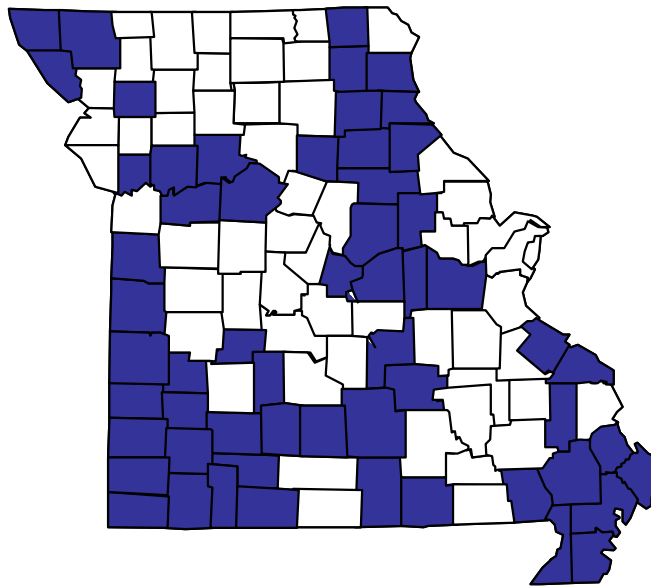


# Baseline Outlook for Missouri Representative Farms 2002-2006



Shaded areas are home counties of farm panel members



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## Outlook for Missouri Representative Farms, 2002-06.

### Introduction

This report presents farm-level financial analysis and the five-year outlook for 41 representative farms under provisions of the Food Security and Rural Investment Act of 2002. The representative farms database substantially mirrors Missouri's diverse production agriculture. Throughout this report, farms are sorted into groups by primary sources of income.

### Representative Farm Database

Primary data were developed and validated by Missouri producers via the representative farm process. Producers establish farm structure, size, farming practices, costs of production and associated financial requirements for the representative farm, based on their own individual operations. In some cases, data points are cross-referenced with published sources to test assumptions or to verify and explain differences.

The representative farm approach treats a farm business unit as a unique system characterized by local features that are adapted to by management. Local conditions and managements' response are internalized in the creation and simulation of each farm.

There are currently 43 farms in the Missouri representative farm database. The following table provides an overview of the set by type, size, and risk rating for the 2002-06 period. Outlook for the two broiler-beef farms are not included in this report. For a complete analysis of these farms see FAPRI-UMC Report 07-02, *Financial Analysis of Missouri Broiler-Beef Farms*, July 2002.

Table 1. Missouri representative farms database.

Farm Type	Number of Farms	Total Receipts (\$1000)		Operator Assets (\$1000)		Risk Ratings (Num. of farms)		
		Min.	Max.	Min.	Max.	Good	Marginal	Poor
Feedgrain-soy	11	196	1,319	769	4,464	5	6	0
Cotton and rice	6	107	1,443	498	6,150	2	2	2
Crop-beef	9	144	632	592	2,873	5	3	1
Pork-crop	5	289	3,646	1,354	5,590	4	1	0
Beef	5	101	224	916	2,105	3	1	1
Dairy	5	267	1,280	915	2,673	2	3	0
Broiler-beef	2	132	199	646	786	na	na	na
All farms	43	101	3,646	498	6,150	21	16	4

According to USDA, farms with annual farm product sales under \$250,000 are considered to be small farms. Twelve of the representative farms (28 percent) fit this definition. Although the operators consider farming as their primary occupation, it is unlikely that the farm provides all of the household income.

### Procedural Notes and Assumptions

For simulation, actual historical data are used for the years 2000-01. The historical period provides some perspective of financial performance with known values and sets a footing for simulation through the projection period, 2002-2006. Future outcomes are based on FAPRI's baseline of the agricultural sector published in July 2002. The sector baseline includes average annual prices, production trends, interest rates and inflation factors for input costs. See Table 2 for a listing of average, deterministic prices.

The simulation model incorporates historical production and price variability and derives projected values stochastically. Projected crop yields, livestock sale weights, birth rates and milk per cow, for example, vary as in the past ten years. Prices reflect national volatility resulting from international supply and demand interactions, as well as U.S. production risk. Numbers reported in the financial tables are the mean of 500 simulations.

Farms are assumed to participate in government programs as eligible. Applicable farm bill provisions are incorporated for each farm: the 1996 FAIR Act which applies to the years 2000-2001 and the FSRIA Act of 2002 for years 2002-2006. Market loss assistance payments and disaster provisions have been incorporated into the 2000 and 2001 analysis. The baseline includes dairy price support program at \$9.90/cwt and milk income loss contract (MILC) payments. The livestock compensation program (LCP) payment for beef and dairy in 2002 is not included. Farms are structured such that payment limitations are not effective.

The base and yield update opportunity offered by the 2002 farm bill was evaluated for each of the farms and applied in the projection period. Virtually all of the eligible farms (28 of 30) were optimized by choosing to update with planted acres and a new CCP yield. One farm chose to update acres but not yield (Farm 2) and one farm chose to only to add oilseeds to existing base (Farm 9).

Table 2. FAPRI baseline prices, July 2002.

<b>Commodity</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Cotton, lbs	0.50	0.31	0.38	0.42	0.45	0.47	0.48
Wheat, bu	2.62	2.78	2.95	2.93	3.04	3.07	3.17
Sorghum, bu	1.89	1.85	1.91	1.91	1.97	2.03	2.06
Corn, bu	1.85	1.90	2.03	2.04	2.10	2.15	2.19
Soybeans, bu	4.54	4.25	4.44	4.68	4.83	4.96	5.07
National rice, cwt	5.61	4.20	4.39	4.84	5.05	5.18	5.34
Rice, long, cwt	5.76	4.31	4.50	4.97	5.18	5.32	5.48
Soybean meal, tn	166.7	148.5	146.4	153.1	158.3	162.8	166.8
All hay, tn	85.0	97.3	90.7	90.7	90.8	91.3	92.6
Cull cows, lb	0.42	0.44	0.42	0.45	0.47	0.47	0.43
Feeder steers, lb	0.94	0.95	0.88	0.95	0.98	1.00	0.93
Fed steers, lb	0.70	0.73	0.68	0.73	0.76	0.77	0.75
Cull sows, lb	0.30	0.34	0.27	0.26	0.32	0.34	0.36
Barrow & gilts, lb	0.45	0.46	0.35	0.35	0.42	0.45	0.46
Missouri milk, cwt	12.10	14.90	12.57	12.54	12.53	12.50	12.74

Eligible crops are insured with basic multi-peril crop insurance plans at 100 percent price and 65 percent yield protection.

Business size and structure are held constant for the simulation period, 2000-2006.

Only income generated with farm business assets is included in receipts, not off-farm salary income. On some farms a relatively small portion of total receipts are generated from custom farming enterprises.

Each farm is assumed to be a sole proprietorship with 4 exemptions, subject to Federal, Missouri and self-employment taxes.

Unpaid managerial labor for the operator is deducted as a family living expense. The amount varies by farm within a range of \$10,000 to \$50,000. Any other unpaid family labor is treated as hired labor and deducted as a cash expense at local prevailing rates. See the table reference notes on page 34 for more details.

Debt is an assumed value based on the type of farm (asset turnover rate) and the business phase as indicated by the panel members. This differential is particularly important for livestock and dairy farms with varying levels of investment in facilities. Beginning debt assumed in 2000 is stated for each of the farms in the financial tables. Missouri specific debt data is not available, but the following national averages and distributions provided by USDA-ERS are helpful reference points. The ratio of total debt: total assets varies by size by and by sales category.

Table 3. Average debt/asset ratios by sales and farm type category, 2000.

Source: USDA-ERS.

<b>ERS Category</b>	<b>Cash Grain</b>	<b>Hog</b>	<b>Beef</b>	<b>Dairy</b>
under \$100 K	6.4	na	5.8	11.9
\$100 K - \$250 K	16.3	na	9.4	16.1
\$250 K - \$500 K	15.6	23.4	17.7	15.9
\$500 - \$1000 K	16.9	23.1	13.7	23.2
over \$1000 K	21.5	31.7	16.5	27.4

Chart 1. National distribution of debt load on farms, 2000. Source: USDA-ERS.



### Baseline Results

Farm characteristics and baseline financial statistics for each farm are reported in tables 5-10, on pages 8 through 33. Farms are numbered sequentially across the top of each table. Production and size characteristics are listed on the left-hand page and financial statistics are listed on the right-hand page. Each table is preceded by a synopsis of the farm group with specific points highlighted for many of the farms.

A detailed list of definitions and explanations are included at the end of the tables. The reference notes are key to understanding the figures and should be read along with the tables. A sample financial statement is also shown in Figure 2, (page 6) as a reference for the accounting procedures used to develop financial variables.

To search the characteristics and financials of farms by geographic region, refer to Table 4. Regions align with the Missouri Ag Statistics Service cropping regions.

Table 4. Representative farm identification numbers, sorted by region.

Farm Type	North West	North Central	North East	West Central	East Central	South West	South Central	South East
Feedgrain-soy	1	3	5	8		9		10
	2	4	6					11
			7					
Cotton and rice								12
								13
								14
								15
								16
								17
Crop-beef	18		20	22		23	25	
	19		21			24	26	
Pork-crop			27	29	30	28		
			31					
Beef					32		33	35
							34	36
Dairy						37	38	41
							39	
							40	
Broiler-beef							42	
							43	

Figure 2. Sample modified cash flow statement for a farm cropping 250 acres, raising farrow-finish hogs from a 200 sow herd and selling weaned calves from 125 beef cows (see farm No. 30).

