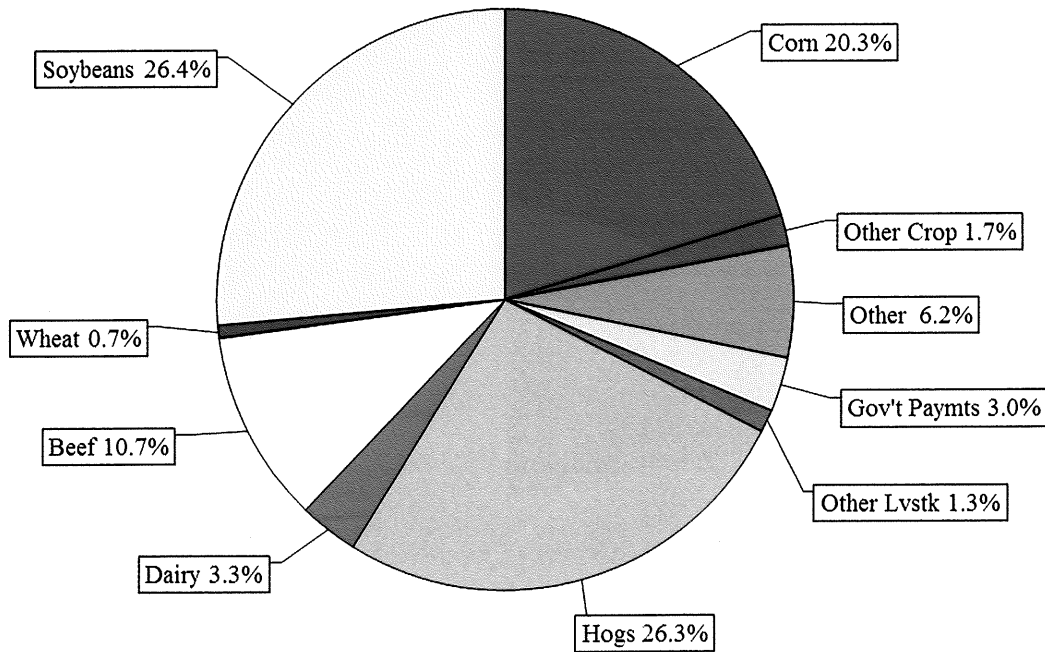


Figure 2

2016 Missouri FBMA Expense Sources

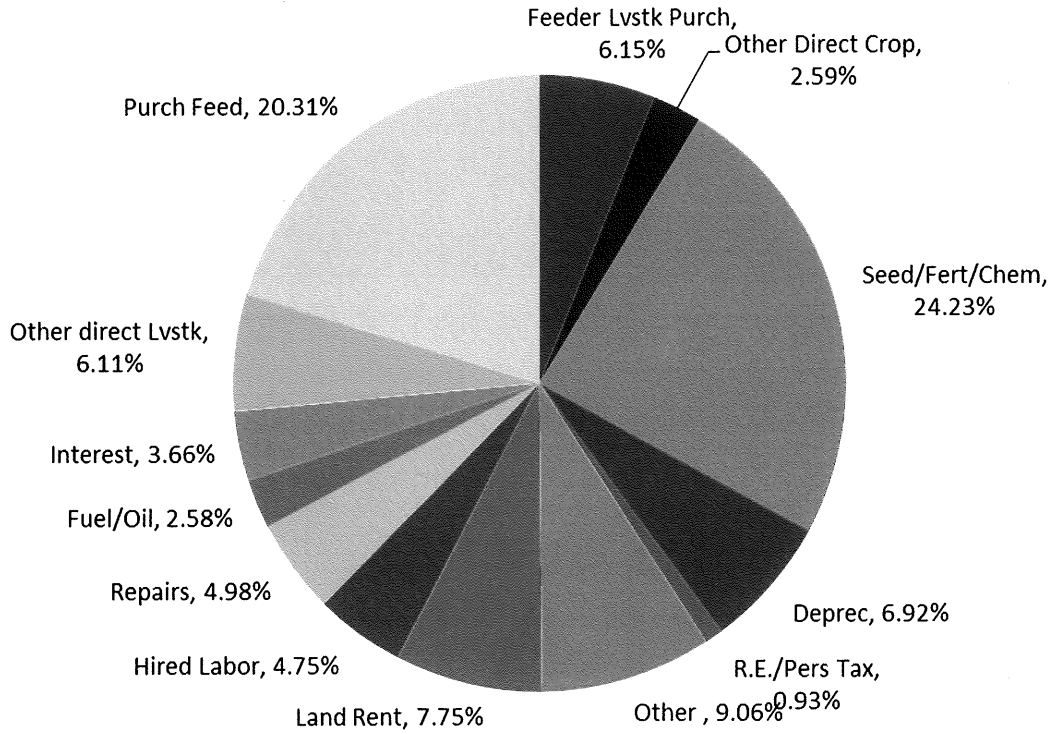


Figure 3

- The average rates of returns on assets (ROA) and equity (ROE) changed significantly in comparing 2016 to 2015. ROA increased 3.4%, moving from -1.5% in 2015 to 1.9% in 2016. ROE was even more positive, increasing from -3.5% in 2015 to 1.2% in 2016.

2016 Rate of Return on Assets by Type (Cost)

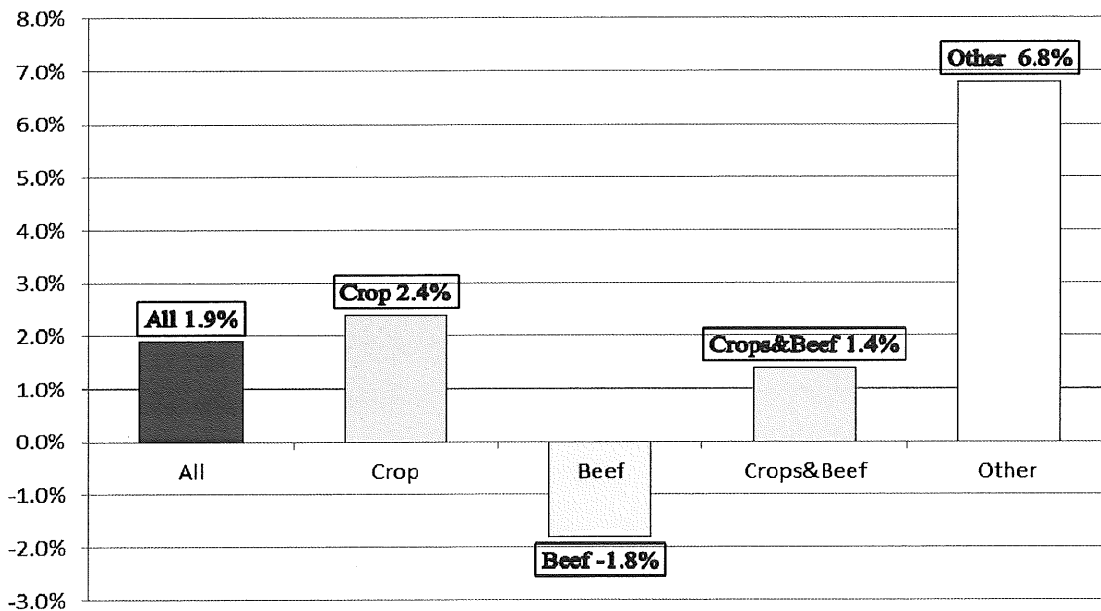


Figure 4

- On the cost balance sheet, the average farm reported net worth increase of \$50,455. The average farm market value balance sheet increased \$59,324. The average farm debt to asset ratio (farm) was 20% at market values and 29% at cost values. The average farm borrowed \$199,974 and paid \$212,157 in principal payments in 2016.

2016 Rate of Return on Assets by Type (Market)

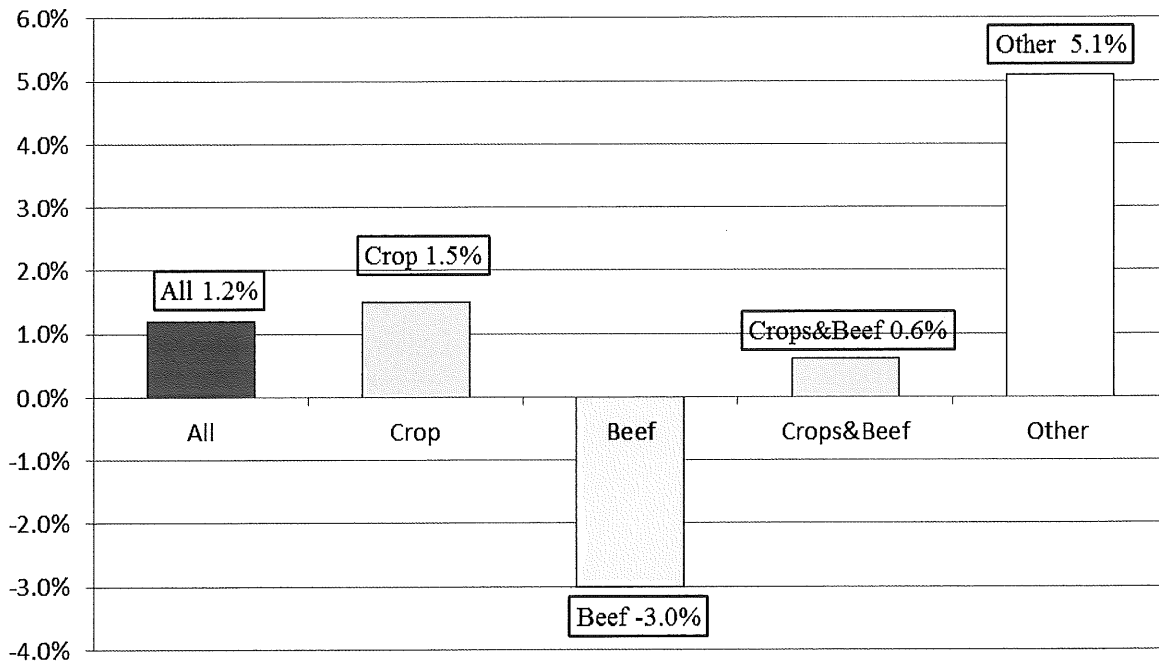


Figure 5

- Average gross cash income was up less than 0.5% from 2015, while cash expenses increased by 7.3 %.
- Crop sales accounted for 52% (including government payments) of gross income (up from 45% in 2015), while livestock sales were 41.6% (up from 40% in 2015).

Crops

- Corn yields averaged 177.32 bushels per acre, almost 40 bushels over the 138.34 bushel average in the 2015 crop. Soybeans yields increased to 55.58 bushels per acre, nearly 35% more than 41.22 bushels per acre in 2015. Wheat yields also increased from 48.37 bushels per acre in 2015 to 75.31 bushels per acre in 2016.
- The average price received for a bushel of corn in 2016 was \$3.44, a \$.16 decline from the previous year's price of \$3.60. The average price received for soybeans in 2016 increased from \$8.79 in 2015 to 9.28 in 2016, a \$0.39 increase. Wheat prices averaged \$3.94 in 2016, a \$1.66 increase from the 2015 average of \$2.28. At least a portion of the 2015 wheat price was due to quality issues at wheat harvest.

Corn Cost Per Acre (cash rent)*
Missouri FBMA Program Data

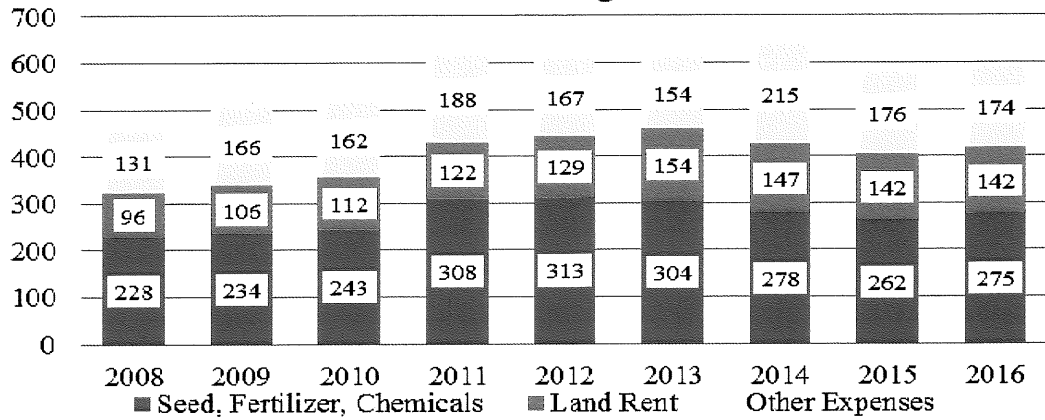


Figure 6

* FBMA farms that included a complete crop enterprise analysis, including all direct and overhead costs (34 farms with cash rent corn in 2016).

Soybean Cost Per Acre (cash rent)*
Missouri FBMA Program Data

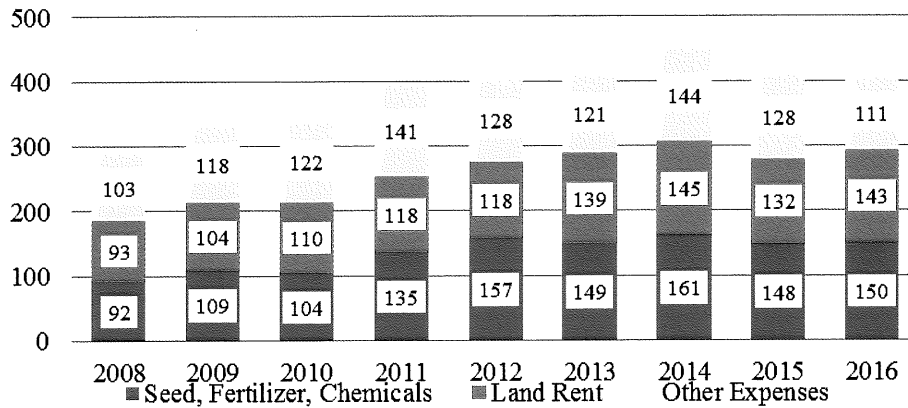


Figure 7

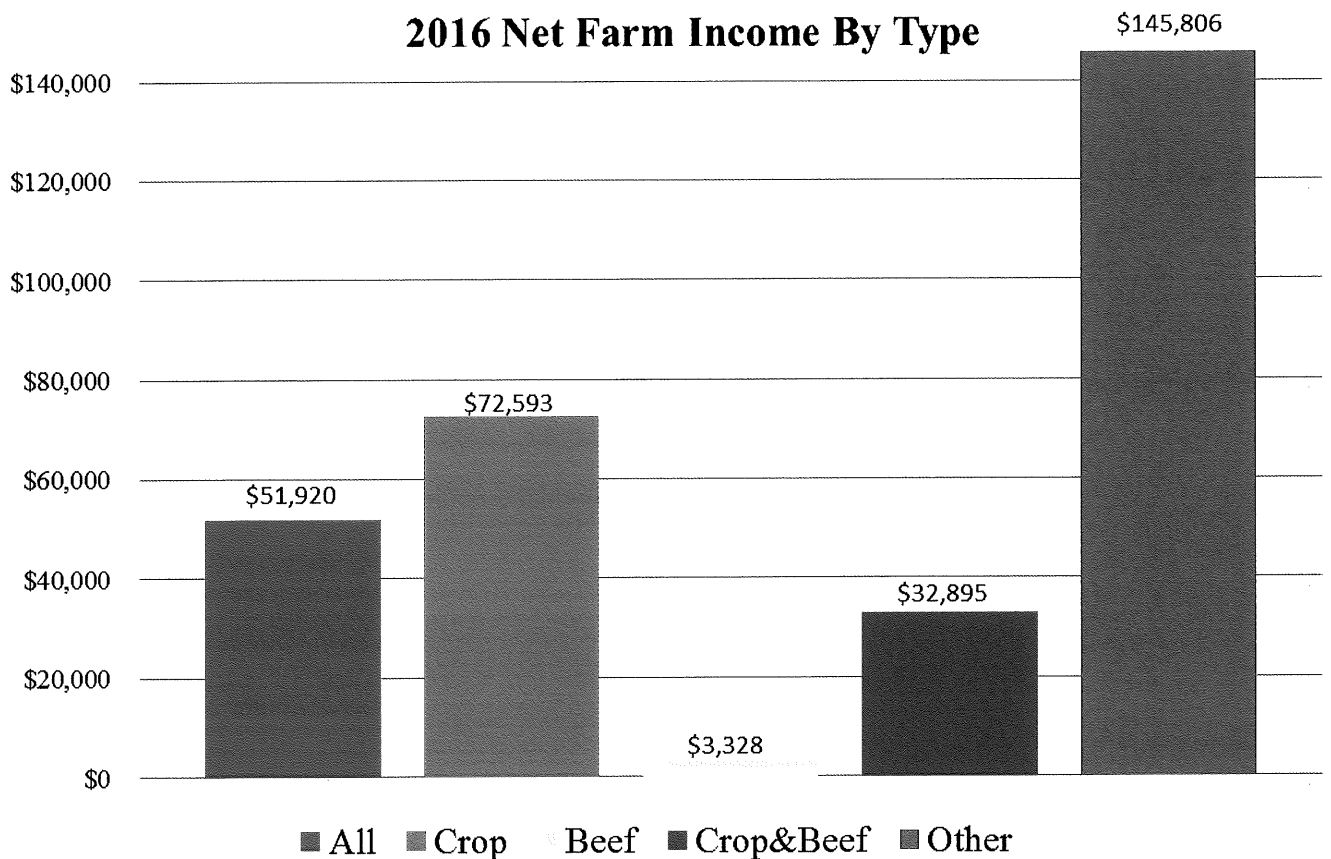
* FBMA farms that included a complete crop enterprise analysis, including all direct and overhead costs (38 farms with cash rent soybeans in 2016).

Livestock

- Average price received per hundred weight for the beef cow-calf enterprise decreased from \$212.02 in 2015 to \$144.43 in 2016. The average weight of beef calves sold in 2016 was 581 lbs. 28 farms completed a beef cow-calf enterprise analysis in 2016.

Observations from the 2016 Summary

- Even though making comparisons between annual record summaries is imperfect when a few farms drop out and new farms are added each year, a large percentage of the farms in the summary are the same ones as 2015, so it is reasonable to make several general observations when comparing this year's summary to 2015. While 2016 did provide challenges, most farms in the summary had a significantly more profitable year. Crop farmers saw improved yields due to timely rains across the state throughout the summer, while cow-calf producers faced much more challenging times due to decreasing calf prices.
- The 108 farms in the report were classified by type (e.g. crop, beef, hog) on the basis of having at least 70% of gross sales in each category (reference page 39). Using this 70% rule, there were 55 crop farms, 14 beef farms, 22 crop and beef farms, and 10 "other" farms. "Other" farms were those that did not have a single source (or pair of sources) of income over 70%. Also, when there are less than four farms with a single source of income over 70%, they are not reported as a group.



** Groups of less than four farms are not reported here.*

Figure 8

- The old adage of “rain makes grain” held true for many Missouri crop producers in 2016. Many farms in the summary had corn yields near the record 2014 yields, with soybean yields also at or above the record 2014 levels.
- After the financial challenges many producers experienced in 2015, timely rains resulting in above average yields were a welcome relief in 2016. These increased yields helped soften the blow of reduced commodity prices.
- Livestock producers were not left out of the financial challenges of 2016. Decreasing prices for both feeder cattle and fat cattle created financial hardships for both of these sectors of the beef industry.

Key Points and Limitations in Interpreting the Data

1. There is a wide range in size and type of farms included in the group of 108. A few large farms can have considerable input on the averages, particularly when sorted down to a small number for comparison (e.g. five hog enterprises or five wheat enterprises).
2. Farm financial information throughout the report was carefully checked for complete and defensible farm data. However, the non-farm income and expenses and non-farm assets and liabilities, while complete on many farms, were incomplete on a number of others, making any data resulting from non-farm information less useful for accurate comparisons.
3. Naturally, the greater the number of farms or enterprises in a database, the more reliable the output information will be. Consequently, when as small a group as five farms is averaged for crop or livestock enterprise data, comparisons are more limited than for a larger group.
4. People often think of farm operations as one-family units, but it’s important to note that many of the farms in the group represented here provide the primary livelihood for more than one family.