	2000	2001	2002	2003	2004
Beginning cash reserve <sup>j</sup>	0	27,925	50,484	0	0
Income (net of share leases)					
Crop receipts	13,335	12,021	11,617	12,246	12,779
Cow-calf receipts	59,010	58,727	54,041	58,582	61,013
Hog receipts	458,663	473,342	363,067	362,092	436,039
CCP payments	0	0	5,977	5,828	5,370
Fixed payments	8,492	6,919	5,166	5,166	5,166
LDP payments	12,769	6,882	6,376	5,787	3,127
Indemnity payments	0	0	0	0	0
Other farm income	0	0	0	0	0
Interest on cash reserve	0	698	1,102	0	0
Total cash receipts <sup>a</sup>	552,269	558,589	447,346	449,701	523,494
Expenses (Net of share leases)					
Direct crop production	28,532	31,166	27,509	26,974	27,500
Direct cow-calf production	14,220	14,684	14,463	14,968	15,369
Direct hog production	238,720	244,965	239,489	243,742	249,619
Allocated variable costs	281,472	290,815	281,461	285,684	292,488
Cash rent for land	6,650	6,650	6,650	6,650	6,650
Hired labor	50,032	50,587	52,914	55,402	57,950
RE and property taxes	3,872	3,894	3,966	4,044	4,133
Professional services	550	575	584	597	610
RE maintenance	1,000	1,000	1,015	1,030	1,045
Unallocated maintenance	17,000	18,000	18,265	18,531	18,806
Whole farm utilities	10,482	10,054	9,457	9,642	9,861
Whole farm fuel and lube	8,538	8,189	7,703	7,854	8,032
Whole farm liability insurance	2,800	3,000	3,049	3,115	3,180
Miscellaneous	1,100	1,300	1,321	1,350	1,378
Unallocated costs	102,024	103,249	104,924	108,215	111,645
LT interest payments	17,383	12,723	11,782	11,577	10,186
IT interest payment	7,704	5,586	3,662	2,693	1,852
Op interest payment	4,260	3,150	2,970	3,881	3,988
Carryover interest payment	0	0	0	306	1,311
Total cash operating expenses	412,843	415,523	404,799	412,356	421,470
Net cash farm income <sup>g</sup>	139,426	143,066	42,547	37,345	102,024
Total cash available					
Cash diff. capital replacement	1,646	2,806	0	99	0
LT principal payment	18,077	20,551	21,611	22,453	23,834
IT principal payment	34,709	41,934	43,913	15,436	16,395
Carryover op loan payment	0	0	0	5,394	23,042
Federal income taxes	7,641	8,169	-661	0	7,308
State income taxes	4,194	4,492	610	0	4,182
SE taxes	10,234	10,684	555	0	10,144
Sub-total cash needs	76,501	88,636	66,028	43,382	84,905
Return to family living <sup>h</sup>	62,925	54,430	-23,481	-6,037	17,119
Family living withdrawal assumed <sup>i</sup>	35,000	31,871	32,400	17,005	16,530
Annual cash surplus	27,925	22,559	-55,881	-23,042	589
Cumulative cash reserve	27,925	50,484	-5,397	-28,439	-27,850

\*See page 34 for footnotes.

## Feedgrain-soy Farms

### Group Characteristics

This group of eleven farms is geographically dispersed around the state. Cropland acres range from a low of 800 acres in Barton county to a high of 4000 cropped acres in Mississippi county. The crop mix consists of soybeans (53 percent of acres planted), corn (35 percent), wheat (8 percent), and sorghum (4 percent). The majority of the farms had above average yields in 2000 and 2001.

### Outlook Summary

With the passage of the Farm Security and Rural Investment Act of 2002, the overall economic outlook for these farms can be categorized as optimistic. This has not been the case recently for the crop sector. With the addition of the counter-cyclical payments, crop producers know going into the next six years that if prices are low additional government support will be forthcoming.

None of these crop farms receive a poor risk rating. For eight of the eleven farms, there is a greater than 50 percent probability that receipts will meet family living needs in each one of the projected years. For the period as a whole, only 4 farms exceed a 1 in 5 chance of not cash flowing. Return to operator assets range from 3.8 to 14.6 percent. Government receipts are expected to average 20 percent of receipts.

### Spotlights

**Farm 1**, a 2000-acre corn, soybean farm in Atchison county, faces the highest probability of cash flow deficit throughout the forecast period. This farm has the highest cropland value (\$2400/acre in 2000) and one of the highest costs to receipts ratios. For every dollar of receipts, 73 percent goes to cover farm operating expenses. This leaves little margin for family living expenses, taxes, and capital replacement. Trend corn yields are relatively low on this farm.

**Farm 5**, a 2040-acre corn, soybean, and wheat farm in Marion County, had a corn yield in 2001 that was well below the five-year average. This results in the farm starting the 2002 period with less than 10 percent of projected operating expenses held in reserve. Furthermore, the farm did not earn its family living expense in 2001. The probability of cash flow deficit for the projection period is about one year in four.

**Farm 8**, an 1800 acre corn and soybean farm in Lafayette county, had a 2000 soybean yield well below the five year average for the farm in 2000. Net cash farm income was 25 percent below average. This farm will have difficulty maintaining family living expenses in the next five years.

**Farm 10**, an 1800 acre farm in the bootheel is projected to have the lowest exposure to price and production risk of any of these farms. This Mississippi county farm is 95 percent leased, 10 percent of the total acres are cash rented and the remaining 90 percent are share-leased on a 67:33 basis. Price and production risk is negligible.

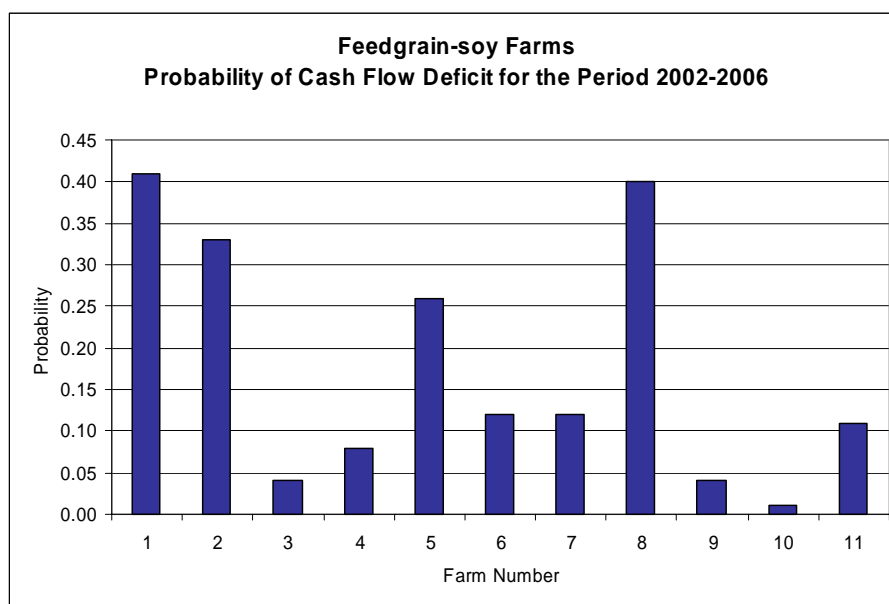


Table 5. **Feedgrain-soy** farms, characteristics and financial outlook.

Farm number	1	2	3	4	5	6	7
Region	Northwest	Northwest	North Central	North Central	Northeast	Northeast	Northeast
County	Atchison	Ray	Carroll	Carroll	Marion	Audrain	Knox
Total acres operated	2060	2112	1800	3830	2100	1185	1905
Share of land owned	46%	61%	62%	47%	36%	32%	32%
Cropland	2000	2050	1700	3630	2040	1150	1850
Acres owned	880	1230	1020	1600	700	345	555
Acres leased	1120	820	680	2030	1340	805	1295
Nonproductive acres owned	60	62	100	200	60	35	55
Cash receipts <sup>a</sup>							
Total (\$1000)	\$472	\$483	\$448	\$840	\$427	\$291	\$501
Share of total							
Corn	57%	33%	56%	54%	54%	20%	39%
Sorghum						17%	
Wheat		1%	3%	3%	4%	4%	8%
Soybeans	43%	66%	41%	43%	43%	59%	47%
Custom work							7%
Planted acres <sup>b</sup>							
Total	2000	2050	1700	3630	2040	1225	1951
Share of total							
Corn	50%	24%	49%	46%	45%	17%	38%
Sorghum						15%	
Wheat			2%	3%	5%	6%	10%
Soybeans	50%	76%	49%	51%	50%	62%	52%
Crop yields <sup>c</sup>							
Corn, bu							
2000	125	145	158	178	155	155	161
2001	132	145	160	155	117	142	130
2002	122.5	142	146	146	132	111	110
Sorghum, bu							
2000						118	
2001						130	
2002						112	
Wheat, bu							
2000			48	57.5	58	51	59
2001			60	64	56	49	63
2002			39	50	42	47	50
Soybeans, bu							
2000	44	39	41	39	40	46	50
2001	45	42	48	47	38	49	48
2002	43	41	39	39	41	39	40



Table 5. **Feedgrain-soy** farms, characteristics and financial outlook (continued).

Farm number	1	2	3	4	5	6	7
Financial risk outlook <sup>d</sup>	Marginal	Marginal	Good	Good	Marginal	Marginal	Marginal
Average operator assets (\$1000)	2846	3454	2808	4464	2044	1128	1570
Average return to operator assets (%)	5.5	4.7	5.4	7.0	6.6	5.4	3.8
Assumed operator debt in 2000 (%) <sup>e</sup>	20	20	20	20	20	20	20
Cropland value in 2000 (\$ per acre)	2400	2000	1900	1775	1800	1800	1520
Average operating expense/receipts (%)	73.1	55.8	56.0	56.2	69.0	64.6	75.3
Average government payments/receipts (%)	19.2	19.0	19.1	19.1	19.1	20.6	18.4
Government payments (\$1000) <sup>f</sup>							
2000	108.6	117.0	91.1	198.0	120.2	63.5	86.1
2001	104.2	122.6	80.5	187.0	95.2	62.0	106.0
2002	105.0	106.9	96.9	176.4	108.6	61.1	92.1
Average	95.4	93.3	87.9	159.1	98.7	53.6	82.7
Total cash receipts (\$1000) <sup>a</sup>							
2000	500.8	465.0	438.1	857.0	513.8	290.3	551.3
2001	471.7	483.0	448.2	839.9	427.1	291.1	500.8
2002	497.5	483.0	456.6	823.7	513.0	253.2	442.2
2003	508.3	490.5	463.1	835.5	521.6	257.5	448.5
2004	514.0	497.2	468.4	844.9	530.2	260.1	453.7
2005	523.1	504.0	479.5	864.8	535.8	262.5	459.1
2006	526.8	509.3	478.6	863.6	542.4	264.6	464.6
Average	513.9	496.8	469.3	846.5	528.6	259.6	453.6
Net cash farm income (\$1000) <sup>g</sup>							
2000	139.8	191.8	173.5	384.9	164.1	118.6	206.5
2001	109.7	208.5	175.6	363.1	67.8	119.5	147.1
2002	151.8	216.4	202.2	366.6	166.6	88.4	109.3
2003	160.4	215.8	211.8	378.2	177.9	92.5	113.8
2004	165.0	223.3	214.7	382.5	187.6	94.1	117.2
2005	171.8	227.6	220.3	398.3	188.6	94.7	118.8
2006	165.2	231.2	217.9	390.8	190.9	96.3	117.0
Average	162.8	222.9	213.4	383.3	182.3	93.2	115.2
Return to family living (\$1000) <sup>h</sup>							
2000	30.5	93.9	82.9	211.6	90.7	62.4	124.7
2001	-3.1	74.2	73.4	156.1	12.6	58.2	78.6
2002	19.8	62.0	79.3	122.4	56.5	34.5	50.8
2003	54.3	62.8	116.3	156.3	85.2	45.3	69.5
2004	52.8	58.4	96.7	131.1	81.0	44.4	56.2
2005	78.8	28.2	103.2	132.6	66.6	30.1	54.8
2006	57.6	56.7	92.8	132.9	62.0	32.3	38.3
Average	52.6	53.6	97.7	135.1	70.3	37.3	53.9
Average withdrawal assumed (\$1000) <sup>i</sup>	28.8	41.8	38.5	52.3	32.4	23.8	29.7
Beginning cash, 2002 (\$1000) <sup>j</sup>	-38.94	82.36	79.66	268.6	29.81	66.95	125.04
Beginning cash/operating expenses (%) <sup>l</sup>	-11.3	30.9	31.3	58.8	8.6	40.6	37.6
Probability of a cash flow deficit (%) <sup>k</sup>							
2002	70.8	23.6	19.4	18.6	33.2	24.8	20.0
2003	71.2	22.6	2.6	10.4	34.8	3.8	9.6
2004	68.4	26.4	11.4	14.6	36.0	4.4	17.0
2005	62.4	71.0	9.2	14.4	40.0	38.4	18.0
2006	62.8	31.6	14.4	18.6	43.4	30.4	43.8

Table 5. **Feedgrain-soy** farms, characteristics and financial outlook (continued).

Farm number	8	9	10	11
Region	West Central	Southwest	Southeast	Southeast
County	Lafayette	Barton	Mississippi	Mississippi
Total acres operated	1997	845	1805	4025
Share of land owned	54%	53%	5%	11%
Cropland	1800	800	1800	4000
Acres owned	875	400	82	400
Acres leased	925	400	1718	3600
Nonproductive acres owned	197	45	5	25
Cash receipts <sup>a</sup>				
Total (\$1000)	\$572	\$211	\$465	\$1,327
Share of total				
Corn	57%	12%	47%	43%
Sorghum		22%	6%	
Wheat		24%	10%	22%
Soybeans	44%	42%	37%	35%
Planted acres <sup>b</sup>				
Total	1800	1066	2070	5360
Share of total				
Corn	50%	8%	32%	28%
Sorghum		17%	8%	
Wheat		25%	13%	26%
Soybeans	50%	50%	47%	46%
Crop yields <sup>c</sup>				
Corn, bu				
2000	155	145	164	167
2001	150	167	175	182
2002	122.5	122.5	147	159
Sorghum, bu				
2000		110	114	
2001		113	90	
2002		102	105	
Wheat, bu				
2000		20	61	67
2001		68	63	77
2002		49	57	66
Soybeans, bu				
2000	36	25	42	41
2001	48	42	41	40
2002	41	35	43	39

Table 5. **Feedgrain-soy** farms, characteristics and financial outlook (continued).

Farm number	8	9	10	11
Financial risk outlook <sup>d</sup>	Marginal	Good	Good	Good
Average operator assets (\$1000)	2900	769	1105	3022
Average return to operator assets (%)	3.5	7.5	14.6	9.3
Assumed operator debt in 2000 (%) <sup>e</sup>	20	20	20	20
Cropland value in 2000 (\$ per acre)	2000	1000	2100	2000
Average operating expense/receipts (%)	74.0	60.8	57.5	69.2
Average government payments/receipts (%)	18.9	21.5	19.5	19.1
Government payments (\$1000) <sup>f</sup>				
2000	102.6	43.9	107.4	282.4
2001	106.8	47.1	94.2	258.4
2002	112.6	47.0	100.2	274.8
Average	102.3	41.8	90.6	248.7
Total cash receipts (\$1000) <sup>a</sup>				
2000	520.7	158.4	453.0	1,238.8
2001	571.8	211.0	465.0	1,326.6
2002	537.5	191.5	457.4	1,284.8
2003	547.2	195.0	463.2	1,304.2
2004	554.3	195.8	468.7	1,318.9
2005	559.4	197.7	474.1	1,335.8
2006	564.7	199.2	479.1	1,349.1
Average	552.6	195.8	468.5	1,318.6
Net cash farm income (\$1000) <sup>g</sup>				
2000	120.9	39.7	190.6	366.8
2001	165.2	87.5	193.0	436.3
2002	149.3	77.3	197.3	415.4
2003	156.0	80.9	203.6	415.0
2004	162.6	80.4	206.2	419.1
2005	162.1	79.9	203.9	423.7
2006	165.2	80.5	197.9	418.4
Average	159.0	79.8	201.8	418.3
Return to family living (\$1000) <sup>h</sup>				
2000	54.4	12.6	126.0	195.6
2001	71.5	41.6	115.6	224.0
2002	36.8	34.5	107.0	129.3
2003	65.2	50.7	100.7	146.6
2004	56.3	46.6	127.0	133.8
2005	34.5	43.0	118.8	163.2
2006	32.0	38.1	106.2	133.5
Average	44.9	42.6	112.0	141.3
Average withdrawal assumed (\$1000) <sup>i</sup>	34.8	18.6	37.9	52.7
Beginning cash, 2002 (\$1000) <sup>j</sup>	54.6	21.4	174.5	321.8
Beginning cash/operating expenses (%) <sup>j</sup>	14.1	18.7	67.1	37.0
Probability of a cash flow deficit (%) <sup>k</sup>				
2002	45.6	21.0	1.0	19.2
2003	36.8	3.0	2.0	15.6
2004	39.6	7.0	1.0	20.6
2005	53.0	11.6	1.0	15.4
2006	54.8	17.8	1.0	22.0



## Cotton and Rice Farms

### Group Characteristics

This set of six Missouri bootheel crop farms raises cotton and/or rice as a major part, if not the dominant portion of their crop mix. Planted acres range from 400 to 4000. Owned acres are as little 10 percent and as high as 51 percent on these farms. Most leased acres are done on a share basis

### Group Outlook Summary

The outlook for this set of farms is mixed. Recent production history was generally above average. However, the farms enter the projection period on the heels of fairly dismal market prices, particularly 2001 cotton and rice prices. Based on the beginning assumptions, two farms start the projection period with no cash accumulated in 2000-01. The outlook for the group is poor to good, depending on a number of factors. Government payments are a substantial portion of total receipts, ranging from 28 to 38 percent for the group.

### Spotlights

**Farm 12** This 1600-acre farm irrigates cotton, soybeans, and rice and plants dryland sorghum. Only ten percent of the acreage is owned. Cotton is planted on 42 percent of the acres, but makes up 70 percent of receipts. Rice is planted on 17 percent of the acres and generates 9 percent of farm receipts. Government payments are a third of the total income. This farm receives a good risk rating. Probability of a cash flow deficit is quite low and net cash available for family living averages over \$118,000.

**Farm 14** plants rice and dryland beans on 4000 acres in equal proportions. In addition,

this farm receives payments on corn and cotton base acres. The best year out of the seven-year simulation is 2000 when yields were strong and net cash for family living was \$286,600. The following year it fell to a negative \$55,100 and is projected to be negative through 2006. Operating expenses average near 87 percent of receipts and the outlook for continuing cash flow deficits is 88 percent. The balance on carryover loans to cover expenses during the back-to-back deficit years reaches over \$1 million by the end of the projection period.

**Farm 15** USDA would classify this operation as a limited-resource farm. It plants 400 acres to rice, sorghum and soybeans. Rice receipts are 53 percent of the total. With expected annual receipts averaging slightly over \$100,000, this farm cannot fully support a family. For simulation, it is assumed that cash extracted from the business averages \$11,500.

Like the larger farms, this operation struggles to meet cash demands and does not cash flow in 2000-2002. It begins the forecasted years with no cash and greater debt than assumed in 2000. However, due to relatively efficient production the financial position is projected to dramatically improve in the forward years. The probability that farm income will support the assumed amount for personal use improves from 49 percent in 2002 to 99 percent by 2004.