***2016 ANNUAL REPORT OF MISSOURI
FARM BUSINESS MANAGEMENT ANALYSIS PROGRAM**

By
Bruce Fowler, Missouri FBMA Specialist

This report summarizes the individual farm records of the cooperators of the Missouri Farm Business Management Analysis (FBMA) Program for 2016. The Farm Business Management Analysis Program is a component of the public school agriculture offerings for adults. The state of Missouri, through the Division of College and Career Readiness of the Department of Elementary and Secondary Education and the National Institute of Food and Agriculture (USDA), through the Farm Business Management and Benchmarking Program, provided funds in support of the program. The staff of the Department of Agricultural Education and Leadership at the University of Missouri developed the program and worked with staff in the Department of Elementary and Secondary Education in implementing the program.

The purpose of FBMA is to help farm families achieve their farm business and family goals through improved management, organization, and efficiency of their farm businesses. To accomplish the purpose, local adult agricultural education instructors assist enrollees in establishing a solid accounting system, make regular on-site visits to enrollees' farms to assist in developing strategies to improve the profitability of the farm business, teach in-depth classes relating to farm business management skills, and use FinPack along with the enrollees' accounting program to complete an annual analysis of records, providing a comparative database for assisting in management decisions.

Whole-farm financial information and enterprise costs and returns are reported. The year-end analysis of the individual farms was performed by local adult agriculture instructors of Missouri. The individual analyses were checked and summarized by Bruce Fowler, FBMA Specialist. Tables in this report were created using FinPack and RankEm Central, copyrighted software of the Center for Farm Financial Management, University of Minnesota.

Data from 108 Missouri farms are included in this report. Additional farms' records were submitted, but omitted from the summary because of incomplete information at the time the report was prepared.

All of the farms in the Missouri database submitted information for a *whole farm* financial analysis. A smaller number submitted data for complete *crop and livestock enterprise* analyses in addition to the whole farm data. This summary includes crop and livestock reports on each enterprise with four or more farms submitting complete enterprise records.

Leon Busdieker, Director
Agricultural Education Section
Dept of Elementary
& Secondary Education

Bruce Fowler, FBMA Specialist
Dept of Agricultural Education and Leadership
University of Missouri

**Missouri Farm Business Management Analysis Program
Program Locations – 2016**

Central / South Central / Southwest

Boonville	John Sponaugle
California	Dale Hodges
Fatima/ Westphalia	John Juergensmeyer
Lebanon	Craig Evans
Pleasant Hill	A. J. Wingard & Mike Keilholz
Santa Fe (Alma)	Jarred Lewis
Sweet Springs	Dennis Dohrman

Northeast

Edina (Knox Co.)	Joanie Baker
Kirksville	Tom Primmer
Mexico	Ted DeVault
Monroe City	Steve Yates
North Shelby	Jenny Bradley
Pike/Lincoln Tech	Mike McCrory
Ralls Co. (Center)	Joe Dameron

Northwest

Chillicothe	Brian Thompson & Jim Grozinger
Maryville	Jackie Lacy

Table of Contents

	Page
<i>Whole-farm Report</i>	1
Farm Income Statement	4
Inventory Changes	6
Depreciation and Other Capital Adjustments	7
Profitability Measures	8
Liquidity Measures	9
Balance Sheet at COST Values.....	10
Balance Sheet at MARKET Values.....	11
Statement of Cash Flows	12
Financial Standards Measures.....	13
Crop Production and Marketing Summary	14
Household & Personal Expenses	15
Operator and Labor Information.....	16
Financial Summary (Farms Sorted By Net Farm Income)	17
Summary Farm Income Statement.....	18
Nonfarm Summary (Farms Sorted By Net Farm Income).....	19
Financial Summary Excluding Deferred Liabilities	20
 <i>Crop Reports</i>	 21
Corn on Owned Land, Cash Rent, Share Rent, Rented Out	22
CRP on Owned Land, Cash Rent, Share Rent, Rented Out.....	23
Hay, Mixed on Owned Land, Cash Rent, Share Rent, Rented Out	24
Oats	25
Pasture on Owned Land, Cash Rent, Share Rent, Rented Out	26
Soybeans on Owned Land, Cash Rent, Share Rent, Rented Out.....	27
Wheat, Winter on Owned Land, Cash Rent, Share Rent, Rented Out.....	28
Custom Work.....	29
Rented Out	30
 <i>Livestock</i>	 31
Beef Cow-Calf--Average Per Cwt. Produced.....	32
Beef Cow-Calf—Average Per Cow.....	33
 <i>Financial Summary Tables</i>	 35
Financial Summary of the Whole-Farm Analysis by Net Farm Income	37
Financial Summary—by Gross Farm Income	38
Financial Summary—Farm Type	39
Financial Summary—by Debt to Asset Ratio.....	40
Financial Summary—by Age of Operator	41
Percentile Rank Report w/Group Medians	43
Percentile Rank Report (various factors w/group median at left).....	45
 <i>Appendices</i>	 47
Appendix I - Whole Farm Analysis Procedures and Measures	47
Appendix II - Crop Enterprise Analysis Procedures and Measures	55
Appendix III - Livestock Enterprise Analysis Procedures and Measures	57

Whole-Farm Report

The whole-farm report summarizes the financial performance of FBMA member farms in 2016. Each table includes the average of the 108 farms included in the report and the average of five equally divided brackets from the lowest to highest profits (based on Net Farm Income). Appendix I provides detail on how the whole-farm measures are calculated. Below is a short summary of the whole farm reports.

Farm Income Statement

The Income Statement calculates the accrual Net Farm Income generated by the average farm for year 2016. Net Farm Income represents the return to the operator's and family's unpaid labor, management, and equity capital (net worth). It is the amount the farm contributed to owner family living, income taxes, and net worth growth. However, it does not include any asset appreciation, debt forgiveness or asset repossessions. The *Inventory Changes* and *Depreciation and Other Capital Adjustments* tables provide further detail on the non-cash adjustments made to calculate the accrual Net Farm Income.

Profitability Measures

The profitability measures are calculated based on both the cost value of assets and the market value. When calculated based on the market value of assets, the profitability measures can be compared to interest rates and returns available on alternative investments. When based on cost values, the returns more closely estimate the actual returns from the actual investment. (Cost values do not necessarily reflect the tax basis of farm assets. Instead, a method of calculating depreciation is used that estimates economic depreciation over the useful life of the assets).

The *Rate of Return on Assets* (ROA) can be thought of as the interest rate earned by all investment in farm assets. *Rate of Return on Equity* (ROE) is the rate earned on the operator's equity or net worth in the farm business. If ROE is higher than ROA, borrowed funds more than paid for their cost in interest expense. *Operating Profit Margin* measures efficiency in farm operations. The higher the margin, the more of the farm income remained in pockets of the farm operator. *Asset Turnover Rate* measures efficiency in use of capital. Again, the higher the better. Farms with high investment in fixed assets will generally have a lower turnover rate than those who lease a major share of their capital.

Liquidity Measures

Liquidity reflects the ability of the farm family to meet cash obligations including family living withdrawals, income taxes, and debt repayment. *Current Ratio* is current farm assets divided by current farm liabilities. *Working Capital* is current farm assets minus current farm liabilities. Businesses with more working capital are generally in a better position to overcome short-term financial downturns or production problems. Working Capital to Gross Income measures liquidity relative to business size.

Repayment capacity measures the ability of the business to meet debt payments and replace capital assets. The *Term Debt Coverage Ratio* reflects the ability of the business to repay intermediate and long term liabilities. A term debt coverage ratio of greater than 1.0 indicates that the business produced more than enough earnings to meet its scheduled debt payments. The *Replacement Coverage Ratio* is an indication of the business's capital replacement capacity. A replacement coverage ratio of greater than 1.0 indicates that the business produced more than enough earnings to meet its payments and replace its depreciable assets.

Balance Sheets

Balance sheet reports are included for both the cost and market value of assets. In both tables, current assets are identical, with crop and livestock inventories generally valued at market value. This conforms to the methodology recommended by the Farm Financial Standards Council. Intermediate and long term assets are shown at depreciated value using estimated economic depreciation, not tax, on the cost-based table. On the market table, they are valued at estimated market value.

Liabilities are the same on the cost and market tables.

Net Worth Change on the cost value table is the amount of earned net worth growth or loss for the year. Net worth change on the market value table includes both earned growth and changes in the market valuation of capital assets.

Statement of Cash Flows

The statement of Cash Flows displays the sources and uses of cash for the year. *Cash From Operating Activities* includes sources and uses of cash related to normal farm operations. *Cash From Financing Activities* reflect cash used to buy and sell capital assets. *Cash From Financing Activities* includes sources and uses of borrowed funds as well as cash from non-farm activities.

Financial Standards Measures

The Farm Financial Standards Council recommends that farms use these measures as standard measures of farm financial performance. Many are repeated from the Profitability, Liquidity, and Balance Sheet tables. For a complete description, see the Financial Guidelines for Agricultural Producers at www.ffsc.org/html/guidelin.htm.

Crop Production and Marketing

This table reports farm size in acres farmed, average crop yields for major commodities and average crop sales prices for the calendar year. Yields and prices are reported for the average of all farms for more commodities than those included in the High and Low columns because a minimum of four farms are required to report the yield or price for any group.

Household and Personal Expenses

This table reports family living and other non-farm expenditures from thirteen sole proprietors who provided detailed family living records.

Operator and Labor Information

All previous tables report results per farm, regardless of the number of families or operators involved in the operation. This report repeats several measures from previous tables on a *Per Operator* basis. It also summarizes estimated labor hours used and labor performance.

Financial Summary

The Financial Summary report provides a summary of the key financial measures and ratios included on the other detailed whole farm reports.

Farm Income Statement
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Cash Farm Income						
Barley	33	-	-	-	-	161
Corn	106,447	83,100	71,092	44,207	123,936	206,012
Corn Silage	107	-	-	-	-	525
CRP	782	553	-	203	1,675	1,443
Grass Seed, Fescue	112	-	551	-	-	-
Hay, Alfalfa	83	5	-	381	-	39
Hay, Fescue Grass	35	50	-	128	-	-
Hay, Grass	94	-	-	-	-	464
Hay, Mixed	979	631	475	2,013	608	1,199
Pasture	42	-	-	214	-	-
Rye	141	-	-	-	693	-
Sorghum, Grain	1,014	-	-	304	290	4,399
Soybeans	138,029	125,333	84,287	79,238	147,348	250,687
Straw	125	424	-	93	-	121
Wheat, Winter	3,654	1,004	86	1,572	5,113	10,281
Custom Work	1,705	-	-	-	1,354	7,016
Rented Out	1,327	238	764	5,714	-	68
Miscellaneous crop income	55	19	36	164	-	61
Beef Bulls	346	948	795	-	-	-
Beef Cow-Calf, Beef Calves	18,130	29,162	14,676	16,010	12,616	18,593
Beef Replacement Heifers	689	383	159	2,992	-	-
Beef Backgrounding	24,674	3,579	3,611	37,973	68,493	9,362
Beef Finishing	12,407	7,518	110	21,496	5,942	27,158
Beef Finish Yearlings	47	205	-	-	-	35
Dairy, Milk	3,916	-	-	-	19,222	-
Dairy Finishing	6,782	34,881	-	-	-	-
Hogs, Farrow To Finish, Raised Hog	137,626	635,996	-	1,840	4,922	61,855
Sheep, Feeder Lamb Prod, Fdr Lambs	112	-	550	-	-	-
Sheep, Market Lamb Prod, Mkt Lambs	2,014	197	3,104	-	5,332	1,262
Hogs, Weaning to Finish	137	-	-	-	674	-
Goats, Meat, Meat Goats	110	-	-	-	539	-
Dairy Feeder	6,695	34,434	-	-	-	-
Cull breeding livestock	3,932	4,656	1,291	1,191	10,336	2,096
Misc. livestock income	264	776	306	-	171	77
Crop government payments	10,430	10,884	6,417	4,375	9,988	20,234
CRP payments	434	1,128	16	4	-	1,032
Livestock govt payments	967	4,940	-	-	33	-
Other government payments	3,146	509	705	1,075	5,057	8,170
Custom work income	5,197	1,333	533	6,179	7,007	10,801
Patronage dividends, cash	8,021	2,569	1,729	2,427	10,624	22,254
Crop insurance income	6,396	359	4,759	3,983	4,247	18,250
Property insurance income	679	92	-	-	-	3,243
Sale of resale items	3,337	2,379	3,085	2,647	5,410	3,091
Livestock insurance inc	215	-	-	390	681	-
Other farm income	12,323	9,292	1,534	13,917	19,978	16,830
Gross Cash Farm Income	523,792	997,576	200,671	250,730	472,288	706,819

Farm Income Statement (continued)
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Cash Farm Expense						
Seed	43,231	28,211	30,079	23,525	43,041	89,723
Fertilizer	44,628	34,270	20,256	25,653	49,692	91,936
Crop chemicals	34,984	25,213	24,128	15,195	35,793	73,246
Crop insurance	10,238	6,993	6,380	7,243	11,410	18,880
Drying expense	256	83	201	166	203	615
Storage	609	174	661	290	101	1,787
Crop marketing	538	70	182	-	1,869	522
Crop miscellaneous	1,373	43	43	2,188	3,781	788
Consultants	156	710	-	24	65	-
Feeder livestock purchase	30,920	66,104	3,977	25,354	44,230	16,283
Purchased feed	102,139	436,680	4,961	13,279	31,523	35,418
Breeding fees	2,430	10,303	106	135	1,101	759
Veterinary	7,340	27,069	615	2,935	3,509	3,267
Supplies	2,171	7,611	786	675	729	1,232
DHIA	33	-	-	-	161	-
Contract production exp.	14,400	72,697	-	-	1,300	-
Livestock insurance	84	-	-	107	285	27
Livestock marketing	5,349	26,326	200	14	518	397
Livestock miscellaneous	1,063	96	43	329	3,520	1,249
Interest	18,571	40,914	5,873	8,446	18,162	20,016
Fuel & oil	12,973	13,158	5,961	7,619	13,421	24,473
Repairs	25,017	31,829	12,392	14,315	20,114	46,257
Custom hire	9,520	9,594	5,754	6,752	13,227	12,151
Hired labor	23,865	71,459	6,733	5,877	13,236	23,365
Land rent	38,961	9,327	36,279	21,066	39,501	86,472
Machinery leases	1,760	357	2,388	4,713	113	1,298
Building leases	1,656	133	-	-	-	8,001
Real estate taxes	3,051	5,449	715	2,766	3,460	2,963
Personal property taxes	1,612	919	743	1,170	1,628	3,549
Farm insurance	6,989	9,553	2,235	4,238	6,936	11,975
Utilities	6,426	15,966	1,621	3,825	4,080	6,951
Dues & professional fees	3,328	5,958	1,886	1,330	4,585	2,911
Purchase of resale items	2,096	637	13	6,950	2,616	420
Miscellaneous	11,263	21,994	2,493	10,963	11,508	9,829
Total cash expense	469,031	979,901	177,706	217,142	385,419	596,759
Net cash farm income	54,761	17,675	22,966	33,588	86,869	110,060
Inventory Changes						
Prepays and supplies	-7,692	-12,732	-8,898	-2,763	-21,790	7,716
Accounts receivable	526	15,849	-12,838	-1,565	3,614	-1,827
Hedging accounts	-3,426	-17,635	-1,344	340	21	1,013
Other current assets	-886	760	1,431	-506	-3,847	-2,177
Crops and feed	53,320	-11,073	16,328	29,454	52,474	175,402
Market livestock	-13,420	-49,848	-4,167	-14,188	10,245	-10,834
Breeding livestock	2,063	10,676	-43	4,001	-7,689	3,850
Other assets	866	-59	102	-621	-3,696	8,491
Accounts payable	-401	-8,125	6,532	1,207	-5,332	3,433
Accrued interest	563	-161	428	-392	490	2,374
Total inventory change	31,512	-72,346	-2,469	14,969	24,491	187,441
Net operating profit	86,273	-54,671	20,497	48,556	111,360	297,501
Depreciation						
Machinery and equipment	-29,707	-36,594	-12,340	-11,883	-35,959	-51,261
Titled vehicles	-2,619	-2,112	-487	-1,947	-349	-8,144
Buildings and improvements	-2,474	-2,341	-691	-1,566	-3,039	-4,688
Total depreciation	-34,800	-41,047	-13,518	-15,396	-39,346	-64,093
Net farm income from operations	51,473	-95,719	6,979	33,161	72,014	233,408
Gain or loss on capital sales	447	-1,089	-205	504	1,100	1,858
Net farm income	51,920	-96,808	6,774	33,664	73,113	235,266

Inventory Changes
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Net cash farm income	54,761	17,675	22,966	33,588	86,869	110,060
Crops and Feed						
Ending inventory	230,891	172,533	94,620	124,610	271,497	483,714
Beginning inventory	177,572	183,605	78,292	95,155	219,022	308,312
Inventory change	53,320	-11,073	16,328	29,454	52,474	175,402
Market Livestock						
Ending inventory	100,450	313,922	9,022	51,517	77,878	57,388
Beginning inventory	113,870	363,770	13,189	65,705	67,633	68,222
Inventory change	-13,420	-49,848	-4,167	-14,188	10,245	-10,834
Accts Receivable						
Ending inventory	8,974	23,312	3,310	1,382	6,476	10,695
Beginning inventory	8,447	7,463	16,148	2,947	2,862	12,522
Inventory change	526	15,849	-12,838	-1,565	3,614	-1,827
Prepaid Expenses and Supplies						
Ending inventory	37,776	21,816	18,500	11,523	41,452	93,673
Beginning inventory	45,469	34,548	27,398	14,286	63,242	85,957
Inventory change	-7,692	-12,732	-8,898	-2,763	-21,790	7,716
Hedging Activities						
Ending inventory	2,155	6,356	671	5	525	3,310
Withdrawals	10,727	54,524	-	383	251	-
Beginning inventory	2,229	8,760	45	48	392	2,097
Deposits	14,080	69,755	1,970	-	364	200
Gain or loss	-3,426	-17,635	-1,344	340	21	1,013
Other Current Assets						
Ending inventory	2,537	2,452	1,461	1,167	4,426	3,114
Beginning inventory	3,424	1,692	31	1,673	8,272	5,291
Inventory change	-886	760	1,431	-506	-3,847	-2,177
Breeding Livestock						
Ending inventory	67,486	119,904	24,895	46,922	92,268	54,891
Capital sales	8,485	20,160	1,425	10,598	5,131	5,737
Beginning inventory	68,110	117,042	22,945	52,492	96,102	53,485
Capital purchases	5,798	12,346	3,418	1,027	8,986	3,294
Depreciation, capital adjust	2,063	10,676	-43	4,001	-7,689	3,850
Other Capital Assets						
Ending inventory	93,582	63,679	1,705	34,415	158,470	205,592
Capital sales	784	-	-	73	-	3,780
Beginning inventory	92,795	62,900	-	35,077	162,166	199,848
Capital purchases	706	837	1,603	32	-	1,032
Depreciation, capital adjust	866	-59	102	-621	-3,696	8,491
Accounts Payable						
Beginning inventory	9,326	28,601	7,657	3,125	1,855	5,988
Ending inventory	9,728	36,726	1,125	1,918	7,187	2,555
Inventory change	-401	-8,125	6,532	1,207	-5,332	3,433
Accrued Interest						
Beginning inventory	6,524	9,186	4,283	4,575	7,266	7,340
Ending inventory	5,960	9,346	3,856	4,967	6,776	4,966
Inventory change	563	-161	428	-392	490	2,374
Total inventory change	31,512	-72,346	-2,469	14,969	24,491	187,441
Net operating profit	86,273	-54,671	20,497	48,556	111,360	297,501