**Farm 16** with 2500 acres of cropland planted to rice, corn, wheat and double-cropped soybeans, is ranked in poor position. With operating expenses at 84 percent of receipts, there is little chance that the farm can provide the \$34,100 assumed for family living.

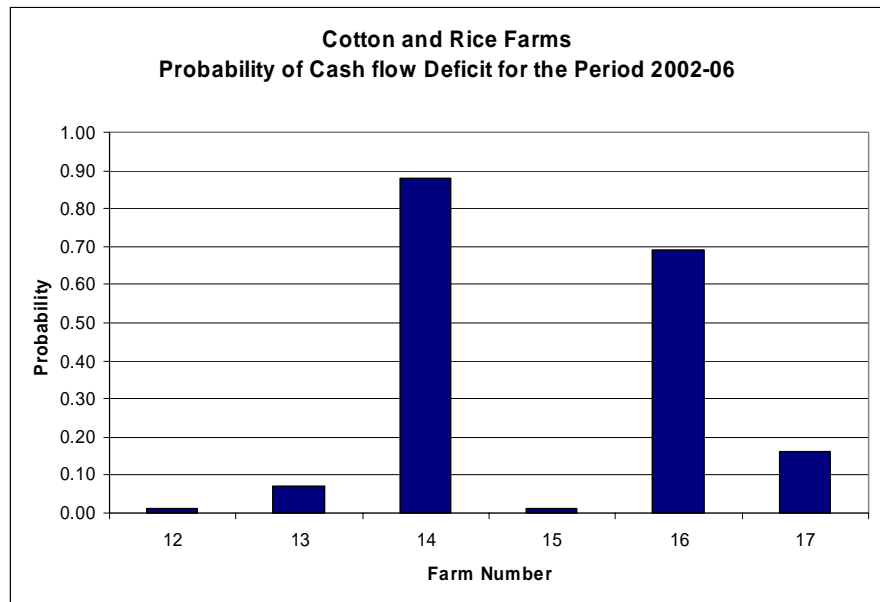


Table 6. Cotton and rice farms, characteristics and financial outlook.

Farm number	12	13	14	15	16	17
Region	Southeast	Southeast	Southeast	Southeast	Southeast	Southeast
County	Pemiscot	Pemiscot	Butler	Stoddard	Stoddard	New Madrid
Total acres operated	1608	3080	4100	408	2519	4150
Share of land owned	10%	35%	51%	51%	16%	37%
Cropland	1600	3000	4000	400	2500	4000
Acres owned	160	1000	2000	200	375	1400
Acres leased	1440	2000	2000	200	2125	2600
Nonproductive acres owned	8	80	100	8	19	150
Cash receipts <sup>a</sup>						
Total (\$1000)	\$464	\$1,195	\$1,074	\$99	\$701	\$1,039
Share of total Cotton	70%	60%	2%			
Rice	9%		57%	53%	26%	27%
Corn		11%	4%		50%	47%
Sorghum	2%			18%		
Wheat		6%			6%	
Soybeans	18%	23%	38%	29%	19%	26%
Planted acres <sup>b</sup>						
Total	1600	3559	4000	400	2750	4000
Share of total Cotton	42%	30%				
Rice	17%		50%	25%	30%	33%
Corn		14%			36%	33%
Sorghum	3%			25%		
Wheat		16%			10%	
Soybeans	38%	40%	50%	50%	24%	33%
Crop yields <sup>c</sup>						
Cotton, lbs						
2000	600	720 irr	706	878 irr		
2001	743	900 irr	750	1000 irr		
2002	562	879 irr	696	927 irr		
Rice, cwt						
2000		59.4		63.0	61.2	63.9
2001		60.8		58.5	58.5	60.0
2002		57.5		57.8	57.0	58.8
Corn, bu						
2000			145		166	155
2001			148		150	150
2002			165		147	146
Sorghum, bu						
2000	100			95		
2001	115			95		
2002	88			93		
Wheat, bu						
2000		61			69	
2001		55			58	
2002		52			57	
Soybeans, bu						
2000	15	35 irr	29.5	41.5	30	44
2001	26	50 irr	43	38	28	38
2002	19	49 irr	36	37	23	37

Table 6. **Cotton and rice** farms, characteristics and financial outlook (continued).

Farm number	12	13	14	15	16	17
Financial risk outlook <sup>d</sup>	Good	Marginal	Poor	Good	Poor	Marginal
Average operator assets (\$1000)	867	3523	6150	498	1986	4991
Average return to operator assets (%)	18.8	7.5	0.7	6.3	4.8	6.0
Assumed operator debt in 2000 (%) <sup>e</sup>	20	20	20	20	20	20
Cropland value in 2000 (\$ per acre)	1200	1700	1750	1520	2000	2000
Average operating expense/receipts (%)	62.5	65.0	86.9	61.8	84.0	71.0
Average government payments/receipts (%)	34.3	27.6	37.6	36.2	30.5	31.4
Government payments (\$1000) <sup>f</sup>						
2000	70.0	122.3	759.7	39.8	192.0	389.6
2001	198.6	322.0	579.6	34.5	222.0	429.4
2002	200.2	353.8	608.7	43.4	320.7	486.1
Average	155.7	298.2	653.9	34.4	248.8	377.9
Total cash receipts (\$1000) <sup>a</sup>						
2000	369.4	844.9	1,793.6	114.3	901.5	1,383.8
2001	506.8	1,069.0	1,369.4	97.4	837.0	1,301.3
2002	491.0	1,069.5	1,421.1	105.1	941.4	1,379.2
2003	495.3	1,080.0	1,427.0	106.4	954.0	1,389.2
2004	497.4	1,089.1	1,441.3	107.1	964.4	1,406.8
2005	499.3	1,095.7	1,457.1	107.6	975.9	1,422.9
2006	505.5	1,110.9	1,468.0	108.1	983.8	1,434.3
Average	497.7	1,089.1	1,442.9	106.9	963.9	1,406.5
Net cash farm income (\$1000) <sup>g</sup>						
2000	65.9	167.7	619.1	35.0	138.9	414.6
2001	197.0	376.7	189.2	29.9	38.5	314.1
2002	189.8	393.9	261.7	39.6	170.0	422.8
2003	194.4	396.6	235.8	40.5	175.3	426.3
2004	195.1	399.8	224.7	41.4	175.7	421.2
2005	193.3	384.9	219.0	42.1	163.9	414.9
2006	193.1	387.8	199.5	42.0	152.3	409.6
Average	193.1	392.6	228.1	41.1	167.5	419.0
Return to family living (\$1000) <sup>h</sup>						
2000	39.0	84.1	286.6	10.6	60.7	188.7
2001	113.6	233.1	-55.1	8.5	-74.5	111.1
2002	102.0	174.2	-77.4	12.0	10.3	126.9
2003	125.4	197.0	-78.2	21.9	54.1	210.0
2004	124.3	180.0	-158.8	21.8	35.4	136.2
2005	127.2	57.9	-108.1	28.8	-53.9	84.0
2006	112.6	116.8	-157.4	32.2	-26.8	84.1
Average	118.3	145.2	-116.0	23.4	3.8	128.2
Average withdrawal assumed (\$1000) <sup>i</sup>	36.6	52.8	40.3	11.4	34.1	53.1
Beginning cash, 2002 (\$1000) <sup>j</sup>	95.4	225.5	139.6	-1.4	-94.9	206.5
Beginning cash/operating expenses (%) <sup>j</sup>	31.7	33.4	12.0	-2.1	-12.3	21.6
Probability of a cash flow deficit (%) <sup>k</sup>						
2002	11.4	9.2	62.0	50.8	77.6	20.0
2003	1.0	4.8	72.0	3.2	72.0	3.2
2004	1.0	9.0	87.8	1.0	77.4	17.6
2005	1.0	47.4	89.4	1.0	92.6	34.6
2006	6.6	25.4	93.8	1.4	92.0	35.6





## Crop-beef Farms

### Group Characteristics

This group of nine diversified farms receives income from cow-calf enterprises and cash grains. Cropland acres range from 240 to 2050 and cow herd size ranges from 40 to 200. The portion of receipts generated by beef ranges from 8 to 50 percent of the total. Government crop payments make up 7 to 19 percent of the receipts on these farms.

All farms in this set raise corn and soybeans. Seven also raise wheat and three produce grain sorghum. Only three of the farms own more than half of the acres operated.

### Group Outlook Summary

With one exception, feedgrain yields were above trend in both years leading into the projection period. Soybean yields were a different story. The farms in southwest and west central had some very poor yields in 2000. Cattle prices were relatively strong during this period and are projected to continue strong. All but one of these farms entered the projection period with cash on hand.

As shown in the chart below, the outlook for this set of farms is generally optimistic with the exception of one poor performer.

### Spotlights

**Farm 18.** This northwest farm plants 2050 acres to corn and soybeans and runs a beef herd of 200 cows. Yields have been slightly above trend. For the intermediate term, this farm is expected to generate an average return to operator on assets of 3.7 percent. The probability of this farm not being able to meet cash expenses from current years receipts is about 26 percent in the forecast period. So, although this farm has the capacity to net over \$100,000 in cash, the expectation is that one year out of five net cash will be less than zero due to a combination of poor prices and/or production. The farm receives a marginal risk rating.

**Farm 21.** This 1150-acre farm in northeast Missouri plants the majority of acres to soybeans, followed by corn, sorghum and wheat. It manages a 40-cow beef herd on 160 forage acres. On average, operating expenses as a share of receipts are about 64 percent.