Depreciation
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Net operating profit	86,273	-54,671	20,497	48,556	111,360	297,501
Machinery and Equipment						
Ending inventory	312,400	345,680	144,306	130,283	361,613	573,350
Capital sales	9,478	2,010	2,225	4,096	17,055	21,421
Beginning inventory	318,209	353,701	147,392	126,753	371,549	584,559
Capital purchases	33,376	30,583	11,479	19,509	43,077	61,473
Depreciation, capital adjust.	-29,707	-36,594	-12,340	-11,883	-35,959	-51,261
Titled Vehicles						
Ending inventory	28,244	19,376	12,549	20,272	29,999	58,258
Capital sales	882	29	286	119	624	3,279
Beginning inventory	26,083	20,636	10,034	18,770	26,613	53,782
Capital purchases	5,662	881	3,288	3,569	4,358	15,899
Depreciation, capital adjust.	-2,619	-2,112	-487	-1,947	-349	-8,144
Buildings and Improvements						
Ending inventory	126,838	364,507	25,367	67,491	63,184	121,745
Capital sales	124	-	-	-	-	607
Beginning inventory	123,371	356,306	25,965	66,880	61,554	114,168
Capital purchases	6,065	10,542	93	2,177	4,668	12,871
Depreciation, capital adjust.	-2,474	-2,341	-691	-1,566	-3,039	-4,688
Total depreciation, capital adj.	-34,800	-41,047	-13,518	-15,396	-39,346	-64,093
Net farm income from operations	51,473	-95,719	6,979	33,161	72,014	233,408
Gain or loss on capital sales	447	-1,089	-205	504	1,100	1,858
Net farm income	51,920	-96,808	6,774	33,664	73,113	235,266

Profitability Measures
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Profitability (assets valued at cost)						
Net farm income from operations	51,473	-95,719	6,979	33,161	72,014	233,408
Rate of return on assets	1.9 %	-3.9 %	-1.1 %	2.0 %	2.9 %	7.2 %
Rate of return on equity	1.2 %	-9.0 %	-3.5 %	1.3 %	2.8 %	8.1 %
Operating profit margin	7.4 %	-21.6 %	-3.2 %	7.7 %	11.3 %	22.4 %
Asset turnover rate	26.2 %	18.1 %	35.4 %	26.1 %	25.6 %	32.2 %
Farm interest expense	18,008	41,075	5,445	8,837	17,672	17,642
Value of operator lbr and mgmt.	37,792	40,871	18,453	24,866	39,225	65,099
Return on farm assets	31,689	-95,515	-6,029	17,132	50,460	185,951
Average farm assets	1,630,990	2,441,576	535,646	854,633	1,744,883	2,579,768
Return on farm equity	13,681	-136,589	-11,475	8,295	32,789	168,309
Average farm equity	1,145,840	1,511,131	326,055	619,538	1,183,838	2,081,318
Value of farm production	428,117	442,070	189,770	222,760	446,506	830,782

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Profitability (assets valued at market)						
Net farm income from operations	48,583	-133,234	22,285	25,127	77,145	242,260
Rate of return on assets	1.2 %	-3.7 %	1.1 %	0.7 %	2.3 %	5.7 %
Rate of return on equity	0.6 %	-6.6 %	0.6 %	0.0 %	2.0 %	6.1 %
Operating profit margin	6.7 %	-30.1 %	4.9 %	4.1 %	12.5 %	23.4 %
Asset turnover rate	18.4 %	12.4 %	22.0 %	16.7 %	18.2 %	24.3 %
Farm interest expense	18,008	41,075	5,445	8,837	17,672	17,642
Value of operator lbr and mgmt.	37,792	40,871	18,453	24,866	39,225	65,099
Return on farm assets	28,798	-133,030	9,277	9,098	55,591	194,803
Average farm assets	2,326,116	3,566,045	861,987	1,332,584	2,456,847	3,424,318
Return on farm equity	10,790	-174,105	3,832	261	37,919	177,161
Average farm equity	1,840,966	2,635,600	652,396	1,097,489	1,895,802	2,925,868
Value of farm production	428,117	442,070	189,770	222,760	446,506	830,782

Liquidity & Repayment Capacity Measures
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Liquidity						
Current ratio	2.33	1.64	1.33	2.23	2.47	4.30
Working capital	249,946	236,632	39,382	114,917	275,242	576,813
Working capital to gross inc	44.4 %	25.0 %	19.8 %	42.8 %	52.4 %	65.3 %
Current assets	437,644	606,115	157,324	208,070	462,564	751,370
Current liabilities	187,698	369,482	117,943	93,154	187,321	174,557
Gross revenues (accrual)	563,273	945,490	198,721	268,343	524,875	882,904
Repayment capacity						
Net farm income from operations	51,473	-95,719	6,979	33,161	72,014	233,408
Depreciation	34,800	41,047	13,518	15,396	39,346	64,093
Personal income	38,841	34,293	36,250	41,758	22,589	59,240
Family living/owner withdrawals	-49,111	-38,598	-30,820	-53,296	-55,463	-67,090
Cash discrepancy	-27	0	-18	-9	-58	-49
Payments on personal debt	-1,707	-461	-1,757	-1,422	-4,242	-583
Income taxes paid	-7,844	-2,792	-1,915	-3,154	-10,076	-20,842
Interest on term debt	14,925	34,027	5,016	5,515	12,278	18,227
Capital debt repayment capacity	81,376	-28,202	27,270	37,957	76,446	286,452
Scheduled term debt payments	-47,604	-83,445	-20,922	-16,616	-50,265	-66,992
Capital debt repayment margin	33,772	-111,647	6,349	21,341	26,182	219,460
Cash replacement allowance	-20,899	-22,045	-6,477	-9,381	-22,300	-43,823
Replacement margin	12,872	-133,692	-128	11,960	3,882	175,637
Term debt coverage ratio	1.71	-0.34	1.30	2.28	1.52	4.28
Replacement coverage ratio	1.19	-0.27	1.00	1.46	1.05	2.58

Balance Sheet at Cost Values
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Assets						
Current Farm Assets						
Cash and checking balance	54,861	65,723	29,740	17,867	60,311	99,476
Prepaid expenses & supplies	37,776	21,816	18,500	11,523	41,452	93,673
Growing crops	1,771	2,057	1,450	379	2,048	2,868
Accounts receivable	8,974	23,312	3,310	1,382	6,476	10,695
Hedging accounts	2,155	6,356	671	5	525	3,310
Crops held for sale or feed	230,891	172,533	94,620	124,610	271,497	483,714
Crops under government loan	-	-	-	-	-	-
Market livestock held for sale	100,450	313,922	9,022	51,517	77,878	57,388
Other current assets	767	395	11	787	2,377	246
Total current farm assets	437,644	606,115	157,324	208,070	462,564	751,370
Intermediate Farm Assets						
Breeding livestock	67,486	119,904	24,895	46,922	92,268	54,891
Machinery and equipment	312,400	345,680	144,306	130,283	361,613	573,350
Titled vehicles	28,244	19,376	12,549	20,272	29,999	58,258
Other intermediate assets	63,964	14,854	-	34,362	155,977	111,050
Total intermediate farm assets	472,094	499,815	181,750	231,839	639,856	797,549
Long Term Farm Assets						
Farm land	578,994	920,612	156,927	347,813	585,925	888,714
Buildings and improvements	126,838	364,507	25,367	67,491	63,184	121,745
Other long-term assets	29,618	48,824	1,705	53	2,493	94,542
Total long-term farm assets	735,450	1,333,943	183,999	415,357	651,602	1,105,001
Total Farm Assets	1,645,188	2,439,873	523,073	855,267	1,754,022	2,653,920
Total Nonfarm Assets	227,542	182,469	124,259	189,118	221,235	416,835
Total Assets	1,872,730	2,622,342	647,332	1,044,385	1,975,257	3,070,755
Liabilities						
Current Farm Liabilities						
Accrued interest	5,960	9,346	3,856	4,967	6,776	4,966
Accounts payable	9,728	36,726	1,125	1,918	7,187	2,555
Current notes	140,088	279,575	97,772	75,343	135,734	115,411
Government crop loans	-	-	-	-	-	-
Principal due on term debt	31,923	43,835	15,191	10,926	37,625	51,625
Total current farm liabilities	187,698	369,482	117,943	93,154	187,321	174,557
Total intermediate farm liabs	63,194	54,556	27,321	39,422	80,689	112,509
Total long term farm liabilities	228,362	519,188	48,175	93,632	291,331	196,579
Total farm liabilities	479,254	943,226	193,440	226,207	559,341	483,645
Total nonfarm liabilities	34,094	5,119	33,617	20,098	64,089	45,593
Total liabilities	513,348	948,345	227,056	246,305	623,430	529,237
Net worth (farm and nonfarm)	1,359,382	1,673,997	420,276	798,080	1,351,828	2,541,518
Net worth change	50,455	-18,428	11,453	14,128	22,821	217,517
Percent net worth change	4 %	-1 %	3 %	2 %	2 %	9 %
Ratio Analysis						
Current farm liabilities / assets	43 %	61 %	75 %	45 %	40 %	23 %
Intermediate farm liab. / assets	13 %	11 %	15 %	17 %	13 %	14 %
Long term farm liab. / assets	31 %	39 %	26 %	23 %	45 %	18 %
Total debt to asset ratio	27 %	36 %	35 %	24 %	32 %	17 %

Balance Sheet at Market Values
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Assets						
Current Farm Assets						
Cash and checking balance	54,861	65,723	29,740	17,867	60,311	99,476
Prepaid expenses & supplies	37,776	21,816	18,500	11,523	41,452	93,673
Growing crops	1,771	2,057	1,450	379	2,048	2,868
Accounts receivable	8,974	23,312	3,310	1,382	6,476	10,695
Hedging accounts	2,155	6,356	671	5	525	3,310
Crops held for sale or feed	230,891	172,533	94,620	124,610	271,497	483,714
Crops under government loan	-	-	-	-	-	-
Market livestock held for sale	100,450	313,922	9,022	51,517	77,878	57,388
Other current assets	767	395	11	787	2,377	246
Total current farm assets	437,644	606,115	157,324	208,070	462,564	751,370
Intermediate Farm Assets						
Breeding livestock	85,273	155,987	30,381	57,456	116,580	67,910
Machinery and equipment	346,479	347,941	166,929	137,111	368,567	702,395
Titled vehicles	30,976	18,017	12,650	21,113	33,100	68,963
Other intermediate assets	72,075	15,004	-	35,148	175,810	130,142
Total intermediate farm assets	534,803	536,949	209,959	250,828	694,058	969,409
Long Term Farm Assets						
Farm land	1,179,675	1,962,685	466,955	776,734	1,239,204	1,470,072
Buildings and improvements	143,078	389,720	20,382	93,515	69,589	151,142
Other long-term assets	43,669	50,115	2,448	53	3,138	160,902
Total long-term farm assets	1,366,422	2,402,520	489,784	870,303	1,311,930	1,782,117
Total Farm Assets	2,338,869	3,545,584	857,067	1,329,201	2,468,551	3,502,896
Total Nonfarm Assets	302,883	330,010	161,640	243,947	296,723	480,650
Total Assets	2,641,752	3,875,594	1,018,707	1,573,149	2,765,274	3,983,545
Liabilities						
Current Farm Liabilities						
Accrued interest	5,960	9,346	3,856	4,967	6,776	4,966
Accounts payable	9,728	36,726	1,125	1,918	7,187	2,555
Current notes	140,088	279,575	97,772	75,343	135,734	115,411
Government crop loans	-	-	-	-	-	-
Principal due on term debt	31,923	43,835	15,191	10,926	37,625	51,625
Total current farm liabilities	187,698	369,482	117,943	93,154	187,321	174,557
Total intermediate farm liab	63,194	54,556	27,321	39,422	80,689	112,509
Total long term farm liabilities	228,362	519,188	48,175	93,632	291,331	196,579
Total farm liabilities	479,254	943,226	193,440	226,207	559,341	483,645
Total nonfarm liabilities	34,094	5,119	33,617	20,098	64,089	45,593
Total liab excluding deferreds	513,348	948,345	227,056	246,305	623,430	529,237
Total deferred liabilities	-	-	-	-	-	-
Total liabilities	513,348	948,345	227,056	246,305	623,430	529,237
Retained earnings	1,359,382	1,673,997	420,276	798,080	1,351,828	2,541,518
Market valuation equity	769,022	1,253,252	371,375	528,764	790,017	912,790
Net worth (farm and nonfarm)	2,128,404	2,927,249	791,651	1,326,844	2,141,844	3,454,308
Net worth excluding deferreds	2,128,404	2,927,249	791,651	1,326,844	2,141,844	3,454,308
Net worth change	59,324	-18,668	35,205	5,593	37,152	231,352
Percent net worth change	3 %	-1 %	5 %	0 %	2 %	7 %
Ratio Analysis						
Current farm liabilities / assets	43 %	61 %	75 %	45 %	40 %	23 %
Intermediate farm liab. / assets	12 %	10 %	13 %	16 %	12 %	12 %
Long term farm liab. / assets	17 %	22 %	10 %	11 %	22 %	11 %
Total debt to asset ratio	19 %	24 %	22 %	16 %	23 %	13 %
Debt to assets excl deferreds	19 %	24 %	22 %	16 %	23 %	13 %

Statement Of Cash Flows
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Beginning cash (farm & nonfarm)	84,182	86,211	32,997	52,425	91,088	156,836
Cash Provided By Operating Activities						
Gross cash farm income	523,792	997,576	200,671	250,730	472,288	706,819
Total cash farm expense	-469,031	-979,901	-177,706	-217,142	-385,419	-596,759
Net cash from hedging transactions	-3,352	-15,231	-1,970	383	-113	-200
Cash provided by operating	51,409	2,444	20,996	33,971	86,756	109,860
Cash Provided By Investing Activities						
Sale of breeding livestock	8,131	18,954	1,268	10,412	4,979	5,637
Sale of machinery & equipment	9,732	2,117	2,072	4,785	18,307	20,808
Sale of titled vehicles	1,106	38	391	119	624	4,266
Sale of farm land	16,369	56,101	26,805	-	-	-
Sale of farm buildings	124	-	-	-	-	607
Sale of other farm assets	1,107	-	-	73	-	5,364
Sale of nonfarm assets	2,811	2,975	271	1,881	4,007	4,885
Purchase of breeding livestock	-5,798	-12,346	-3,418	-1,027	-8,986	-3,294
Purchase of machinery & equip.	-33,376	-30,583	-11,479	-19,509	-43,077	-61,473
Purchase of titled vehicles	-5,662	-881	-3,288	-3,569	-4,358	-15,899
Purchase of farm land	-6,561	-15,387	-	-	-12,929	-4,591
Purchase of farm buildings	-6,065	-10,542	-93	-2,177	-4,668	-12,871
Purchase of other farm assets	-706	-837	-1,603	-32	-	-1,032
Purchase of nonfarm assets	-11,428	-2,952	-7,029	-4,975	-6,145	-35,357
Cash provided by investing	-30,215	6,657	3,898	-14,018	-52,248	-92,950
Cash Provided By Financing Activities						
Money borrowed	199,974	559,875	67,971	45,012	147,252	189,077
Principal payments	-212,157	-543,472	-91,904	-63,917	-155,845	-213,970
Personal income	38,841	34,293	36,250	41,758	22,589	59,240
Family living/owner withdrawals	-49,111	-38,598	-30,820	-53,296	-55,463	-67,090
Income and social security tax	-7,793	-2,792	-1,915	-2,878	-10,396	-20,536
Capital contributions	948	423	4,175	81	-	-
Capital distributions	-	-	-	-	-	-
Dividends paid	-	-	-	-	-	-
Cash gifts and inheritances	571	1,369	51	1,360	147	-
Gifts given	-1,982	-2,025	-94	-1,785	-5,126	-871
Other cash flows	-	-	-	-	-	-
Cash provided by financing	-30,709	9,073	-16,287	-33,665	-56,842	-54,150
Net change in cash balance	-9,515	18,174	8,606	-13,712	-22,334	-37,240
Ending cash (farm & nonfarm)	74,640	104,386	41,585	38,704	68,697	119,546
Discrepancy	27	0	18	9	58	49

Financial Standards Measures
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Liquidity						
Current ratio	2.33	1.64	1.33	2.23	2.47	4.30
Working capital	249,946	236,632	39,382	114,917	275,242	576,813
Working capital to gross inc	44.4 %	25.0 %	19.8 %	42.8 %	52.4 %	65.3 %
Solvency (market)						
Farm debt to asset ratio	20 %	27 %	23 %	17 %	23 %	14 %
Farm equity to asset ratio	80 %	73 %	77 %	83 %	77 %	86 %
Farm debt to equity ratio	0.26	0.36	0.29	0.21	0.29	0.16
Profitability (cost)						
Rate of return on farm assets	1.9 %	-3.9 %	-1.1 %	2.0 %	2.9 %	7.2 %
Rate of return on farm equity	1.2 %	-9.0 %	-3.5 %	1.3 %	2.8 %	8.1 %
Operating profit margin	7.4 %	-21.6 %	-3.2 %	7.7 %	11.3 %	22.4 %
Net farm income	51,920	-96,808	6,774	33,664	73,113	235,266
EBITDA	104,280	-13,596	25,942	57,394	129,032	315,142
Repayment Capacity						
Capital debt repayment capacity	81,376	-28,202	27,270	37,957	76,446	286,452
Capital debt repayment margin	33,772	-111,647	6,349	21,341	26,182	219,460
Replacement margin	12,872	-133,692	-128	11,960	3,882	175,637
Term debt coverage ratio	1.71	-0.34	1.30	2.28	1.52	4.28
Replacement coverage ratio	1.19	-0.27	1.00	1.46	1.05	2.58
Efficiency						
Asset turnover rate (cost)	26.2 %	18.1 %	35.4 %	26.1 %	25.6 %	32.2 %
Operating expense ratio	81.5 %	101.4 %	86.9 %	78.6 %	75.4 %	64.3 %
Depreciation expense ratio	6.2 %	4.3 %	6.8 %	5.7 %	7.5 %	7.3 %
Interest expense ratio	3.2 %	4.3 %	2.7 %	3.3 %	3.4 %	2.0 %
Net farm income ratio	9.2 %	-10.2 %	3.4 %	12.5 %	13.9 %	26.6 %

Crop Production and Marketing Summary
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Acreage Summary						
Total acres owned	393	462	184	270	443	604
Total crop acres	753	572	399	377	1,008	1,382
Crop acres owned	229	349	59	106	242	389
Crop acres cash rented	261	69	228	129	257	604
Crop acres share rented	263	154	111	142	510	388
Total pasture acres	123	124	93	127	195	77
Percent crop acres owned	30 %	61 %	15 %	28 %	24 %	28 %
Mach invest/crop acre cost	445	587	383	393	392	459
Mach invest/crop acre market	491	577	433	414	400	559
Average Price Received (Cash Sales Only)						
Soybeans per bushel	9.28	9.44	9.04	9.14	9.15	9.42
Corn per bushel	3.44	3.30	3.39	3.31	3.45	3.53
Wheat, Winter per bushel	3.94	-	-	3.51	4.11	3.93
Hay, Mixed per ton	57.23	-	-	-	-	-
Straw per ton	126.31	-	-	-	-	-
CRP per \$	1.00	-	-	-	-	-
Sorghum, Grain per bushel	2.83	-	-	-	-	-
Average Yield Per Acre						
Soybeans (bushel)	55.58	56.51	52.99	59.09	56.77	54.76
Corn (bushel)	177.32	130.26	173.48	218.39	171.85	182.20
Hay, Mixed (ton)	2.42	1.87	-	2.12	2.84	2.56
Pasture (aum)	3.48	2.86	3.25	3.24	3.30	4.43
Wheat, Winter (bushel)	75.31	-	-	-	58.56	82.06
CRP (\$)	75.22	-	-	-	68.61	80.60
Sorghum, Grain (bushel)	131.76	-	-	134.52	134.52	-
Custom Work (\$)	100.74	-	-	-	-	98.49
Rented Out (\$)	147.40	-	-	-	-	-
Oats (bushel)	83.52	-	-	-	-	-

Household and Personal Expenses
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>40 - 60%</u>
Number of farms	15	5
Average family size	3.1	2.8
Family Living Expenses		
Food and meals expense	7,557	6,389
Medical care	3,937	1,712
Health insurance	4,364	761
Cash donations	4,589	2,880
Household supplies	1,998	418
Clothing	1,128	1,424
Personal care	194	61
Child / Dependent care	1,526	3,144
Alimony and child support	-	-
Gifts	1,344	2,817
Education	1,118	157
Recreation	2,078	1,884
Utilities (household share)	2,763	2,966
Personal vehicle operating exp	3,489	3,858
Household real estate taxes	419	370
Dwelling rent	336	-
Household repairs	1,103	804
Personal interest	1,377	1,765
Disability / Long term care ins	766	469
Life insurance payments	903	130
Personal property insurance	383	134
Miscellaneous	5,857	7,282
Total cash family living expense	47,229	39,425
Family living from the farm	133	399
Total family living	47,362	39,824
Other Nonfarm Expenditures		
Income taxes	6,373	3,824
Furnishing & appliance purchases	10	-
Nonfarm vehicle purchases	7,316	7,769
Nonfarm real estate purchases	-	-
Other nonfarm capital purchases	-640	-1,400
Nonfarm savings & investments	-1,509	-3,160
Total other nonfarm expenditures	11,550	7,033
Total cash family living investment & nonfarm capital purch	58,778	46,458

Operator and Labor Information
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Operator Information						
Average number of operators	1.1	1.2	1.0	1.1	1.1	1.3
Average age of operators	51.6	57.3	45.8	49.5	50.1	54.5
Average number of years farming	28.2	31.8	23.8	23.6	29.2	31.7
Results Per Operator						
Working capital	223,092	198,771	40,297	107,256	252,306	453,210
Total assets (market)	2,357,927	3,255,499	1,042,398	1,468,272	2,534,835	3,129,929
Total liabilities	458,195	796,610	232,337	229,884	571,477	415,829
Net worth (market)	1,899,732	2,458,889	810,061	1,238,388	1,963,357	2,714,099
Net worth excl deferred liabs	1,899,732	2,458,889	810,061	1,238,388	1,963,357	2,714,099
Gross farm income	502,756	794,212	203,343	250,453	481,135	693,710
Total farm expense	456,813	874,615	196,202	219,504	415,123	510,318
Net farm income from operations	45,943	-80,404	7,141	30,950	66,012	183,392
Net nonfarm income	34,668	28,806	37,093	38,974	20,707	46,545
Family living & tax withdrawals	50,861	34,768	33,515	52,695	60,130	69,128
Total acres owned	350.9	387.8	188.5	252.2	406.4	474.5
Total crop acres	671.9	480.7	407.9	352.0	924.4	1,086.0
Crop acres owned	204.6	293.3	60.7	99.4	221.7	306.0
Crop acres cash rented	232.5	58.4	233.3	120.5	235.5	474.9
Crop acres share rented	234.7	129.0	113.9	132.1	467.2	305.1
Total pasture acres	109.8	104.1	94.8	118.8	178.3	60.4
Labor Analysis						
Number of farms	107	20	22	21	22	22
Total unpaid labor hours	1,455	1,421	862	1,290	1,585	2,107
Total hired labor hours	1,471	4,110	306	437	1,079	1,615
Total labor hours per farm	2,926	5,531	1,167	1,726	2,664	3,722
Unpaid hours per operator	1,297	1,184	882	1,204	1,453	1,655
Value of farm production / hour	147.63	83.71	162.57	129.05	167.61	223.21
Net farm income / unpaid hour	35.63	-71.20	8.10	25.72	45.43	110.79
Average hourly hired labor wage	18.30	20.65	21.90	13.50	13.03	16.62
Partnerships & LLCs						
Number of farms	18	3	1	3	4	7
Number of operators	1.5	-	-	-	-	1.9
Owner withdrawals per farm	80,912	-	-	-	-	-
Withdrawals per operator	80,912	-	-	-	-	-

Financial Summary
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Income Statement						
Gross cash farm income	523,792	997,576	200,671	250,730	472,288	706,819
Total cash farm expense	469,031	979,901	177,706	217,142	385,419	596,759
Net cash farm income	54,761	17,675	22,966	33,588	86,869	110,060
Inventory change	31,512	-72,346	-2,469	14,969	24,491	187,441
Depreciation	-34,800	-41,047	-13,518	-15,396	-39,346	-64,093
Net farm income from operations	51,473	-95,719	6,979	33,161	72,014	233,408
Gain or loss on capital sales	447	-1,089	-205	504	1,100	1,858
Average net farm income	51,920	-96,808	6,774	33,664	73,113	235,266
Median net farm income	33,576	-13,611	6,798	30,940	72,129	171,539
Profitability (cost)						
Rate of return on assets	1.9 %	-3.9 %	-1.1 %	2.0 %	2.9 %	7.2 %
Rate of return on equity	1.2 %	-9.0 %	-3.5 %	1.3 %	2.8 %	8.1 %
Operating profit margin	7.4 %	-21.6 %	-3.2 %	7.7 %	11.3 %	22.4 %
Asset turnover rate	26.2 %	18.1 %	35.4 %	26.1 %	25.6 %	32.2 %
Profitability (market)						
Rate of return on assets	1.2 %	-3.7 %	1.1 %	0.7 %	2.3 %	5.7 %
Rate of return on equity	0.6 %	-6.6 %	0.6 %	0.0 %	2.0 %	6.1 %
Operating profit margin	6.7 %	-30.1 %	4.9 %	4.1 %	12.5 %	23.4 %
Asset turnover rate	18.4 %	12.4 %	22.0 %	16.7 %	18.2 %	24.3 %
Liquidity & Repayment (end of year)						
Current assets	437,644	606,115	157,324	208,070	462,564	751,370
Current liabilities	187,698	369,482	117,943	93,154	187,321	174,557
Current ratio	2.33	1.64	1.33	2.23	2.47	4.30
Working capital	249,946	236,632	39,382	114,917	275,242	576,813
Working capital to gross inc	44.4 %	25.0 %	19.8 %	42.8 %	52.4 %	65.3 %
Term debt coverage ratio	1.71	-0.34	1.30	2.28	1.52	4.28
Replacement coverage ratio	1.19	-0.27	1.00	1.46	1.05	2.58
Term debt to EBITDA	3.02	-46.02	4.20	2.56	2.88	1.04
Solvency (end of year at cost)						
Number of farms	108	21	22	21	22	22
Total assets	1,872,730	2,622,342	647,332	1,044,385	1,975,257	3,070,755
Total liabilities	513,348	948,345	227,056	246,305	623,430	529,237
Net worth	1,359,382	1,673,997	420,276	798,080	1,351,828	2,541,518
Net worth change	50,455	-18,428	11,453	14,128	22,821	217,517
Farm debt to asset ratio	29 %	39 %	37 %	26 %	32 %	18 %
Total debt to asset ratio	27 %	36 %	35 %	24 %	32 %	17 %
Change in earned net worth %	4 %	-1 %	3 %	2 %	2 %	9 %
Solvency (end of year at market)						
Number of farms	108	21	22	21	22	22
Total assets	2,641,752	3,875,594	1,018,707	1,573,149	2,765,274	3,983,545
Total liabilities	513,348	948,345	227,056	246,305	623,430	529,237
Net worth	2,128,404	2,927,249	791,651	1,326,844	2,141,844	3,454,308
Total net worth change	59,324	-18,668	35,205	5,593	37,152	231,352
Farm debt to asset ratio	20 %	27 %	23 %	17 %	23 %	14 %
Total debt to asset ratio	19 %	24 %	22 %	16 %	23 %	13 %
Change in total net worth %	3 %	-1 %	5 %	0 %	2 %	7 %
Nonfarm Information						
Net nonfarm income	38,841	34,293	36,250	41,758	22,589	59,240
Farms reporting living expenses	15	3	3	5	3	1
Total family living expense	47,362	-	-	39,824	-	-
Total living, invest, cap. purch	58,778	-	-	46,458	-	-
Crop Acres						
Total crop acres	753	572	399	377	1,008	1,382
Total crop acres owned	229	349	59	106	242	389
Total crop acres cash rented	261	69	228	129	257	604
Total crop acres share rented	263	154	111	142	510	388
Machinery value per crop acre	491	577	433	414	400	559

Summary Farm Income Statement
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Crop sales	254,762	211,344	157,291	134,231	281,016	482,476
Crop inventory change	53,320	-11,073	16,328	29,454	52,474	175,402
Gross crop income	308,082	200,272	173,620	163,685	333,490	657,878
Livestock sales	213,716	747,306	23,012	80,311	117,797	118,343
Livestock inventory change	-13,420	-49,848	-4,167	-14,188	10,245	-10,834
Gross livestock income	200,296	697,459	18,846	66,123	128,042	107,509
Government payments	14,977	17,460	7,138	5,454	15,078	29,435
Other cash farm income	40,337	21,465	13,230	30,734	58,397	76,565
Change in accounts receivable	526	15,849	-12,838	-1,565	3,614	-1,827
Gain or loss on hedging accounts	-3,426	-17,635	-1,344	340	21	1,013
Change in other assets	418	-56	114	-429	-6,078	8,481
Gain or loss on breeding lvst	2,063	10,676	-43	4,001	-7,689	3,850
Gross farm income	563,273	945,490	198,721	268,343	524,875	882,904
Cash operating expenses	450,460	938,986	171,833	208,696	367,257	576,743
Change in prepaids and supplies	7,692	12,732	8,898	2,763	21,790	-7,716
Change in growing crops	439	-757	-1,419	698	1,464	2,167
Change in accounts payable	401	8,125	-6,532	-1,207	5,332	-3,433
Depreciation	34,800	41,047	13,518	15,396	39,346	64,093
Total operating expense	493,792	1,000,134	186,297	226,345	435,190	631,854
Interest paid	18,571	40,914	5,873	8,446	18,162	20,016
Change in accrued interest	-563	161	-428	392	-490	-2,374
Total interest expense	18,008	41,075	5,445	8,837	17,672	17,642
Total expenses	511,800	1,041,209	191,742	235,182	452,861	649,496
Net farm income from operations	51,473	-95,719	6,979	33,161	72,014	233,408
Gain or loss on capital sales	447	-1,089	-205	504	1,100	1,858
Net farm income	51,920	-96,808	6,774	33,664	73,113	235,266

Nonfarm Summary
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Nonfarm Income						
Personal wages & salary	22,386	13,871	25,555	36,344	13,142	23,265
Net nonfarm business income	1,397	842	5,126	446	-4,822	5,327
Personal rental income	2,921	2,201	114	133	4,700	7,299
Personal interest income	585	1,216	764	133	83	737
Personal cash dividends	1,294	1,093	-	217	3	5,100
Tax refunds	2,201	438	676	870	1,001	7,880
Other nonfarm income	8,056	14,632	4,014	3,615	8,482	9,633
Total nonfarm income	38,841	34,293	36,250	41,758	22,589	59,240
Gifts and inheritances	571	1,369	51	1,360	147	-
Nonfarm Assets (market)						
Checking & savings	19,779	38,662	11,845	20,836	8,386	20,070
Stocks & bonds	43,312	17,719	13,266	9,713	42,681	130,491
Other current assets	9,485	883	594	208	1,828	43,103
Furniture & appliances	6,991	3,053	6,909	6,816	11,722	6,268
Nonfarm vehicles	13,539	11,715	7,855	15,037	18,365	14,706
Cash value of life ins.	8,760	9,402	5,782	9,152	16,663	2,848
Retirement accounts	68,512	65,437	35,143	97,490	33,996	111,670
Other intermediate assets	11,724	14,979	10,556	14,629	5,679	13,055
Nonfarm real estate	87,079	60,634	67,864	63,400	128,294	112,923
Personal bus. investment	12,270	26,190	-	-	15,512	19,721
Other long term assets	21,433	81,334	1,827	6,667	13,597	5,795
Total nonfarm assets	302,883	330,010	161,640	243,947	296,723	480,650
Nonfarm Liabilities						
Accrued interest	111	-	372	25	79	67
Accounts payable	422	-	129	-	-	1,943
Current notes	846	1,212	1,060	417	354	1,182
Princ due on term debt	1,897	461	1,673	1,414	5,116	733
Total current liabilities	3,419	1,673	3,233	2,133	5,686	4,231
Intermediate liabilities	2,981	3,435	2,934	1,699	4,404	2,396
Long term liabilities	27,694	11	27,450	16,267	53,999	38,965
Total nonfarm liabilities	34,094	5,119	33,617	20,098	64,089	45,593
Nonfarm net worth	268,789	324,891	128,023	223,849	232,634	435,057
Nonfarm debt to asset ratio	11 %	2 %	21 %	8 %	22 %	9 %

Financial Summary Excluding Deferred Liabilities
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Income Statement						
Gross cash farm income	523,792	997,576	200,671	250,730	472,288	706,819
Total cash farm expense	469,031	979,901	177,706	217,142	385,419	596,759
Net cash farm income	54,761	17,675	22,966	33,588	86,869	110,060
Inventory change	31,512	-72,346	-2,469	14,969	24,491	187,441
Depreciation	-34,800	-41,047	-13,518	-15,396	-39,346	-64,093
Net farm income from operations	51,473	-95,719	6,979	33,161	72,014	233,408
Gain or loss on capital sales	447	-1,089	-205	504	1,100	1,858
Average net farm income	51,920	-96,808	6,774	33,664	73,113	235,266
Median net farm income	33,576	-13,611	6,798	30,940	72,129	171,539
Profitability (cost)						
Rate of return on assets	1.9 %	-3.9 %	-1.1 %	2.0 %	2.9 %	7.2 %
Rate of return on equity	1.2 %	-9.0 %	-3.5 %	1.3 %	2.8 %	8.1 %
Operating profit margin	7.4 %	-21.6 %	-3.2 %	7.7 %	11.3 %	22.4 %
Asset turnover rate	26.2 %	18.1 %	35.4 %	26.1 %	25.6 %	32.2 %
Profitability (market)						
Rate of return on assets	1.2 %	-3.7 %	1.1 %	0.7 %	2.3 %	5.7 %
Rate of return on equity	0.6 %	-6.6 %	0.6 %	0.0 %	2.1 %	6.2 %
Operating profit margin	6.7 %	-30.1 %	4.9 %	4.1 %	12.5 %	23.4 %
Asset turnover rate	18.4 %	12.4 %	22.0 %	16.7 %	18.2 %	24.3 %
Liquidity & Repayment (end of year)						
Current assets	437,644	606,115	157,324	208,070	462,564	751,370
Current liabilities	187,698	369,482	117,943	93,154	187,321	174,557
Current ratio	2.33	1.64	1.33	2.23	2.47	4.30
Working capital	249,946	236,632	39,382	114,917	275,242	576,813
Working capital to gross inc	44.4 %	25.0 %	19.8 %	42.8 %	52.4 %	65.3 %
Term debt coverage ratio	1.71	-0.34	1.30	2.28	1.52	4.28
Replacement coverage ratio	1.19	-0.27	1.00	1.46	1.05	2.58
Term debt to EBITDA	3.02	-46.02	4.20	2.56	2.88	1.04
Solvency (end of year at cost)						
Number of farms	108	21	22	21	22	22
Total assets	1,872,730	2,622,342	647,332	1,044,385	1,975,257	3,070,755
Total liabilities	513,348	948,345	227,056	246,305	623,430	529,237
Net worth	1,359,382	1,673,997	420,276	798,080	1,351,828	2,541,518
Net worth change	50,455	-18,428	11,453	14,128	22,821	217,517
Farm debt to asset ratio	29 %	39 %	37 %	26 %	32 %	18 %
Total debt to asset ratio	27 %	36 %	35 %	24 %	32 %	17 %
Change in earned net worth %	4 %	-1 %	3 %	2 %	2 %	9 %
Solvency (end of year at market)						
Number of farms	108	21	22	21	22	22
Total assets	2,641,752	3,875,594	1,018,707	1,573,149	2,765,274	3,983,545
Total liabilities	513,348	948,345	227,056	246,305	623,430	529,237
Net worth	2,128,404	2,927,249	791,651	1,326,844	2,141,844	3,454,308
Total net worth change	59,324	-18,668	35,205	5,593	37,152	231,352
Farm debt to asset ratio	20 %	27 %	23 %	17 %	23 %	14 %
Total debt to asset ratio	19 %	24 %	22 %	16 %	23 %	13 %
Change in total net worth %	3 %	-1 %	5 %	0 %	2 %	7 %
Nonfarm Information						
Net nonfarm income	38,841	34,293	36,250	41,758	22,589	59,240
Farms reporting living expenses	15	3	3	5	3	1
Total family living expense	47,362	-	-	39,824	-	-
Total living, invest, cap. purch	58,778	-	-	46,458	-	-
Crop Acres						
Total crop acres	753	572	399	377	1,008	1,382
Total crop acres owned	229	349	59	106	242	389
Total crop acres cash rented	261	69	228	129	257	604
Total crop acres share rented	263	154	111	142	510	388
Machinery value per crop acre	491	577	433	414	400	559

Crop Reports

The Crop Enterprise Analysis tables show the average physical production, gross return, direct costs, overhead costs, and net returns per acre. There are potentially four tables for each crop depending on the farmer's tenure on the land: owned land, cash rented land, share rented land (share-rent returns and costs represent only the producer's share) and land rented out. It is possible for an individual farm to have data in all four tables if all three land tenure categories are represented in that farm business.

Gross Return Per Acre includes the value of the crop produced plus any other income directly associated with production of the crop, including crop insurance proceeds and any disaster payments that might have been received. It does not include direct and counter-cyclical government payments (see Net Return With Government Payments).

The *Value Per Unit* is assigned by the producer. For cash crops, the value is based on the actual price for crops sold or contracted before year-end and the inventory value for crops still in inventory at year-end. The local harvest-time price is used for forages and other feed crops.

Net Return Per Acre is the amount contributed toward operator labor, management, and equity capital. Any wages and benefits paid to the operator are removed from labor costs (and added to *Labor and Management Charge*) so that all farms are on equal footing. **Land costs include land rent on the rented land pages but only actual interest paid and real estate taxes on owned land. For this reason, net returns from owned and rented land should only be compared with that in mind.**

Net Return With Government Payments is the net return per acre after decoupled government payments such as direct and counter-cyclical government payments have been added. These payments are often allocated evenly to all crops except vegetables and pasture.

Net Return Over Labor and Management is the return, including government payments, remaining after compensating the operator for unpaid labor and management. This is the per acre return to equity capital.

Cost of Production shows the average cost per unit produced in each cost category. *Total Direct and Overhead Expense per Unit* is the breakeven price needed to cover cash costs and depreciation. *Less Government and Other Income* is the breakeven price if government payments and any miscellaneous income are used to offset some of the expenses. *With Labor and Management* is the breakeven price to provide a labor and management return for the operator(s).

Machinery Cost Per Acre includes fuel and oil, repairs, custom hire, machinery lease payments, machinery depreciation, and interest on intermediate debt.