The farm receives a good financial risk rating because the probability of a cash deficit is relatively low and improving in the projection period. However, this is essentially locked into a no-growth position. It generates an adequate level of cash to support a family, but little more. Projected annual government payments exceed the annual cash available for family living. This is not a unique situation on this set of farms.

**Farm 22** is the poorest performer of the group with severe cash flow pressure expected. The farm begins the projection period still feeling spillover effects of drought damage to the soybean crop in 2000. Return to assets is expected to be positive (1.6 on average), but without costs reduction this farm will accumulate debt faster than it's ability to repay.

**Farm 26.** This 1800-acre farm in southwest Missouri, 79 percent owned, plants heavy to soybeans, but also raises corn, sorghum and wheat. A portion of the corn and double-cropped beans are irrigated under two center pivots. The 135-cow herd generates ten percent of receipts. With good yields across the board in 2001, the farm generated a return to family living of \$96,300. However, the risk of not earning enough cash to meet all expenses remains relatively high. The farm gets a marginal risk rating.

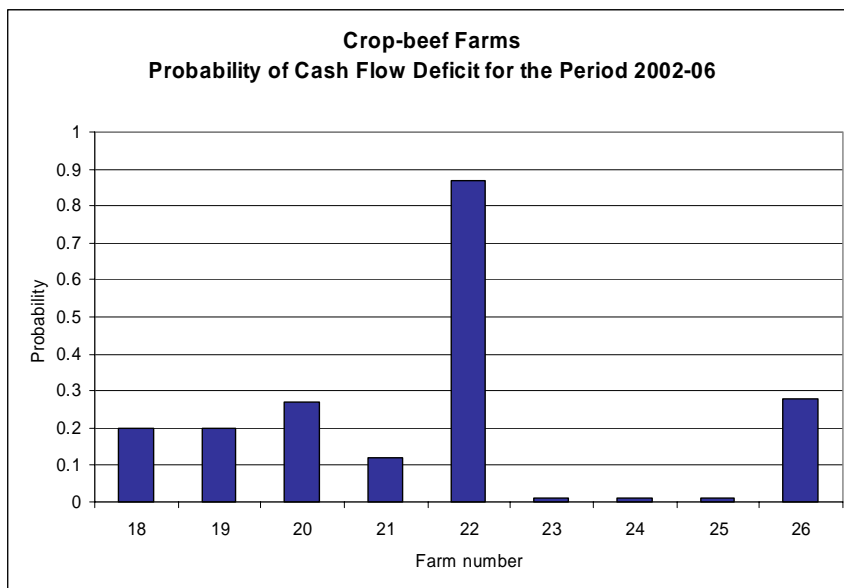


Table 7. **Crop-beef** farms, characteristics and financial outlook (continued).

Farm number	18	19	20	21	22
Region	Northwest	Northwest	Northeast	Northeast	West Central
County	Nodaway	Dekalb	Monroe	Audrain	Bates
Total acres operated	2914	1720	1946	1265	1047
Share of land owned	52%	47%	49%	36%	49%
Cropland	2050	1200	1460	1150	800
Acres owned	1050	480	730	345	320
Acres leased	1000	720	730	805	480
Pasture and hayland	800	400	400	80	200
Acres owned	400	200	132	80	150
Acres leased	400	200	268	0	50
Nonproductive acres owned	64	120	86	35	47
Mature beef cows (hd)	200	100	80	40	90
Cash receipts <sup>a</sup>					
Total (\$1000)	\$596	\$330	\$396	\$270	\$274
Share of total Beef	19%	15%	11%	8%	15%
Corn	46%	42%	40%	18%	38%
Sorghum				16%	
Wheat			7%	4%	10%
Soybeans	34%	37%	42%	53%	34%
Hay and/or seed	1%	4%			3%
Custom work	1%	2%			
Planted acres <sup>b</sup>					
Total	2850	1600	1860	1381	1150
Share of total Corn	32%	38%	33%	15%	24%
Sorghum				14%	
Wheat			7%	5%	15%
Soybeans	32%	38%	46%	55%	36%
Hay and/or seed	7%	11%	3%	6%	11%
Improved pasture	28%	14%	11%	6%	15%
Conservation reserve	2%				
Crop yields <sup>c</sup>					
Corn, bu					
2000	140	150	180	155	150
2001	140	100	131	113	150
2002	138	125	125	113	123
Sorghum, bu					
2000				118	
2001				112	
2002				112	
Wheat, bu					
2000			58	51	55
2001			64	48	70
2002			56	47	44
Soybeans, bu					
2000	40	45	46	46	15
2001	45	40	44	40	45
2002	39	39	41	39	32

Table 7. **Crop-beef** farms, characteristics and financial outlook (continued).

Farm number	18	19	20	21	22
Financial risk outlook <sup>d</sup>	Marginal	Good	Marginal	Good	Poor
Average operator assets (\$1000)	2873	1588	1884	1245	1079
Average return to operator assets (%)	3.8	5.3	4.7	5.6	1.6
Assumed operator debt in 2000 (%) <sup>e</sup>	20	20	20	20	20
Cropland value in 2000 (\$ per acre)	1420	1250	1455	1800	1250
Average operating expense/receipts (%)	73.0	66.4	67.0	63.8	82.0
Average government payments/receipts (%)	15.5	16.0	17.9	19.2	16.5
Government payments (\$1000) <sup>f</sup>					
2000	88.2	73.4	91.9	64.1	44.6
2001	95.9	56.3	79.9	53.4	44.4
2002	103.8	69.4	82.1	61.3	41.5
Average	94.9	62.9	73.9	53.9	37.6
Total cash receipts (\$1000) <sup>a</sup>					
2000	515.5	409.0	442.0	316.9	214.1
2001	595.5	330.1	396.4	270.5	264.9
2002	601.0	385.6	403.8	272.2	222.9
2003	613.7	394.1	412.8	278.6	228.8
2004	624.2	399.6	419.7	281.9	233.0
2005	636.1	404.8	425.6	283.9	235.8
2006	634.0	404.3	426.3	285.5	235.4
Average	621.8	397.7	417.6	280.4	231.2
Net cash farm income (\$1000) <sup>g</sup>					
2000	133.2	160.1	151.7	135.4	40.7
2001	153.4	60.4	119.2	87.5	84.9
2002	177.6	126.1	134.7	98.0	48.9
2003	180.7	134.7	141.7	101.2	49.7
2004	185.3	140.0	147.4	103.3	51.6
2005	191.1	141.9	150.3	105.8	46.6
2006	182.6	139.9	154.3	106.3	41.6
Average	183.5	136.5	145.7	102.9	47.7
Return to family living (\$1000) <sup>h</sup>					
2000	70.3	89.3	77.8	70.2	5.9
2001	83.3	17.2	42.7	31.2	26.3
2002	88.6	54.3	28.4	29.8	-5.3
2003	87.2	79.5	67.3	40.6	5.9
2004	98.7	74.2	62.5	42.9	6.0
2005	95.0	57.3	56.9	40.2	-17.3
2006	87.7	64.7	51.1	43.4	-19.1
Average	91.4	66.0	53.2	39.4	-5.9
Average withdrawal assumed (\$1000) <sup>i</sup>	37.3	29.1	30.3	24.7	18.3
Beginning cash, 2002 (\$1000) <sup>j</sup>	85.7	38.0	49.6	49.6	-4.8
Beginning cash/operating expenses (%) <sup>j</sup>	20.2	14.6	18.4	28.5	-2.7
Probability of a cash flow deficit (%) <sup>k</sup>					
2002	26.2	9.4	46.0	37.6	87.4
2003	27.6	3.0	24.6	12.4	88.6
2004	25.4	4.2	29.8	11.8	88.6
2005	29.2	17.8	32.4	20.6	95.8
2006	29.4	15.0	37.6	15.6	97.2

Table 7. **Crop-beef** farms, characteristics and financial outlook (continued).

Farm number	23	24	25	26
Region	East Central	East Central	Southwest	Southwest
County	Perry	Perry	Dade	Barton
Total acres operated	590	2263	795	2330
Share of land owned	36%	43%	82%	79%
Cropland	515	1700	240	1800
Acres owned	165	816	175	1350
Pasture and hayland	50	400	545	500
Acres owned	21		465	450
Acres leased	29	400	80	50
Nonproductive acres owned	25	163	10	30
Mature beef cows (hd)	40	200	150	135
Cash receipts <sup>a</sup>				
Total (\$1000)	\$138	\$619	\$160	\$624
Share of total Beef	12%	20%	50%	10%
Corn	28%	42%	7%	28%
Sorghum			7%	13%
Wheat	7%	10%	9%	21%
Soybeans	32%	26%	14%	28%
Hay and/or seed	17%	2%	13%	
Custom work	5%			
Planted acres <sup>b</sup>				
Total	721	2541	920	2830
Share of total Corn	18%	35%	4%	16%
Sorghum			4%	9%
Wheat	11%	14%	9%	21%
Soybeans	32%	29%	17%	39%
Hay and/or seed	33%	14%	22%	5%
Improved pasture	7%	8%	43%	11%
Crop yields <sup>c</sup>				
Corn, bu				
2000	143	145		145 180 irr
2001	115	138		150 190 irr
2002	111	134		117 155 irr
Sorghum, bu				
2000			90	110
2001			95	115
2002			79	113
Wheat, bu				
2000	52	50	48	50
2001	47	52	57	70
2002	46	50	44	48
Soybeans, bu				
2000	44	47	20	33 25 irr
2001	38	50	32	15 40 irr
2002	37	49	26	33 32 irr

Table 7. **Crop-beef** farms, characteristics and financial outlook (continued).

Farm number	23	24	25	26
Financial risk outlook <sup>d</sup>	Good	Good	Good	Marginal
Average operator assets (\$1000)	592	2854	941	2757
Average return to operator assets (%)	5.5	7.1	4.6	5.3
Assumed operator debt in 2000 (%) <sup>e</sup>	20	20	20	20
Cropland value in 2000 (\$ per acre)	1475	1825	1075	1100
Average operating expense/receipts (%)	64.4	59.8	51.7	65.9
Average government payments/receipts (%)	12.8	15.7	7.5	19.0
Government payments (\$1000) <sup>f</sup>				
2000	22.0	123.5	13.2	118.7
2001	18.3	109.7	12.7	104.8
2002	20.4	107.8	13.0	121.3
Average	18.2	98.6	11.7	109.4
Total cash receipts (\$1000) <sup>a</sup>				
2000	151.5	608.7	148.7	545.9
2001	137.7	618.5	159.5	623.9
2002	139.3	608.5	148.5	563.0
2003	142.9	625.7	154.9	575.7
2004	144.3	637.4	158.4	582.8
2005	146.7	646.2	160.6	589.2
2006	146.5	644.9	155.4	587.1
Average	143.9	632.5	155.6	579.6
Net cash farm income (\$1000) <sup>g</sup>				
2000	57.1	229.9	63.3	170.5
2001	40.5	232.0	75.6	235.5
2002	48.8	236.2	68.4	197.7
2003	51.4	255.2	73.6	207.5
2004	53.0	264.6	78.1	208.9
2005	53.0	272.1	81.2	209.4
2006	54.1	264.5	79.0	200.8
Average	52.0	258.5	76.0	204.9
Return to family living (\$1000) <sup>h</sup>				
2000	28.1	120.0	27.9	67.7
2001	16.3	107.8	29.4	96.3
2002	20.2	94.4	21.4	52.9
2003	33.3	138.2	34.0	83.8
2004	38.7	133.1	34.9	71.4
2005	32.7	130.8	39.7	66.6
2006	28.3	118.5	36.6	46.7
Average	30.7	123.0	33.3	64.3
Average withdrawal assumed (\$1000) <sup>i</sup>	14.3	45.7	15.5	41.2
Beginning cash, 2002 (\$1000) <sup>j</sup>	30.3	167.2	30.3	121.8
Beginning cash/operating expenses (%) <sup>j</sup>	16.7	133.4	26.5	83.7
Probability of a cash flow deficit (%) <sup>k</sup>				
2002	16.8	14.8	18.8	42.4
2003	1.0	1.0	4.4	23.0
2004	1.4	1.2	1.0	28.0
2005	4.6	2.4	1.0	34.8
2006	3.2	8.0	2.4	44.4



## Pork Farms

### Group Characteristics

The five hog farms are a diverse set engaged in several enterprises, but each receives the greatest share of income from the pork production unit. A variety of production phases, sizes, and management levels are reflected on these representative farms.

### Outlook Summary

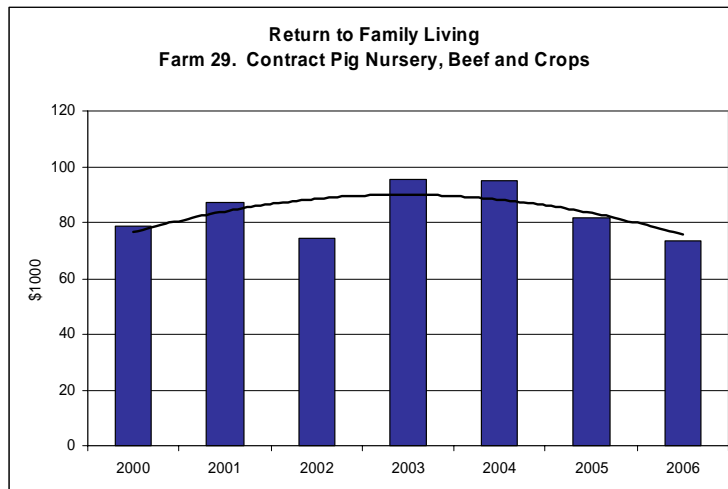
Barrow and gilt prices in this baseline peak in 2001, bottom in 2002-03, and climb to another peak in 2006. As might be expected, return to family living is quite volatile, requiring restraint by farm managers to hold cash in reserve for expected low price years. However, cash flow deficit risk exposure is very different on these farms. Over the 5-year outlook these farms have a generally positive outlook.

### Spotlights

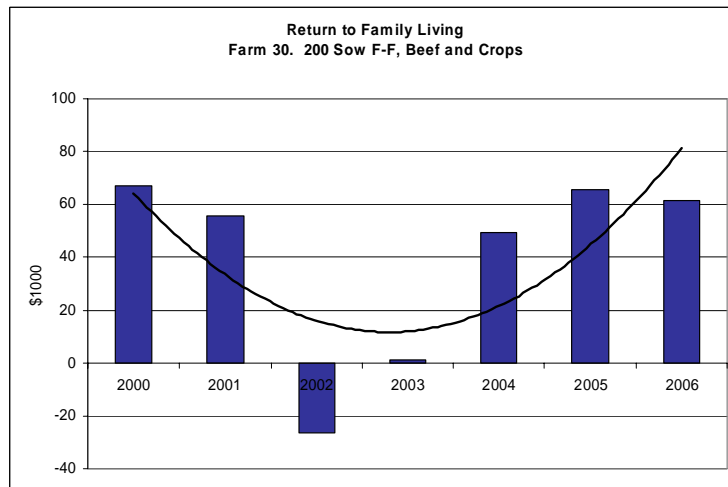
**Farm 27** manages 300 sows in a farrow-to-finish operation and 1150 acres of row crops. The bulk of farm receipts, 79 percent, are generated by market hog sales. Crop yields were exceptionally good in 2000, helping to put this farm in a strong cash position as it enters the projection period. The lowest level of net cash available for family living occurs in 2002 at an estimated \$62,400.

**Farm 28** recently transitioned out of farrowing into a 3000 head wean-finish enterprise. Hogs are raised in retrofitted housing. Pigs are purchased from a pool of growers and sold on the cash market. This farm has also increased cropland recently by 20 percent to 1500 acres. Government payments make up over 12 percent of returns, the largest share of any of the representative hog farms. Crop yields were well above trend in 2000 and 2001, which keeps this farm in business but leaves little for family support. With trend yield and low hog prices, as projected in 2002, the farm generates negative cash. Cash flow risk for the projection period is 82 percent.

**Farm 29** is a diverse farm with 550 row crop acres, a 70 cow beef herd and a two-house contract nursery pig enterprise built in the mid 1990's. The pig enterprise provides strong market and production risk protection. Risk of a cash flow deficit is one percent in the projection years. Good yields in both 2000 and 2001 also help carry this farm forward in a strong financial position.



**Farm 30** is a diverse river-hill operation in Osage County. Primary income is from the 200 sow farrow-to-finish unit, but the farm also has a 125 cow beef herd and raises 225 acres of corn, sorghum, and wheat which is fed on the farm. This farm faces considerable price and production risk. Cash available for family living falls from \$62,900 in 2000 to a negative \$28,200 in 2002. Government payments are lonely 3.3 percent of receipts.



**Farm 31** is strictly in the business of raising hogs in a multi-site 1500 sow farrow-to-finish operation. This farm is highly leveraged against \$5.6 million in assets. Receipts are expected to average \$3.6 million with operating expenses of \$2.6 million. The farm built cash in 2000-2001, but loses over half of its reserve in 2002. Annual cash residual swings from a negative \$184,000 with low prices to a positive \$902,000 with high hog prices. Debt declines from 60 percent in 2000 to 3 percent in 2005.

Table 8. **Pork-crop, Pork-beef-crop and Pork** farms, characteristics and financial outlook.

Farm number	27	28	29	30	31
Region	Northeast	East Central	West Central	Central	Northeast
County	Audrain	Montgomery	Vernon	Osage	Monroe
Total acres operated	1185	1590	852	800	200
Share of land owned	51%	43%	54%	75%	100%
Cropland	1150	1500	550	250	0
Acres owned	575	600	225	163	
Acres leased	575	900	325	87	
Pasture and hayland			285	330	0
Acres owned			215	215	
Nonproductive acres owned	35	90	17	220	200
Sows (hd)	300			200	1500
Hogs raised per year (hd)		3000 (finish)	31,160 (nurs.)		
Mature beef cows (hd)			70	125	
Cash receipts <sup>a</sup>					
Total (\$1000)	\$866	\$647	\$294	\$558	\$4,062
Share of total					
Pork	79%	53%	40%	85%	100%
Beef			13%	11%	
Corn	2%	11%	9%	2%	
Sorghum	3%		9%	1%	
Wheat		5%	12%		
Soybeans	16%	29%	19%	2%	
Custom work		2%			
Planted acres <sup>b</sup>					
Total	1150	1670	1015	605	0
Corn	25%	34%	10%	29%	
Sorghum	25%		9%	4%	
Wheat		10%	18%	4%	
Soybeans	50%	56%	36%	8%	
Hay and/or seed			7%	17%	
Improved pasture			21%	38%	
Crop yields <sup>c</sup>					
Corn, bu					
2000	155	125	126	135	
2001	113	125	126	112	
2002	111	113	117	117	
Sorghum, bu					
2000	119		125	105	
2001	112		125	80	
2002	110		108	78	
Wheat, bu					
2000	51	50	72	50	
2001	48	55	72	44	
2002	47	45	54	49	
Soybeans, bu					
2000	47	45	19	40	
2001	40	45	38	40	
2002	39	36	32	39	



Table 8. **Pork-crop, Pork-beef-crop and Pork** farms, characteristics and financial outlook (continued).