Crop Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Crop Tenure Type)

Corn

	<u>Avg. Of All Farms</u>	<u>Owned Land</u>	<u>Cash Rent</u>	<u>Share Rent</u>	<u>Rented Out</u>
Number of farms	59	36	34	33	8
Acres	375.42	132.56	250.91	222.45	188.22
Yield per acre (bu.)	174.67	162.40	176.77	178.75	181.73
Operators share of yield %	77.94	100.00	100.00	46.57	44.33
Value per bu.	3.37	3.25	3.36	3.57	3.11
Total product return per acre	458.15	527.87	594.62	296.79	250.64
Hedging gains/losses per acre	0.03	-0.16	-0.01	0.20	-
Crop insurance per acre	1.16	0.58	2.28	0.47	-
Other crop income per acre	8.48	17.16	4.49	1.02	39.89
Gross return per acre	467.81	545.46	601.38	298.48	290.53
Direct Expenses					
Seed	71.15	95.33	87.18	45.46	28.92
Fertilizer	101.75	135.49	124.90	62.36	55.65
Crop chemicals	47.09	51.96	63.39	30.57	19.84
Crop insurance	17.48	20.19	23.24	10.62	9.76
Drying expense	0.63	0.33	0.96	0.53	0.15
Storage	0.94	1.10	0.98	0.14	4.07
Fuel & oil	13.89	14.62	15.34	13.15	7.00
Repairs	28.79	30.47	30.48	27.45	20.45
Custom hire	6.46	15.08	5.58	1.87	6.55
Hired labor	4.72	5.17	6.93	2.83	-
Land rent	54.60	-	141.75	-	-
Machinery leases	1.57	0.03	3.51	0.64	-
Utilities	2.07	3.72	1.88	1.63	-
Marketing	0.86	1.43	0.58	0.80	0.91
Operating interest	5.10	6.38	6.00	4.26	0.03
Miscellaneous	1.33	1.87	1.44	1.11	-
Total direct expenses per acre	358.42	383.17	514.14	203.43	153.34
Return over direct exp per acre	109.39	162.29	87.24	95.05	137.19
Overhead Expenses					
Custom hire	4.65	6.78	2.30	6.55	1.95
Hired labor	8.19	15.14	8.48	4.23	3.90
Machinery leases	0.53	0.20	1.17	0.10	0.09
RE & pers. property taxes	4.07	11.50	2.06	1.36	5.17
Farm insurance	7.56	9.33	7.40	7.14	4.83
Utilities	1.99	1.88	1.65	2.38	2.36
Dues & professional fees	3.49	6.49	2.33	3.32	1.40
Interest	6.87	21.75	3.21	2.65	0.94
Mach & bldg depreciation	42.48	46.77	41.76	46.48	13.40
Miscellaneous	8.25	10.83	7.10	8.05	7.46
Total overhead expenses per acre	88.08	130.68	77.46	82.28	41.50
Total dir & ovhd expenses per acre	446.50	513.85	591.60	285.71	194.83
Net return per acre	21.31	31.61	9.77	12.77	95.69
Government payments	11.31	17.39	13.61	5.25	8.56
Net return with govt pmts	32.62	49.00	23.39	18.02	104.25
Labor & management charge	39.10	41.87	39.38	36.41	41.80
Net return over lbr & mgt	-6.47	7.13	-16.00	-18.39	62.45
Cost of Production					
Total direct expense per bu.	2.63	2.36	2.91	2.44	1.90
Total dir & ovhd exp per bu.	3.28	3.16	3.35	3.43	2.42
Less govt & other income	3.13	2.95	3.23	3.35	1.82
With labor & management	3.41	3.21	3.45	3.79	2.34
Net value per unit	3.37	3.25	3.36	3.57	3.11
Machinery cost per acre	99.27	112.22	101.63	98.43	48.90
Est. labor hours per acre	2.10	2.69	2.09	1.89	1.40

Crop Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Crop Tenure Type)

CRP

	<u>Avg. Of All Farms</u>	<u>Owned Land</u>
Number of farms	12	11
Acres	102.14	111.06
Yield per acre (\$)	75.22	75.17
Operators share of yield %	99.80	100.00
Value per \$	1.05	1.05
Total product return per acre	78.99	79.10
Hedging gains/losses per acre	2.15	2.16
Other crop income per acre	48.92	49.08
Gross return per acre	130.06	130.34
Direct Expenses		
Seed	2.31	2.32
Crop chemicals	1.31	1.31
Fuel & oil	3.41	3.42
Repairs	3.55	3.56
Miscellaneous	0.68	0.69
Total direct expenses per acre	11.26	11.30
Return over direct exp per acre	118.80	119.04
Overhead Expenses		
Custom hire	2.95	2.96
RE & pers. property taxes	4.51	4.52
Farm insurance	3.65	3.66
Utilities	0.92	0.92
Dues & professional fees	0.63	0.64
Interest	1.41	1.41
Mach & bldg depreciation	18.08	18.14
Miscellaneous	2.41	2.42
Total overhead expenses per acre	34.56	34.68
Total dir & ovhd expenses per acre	45.83	45.98
Net return per acre	84.23	84.36
Government payments	3.32	3.33
Net return with govt pmts	87.55	87.69
Labor & management charge	11.06	11.09
Net return over lbr & mgt	76.49	76.60
Cost of Production		
Total direct expense per \$	0.15	0.15
Total dir & ovhd exp per \$	0.61	0.61
Less govt & other income	-0.11	-0.11
With labor & management	0.03	0.03
Net value per unit	1.08	1.08
Machinery cost per acre	26.85	26.94
Est. labor hours per acre	0.56	0.56

Crop Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Crop Tenure Type)

Hay, Mixed

	<u>Avg. Of All Farms</u>	<u>Owned Land</u>	<u>Cash Rent</u>	<u>Share Rent</u>
Number of farms	31	16	12	19
Acres	135.48	99.76	92.03	73.01
Yield per acre (ton)	2.26	1.74	2.19	2.96
Operators share of yield %	81.11	100.00	100.00	58.64
Value per ton	53.67	51.41	67.30	42.55
Total product return per acre	98.34	89.56	147.10	73.80
Gross return per acre	98.34	89.56	147.10	73.80
Direct Expenses				
Fertilizer	7.38	6.25	13.63	4.30
Crop chemicals	1.64	4.31	-	-
Fuel & oil	6.93	6.61	8.13	6.58
Repairs	12.28	10.50	13.62	13.82
Custom hire	1.86	1.38	4.41	0.54
Hired labor	0.63	0.78	-	1.03
Land rent	14.55	-	55.32	-
Operating interest	2.09	0.76	2.39	3.54
Miscellaneous	0.20	0.17	-	0.41
Total direct expenses per acre	47.56	30.76	97.50	30.23
Return over direct exp per acre	50.78	58.80	49.61	43.57
Overhead Expenses				
Custom hire	5.67	8.19	4.95	3.72
Hired labor	11.18	17.87	9.76	5.38
RE & pers. property taxes	3.32	6.54	1.49	1.06
Farm insurance	4.20	3.79	5.87	3.37
Utilities	1.52	2.48	1.19	0.69
Dues & professional fees	1.16	1.15	1.46	1.00
Interest	4.37	7.88	1.41	1.65
Mach & bldg depreciation	17.61	21.64	13.01	17.60
Miscellaneous	3.82	2.52	6.15	3.74
Total overhead expenses per acre	52.85	72.07	45.31	38.21
Total dir & ovhd expenses per acre	100.41	102.83	142.80	68.43
Net return per acre	-2.07	-13.27	4.30	5.36
Government payments	1.46	3.83	-	-
Net return with govt pmts	-0.62	-9.44	4.30	5.36
Labor & management charge	19.04	19.53	14.14	22.51
Net return over lbr & mgt	-19.65	-28.97	-9.83	-17.15
Cost of Production				
Total direct expense per ton	25.96	17.66	44.61	17.43
Total dir & ovhd exp per ton	54.80	59.03	65.33	39.46
Less govt & other income	54.00	56.82	65.33	39.46
With labor & management	64.39	68.04	71.80	52.44
Net value per unit	53.67	51.41	67.30	42.55
Machinery cost per acre	44.94	48.22	45.40	43.17
Est. labor hours per acre	1.46	1.74	1.18	1.41

Crop Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Crop Tenure Type)

Oats

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	8.20
Yield per acre (bu.)	83.52
Operators share of yield %	70.78
Value per bu.	2.88
Total product return per acre	170.03
Crop insurance per acre	26.63
Gross return per acre	196.66
Direct Expenses	
Seed	15.20
Fertilizer	16.54
Fuel & oil	4.86
Repairs	7.80
Land rent	41.49
Operating interest	3.11
Total direct expenses per acre	89.00
Return over direct exp per acre	107.66
Overhead Expenses	
Custom hire	1.11
Hired labor	7.20
RE & pers. property taxes	1.12
Farm insurance	2.09
Utilities	0.50
Dues & professional fees	0.82
Interest	1.45
Mach & bldg depreciation	10.23
Miscellaneous	2.51
Total overhead expenses per acre	27.03
Total dir & ovhd expenses per acre	116.03
Net return per acre	80.63
Government payments	-
Net return with govt pmts	80.63
Labor & management charge	7.90
Net return over lbr & mgt	72.74
Cost of Production	
Total direct expense per bu.	1.51
Total dir & ovhd exp per bu.	1.96
Less govt & other income	1.51
With labor & management	1.65
Net value per unit	2.88
Machinery cost per acre	25.17
Est. labor hours per acre	0.77

Crop Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Crop Tenure Type)

Pasture

	<u>Avg. Of All Farms</u>	<u>Owned Land</u>	<u>Cash Rent</u>	<u>Share Rent</u>
Number of farms	38	28	21	12
Acres	207.34	141.32	131.77	79.58
Yield per acre (aum)	3.07	2.53	3.54	3.07
Operators share of yield %	100.00	100.00	100.00	100.00
Value per aum	11.23	12.41	10.54	11.69
Total product return per acre	34.52	31.36	37.25	35.94
Crop insurance per acre	0.13	0.26	-	-
Other crop income per acre	4.28	8.53	-	-
Gross return per acre	38.94	40.16	37.25	35.94
Direct Expenses				
Seed	0.37	0.23	0.10	1.84
Fertilizer	9.00	14.33	3.85	3.69
Crop chemicals	1.03	1.93	0.16	-
Crop insurance	0.63	0.34	-	3.79
Fuel & oil	1.87	1.75	2.20	1.71
Repairs	3.10	2.94	3.50	3.07
Custom hire	0.22	-	0.55	0.25
Hired labor	0.38	0.21	0.08	2.02
Land rent	13.06	-	37.17	-
Utilities	0.29	0.11	0.05	1.79
Operating interest	0.48	0.30	0.79	0.34
Total direct expenses per acre	30.43	22.15	48.46	18.50
Return over direct exp per acre	8.51	18.01	-11.20	17.44
Overhead Expenses				
Custom hire	1.38	2.33	0.22	1.05
Hired labor	3.59	3.66	4.29	2.01
RE & pers. property taxes	1.88	3.15	0.53	0.49
Farm insurance	1.08	1.23	1.07	0.64
Utilities	0.55	0.84	0.28	0.23
Interest	7.04	10.26	0.65	0.53
Mach & bldg depreciation	4.40	4.31	5.00	3.60
Miscellaneous	1.21	0.87	1.80	0.86
Total overhead expenses per acre	21.14	26.66	13.85	9.41
Total dir & ovhd expenses per acre	51.57	48.81	62.31	27.91
Net return per acre	-12.63	-8.65	-25.05	8.03
Government payments	1.19	1.16	1.74	-
Net return with govt pmts	-11.44	-7.49	-23.32	8.03
Labor & management charge	3.58	4.78	1.91	3.65
Net return over lbr & mgt	-15.01	-12.27	-25.23	4.39
Cost of Production				
Total direct expense per aum	9.90	8.77	13.71	6.02
Total dir & ovhd exp per aum	16.78	19.32	17.63	9.08
Less govt & other income	14.95	15.38	17.13	9.08
With labor & management	16.12	17.27	17.67	10.26
Net value per unit	11.23	12.41	10.54	11.69
Machinery cost per acre	11.14	11.14	12.01	10.24
Est. labor hours per acre	0.36	0.41	0.34	0.27

Crop Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Crop Tenure Type)

Soybeans

	<u>Avg. Of All Farms</u>	<u>Owned Land</u>	<u>Cash Rent</u>	<u>Share Rent</u>	<u>Rented Out</u>
Number of farms	62	42	38	36	11
Acres	478.27	171.80	291.97	258.57	184.90
Yield per acre (bu.)	55.13	54.78	54.64	55.71	56.43
Operators share of yield %	79.84	100.00	100.00	48.64	44.93
Value per bu.	9.46	9.39	9.55	9.40	9.26
Total product return per acre	416.48	514.63	521.64	254.79	234.69
Hedging gains/losses per acre	0.02	-0.10	0.00	0.15	-
Crop insurance per acre	2.24	1.51	4.06	1.00	0.64
LDP income per acre	0.25	-	0.24	0.52	-
Other crop income per acre	6.16	12.28	2.03	1.23	29.56
Gross return per acre	425.16	528.32	527.97	257.69	264.89
Direct Expenses					
Seed	51.58	63.94	63.20	34.42	22.82
Fertilizer	28.75	41.95	30.39	19.12	17.03
Crop chemicals	46.56	53.85	56.72	35.45	16.13
Crop insurance	10.31	11.11	13.08	7.40	5.63
Fuel & oil	9.32	9.14	9.79	9.97	4.35
Repairs	17.48	16.94	18.02	18.66	11.11
Custom hire	5.98	13.98	4.35	2.12	4.06
Hired labor	3.28	3.98	3.91	2.72	-
Land rent	53.55	-	143.12	-	-
Machinery leases	0.96	-	1.94	0.76	-
Utilities	1.06	0.84	1.45	1.02	-
Marketing	0.87	1.52	0.41	0.98	0.56
Operating interest	3.21	2.97	4.23	2.84	0.13
Miscellaneous	1.45	2.23	1.31	1.21	0.48
Total direct expenses per acre	234.35	222.44	351.93	136.67	82.30
Return over direct exp per acre	190.81	305.88	176.04	121.02	182.59
Overhead Expenses					
Custom hire	2.60	4.96	1.55	2.34	1.16
Hired labor	7.38	12.69	7.62	4.03	2.57
Machinery leases	0.45	0.47	0.82	0.06	0.05
RE & pers. property taxes	3.55	9.71	1.34	1.13	4.78
Farm insurance	5.42	6.39	5.15	5.39	3.63
Utilities	1.60	2.01	1.29	1.68	1.52
Dues & professional fees	2.17	4.57	1.48	1.40	1.02
Interest	6.67	21.14	2.01	1.65	3.73
Mach & bldg depreciation	28.49	31.48	26.69	32.05	11.33
Miscellaneous	5.10	6.14	4.30	5.32	4.81
Total overhead expenses per acre	63.43	99.56	52.25	55.05	34.60
Total dir & ovhd expenses per acre	297.78	322.00	404.17	191.72	116.90
Net return per acre	127.38	206.32	123.79	65.97	147.99
Government payments	13.42	20.82	16.00	5.89	7.48
Net return with govt pmnts	140.80	227.14	139.80	71.86	155.48
Labor & management charge	26.54	27.73	23.91	27.10	34.15
Net return over lbr & mgt	114.26	199.41	115.89	44.76	121.33
Cost of Production					
Total direct expense per bu.	5.32	4.06	6.44	5.04	3.25
Total dir & ovhd exp per bu.	6.76	5.88	7.40	7.07	4.61
Less govt & other income	6.26	5.25	6.99	6.75	3.12
With labor & management	6.87	5.75	7.43	7.75	4.47
Net value per unit	9.47	9.39	9.55	9.43	9.26
Machinery cost per acre	66.03	77.05	64.18	67.13	31.95
Est. labor hours per acre	1.57	2.02	1.38	1.51	1.23

Crop Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Crop Tenure Type)

Wheat, Winter

	<u>Avg. Of All Farms</u>	<u>Owned Land</u>	<u>Cash Rent</u>	<u>Share Rent</u>
Number of farms	18	6	9	10
Acres	114.36	90.98	50.66	83.42
Yield per acre (bu.)	73.02	79.51	70.07	73.35
Operators share of yield %	74.20	100.00	100.00	49.18
Value per bu.	3.50	3.72	4.13	2.42
Total product return per acre	189.46	296.16	289.49	87.22
Crop insurance per acre	10.67	-	2.49	24.97
Other crop income per acre	0.71	-	-	1.76
Gross return per acre	200.85	296.16	291.99	113.95
Direct Expenses				
Seed	23.07	42.52	21.46	14.08
Fertilizer	64.60	80.59	65.40	65.14
Crop chemicals	30.02	49.31	40.01	19.15
Crop insurance	8.89	14.36	15.41	3.26
Fuel & oil	7.18	9.84	7.53	4.85
Repairs	16.37	22.74	17.34	12.66
Custom hire	3.13	5.36	5.46	0.05
Hired labor	0.25	0.66	0.36	-
Land rent	28.79	-	130.00	-
Utilities	0.49	0.71	0.53	0.46
Marketing	0.18	0.14	-	-
Operating interest	2.63	4.57	4.68	0.94
Miscellaneous	0.46	1.74	-	-
Total direct expenses per acre	186.09	232.52	308.17	120.58
Return over direct exp per acre	14.76	63.64	-16.18	-6.63
Overhead Expenses				
Custom hire	1.11	0.91	1.76	0.66
Hired labor	2.98	2.68	1.87	3.06
RE & pers. property taxes	3.74	10.20	1.83	0.58
Farm insurance	3.31	4.62	3.25	2.68
Utilities	0.86	1.20	0.14	0.97
Dues & professional fees	0.95	0.84	1.03	0.70
Interest	10.06	35.09	2.24	0.19
Mach & bldg depreciation	31.34	51.78	24.25	25.16
Miscellaneous	4.71	7.37	2.34	4.80
Total overhead expenses per acre	59.07	114.70	38.72	38.79
Total dir & ovhd expenses per acre	245.16	347.22	346.89	159.36
Net return per acre	-44.31	-51.06	-54.90	-45.41
Government payments	7.56	10.59	17.38	0.87
Net return with govt pmts	-36.75	-40.47	-37.52	-44.54
Labor & management charge	22.15	28.56	22.99	15.56
Net return over lbr & mgt	-58.90	-69.03	-60.52	-60.10
Cost of Production				
Total direct expense per bu.	3.43	2.92	4.40	3.34
Total dir & ovhd exp per bu.	4.52	4.37	4.95	4.42
Less govt & other income	4.17	4.23	4.67	3.65
With labor & management	4.58	4.59	5.00	4.08
Net value per unit	3.50	3.72	4.13	2.42
Machinery cost per acre	58.87	89.41	56.45	43.38
Est. labor hours per acre	1.07	1.25	0.86	0.83

Crop Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Crop Tenure Type)

Custom Work

	<u>Avg. Of All Farms</u>	<u>Share Rent</u>
Number of farms	5	5
Acres	556.32	556.32
Yield per acre (\$)	100.74	100.74
Operators share of yield %	100.00	100.00
Value per \$	1.00	1.00
Total product return per acre	100.74	100.74
Other crop income per acre	29.08	29.08
Gross return per acre	129.81	129.81
Direct Expenses		
Fuel & oil	13.63	13.63
Repairs	24.59	24.59
Operating interest	3.69	3.69
Total direct expenses per acre	41.91	41.91
Return over direct exp per acre	87.90	87.90
Overhead Expenses		
Custom hire	6.07	6.07
Hired labor	17.53	17.53
Machinery leases	1.18	1.18
Building leases	1.10	1.10
RE & pers. property taxes	1.73	1.73
Farm insurance	5.68	5.68
Utilities	2.73	2.73
Dues & professional fees	2.03	2.03
Interest	1.61	1.61
Mach & bldg depreciation	40.41	40.41
Miscellaneous	8.70	8.70
Total overhead expenses per acre	88.79	88.79
Total dir & ovhd expenses per acre	130.70	130.70
Net return per acre	-0.89	-0.89
Government payments	-	-
Net return with govt pmts	-0.89	-0.89
Labor & management charge	32.39	32.39
Net return over lbr & mgt	-33.28	-33.28
Cost of Production		
Total direct expense per \$	0.42	0.42
Total dir & ovhd exp per \$	1.30	1.30
Less govt & other income	1.01	1.01
With labor & management	1.33	1.33
Net value per unit	1.00	1.00
Machinery cost per acre	81.96	81.96
Est. labor hours per acre	1.97	1.97

Crop Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Crop Tenure Type)

Rented Out

	<u>Avg. Of All Farms</u>	<u>Owned Land</u>
Number of farms	9	8
Acres	153.89	127.38
Yield per acre (\$)	122.26	151.82
Operators share of yield %	100.00	100.00
Value per \$	1.00	1.00
Total product return per acre	122.26	151.82
Hedging gains/losses per acre	1.71	2.32
Other crop income per acre	3.41	4.63
Gross return per acre	127.38	158.77
Direct Expenses		
Fertilizer	1.75	2.38
Fuel & oil	1.71	2.31
Repairs	3.13	4.09
Land rent	5.78	-
Utilities	0.58	-
Miscellaneous	0.05	0.07
Total direct expenses per acre	13.01	8.85
Return over direct exp per acre	114.37	149.92
Overhead Expenses		
Custom hire	2.10	2.70
Hired labor	0.14	0.17
RE & pers. property taxes	5.39	7.33
Farm insurance	2.65	3.59
Utilities	1.48	1.98
Dues & professional fees	0.57	0.67
Interest	13.97	18.99
Mach & bldg depreciation	14.55	19.78
Miscellaneous	1.05	1.34
Total overhead expenses per acre	41.90	56.55
Total dir & ovhd expenses per acre	54.91	65.40
Net return per acre	72.47	93.37
Government payments	3.44	3.14
Net return with govt pmts	75.91	96.52
Labor & management charge	6.77	9.14
Net return over lbr & mgt	69.14	87.38
Cost of Production		
Total direct expense per \$	0.11	0.06
Total dir & ovhd exp per \$	0.45	0.43
Less govt & other income	0.38	0.36
With labor & management	0.43	0.42
Net value per unit	1.01	1.02
Machinery cost per acre	20.66	27.75
Est. labor hours per acre	0.44	0.59

Livestock Reports

The Livestock Enterprise Analysis tables show the average physical production, gross margin over purchase costs, direct costs, overhead costs, and net returns per budget unit.

Gross Margin is the accrual gross value produced by the enterprise. It includes income from sale of offspring and livestock products, cull income, non-cash transfers to other enterprises, and the value of production used in the home or for feed. It also includes the value of inventory change from beginning to the end of the year. The cost of livestock purchased and the value of animals transferred in are deducted.

Net Return is the amount contributed by a unit of the enterprise toward operator labor, management, and equity capital. Any wages and benefits paid to the operator are removed from labor costs (and added to *Labor and Management Charge*) so that all farms are on equal footing.

Net Return Over Labor and Management is the return remaining after compensating the operator for unpaid labor and management. This is the per unit return to equity capital.

Cost of Production section shows the average cost per unit sold in each cost category. *Total direct and overhead expense per unit* is the breakeven price needed to cover cash costs and depreciation. For grow/finish enterprises, this includes the purchase cost or transfer-in value of the animal. *With other revenue adjustments* is the final breakeven price adjusted for cull sales, other offspring sales, the cost of replacement stock, and other miscellaneous income. *With labor and management* is the breakeven price to provide labor and management return for the operator.

Other Information contains both economic and technical efficiency measures for each enterprise.

Rounding of individual items for the report may have caused minor discrepancies with the calculated totals. If fewer than 5 farms complete analysis on any given livestock enterprise, information for that enterprise is not reported.

Livestock Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cwt. Produced

	<u>Avg. Of</u> <u>All Farms</u>		<u>Low 20%</u>		<u>20 - 40%</u>		<u>40 - 60%</u>		<u>60 - 80%</u>		<u>High 20%</u>	
Number of farms	28		5		6		5		6		6	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	74.05	106.95	90.34	147.73	48.20	61.08	81.68	102.93	76.35	114.36	74.46	120.57
Transferred out (lb)	4.87	7.64	-	-	2.59	2.96	1.87	3.08	14.82	19.45	9.89	24.60
Cull sales (lb)	30.38	32.88	23.85	15.52	14.04	8.52	26.47	15.13	75.98	83.14	7.66	78.39
Other income		0.48		-		1.05		0.92		-		-
Purchased (lb)	-8.52	-15.29	-5.27	-7.80	-7.00	-8.79	-15.83	-19.61	-6.16	-9.93	-4.81	-45.14
Transferred in (lb)	-0.42	-1.57	-	-	-	-	-1.64	-1.83	-	-	-	-10.76
Inventory change (lb)	-0.68	-32.47	-8.91	-50.29	41.71	6.35	6.60	-19.49	-60.99	-89.56	12.79	-10.54
Gross margin		99.26		105.15		71.17		81.13		120.78		157.13
Direct Expenses												
Protein Vit Minerals (lb.)	2.66	12.43	4.55	13.29	4.28	10.20	-	14.01	1.77	14.30	3.26	8.26
Creep / Starter (lb.)	2.49	1.73	8.33	3.35	2.85	0.16	-	2.09	-	-	-	4.06
Complete Ration (lb.)	9.63	5.79	3.03	21.43	-	-	6.42	0.53	30.07	4.34	16.30	1.39
Corn (bu.)	2.63	7.81	7.01	21.31	1.90	5.92	1.39	3.37	1.24	3.76	0.54	1.80
Corn Silage (lb.)	163.51	4.71	746.18	18.65	-	-	-	-	-	-	-	6.11
Hay, Grass (lb.)	1,009.15	26.19	1,354.14	30.45	755.27	20.56	646.82	18.26	1,328.16	38.71	1,179.33	26.97
Pasture (aum)	1.32	15.32	1.32	16.93	1.14	12.70	1.18	11.93	1.41	17.01	1.95	23.37
Other feed stuffs (lb)	4.42	1.07	-	-	0.17	0.45	4.57	2.26	15.27	0.77	3.26	2.30
Veterinary		3.12		5.56		2.11		2.34		3.26		1.94
Supplies		2.49		0.66		4.61		2.85		2.72		0.27
Contract production exp.		2.37		-		-		-		12.65		-
Fuel & oil		6.81		8.66		9.23		8.89		1.38		2.02
Repairs		8.75		12.34		11.76		8.15		4.76		3.00
Custom hire		1.66		-		2.14		3.85		0.88		-
Hired labor		9.89		31.48		5.23		6.87		-		-
Utilities		1.30		2.50		1.22		1.25		0.38		0.72
Miscellaneous		3.12		0.80		4.15		7.47		0.23		-
Total direct expenses		114.57		187.44		90.45		94.12		105.13		82.20
Return over direct expense		-15.31		-82.29		-19.29		-12.99		15.64		74.92
Overhead Expenses												
RE & pers. property taxes		1.81		2.58		1.68		1.70		1.42		1.44
Farm insurance		2.65		3.39		2.87		2.46		1.60		2.91
Interest		3.43		1.99		7.82		1.83		0.45		6.03
Mach & bldg depreciation		8.02		13.19		8.80		4.16		7.92		5.10
Miscellaneous		5.78		6.86		4.06		7.36		5.35		4.20
Total overhead expenses		21.69		28.00		25.23		17.52		16.74		19.68
Total dir & ovhd expenses		136.25		215.44		115.68		111.65		121.87		101.88
Net return		-37.00		-110.29		-44.52		-30.52		-1.10		55.25
Labor & management charge		12.68		17.20		14.78		3.58		13.47		19.84
Net return over lbr & mgt		-49.68		-127.49		-59.29		-34.09		-14.56		35.40
Cost of Production Per Cwt. Produced												
Total direct expense per unit		114.54		187.30		90.42		94.12		105.13		82.20
Total dir & ovhd expense per unit		136.22		215.28		115.64		111.65		121.87		101.88
With other revenue adjustments		135.58		221.69		113.30		120.97		102.65		98.85
With labor and management		148.25		238.87		128.07		124.55		116.11		118.69
Est. labor hours per unit		1.55		2.16		1.38		1.35		1.07		1.99
Other Information												
Number of cows		88.0		129.6		80.8		97.0		93.8		47.3
Pregnancy percentage		94.3		94.0		94.4		95.5		94.7		92.4
Pregnancy loss percentage		8.6		5.7		2.4		2.4		25.7		2.3
Culling percentage		16.1		8.3		8.0		10.9		30.0		28.7
Calving percentage		86.2		88.6		92.2		93.2		70.3		90.3
Weaning percentage		78.9		86.0		80.1		78.7		65.5		87.5
Calves sold per cow		0.67		0.68		0.45		0.83		0.72		0.70
Calf death loss percent		4.9		2.8		5.7		6.2		4.7		5.7
Cow death loss percent		1.7		0.9		1.8		2.1		2.5		1.4
Cows per FTE		370.7		318.4		351.1		323.6		651.9		326.0
Average weaning weight		462		451		480		506		462		396
Lb. weaned/exposed female		365		387		384		398		303		346
Feed cost per cow		366.84		511.01		288.96		337.07		316.85		320.86
Avg wgt/ Beef Calves sold		581		544		645		653		506		584
Avg price / cwt.		144.43		163.53		126.73		126.02		149.79		161.93

Livestock Enterprise Analysis
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cow

	<u>Avg. Of</u>		<u>Low 20%</u>		<u>20 - 40%</u>		<u>40 - 60%</u>		<u>60 - 80%</u>		<u>High 20%</u>	
	<u>All Farms</u>											
Number of farms	28		5		6		5		6		6	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	362.0	522.77	368.1	601.88	278.6	353.03	524.9	661.50	306.6	459.30	321.8	521.02
Transferred out (lb)	23.8	37.35	-	-	14.9	17.11	12.0	19.79	59.5	78.10	42.7	106.30
Cull sales (lb)	148.5	160.73	97.2	63.22	81.2	49.24	170.1	97.22	305.2	333.90	33.1	338.75
Other income		2.35		-		6.04		5.90		-		-
Purchased (lb)	-41.7	-74.73	-21.5	-31.79	-40.5	-50.83	-101.7	-126.01	-24.7	-39.88	-20.8	-195.05
Transferred in (lb)	-2.1	-7.67	-	-	-	-	-10.5	-11.75	-	-	-	-46.48
Inventory change (lb)	-3.3	-158.69	-36.3	-204.89	241.1	36.71	42.4	-125.27	-245.0	-359.68	55.3	-45.56
Gross margin		485.15		428.42		411.31		521.37		485.07		678.97
Direct Expenses												
Protein Vit Minerals (lb.)	13.0	60.77	18.5	54.14	24.7	58.94	-	90.04	7.1	57.42	14.1	35.68
Creep / Starter (lb.)	12.2	8.45	34.0	13.67	16.5	0.95	-	13.45	-	-	-	17.55
Complete Ration (lb.)	47.1	28.30	12.3	87.33	-	-	41.2	3.40	120.8	17.41	70.4	6.01
Corn (bu.)	12.8	38.17	28.6	86.82	11.0	34.22	8.9	21.65	5.0	15.12	2.3	7.78
Corn Silage (lb.)	799.2	23.02	3,040.1	76.00	-	-	-	-	-	-	-	26.41
Hay, Grass (lb.)	4,932.5	128.02	5,517.1	124.07	4,365.1	118.83	4,156.7	117.35	5,334.3	155.47	5,096.1	116.53
Pasture (aum)	6.5	74.90	5.4	68.97	6.6	73.40	7.6	76.67	5.7	68.33	8.4	100.98
Other feed stuffs (lb)	21.6	5.22	-	-	1.0	2.62	29.4	14.51	61.3	3.09	14.1	9.92
Veterinary		15.26		22.66		12.17		15.04		13.08		8.36
Supplies		13.14		10.20		20.00		21.43		8.02		4.15
Contract production exp.		11.60		-		-		-		50.79		-
Fuel & oil		33.29		35.29		53.36		57.13		5.54		8.73
Repairs		42.76		50.29		67.99		52.36		19.11		12.97
Custom hire		8.11		-		12.37		24.74		3.52		-
Hired labor		48.35		128.26		30.23		44.13		-		-
Operating interest		5.39		2.70		13.67		4.93		4.41		0.12
Miscellaneous		15.25		3.28		24.01		48.02		0.93		-
Total direct expenses		559.99		763.69		522.77		604.85		422.25		355.21
Return over direct expense		-74.84		-335.26		-111.46		-83.49		62.82		323.76
Overhead Expenses												
Farm insurance		12.93		13.82		16.59		15.84		6.41		12.59
Dues & professional fees		6.43		5.80		8.75		12.21		3.24		0.39
Interest		16.75		8.09		45.21		11.76		1.80		26.05
Mach & bldg depreciation		39.20		53.73		50.86		26.75		31.81		22.05
Miscellaneous		30.68		32.63		24.41		46.06		23.97		23.96
Total overhead expenses		105.99		114.08		145.83		112.62		67.22		85.04
Total dir & ovhd expenses		665.98		877.77		668.59		717.47		489.47		440.24
Net return		-180.83		-449.35		-257.29		-196.11		-4.40		238.73
Labor & management charge		61.97		70.06		85.40		22.98		54.09		85.74
Net return over lbr & mgt		-242.81		-519.41		-342.69		-219.08		-58.49		152.98
Cost of Production Per Cwt. Produced												
Total direct expense per unit		114.54		187.30		90.42		94.12		105.13		82.20
Total dir & ovhd expense per unit		136.22		215.28		115.64		111.65		121.87		101.88
With other revenue adjustments		135.58		221.69		113.30		120.97		102.65		98.85
With labor and management		148.25		238.87		128.07		124.55		116.11		118.69
Est. labor hours per unit		7.55		8.79		7.98		8.65		4.29		8.59
Other Information												
Number of cows		88.0		129.6		80.8		97.0		93.8		47.3
Pregnancy percentage		94.3		94.0		94.4		95.5		94.7		92.4
Pregnancy loss percentage		8.6		5.7		2.4		2.4		25.7		2.3
Culling percentage		16.1		8.3		8.0		10.9		30.0		28.7
Calving percentage		86.2		88.6		92.2		93.2		70.3		90.3
Weaning percentage		78.9		86.0		80.1		78.7		65.5		87.5
Calves sold per cow		0.67		0.68		0.45		0.83		0.72		0.70
Calf death loss percent		4.9		2.8		5.7		6.2		4.7		5.7
Cow death loss percent		1.7		0.9		1.8		2.1		2.5		1.4
Cows per FTE		370.7		318.4		351.1		323.6		651.9		326.0
Average weaning weight		462		451		480		506		462		396
Lb. weaned/exposed female		365		387		384		398		303		346
Feed cost per cow		366.84		511.01		288.96		337.07		316.85		320.86
Avg wgt/ Beef Calves sold		581		544		645		653		506		584
Avg price / cwt.		144.43		163.53		126.73		126.02		149.79		161.93

Financial Summary Tables

The following pages are one-page financial summaries of the whole farm analysis sorted different ways. A group of the most meaningful factors are highlighted here when the farms are sorted as follows:

Financial Summary by Net Farm Income (page 37)

This table summarizes whole-farm financial performance by net farm income. Farms are categorized into 4 groups from low to high net farm income.

Financial Summary by Farm Size (Gross Farm Income) (page 38)

This table summarizes whole-farm financial performance by size of farm. Farms are categorized based on gross farm income.

Financial Summary by Farm Type (page 39)

This table summarizes whole-farm financial performance by debt level. Farm type is assigned based on greater than 70 percent of sales from that commodity or combination of commodities. If a given type includes less than four farms, they are not reported here.

Financial Summary by Debt To Asset Ratio (page 40)

This table summarizes whole-farm financial performance by debt level. Farms are categorized based on total farm and non-farm Debt to Asset Ratio.

Financial Summary by Age of Operator (page 41)

This table summarizes whole-farm financial performance based on age of the primary operator.

Financial Summary
2016 Missouri FBMA Farm Summary
(Farms Sorted By Net Farm Income)

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>20 - 40%</u>	<u>40 - 60%</u>	<u>60 - 80%</u>	<u>High 20%</u>
Number of farms	108	21	22	21	22	22
Income Statement						
Gross cash farm income	523,792	997,576	200,671	250,730	472,288	706,819
Total cash farm expense	469,031	979,901	177,706	217,142	385,419	596,759
Net cash farm income	54,761	17,675	22,966	33,588	86,869	110,060
Inventory change	31,512	-72,346	-2,469	14,969	24,491	187,441
Depreciation	-34,800	-41,047	-13,518	-15,396	-39,346	-64,093
Net farm income from operations	51,473	-95,719	6,979	33,161	72,014	233,408
Gain or loss on capital sales	447	-1,089	-205	504	1,100	1,858
Average net farm income	51,920	-96,808	6,774	33,664	73,113	235,266
Median net farm income	33,576	-13,611	6,798	30,940	72,129	171,539
Profitability (cost)						
Rate of return on assets	1.9 %	-3.9 %	-1.1 %	2.0 %	2.9 %	7.2 %
Rate of return on equity	1.2 %	-9.0 %	-3.5 %	1.3 %	2.8 %	8.1 %
Operating profit margin	7.4 %	-21.6 %	-3.2 %	7.7 %	11.3 %	22.4 %
Asset turnover rate	26.2 %	18.1 %	35.4 %	26.1 %	25.6 %	32.2 %
Profitability (market)						
Rate of return on assets	1.2 %	-3.7 %	1.1 %	0.7 %	2.3 %	5.7 %
Rate of return on equity	0.6 %	-6.6 %	0.6 %	0.0 %	2.0 %	6.1 %
Operating profit margin	6.7 %	-30.1 %	4.9 %	4.1 %	12.5 %	23.4 %
Asset turnover rate	18.4 %	12.4 %	22.0 %	16.7 %	18.2 %	24.3 %
Liquidity & Repayment (end of year)						
Current assets	437,644	606,115	157,324	208,070	462,564	751,370
Current liabilities	187,698	369,482	117,943	93,154	187,321	174,557
Current ratio	2.33	1.64	1.33	2.23	2.47	4.30
Working capital	249,946	236,632	39,382	114,917	275,242	576,813
Working capital to gross inc	44.4 %	25.0 %	19.8 %	42.8 %	52.4 %	65.3 %
Term debt coverage ratio	1.71	-0.34	1.30	2.28	1.52	4.28
Replacement coverage ratio	1.19	-0.27	1.00	1.46	1.05	2.58
Term debt to EBITDA	3.02	-46.02	4.20	2.56	2.88	1.04
Solvency (end of year at cost)						
Number of farms	108	21	22	21	22	22
Total assets	1,872,730	2,622,342	647,332	1,044,385	1,975,257	3,070,755
Total liabilities	513,348	948,345	227,056	246,305	623,430	529,237
Net worth	1,359,382	1,673,997	420,276	798,080	1,351,828	2,541,518
Net worth change	50,455	-18,428	11,453	14,128	22,821	217,517
Farm debt to asset ratio	29 %	39 %	37 %	26 %	32 %	18 %
Total debt to asset ratio	27 %	36 %	35 %	24 %	32 %	17 %
Change in earned net worth %	4 %	-1 %	3 %	2 %	2 %	9 %
Solvency (end of year at market)						
Number of farms	108	21	22	21	22	22
Total assets	2,641,752	3,875,594	1,018,707	1,573,149	2,765,274	3,983,545
Total liabilities	513,348	948,345	227,056	246,305	623,430	529,237
Net worth	2,128,404	2,927,249	791,651	1,326,844	2,141,844	3,454,308
Total net worth change	59,324	-18,668	35,205	5,593	37,152	231,352
Farm debt to asset ratio	20 %	27 %	23 %	17 %	23 %	14 %
Total debt to asset ratio	19 %	24 %	22 %	16 %	23 %	13 %
Change in total net worth %	3 %	-1 %	5 %	0 %	2 %	7 %
Nonfarm Information						
Net nonfarm income	38,841	34,293	36,250	41,758	22,589	59,240
Farms reporting living expenses	15	3	3	5	3	1
Total family living expense	47,362	-	-	39,824	-	-
Total living, invest, cap. purch	58,778	-	-	46,458	-	-
Crop Acres						
Total crop acres	753	572	399	377	1,008	1,382
Total crop acres owned	229	349	59	106	242	389
Total crop acres cash rented	261	69	228	129	257	604
Total crop acres share rented	263	154	111	142	510	388
Machinery value per crop acre	491	577	433	414	400	559

Financial Summary
2016 Missouri FBMA Farm Summary
(Farms Sorted By Gross Farm Income)