Farm number	27	28	29	30	31
Financial risk outlook <sup>d</sup>	Good	Marginal	Good	Good	Good
Average operator assets (\$1000)	2508	2125	1354	1726	5590
Average return to operator assets (%)	8.1	3.7	6.4	2.5	10.5
Assumed operator debt in 2000 (%) <sup>e</sup>	20	20	40	20	60
Cropland value in 2000 (\$ per acre)	1700	1700	1200	1450	1275
Average operating expense/receipts (%)	68.4	81.7	46.2	83.8	72.6
Average government payments/receipts (%)	5.5	12.1	12.7	3.3	0.0
Government payments (\$1000) <sup>f</sup>					
2000	54.6	91.4	44.2	21.3	0.0
2001	48.7	86.5	36.4	13.8	0.0
2002	48.3	73.8	40.0	17.6	0.0
Average	42.1	65.9	31.4	16.7	0.0
Total cash receipts (\$1000) <sup>a</sup>					
2000	898.7	617.7	276.1	552.3	3,834.6
2001	865.9	629.6	293.5	557.9	4,062.2
2002	689.2	502.6	283.5	447.8	3,181.8
2003	691.4	507.1	288.4	452.5	3,175.7
2004	795.3	561.4	290.6	528.9	3,771.0
2005	836.9	584.9	292.3	558.6	4,000.8
2006	855.2	594.9	291.4	565.5	4,101.5
Average	773.6	550.2	289.2	510.6	3,646.2
Net cash farm income (\$1000) <sup>g</sup>					
2000	374.2	163.8	131.5	139.4	1,186.0
2001	329.5	181.4	156.4	142.4	1,461.2
2002	175.4	73.3	145.3	39.6	662.5
2003	172.8	68.5	152.0	37.1	639.8
2004	271.2	115.1	163.8	105.1	1,145.8
2005	307.5	130.5	161.4	127.6	1,335.4
2006	326.2	134.0	159.1	126.7	1,373.9
Average	250.6	104.3	156.3	87.2	1,031.5
Return to family living (\$1000) <sup>h</sup>					
2000	197.2	62.8	78.5	62.9	184.2
2001	162.6	63.4	87.1	53.7	301.3
2002	62.4	-19.3	74.3	-28.2	-183.5
2003	81.6	-4.4	95.6	-0.4	56.4
2004	144.9	18.1	95.2	46.1	333.5
2005	146.5	23.2	81.8	63.4	888.7
2006	158.1	18.4	73.6	59.7	901.9
Average	118.7	7.2	84.1	28.1	399.4
Average withdrawal assumed (\$1000) <sup>i</sup>	44.3	24.9	28.8	24.7	54.2
Beginning cash, 2002 (\$1000) <sup>j</sup>	260.1	65.3	106.5	50.5	387.0
Beginning cash/operating expenses (%) <sup>j</sup>	50.6	14.6	77.7	12.2	15.4
Probability of a cash flow deficit (%) <sup>k</sup>					
2002	34.6	98.0	1.0	99.0	97.2
2003	8.0	81.8	1.0	83.8	49.0
2004	1.0	69.0	1.0	47.8	8.4
2005	1.0	68.2	1.0	18.0	1.0
2006	1.0	76.4	1.0	14.2	1.0



## Beef Farms

### Group Characteristics

All five of these farms operate cow-calf operations and sell raised calves as their primary product. The farms also harvest hay and/or fescue seed as a secondary income source. Calves are held for variable lengths of time from weaning to yearlings. Steer selling weights range from 540 to 760 lbs. There are significant differences in the share of land owned and the share of acres put to productive use.

### Outlook Summary

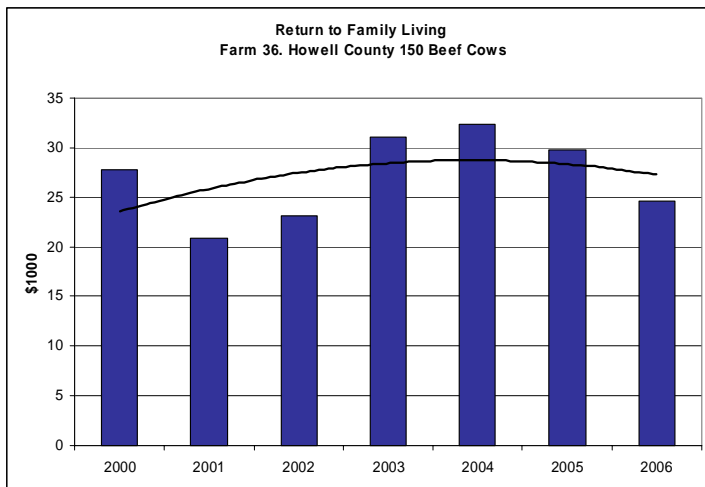
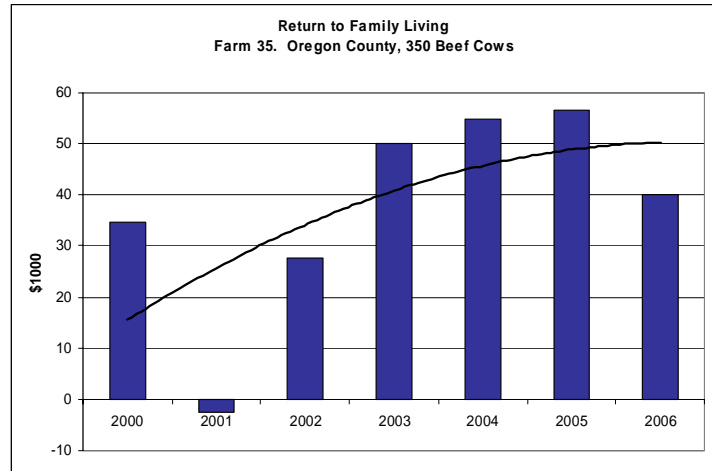
Recent price history and the projected price path for beef are relatively strong. One would expect these farms as a group to be performing near their peak financially. These data show a mixed outlook.

### Spotlights

**Farm 32** is a 350-cow operation with 3000 acres and over \$2 million in owned assets in the northern Ozarks. Financially, this farm is the poorest performer of the group. Although, it is not the highest cost producer on a per cow basis, expenses as a share of receipts are substantially higher than its comparators. The cost of debt service on nonproductive acres is a major reason for the high costs per cow. On average, this farm generates cash for family withdrawal of only \$6100 per year in the forecast period.

**Farm 33**, a 200-cow operation in Barry County reports the lowest costs of production and least risk of a cash flow deficit in the projection period. This farm averages \$41,500 of cash available for family living. Average return on assets is the highest for the group at 2.8%.

With 350 cows, **Farm 35** is similar in some ways to farm number 32. However, this Oregon County farm manages only 2000 acres. Costs per cow are also similar for this farm, but the herd generates substantially greater receipts, leaving an average of about \$46,000 per year for family living. Weather and insect effects are dramatically reflected in the net return to family living, which fell from \$34,600 in 2000 to a negative \$2,600 in 2001.



**Farm 36** in Howell County maintains 150 cows and backgrounds calves to an average of 735 lb steer weight. This farm also reported a dramatic decline in forage yields in 2001 and higher purchased feed costs as a result. This is the only beef farm that does not sell fescue seed. With continued tight management this farm is projected to net an average of \$28,200 for family living.

Table 9. **Beef** farms, characteristics and financial outlook.

Farm number	32	33	34	35	36
Region	Central	Southwest	Southwest	South Central	South Central
County	Dent	Barry	Lawrence	Oregon	Howell
Total acres operated	3000	770	1085	2000	825
Share of land owned	65%	100%	63%	46%	83%
'Cropland' hay acres owned	40	0	100	90	50
Other forage acres	1520	735	835	1760	600
Acres owned	510	735	535	760	510
Acres leased	1010		300	1000	90
Timber/waste acres owned	1440	35	150	150	175
Mature beef cows (hd)	350	200	260	350	150
Average sale weight of steers (lbs)	627	540	760	600	735
Cash receipts <sup>a</sup>					
Total (\$1000)	\$182	\$146	\$142	\$199	\$97
Share of total					
Beef	97%	65%	93%	87%	87%
Hay and/or seed	3%	27%	6%	11%	13%
Custom work		8%	1%	2%	
Harvested acres <sup>b</sup>					
Total	1555	955	1041	2115	650
Alfalfa hay	40		100	50	50
Warm-season grass hay				40	10
Cool-season grass hay	300	220	200	200	75
Fescue seed	215	310	106	425	
Improved pasture	1000	425	635	1400	515
Crop yields <sup>c</sup>					
Alfalfa, tns	3.8		4.5	4.0	4.1
2000	4.0		3.8	3.0	3.2
2001	4.0		4.1	4.0	4.1
2002					
Warm-season grass hay, tns					
2000				4.0	2.5
2001				2.0	1.5
2002				4.0	2.5
Cool-season grass hay, tns					
2000	1.5	1.5	2.0	2.0	2.1
2001	2.2	1.1	1.5	1.0	1.9
2002	2.5	1.5	1.8	2.0	2.1
Fescue seed, lbs					
2000	200	300	300	100.0	
2001	200	320	200	0.0	
2002	200	300	300	150	

Table 9. **Beef** farms, characteristics and financial outlook (continued).