	<u>Avg. Of All Farms</u>	<u>Less than 100,000</u>	<u>100,001 - 250,000</u>	<u>250,001 - 500,000</u>	<u>500,001 - 1,000,000</u>	<u>1,000,001- 2,000,000</u>
Number of farms	108	35	16	19	28	8
Income Statement						
Gross cash farm income	523,792	41,292	177,283	351,491	654,398	1,417,781
Total cash farm expense	469,031	31,570	153,133	290,063	542,930	1,264,565
Net cash farm income	54,761	9,723	24,151	61,428	111,468	153,215
Inventory change	31,512	1,773	27,917	35,476	94,282	45,900
Depreciation	-34,800	-3,017	-10,521	-30,097	-61,465	-104,972
Net farm income from operations	51,473	8,478	41,546	66,807	144,285	94,143
Gain or loss on capital sales	447	-303	-97	-748	859	6,323
Average net farm income	51,920	8,175	41,449	66,059	145,144	100,465
Median net farm income	33,576	6,804	37,910	64,531	106,439	102,857
Profitability (cost)						
Rate of return on assets	1.9 %	0.0 %	3.3 %	2.5 %	4.6 %	1.1 %
Rate of return on equity	1.2 %	-0.6 %	3.2 %	2.1 %	5.0 %	0.1 %
Operating profit margin	7.4 %	-0.2 %	13.1 %	12.0 %	15.1 %	3.3 %
Asset turnover rate	26.2 %	12.2 %	25.0 %	20.8 %	30.7 %	33.1 %
Profitability (market)						
Rate of return on assets	1.2 %	0.0 %	2.4 %	-0.8 %	3.8 %	0.7 %
Rate of return on equity	0.6 %	-0.4 %	2.2 %	-1.7 %	3.9 %	0.1 %
Operating profit margin	6.7 %	-0.2 %	19.0 %	-4.8 %	18.3 %	3.4 %
Asset turnover rate	18.4 %	8.7 %	12.6 %	15.7 %	20.7 %	21.5 %
Liquidity & Repayment (end of year)						
Current assets	437,644	64,002	195,116	394,933	659,570	1,090,088
Current liabilities	187,698	7,936	41,971	153,953	223,465	467,356
Current ratio	2.33	8.07	4.65	2.57	2.95	2.33
Working capital	249,946	56,066	153,145	240,980	436,104	622,732
Working capital to gross inc	44.4 %	124.6 %	73.0 %	61.3 %	56.9 %	43.3 %
Term debt coverage ratio	1.71	7.37	3.68	1.73	2.98	1.59
Replacement coverage ratio	1.19	2.10	2.38	1.09	1.86	1.15
Term debt to EBITDA	3.02	2.90	2.38	2.46	1.19	4.05
Solvency (end of year at cost)						
Number of farms	108	35	16	19	28	8
Total assets	1,872,730	422,700	1,023,860	2,027,122	2,594,256	4,241,528
Total liabilities	513,348	69,107	189,283	413,995	550,884	1,346,472
Net worth	1,359,382	353,593	834,577	1,613,127	2,043,373	2,895,056
Net worth change	50,455	9,150	50,942	140,217	88,862	92,229
Farm debt to asset ratio	29 %	17 %	21 %	22 %	21 %	33 %
Total debt to asset ratio	27 %	16 %	18 %	20 %	21 %	32 %
Change in earned net worth %	4 %	3 %	7 %	10 %	5 %	3 %
Solvency (end of year at market)						
Number of farms	108	35	16	19	28	8
Total assets	2,641,752	595,349	1,850,492	2,599,861	3,829,343	6,469,326
Total liabilities	513,348	69,107	189,283	413,995	550,884	1,346,472
Net worth	2,128,404	526,243	1,661,209	2,185,866	3,278,460	5,122,853
Total net worth change	59,324	13,839	71,754	87,669	139,939	95,064
Farm debt to asset ratio	20 %	12 %	11 %	17 %	14 %	21 %
Total debt to asset ratio	19 %	12 %	10 %	16 %	14 %	21 %
Change in total net worth %	3 %	3 %	5 %	4 %	4 %	2 %
Nonfarm Information						
Net nonfarm income	38,841	35,828	48,219	32,591	25,884	90,080
Farms reporting living expenses	15	6	5	2	2	-
Total family living expense	47,362	37,978	55,362	-	-	-
Total living, invest, cap. purch	58,778	57,018	61,299	-	-	-
Crop Acres						
Total crop acres	753	74	415	800	1,254	2,357
Total crop acres owned	229	38	123	197	412	620
Total crop acres cash rented	261	17	118	144	431	1,322
Total crop acres share rented	263	19	173	460	411	415
Machinery value per crop acre	491	664	296	470	497	559

Financial Summary
2016 Missouri FBMA Farm Summary
(Farms Sorted By Farm Type)

	<u>Avg. Of All Farms</u>	<u>Crop</u>	<u>Beef</u>	<u>Crop and Beef</u>	<u>Other</u>
Number of farms	108	55	14	22	10
Income Statement					
Gross cash farm income	523,792	428,709	69,203	513,764	513,509
Total cash farm expense	469,031	372,520	53,573	436,880	369,483
Net cash farm income	54,761	56,188	15,631	76,884	144,025
Inventory change	31,512	59,051	-8,880	-11,620	40,250
Depreciation	-34,800	-42,994	-2,576	-34,312	-36,745
Net farm income from operations	51,473	72,245	4,176	30,952	147,530
Gain or loss on capital sales	447	348	-848	1,943	-1,724
Average net farm income	51,920	72,593	3,328	32,895	145,806
Median net farm income	33,576	46,025	3,393	48,593	53,451
Profitability (cost)					
Rate of return on assets	1.9 %	2.4 %	-1.8 %	1.4 %	6.8 %
Rate of return on equity	1.2 %	2.2 %	-3.8 %	-0.7 %	8.5 %
Operating profit margin	7.4 %	8.6 %	-13.8 %	6.9 %	26.6 %
Asset turnover rate	26.2 %	28.3 %	12.8 %	20.4 %	25.6 %
Profitability (market)					
Rate of return on assets	1.2 %	1.5 %	-3.0 %	0.6 %	5.1 %
Rate of return on equity	0.6 %	1.2 %	-4.5 %	-1.1 %	5.7 %
Operating profit margin	6.7 %	8.2 %	-37.2 %	3.9 %	28.0 %
Asset turnover rate	18.4 %	18.3 %	8.2 %	15.2 %	18.4 %
Liquidity & Repayment (end of year)					
Current assets	437,644	475,356	49,605	470,616	363,826
Current liabilities	187,698	139,501	24,127	333,750	121,506
Current ratio	2.33	3.41	2.06	1.41	2.99
Working capital	249,946	335,855	25,477	136,866	242,321
Working capital to gross inc	44.4 %	68.6 %	41.6 %	26.5 %	41.7 %
Term debt coverage ratio	1.71	2.28	13.11	0.96	4.84
Replacement coverage ratio	1.19	1.45	1.48	0.83	2.60
Term debt to EBITDA	3.02	1.79	5.04	5.29	2.23
Solvency (end of year at cost)					
Number of farms	108	55	14	22	10
Total assets	1,872,730	1,991,479	362,105	2,146,905	2,120,970
Total liabilities	513,348	368,440	114,066	913,728	563,532
Net worth	1,359,382	1,623,039	248,039	1,233,177	1,557,438
Net worth change	50,455	86,827	4,077	14,213	108,270
Farm debt to asset ratio	29 %	20 %	31 %	44 %	31 %
Total debt to asset ratio	27 %	19 %	32 %	43 %	27 %
Change in earned net worth %	4 %	6 %	2 %	1 %	7 %
Solvency (end of year at market)					
Number of farms	108	55	14	22	10
Total assets	2,641,752	3,008,641	555,719	2,845,970	2,951,921
Total liabilities	513,348	368,440	114,066	913,728	563,532
Net worth	2,128,404	2,640,201	441,653	1,932,242	2,388,389
Total net worth change	59,324	99,606	5,357	12,914	126,272
Farm debt to asset ratio	20 %	13 %	20 %	33 %	22 %
Total debt to asset ratio	19 %	12 %	21 %	32 %	19 %
Change in total net worth %	3 %	4 %	1 %	1 %	6 %
Nonfarm Information					
Net nonfarm income	38,841	40,843	31,366	37,221	40,366
Farms reporting living expenses	15	3	3	6	3
Total family living expense	47,362	-	-	58,270	-
Total living, invest, cap. purch	58,778	-	-	67,445	-
Crop Acres					
Total crop acres	753	969	67	829	689
Total crop acres owned	229	312	28	248	153
Total crop acres cash rented	261	342	13	256	247
Total crop acres share rented	263	315	26	325	289
Machinery value per crop acre	491	512	670	366	562

Financial Summary
2016 Missouri FBMA Farm Summary
(Farms Sorted By Debt to Asset Ratio)

	<u>Avg. Of All Farms</u>	<u>Less than 20%</u>	<u>20% - 40%</u>	<u>40% - 60%</u>	<u>60% - 80%</u>
Number of farms	108	64	24	13	7
Income Statement					
Gross cash farm income	523,792	316,187	465,447	1,527,161	758,538
Total cash farm expense	469,031	261,172	396,028	1,519,150	669,528
Net cash farm income	54,761	55,014	69,420	8,010	89,010
Inventory change	31,512	42,375	33,290	7,720	-29,719
Depreciation	-34,800	-29,443	-39,926	-44,969	-47,311
Net farm income from operations	51,473	67,946	62,784	-29,239	11,980
Gain or loss on capital sales	447	1,632	-1,619	-1,332	-
Average net farm income	51,920	69,577	61,165	-30,571	11,980
Median net farm income	33,576	21,702	49,606	48,691	30,579
Profitability (cost)					
Rate of return on assets	1.9 %	2.9 %	2.4 %	-1.8 %	1.7 %
Rate of return on equity	1.2 %	2.9 %	1.9 %	-8.8 %	-4.0 %
Operating profit margin	7.4 %	12.5 %	7.7 %	-4.9 %	9.6 %
Asset turnover rate	26.2 %	23.3 %	31.0 %	36.1 %	17.9 %
Profitability (market)					
Rate of return on assets	1.2 %	2.2 %	-0.8 %	-0.6 %	1.3 %
Rate of return on equity	0.6 %	2.2 %	-2.4 %	-4.7 %	-4.4 %
Operating profit margin	6.7 %	15.7 %	-3.4 %	-1.9 %	7.6 %
Asset turnover rate	18.4 %	14.3 %	23.6 %	31.1 %	17.0 %
Liquidity & Repayment (end of year)					
Current assets	437,644	383,658	350,612	703,309	736,243
Current liabilities	187,698	56,149	196,959	555,702	675,250
Current ratio	2.33	6.83	1.78	1.27	1.09
Working capital	249,946	327,510	153,653	147,607	60,994
Working capital to gross inc	44.4 %	90.3 %	30.7 %	9.5 %	8.0 %
Term debt coverage ratio	1.71	3.52	1.55	0.26	0.97
Replacement coverage ratio	1.19	1.70	1.25	0.21	0.93
Term debt to EBITDA	3.02	1.01	3.08	12.18	8.65
Solvency (end of year at cost)					
Number of farms	108	64	24	13	7
Total assets	1,872,730	1,726,349	1,698,517	2,301,706	3,011,706
Total liabilities	513,348	164,798	581,104	1,284,717	2,035,242
Net worth	1,359,382	1,561,551	1,117,413	1,016,988	976,464
Net worth change	50,455	49,715	123,649	-60,702	12,701
Farm debt to asset ratio	29 %	11 %	34 %	57 %	68 %
Total debt to asset ratio	27 %	10 %	34 %	56 %	68 %
Change in earned net worth %	4 %	3 %	12 %	-6 %	1 %
Solvency (end of year at market)					
Number of farms	108	64	24	13	7
Total assets	2,641,752	2,749,776	2,178,456	2,680,007	3,171,494
Total liabilities	513,348	164,798	581,104	1,284,717	2,035,242
Net worth	2,128,404	2,584,979	1,597,352	1,395,290	1,136,252
Total net worth change	59,324	77,743	77,510	-35,480	4,637
Farm debt to asset ratio	20 %	7 %	26 %	49 %	65 %
Total debt to asset ratio	19 %	6 %	27 %	48 %	64 %
Change in total net worth %	3 %	3 %	5 %	-2 %	0 %
Nonfarm Information					
Net nonfarm income	38,841	35,930	44,994	43,500	35,698
Farms reporting living expenses	15	10	4	1	-
Total family living expense	47,362	47,841	-	-	-
Total living, invest, cap. purch	58,778	58,045	-	-	-
Crop Acres					
Total crop acres	753	604	987	996	858
Total crop acres owned	229	280	151	106	263
Total crop acres cash rented	261	162	415	466	250
Total crop acres share rented	263	162	422	424	345
Machinery value per crop acre	491	576	462	347	360

Financial Summary
2016 Missouri FBMA Farm Summary
(Farms Sorted By Age of Operator)

	<u>Avg. Of All Farms</u>	<u>Less Than 31</u>	<u>31 - 40</u>	<u>41 - 50</u>	<u>51 - 60</u>	<u>Over 60</u>
Number of farms	108	13	18	18	20	39
Income Statement						
Gross cash farm income	523,792	119,899	457,723	1,069,432	572,056	412,331
Total cash farm expense	469,031	100,986	379,735	1,066,429	489,273	346,824
Net cash farm income	54,761	18,914	77,989	3,002	82,784	65,508
Inventory change	31,512	11,911	40,414	30,720	38,183	30,881
Depreciation	-34,800	-9,118	-33,110	-47,150	-45,237	-33,088
Net farm income from operations	51,473	21,707	85,293	-13,428	75,729	63,301
Gain or loss on capital sales	447	-46	104	1,445	4,477	-1,758
Average net farm income	51,920	21,661	85,398	-11,983	80,207	61,543
Median net farm income	33,576	14,535	58,526	29,617	25,188	30,940
Profitability (cost)						
Rate of return on assets	1.9 %	4.6 %	5.2 %	-1.5 %	2.6 %	1.9 %
Rate of return on equity	1.2 %	4.9 %	6.7 %	-4.4 %	1.7 %	1.7 %
Operating profit margin	7.4 %	12.4 %	13.9 %	-5.0 %	12.1 %	8.2 %
Asset turnover rate	26.2 %	37.6 %	37.1 %	29.9 %	21.6 %	23.6 %
Profitability (market)						
Rate of return on assets	1.2 %	2.1 %	5.0 %	-3.0 %	1.9 %	1.4 %
Rate of return on equity	0.6 %	-0.9 %	6.2 %	-6.2 %	1.1 %	1.2 %
Operating profit margin	6.7 %	5.7 %	15.6 %	-11.4 %	12.1 %	10.1 %
Asset turnover rate	18.4 %	35.7 %	32.5 %	26.6 %	16.0 %	13.6 %
Liquidity & Repayment (end of year)						
Current assets	437,644	91,852	341,919	604,724	611,825	430,651
Current liabilities	187,698	61,208	168,783	330,247	312,323	108,890
Current ratio	2.33	1.50	2.03	1.83	1.96	3.95
Working capital	249,946	30,644	173,136	274,478	299,502	321,761
Working capital to gross inc	44.4 %	22.3 %	33.5 %	24.6 %	48.5 %	72.6 %
Term debt coverage ratio	1.71	2.70	2.49	0.31	1.52	2.67
Replacement coverage ratio	1.19	2.47	1.95	0.24	1.18	1.38
Term debt to EBITDA	3.02	3.07	2.61	6.55	4.20	1.41
Solvency (end of year at cost)						
Number of farms	108	13	18	18	20	39
Total assets	1,872,730	378,622	1,417,241	2,093,880	2,702,638	2,053,329
Total liabilities	513,348	212,658	525,286	762,423	998,879	244,119
Net worth	1,359,382	165,963	891,954	1,331,457	1,703,759	1,809,210
Net worth change	50,455	23,585	74,270	51,244	70,715	37,665
Farm debt to asset ratio	29 %	58 %	38 %	36 %	40 %	14 %
Total debt to asset ratio	27 %	56 %	37 %	36 %	37 %	12 %
Change in earned net worth %	4 %	17 %	9 %	4 %	4 %	2 %
Solvency (end of year at market)						
Number of farms	108	13	18	18	20	39
Total assets	2,641,752	393,541	1,657,223	2,352,167	3,594,141	3,490,802
Total liabilities	513,348	212,658	525,286	762,423	998,879	244,119
Net worth	2,128,404	180,883	1,131,937	1,589,744	2,595,262	3,246,683
Total net worth change	59,324	15,825	96,682	22,656	70,096	67,982
Farm debt to asset ratio	20 %	56 %	33 %	32 %	30 %	8 %
Total debt to asset ratio	19 %	54 %	32 %	32 %	28 %	7 %
Change in total net worth %	3 %	10 %	9 %	1 %	3 %	2 %
Nonfarm Information						
Net nonfarm income	38,841	23,943	50,745	35,492	30,973	43,892
Farms reporting living expenses	15	3	4	2	1	5
Total family living expense	47,362	-	-	-	-	49,645
Total living, invest, cap. purch	58,778	-	-	-	-	58,814
Crop Acres						
Total crop acres	753	236	985	663	953	756
Total crop acres owned	229	11	109	83	360	358
Total crop acres cash rented	261	63	419	237	327	230
Total crop acres share rented	263	162	456	344	266	168
Machinery value per crop acre	491	318	324	549	562	539

Percentile Rank Report w/Group Medians

With the exception of the information presented on the following page, all of the data tables in this summary report represent “average” or “mean” data. For example, the 2016 “average” or “mean” net farm income of the 108 farms in this summary was \$49,743. This is found by simply adding the NFI of each farm in the group to a total and then dividing by 108 for the “mean” or “average.” Sometimes, a few farms at the high end of the range with extremely high NFI’s can skew the mean. The same could be true of a few extreme NFI farms at the low end. For that reason, “median” figures can be very helpful when comparing summary data to an individual farm operation. The median is often described as the halfway point in the middle-figure, in other words, half of the farms fell below, the other half above. For example, in 2016, the “average” or “mean” NFI for 108 farms in the summary was \$49,743. However, the NFI of the “median”, or farm at the half-way point, was \$33,576. This indicates there were a group of farms with low NFI’s included in the group that more than offset the higher NFI’s of farms at the other end of the scale.

The “median” figures for selected factors on 2016 FBMA farms are reported on page 45 along with percentile ranks in 10% intervals. Each line is independent from the next with the data for each line broken into percentile ranks in 10% intervals. This presentation can be helpful in understanding the range of data for each factor for the entire group of farms.

Financial Summary - Detail 2016

Benchmark Report, 108 Farms

RankEm

Group Median	Count	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Gross cash farm income	265,490	16,419	33,681	57,390	108,233	230,922	328,803	508,611	596,013	804,413	1,528,594
Total cash operating expense	236,551	1,273,776	642,162	489,752	358,547	278,189	195,999	95,483	38,006	28,327	12,198
Net cash farm income	21,468	-32,327	-6,846	5,354	14,708	19,384	30,959	52,633	86,315	141,394	272,462
Inventory change	5,746	-88,831	-29,803	-8,340	-153	3,886	13,194	26,802	54,764	136,613	246,698
Depreciation	-14,526	-148,670	-84,862	-52,614	-30,609	-18,240	-10,384	-4,796	-2,259	0	0
Net farm income from operations	30,759	-50,574	-8,716	1,566	12,864	24,952	42,475	63,328	79,395	151,880	312,974
Gain or Loss from capital sales	0	-4,474	0	0	0	0	0	0	0	0	8,528
Net farm income	33,576	-50,574	-8,716	1,566	12,864	24,952	43,655	63,328	79,395	151,880	299,876
Rate of return on assets (cost)	2.2	-9.2	-3.1	-1.6	0.3	1.1	2.9	4.3	6.5	9.4	12.8
Rate of return on equity (cost)	1.3	-19.1	-6.9	-3.0	-0.8	0.7	2.7	4.8	7.2	12.3	22.6
Operating profit margin (cost)	6.8	-145.5	-24.6	-5.8	1.5	5.8	11.7	16.5	23.9	30.6	44.5
Asset turnover rate (cost)	23.1	5.3	10.2	13.9	18.4	21.4	24.6	28.1	39.0	50.5	71.6
Rate of return on assets (mkt)	1.7	-11.7	-3.3	-1.7	-0.1	0.8	1.9	3.9	5.5	8.1	12.5
Rate of return on equity (mkt)	1.5	-20.5	-7.0	-3.3	-0.8	0.5	1.9	3.9	5.9	8.5	20.2
Operating profit margin (mkt)	10.3	-140.6	-41.4	-9.4	-0.8	5.6	12.8	17.1	26.3	34.3	48.2
Asset turnover rate (mkt)	17.1	3.0	6.4	9.4	12.0	15.5	20.3	23.0	30.7	42.9	67.9
Current ratio	2.96	0.72	1.02	1.27	1.52	2.26	3.76	5.08	9.02	15.44	52.97
Working capital	104,863	-17,880	4,458	17,000	45,239	87,808	145,589	220,003	334,038	682,471	1,003,372
Working capital to revenue ratio	49.2	-8.6	5.6	19.2	32.7	43.9	57.9	79.4	95.5	129.2	206.2
Term debt coverage ratio	1.33	-1.22	0.00	0.39	0.71	1.19	1.46	2.26	4.13	5.99	13.42
Replacement coverage ratio	1.20	-1.37	0.14	0.37	0.73	1.04	1.37	2.19	3.88	5.46	8.59
Term debt to EBITDA	0.44	11.02	4.74	2.86	1.95	0.65	0.26	0.00	0.00	0.00	-5.69
Total assets	1,849,175	94,632	380,008	677,736	981,874	1,634,241	2,079,896	2,704,202	3,388,747	4,624,270	9,635,224
Total liabilities	208,846	1,933,086	900,691	553,361	377,401	238,367	158,910	77,191	9,268	0	0
Net worth	1,405,551	69,824	247,941	446,228	623,784	1,265,394	1,670,186	2,197,194	2,799,897	3,787,307	8,816,461
Change in retained earnings	15,097	-89,552	-21,583	-6,930	3,956	10,857	22,033	38,959	79,056	123,928	351,877
Net worth change	27,330	-121,398	-47,433	-4,527	3,229	15,096	34,139	53,789	110,472	163,052	367,249
Farm debt to asset ratio	14	64	45	34	23	18	11	5	1	0	0
Total debt to asset ratio	13	61	46	31	24	16	12	4	1	0	0
Change in earned net worth %	4	-6	-3	-1	1	2	4	7	11	15	35
Net nonfarm income	26,333	0	0	114	4,970	17,228	32,337	44,367	67,214	86,370	149,687
Family living / owner withdrawals	42,923	114,915	83,494	64,384	59,226	47,336	40,000	30,698	17,336	1,820	0
Income tax (accrued)	293	38,974	13,303	8,000	5,625	1,845	0	0	0	0	0
Farm capital purchases	26,598	0	350	5,950	13,300	22,000	33,800	52,038	74,576	105,925	198,039
Total crop acres	528	0	35	99	170	418	658	844	1,079	1,527	2,802
Crop acres owned	85	0	0	0	24	63	98	135	301	498	1,049
Crop acres cash rented	40	0	0	0	0	0	92	171	303	527	1,445
Crop acres share rented	50	0	0	0	0	0	108	150	355	602	1,145
Machinery investment per acre	455	1,493	990	721	651	495	405	360	227	91	0

Appendix I

Whole Farm Analysis Procedures and Measures

The whole-farm reports include summary financial statements and measures for all farms included in this report. Rounding of individual items may have caused minor discrepancies between those items and the printed totals which are calculated before rounding.

Financial Summary

This table summarizes key measures reported in several of the following tables.

Income Statement

This section summarizes key totals from the Income Statement table. *Average Net Farm Income* is the mean or average farm earnings of the group calculated on an accrual adjusted basis. *Median Net Farm Income* is the farm earnings of the median or middle farm in the group. If it is lower than the average, the average earnings are skewed because some farms had much higher earnings than the rest of the group. If it is higher than the average, the average earnings are skewed because some farms had much lower earnings than the rest of the group.

Profitability

See the Profitability Measures section below for an explanation of these measures.

Liquidity and Repayment

See the Financial Standards Measures and Liquidity Measures sections below for an explanation of these measures.

Solvency

This section summarizes key measures from the Balance Sheet reports.

Nonfarm Information

This section summarizes non-farm earnings for all farms and family living withdrawals for those sole proprietors who kept accurate family living records. More detail is included on the Household and Personal Expenses and Nonfarm Summary pages.

Crop Acres

This section summarizes acres used for cropping the Crop Production and Marketing Table.

Financial Standards Measures

This table contains the Farm Financial Standards Council's 21 financial measures for evaluating a farm's financial position and performance.

Liquidity

Current Ratio is calculated by dividing the total current farm assets by the total current farm liabilities.

Working Capital is calculated by subtracting current farm liabilities from current farm assets.

Working Capital to Gross Income is *Working Capital* divided by *Gross Revenues (accrual)*.

Solvency

Farm Debt to Asset Ratio is calculated by dividing the total farm liabilities by the total farm assets. It measures the proportion of farm assets financed by debt capital.

Farm Equity to Asset Ratio is calculated by dividing farm equity or net worth by the total farm assets. It measures the proportion of the farm assets financed by the owner's equity as opposed to debt. This is the opposite of the debt to asset ratio. These two measures always add up to 100% because they describe how total farm assets are financed.

Farm Debt to Equity Ratio measures farm debt relative to farm equity. It is calculated by dividing the total farm liabilities by the total farm net worth. The debt to equity ratio measures the amount of borrowed capital being employed for every dollar of equity capital.

Profitability

Rate of Return on Farm Assets can be thought of as the average interest rate being earned on all investments in the farm or ranch business. If assets are valued at market value, the rate of return on assets can be looked at as the "opportunity cost" of farming versus alternate investments. If assets are valued at cost value, the rate of return on assets more closely represents the actual return on the average dollar invested in the farm. The rate of return on farm assets is calculated as follows: $\text{Rate of Return on Assets} = \text{Return on Farm Assets} \div \text{Average Farm Investment}$, where: $\text{Return on Farm Assets} = \text{Net Farm Income} + \text{Farm Interest} - \text{Value of Operator's Labor \& Management}$, and $\text{Average Farm Investment} = (\text{Beginning Total Farm Assets} + \text{Ending Total Farm Assets}) \div 2$.

Rate of Return on Farm Equity represents the interest rate being earned on farm net worth. If assets are valued at market value, this return can be compared to returns available if the assets were liquidated and invested in alternate investments. If assets are valued at cost value, this more closely represents the actual return on the funds that have been invested or retained in the business. The rate of return on farm equity is calculated as follows: $\text{Rate of Return on Equity} = \text{Return on Farm Equity} \div \text{Average Farm Net Worth}$, where: $\text{Return on Farm Equity} = \text{Net Farm Income} - \text{Value of Operator's Labor \& Management}$, and $\text{Average Farm Net Worth} = (\text{Beginning Farm Net Worth} + \text{Ending Farm Net Worth}) \div 2$.

Operating Profit Margin is a measure of the operating efficiency of the business. It is calculated as follows: $\text{Operating Profit Margin} = \text{Return to Farm Assets} \div \text{Value of Farm Production}$. If expenses are held in line relative to the value of output produced, the farm will have a healthy operating profit margin. A low net profit margin may be caused by low prices, high operating expenses, or inefficient production.

Net Farm Income represents the returns to unpaid labor, management, and equity capital invested in the business.

EBITDA is Earnings Before Interest, Taxes, Depreciation and Amortization. It is Net Farm Income from Operations from the income statement plus interest expense and depreciation expense. This measure is common in commercial financial analysis but is not commonly used in agriculture.

Repayment Capacity

Capital Debt Repayment Capacity is *Net Farm Income From Operations* plus *Depreciation, Personal Income,* and *Interest on Term Debt* minus *Family Living/Owner Withdrawals, Payments on Personal Debt* and *Income Taxes Paid*. This represents total earnings available for debt repayment and cash capital replacement.

Capital Debt Repayment Margin is *Capital Debt Repayment Capacity* minus *Scheduled Term Debt Payments*. This is the amount by which earnings available for debt repayment exceeded payments due.

Replacement Margin is *Capital Debt Repayment Margin* minus *Cash Replacement Allowance*. This is the amount by which earnings available for debt repayment and replacement exceed payments due and cash replacement needs.

Term Debt Coverage Ratio measures whether the business generated enough income to cover term debt payments. It is calculated by dividing the funds generated by the business for debt repayment (net cash farm income + nonfarm income + interest expense – family living expense – income taxes) by total term debt payments (annual scheduled principal and interest payments on intermediate and long term debt). A ratio less than 1.0 indicates that the business did not generate sufficient cash to meet scheduled payments in the past year. A ratio greater than 1.0 indicates the business generated enough cash to pay all term debt payments.

Replacement Coverage Ratio measures whether the business generated enough income to cover scheduled term debt payments plus estimated cash capital replacement needs. A ratio less than 1.0 indicates that the business did not generate sufficient income to meet replacement needs. A ratio greater than 1.0 indicates the business generated enough income to pay all term debt payments and cover an allowance for capital replacement.

Efficiency

Asset turnover Rate is a measure of efficiency in using capital. It is calculated as follows: $\text{Asset Turnover Rate} = \text{Value of Farm Production} \div \text{Total Farm Assets}$.

The last four ratios reflect the distribution of gross income to cover operating expenses and generate farm income. The sum of the operating expense ratio, the depreciation expense ratio, and the interest expense ratio equals the percent of gross income used to pay business expenses. The amount remaining is net farm income. The gross farm income used to calculate these ratios is the accrual gross farm income.

Operating Expense Ratio is calculated as $(\text{Total Farm Operating Expense} - \text{Farm Interest Expense}) \div \text{Gross Farm Income}$. This ratio indicates the percent of the gross farm income that was used to pay operating expenses. Total farm operating expense is the accrual total operating expense.

Depreciation Expense Ratio is calculated as $\text{Depreciation} \div \text{Gross Farm Income}$. This ratio indicates the percent of the gross farm income that was used to cover depreciation and other capital adjustments.

Interest Expense Ratio is calculated as $\text{Farm Interest Expenses} \div \text{Gross Farm Income}$. This ratio indicates the percent of the gross farm income used for farm interest expenses. This is the same ratio as the accrual interest as a percent of income from the Liquidity table.

Net Farm Income Ratio is calculated as $\text{Net Farm Income} \div \text{Gross Farm Income}$. This ratio indicates the percent of the gross farm income that remained after all expenses.

Farm Income Statement

The farm Income Statement is a summary of income, expenses, and resultant profit or loss from farming operations during the calendar year. The first section lists cash farm income from all sources. The second section lists *cash* expenses. “Interest” includes only interest actually paid. No opportunity charges on farm equity capital or unpaid labor are included. The difference between *Gross Cash Farm Income* and *Total Cash Expense* is the *Net Cash Farm Income*. This is net farm income on a *cash* basis.

The third and fourth sections deal with noncash changes in the farm business. The *Inventory Changes* and *Depreciation* sections are used to convert the cash income statement (Net Cash Farm Income) derived from the first two sections into an accrual income statement. The resulting “Net Farm Income” represents the return to the operator’s and family’s unpaid labor, management, and equity capital (net worth). In other words, it represents the return to all of the resources which are owned by the farm family and, hence, not purchased or paid a wage. However, it does not include any asset appreciation, debt forgiveness or asset repossessions.

Profitability Measures

Profitability is measured using assets valued first at cost and then at market. The reports include five measures of profit followed by the values used to calculate the measures.

Net Farm Income is repeated from the Farm Income Statement report. When assets are valued at market, it includes the change in market valuation of capital for the year.

Rate of Return on Assets is the *Return to Farm Assets* divided by *Average Farm Assets*.

Rate of Return on Equity is the *Return to Farm Equity* divided by *Average Farm Equity*.

Operating Profit Margin is the *Return to Farm Assets* divided by *Value of Farm Production*.

Asset Turnover Rate is the *Value of Farm Production* divided by *Average Farm Assets*.

Farm Interest Expense is the accrued interest cost so it will be different from the cash interest paid shown in the Farm Income Statement.

Value of Operator's Labor and Management is its opportunity cost. It is assigned by farm within suggested guidelines.

Return on Farm Assets is calculated by adding *Farm Interest Expense* and *Net Farm Income* and then subtracting the *Value of Operator's Labor and Management*.

Average Farm Assets is the average of beginning and ending total farm assets for all farms, not just those included in the Balance Sheet report.

Return to Farm Equity is calculated by subtracting the *Value of Operator's Labor and Management* from *Net Farm Income*.

Average Farm Equity is the average of beginning and ending farm net worth.

Value of Farm Production is gross farm income minus feeder livestock and feed purchased and adjusted for inventory changes in crops, market livestock and breeding livestock.

Liquidity and Repayment Capacity Measures

Current Ratio is total *Current Assets* divided by total *Current Liabilities*.

Working Capital is total *Current Assets* minus total *Current Liabilities*.

Working Capital to Gross Income is *Working Capital* divided by *Gross Revenues (accrual)*.

Current Assets are taken from the ending balance sheet and include all assets that will be sold or used up in production within one business year.

Current Liabilities are taken from the ending balance sheet and include all loans and other debt due to be repaid within one business year. Principal due within a twelve months on intermediate and long term loans is included.

Gross Revenues (accrual) is gross cash farm income from the income statement adjusted for inventory changes in crops and feed, market livestock, accounts receivable, hedging accounts, breeding livestock and other income related inventories.

Net Farm Income from Operations is from the Income Statement.

Depreciation is the total depreciation from the Income Statement. It is added as a source of repayment because it is a non-cash expense that was subtracted to arrive at *Net Farm Income From Operations*.

Personal Income is the average for all farms, not including *Gifts and Inheritances*.

Family Living/Owner Withdrawals is the amount of owner withdrawals for family living, partnership withdrawals, and corporate dividends. Reported withdrawals are adjusted to include any discrepancy with actual cash disappearance.

Payments on personal debt is the total principal payments made during the year on all non-farm loans.

Income Taxes Paid are total federal, state, and social security taxes paid during the year on farm and personal earnings.

Interest on Term Debt is the amount of interest paid on intermediate and long term loans during the year. Interest is added as a source of repayment because it was previously subtracted to arrive at *Net Farm Income from Operations*.

Capital Debt Repayment Capacity is *Net Farm Income From Operations* plus *Depreciation*, *Personal Income*, and *Interest on Term Debt* minus *Family Living/Owner Withdrawals*, *Payments on Personal Debt* and *Income Taxes Paid*. This represents total earnings available for debt repayment and cash capital replacement.

Scheduled Term Debt Payments is the scheduled amount of principal and interest payments due on farm intermediate and long term loans from the beginning balance sheet.

Capital Debt Repayment Margin is *Capital Debt Repayment Capacity* minus *Scheduled Term Debt Payments*. This is the amount by which earnings available for debt repayment exceeded payments due.

Cash Replacement Allowance is the estimated amount of cash needed to cover the portion of capital replacement needs that normally come from cash flow. It is estimated for each operator based on their financial structure.

Replacement Margin is *Capital Debt Repayment Margin* minus *Cash Replacement Allowance*. This is the amount by which earnings available for debt repayment and replacement exceed payments due and cash replacement needs.

Term Debt Coverage Ratio is *Capital Debt Repayment Capacity* divided by *Scheduled Term Debt Payments*. This represents how many times scheduled payments are covered by repayment capacity.

Replacement Coverage Ratio is *Capital Debt Repayment Capacity* divided by the total of *Scheduled Term Debt Payments* and the *Cash Replacement Allowance*. This represents how many times scheduled payments and cash replacement needs are covered by repayment capacity.

Balance Sheets at Cost and Market Values

These tables include all farm and personal assets and liabilities reported by these farms on their beginning and ending balance sheets. Government crop loans are treated consistently as loans on these tables, meaning that the full asset value is included as an asset and total accrued interest and outstanding principal balances are included as liabilities. Capital assets are valued at original purchase price minus economic depreciation on the Cost Value table.

Statement of Cash Flows

This table reports the sources from which cash was available or obtained and where that cash was used or remains at the end of the year.

Crop Production and Marketing Summary

This table contains three sections. The first section reports average acreage by tenure and general use. The next two sections show average price received from cash sales and average yields for major crops.

Household and Personal Expenses

For those farms that kept records, the household and personal expenses are summarized in this table. Since not all farms keep these records, the number of farms may be different for each group. Averages are determined by the number of farms keeping these records.

Operator and Labor Information

This table has four sections. The first reports the averages for the number of operators per farm, the operator's age, and the number of years farming. The second section reports various measures and results per operator compared to per farm in other reports.

The third section reports the amount of labor used and the returns to that labor. *Total Unpaid Labor Hours* and *Total Hired Labor Hours* are based on farmers' estimates of labor use. No labor records are kept for unpaid labor. *Value of Farm Production/Hour* is the Value of Farm Production divided by Total Labor Hours per Farm. *Net Farm Income/Unpaid Hour* is Net Farm Income divided by Total Unpaid Labor Hours.

The fourth section reports the number of partnerships and withdrawals in each grouping.

Appendix II

Crop Enterprise Analysis Procedures and Measures

The Crop Enterprise Analysis tables show the profitability of each crop enterprise produced by four or more farms.

Gross Return is the average Yield multiplied by the Value Per Unit plus any other production or income related to the crop. Value Per Unit for cash crops is the average sales price for crops sold or an average sale price during the harvest season. For feed crops, it is the estimated average cost for the year. LDP repayments and other commodity-specific income are added to estimate the total value received for crop production.

Direct Expenses include expenses that are directly related to the production of the specific crop. Most direct expenses are directly assigned to production of the crop and simply divided by acres. Some, such as Fuel and Oil and Repairs, which are difficult to assign directly to specific fields or crops, are determined by allocating the total annual expense across all enterprises using allocation factors entered for each crop.

Overhead Expenses are also determined by allocating the total annual expense across all enterprises using allocation factors entered for each crop.

Net Return per Acre is the Gross Return per Acre minus Total Direct and Overhead Expenses.

Net return with government payments is Net Return Over Lbr & Mgt plus Government Payments. Government Payments includes only direct payments and counter-cyclical payments. Payments that are directly attached to production of the crop, such as LDP and disaster payments are included in Gross Return. Because direct government payments have been decoupled from actual production, these payments are generally allocated to all crops excluding vegetables and pasture. This is done for each farm by allocating the direct payments from the whole farm to these crops.

Net Return over Labor and Management is calculated by allocating the farmer's charge for unpaid labor and management across all enterprises and subtracting it from Net Return With Government Payments.

Cost of Production is calculated by dividing the total expense for each category by the yield per acre. *Total Expense Less Government and Other Income* is total expense minus government payments, income from secondary products, and other income, divided by yield per acre.

Machinery Cost Per Acre is the sum of fuel and oil, repairs, custom hire expense, machinery lease payments, machinery depreciation, and interest on intermediate debt divided by acres.

Estimated Labor Hours Per Acre is calculated by allocating the farmer's estimate of total operator and hired labor hours for the year across all enterprises.

note - Rounding of individual items for the report may have caused minor discrepancies with the calculated totals. If fewer than 4 farms have a certain crop enterprise, that information is not reported.

Appendix III

Livestock Enterprise Analysis Procedures and Measures

The Livestock Enterprise Analysis tables show the profitability of each livestock enterprise produced by four or more farms.

Gross Margin includes product and livestock sales, cull sales, the value of offspring transferred out of the enterprise, the value of inventory change from beginning to end of year, and any other income assigned to the enterprise. Livestock purchases and the value of animals transferred in from other enterprises are subtracted.

Direct Expenses include expenses that are directly related to the specific livestock enterprise. Feed and most other direct expenses are directly assigned based on farm records. Some, such as Fuel and Oil and Repairs, which are difficult to assign directly to enterprises, are determined by allocating the total annual expense across all enterprises using a percentage factor entered for each enterprise.

Overhead Expenses are also determined by allocating the total annual expense across all enterprises by entering a percentage factor for each enterprise.

Net Return is the Gross Return minus Total Direct and Overhead Expenses.

Net Return over Labor and Management is calculated by allocating the farmer's charge for unpaid labor and management across all enterprises and subtracting it from Net Return.

Estimated Labor Hours is calculated by allocating the farmer's estimate of total operator and hired labor hours for the year across all enterprises.

Cost of Production is calculated by dividing the total expense for each category by Total Production. For grow/finish enterprises, the Purchases and Transfers In are included in direct expense. Cull sales, other offspring sales, and any other miscellaneous income are subtracted and replacement purchases and transfers in are added to arrive at the cost *With other revenue adjustments*. *With Labor and Management* is the cost with other revenue adjustments plus the producer's charge for operator's labor and management. This is the breakeven price for the primary product to provide a return for operator labor and management.

The last section of each livestock table contains both economic and technical efficiency measures. *Lbs. feed per lb. of gain* is the pounds of total feed divided by total production. For grains, these pounds per bushel are used: corn, 56; oats, 32; barley, 48; grain sorghum, 56; wheat, 60; and millet, 48. For these forages, the units are converted to pounds and then adjusted by these factors: alfalfa haylage, 0.5; corn silage, 0.33; oatlage, 0.5; sorghum silage, 0.33; and small grain silage, 0.33.

The calving and weaning percentages are calculated as the number of calves which are calved and weaned, respectively, divided by the number of cows which are supposed to bear young.

Rounding of individual items for the report may have caused minor discrepancies with the calculated totals. If fewer than 5 farms have a certain crop enterprise, that information is not reported.