Farm number	32	33	34	35	36
Financial risk outlook <sup>d</sup>	Poor	Good	Good	Good	Marginal
Average operator assets (\$1000)	2105	1225	1364	1304	922
Average return to operator assets (%)	-0.3	2.8	1.5	2.1	1.2
Assumed operator debt in 2000 (%) <sup>e</sup>	7%	7%	7%	7%	7%
'Cropland' value in 2000 (\$ per acre)	800	1200	1200	1000	1050
Assets, 2001 (\$ per cow)	6013	5316	5230	3714	6104
Average operating expense/receipts (%)	88.5	51.7	67.3	71.9	60.9
Average whole-farm cash expenses excluding family living (\$/cow)	503	430	474	509	486
Average government payments	0	0	0	0	0
Total cash receipts (\$1000) <sup>a</sup>					
2000	178.2	139.8	147.46	210.6	98.8
2001	182.6	146.2	142.25	199.3	97.3
2002	169.3	120.7	143.23	210.3	94.2
2003	181.4	127.0	154.31	222.9	101.1
2004	188.4	130.8	159.25	230.3	103.7
2005	192.1	133.0	162.89	234.5	106.9
2006	179.1	126.3	152.57	222.3	99.6
Average	182.0	127.5	154.45	224.1	101.1
Net cash farm income (\$1000) <sup>g</sup>					
2000	29.8	72.6	49.33	58.5	42.5
2001	31.7	79.3	39.34	14.3	32.6
2002	19.2	57.0	43.41	52.0	36.0
2003	26.2	61.6	50.65	64.0	40.7
2004	29.4	66.4	57.07	70.5	43.3
2005	28.8	67.8	60.09	73.7	43.9
2006	12.0	58.9	48.47	59.0	37.7
Average	23.1	62.3	51.94	63.8	40.3
Return to family living (\$1000) <sup>h</sup>					
2000	12.5	46.6	34.5	34.6	27.8
2001	12.5	50.1	20.4	-2.6	20.9
2002	-1.4	35.0	19.6	27.7	23.1
2003	11.5	42.9	30.7	50.0	31.0
2004	14.4	45.4	34.9	54.8	32.3
2005	11.6	45.4	36.7	56.6	29.8
2006	-5.3	38.6	33.8	40.1	24.6
Average	6.1	41.5	31.1	45.9	28.2
Average withdrawal assumed (\$1000) <sup>i</sup>	32.0	27.0	27.0	32.1	22.0
Beginning cash, 2002 (\$1000) <sup>j</sup>	-35.5	46.5	4.4	-28.5	8.3
Beginning cash/operating expenses (%) <sup>j</sup>	-23.9	69.3	4.5	-18.7	14.8
Probability of a cash flow deficit (%) <sup>k</sup>					
2002	99.0	8.6	63.8	99.0	27.0
2003	99.0	1.0	45.6	85.0	9.0
2004	99.0	1.0	39.8	28.6	17.4
2005	99.0	1.0	35	7.0	16.2
2006	99.0	10.4	41	29.8	38.8



## Dairy Farms

### Group Characteristics

The representative dairy farms are as diverse as Missouri's industry, ranging in size from 85 to 400 cows. Each farm is unique in its approach to producing milk. Investment and debt assumptions are variable for the dairies.

### Outlook Summary

Missouri average milk prices were exceptionally low in 2000 (\$12.40/cwt) followed by unusually strong prices in 2001 (\$15.05/cwt). The strong price year allowed producers to replace capital and/or build cash reserves for future years. All of the representative dairy farms begin the projection period with positive cash reserves. The projected milk price baseline is relatively flat, averaging \$12.57/cwt. The impact of milk income loss (MILC) payments are evident on these farms, particularly the smaller ones. The risk of cash flow deficit for all of the dairy farms is under 10 percent in 2003-05, but takes a steep increase when MILC expires in 2006 (see chart for example). While risk is on the horizon, the outlook for this set of farms is consistent and generally positive.

### Spotlights

**Farm 37.** This 150-cow dairy located in the Missouri river hills produces milk and row crops with moderate investment in confinement facilities. But asset values are relatively high, partially influenced by the proximity of this farm to St. Louis and the demand for recreational uses of land. Of the five rep dairies, this farm has the highest production average of 21,000 lbs of milk per cow. The farm grows all of its own forages in addition to 240 acres corn and soybeans. Government payments from the crop and dairy program make up 5.2 percent of receipts. With 25 percent debt in 2000, this farm is projected to average \$80,300 in net family income over the projection period. Cash flow risk in 2006 is quite high at 61 percent.

**Farm 38.** This farm is a traditional 85-cow dairy in southwest Missouri. Herd average is slightly over 18,000 lbs. Operators are nearing retirement and have made relatively little capital improvements in recent years. However, land prices are high as this farm is near one of the fastest growing populations in the state. With 20 percent debt in 2000, this farm is projected to generate \$52,000 in family income.

**Farm 39.** This 400 cow, high-investment farm raises 135 acres of corn silage, but purchases alfalfa hay. Net cash for family living averages \$182,000 in the projection period.

**Farm 40.** This 130 cow grazing dairy in southwest Missouri has a herd average of 16,500 lbs. Investment in all farm assets is relatively low at \$6,950 per cow. Net cash available for family living is projected to average over \$100,000.

**Farm 41** is unique among these farms in that it retains Holstein steers and raises them to an average 650 lbs. The farm feeds raised haylages and purchases alfalfa hay. Capital investment is fairly low. There is no freestall barn for example. This dairy is projected to generate an average of \$87,500 for family living.

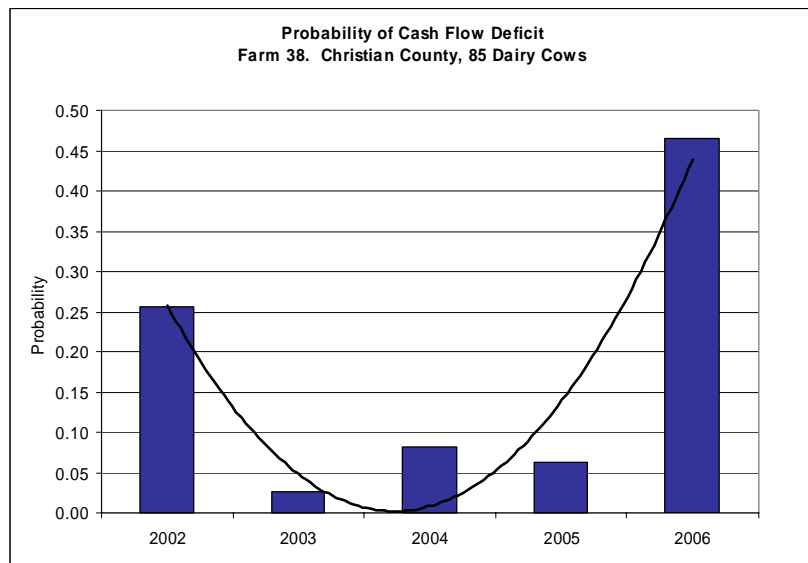


Table 10. Dairy farms, characteristics and financial outlook.

Farm number	37	38	39	40	41
Region	East Central	Southwest	Southwest	Southwest	South Central
County	Franklin	Christian	Dade	Dade	Wright
Total acres operated	745	390	770	270	500
Share of land owned	81%	86%	70%	100%	100%
Crop and hayland	420	260	680		170
Acres owned	320	260	450		170
Acres leased	100		230		
Pastureland	170	110	60	260	250
Acres owned	130	55	60	260	250
Acres leased	40	55			
Timber/waste acres owned	155	20	30	10	80
Mature dairy cows (hd)	150	85	400	130	150
Milk per cow, 2001 (lbs)	21,000	18,300	20,200	16,500	18,500
Forages purchased, 2001 (tns)	0	0	735	232	360
Cash receipts <sup>a</sup>					
Total (\$1000)	\$491	\$241	\$1,256	\$355	\$502
Share of total Milk	82%	88%	93%	87%	86%
Cows, heifers, baby calves	8%	12%	7%	13%	8%
Dairy stocker steers					6%
Corn, grain	5%				
Soybeans	5%				
Harvested acres <sup>b</sup>					
Total	590	370	740	260	420
Alfalfa	40	100		39	
Corn silage	60	40	135		
Perennial grass mixes	50	120	250	65	135
Annual grass mixes	30		295	104	35
Improved pasture	170	110	60	52	250
Corn, grain	135				
Soybeans	105				



Table 10. Dairy farms, characteristics and financial outlook (continued).

Farm number	37	38	39	40	41
Financial risk outlook <sup>d</sup>	Marginal	Marginal	Good	Good	Marginal
Average operator assets (\$1000)	2673	1012	2487	915	1413
Average return to operator assets (%)	5.4	5.6	14.5	15.5	8.0
Assumed operator debt in 2000 (%) <sup>e</sup>	25	20	45	20	20
'Cropland' value in 2000 (\$ per acre)	2200	1450	1200	900	975
Average operating expense/receipts (%)	64.6	62.3	68.8	55.2	68.2
Average government payments/receipts (%)	5.2	4.3	1.4	4.4	3.5
Government payments (\$1000) <sup>f</sup>					
2000	13.7	0.0	0.0	0.0	0.0
2001	13.1	0.0	0.0	0.0	0.0
2002	35.5	14.1	21.5	19.4	21.5
2003	35.5	14.5	21.7	20.0	21.7
2004	34.5	14.6	21.5	20.0	21.5
2005	34.1	15.1	21.9	20.8	21.9
2006	11.4	0.0	0.0	0.0	0.0
Average	30.2	11.7	17.3	16.0	17.3
Total cash receipts (\$1000) <sup>a</sup>					
2000	501.5	221.4	1086.8	285.4	412.6
2001	596.3	274.7	1352.6	355.5	502.0
2002	572.1	265.5	1255.6	359.6	478.0
2003	582.3	271.2	1280.3	366.4	489.1
2004	591.1	275.3	1300.1	371.3	495.9
2005	598.7	279.2	1318.1	376.2	504.1
2006	556.2	253.1	1241.7	340.9	461.4
Average	580.1	268.9	1279.2	362.9	485.7
Net cash farm income (\$1000) <sup>g</sup>					
2000	133.6	59.4	278.1	124.4	91.4
2001	236.7	110.3	496.5	182.4	184.5
2002	215.4	107.8	420.1	171.9	164.5
2003	215.4	108.7	430.7	175.8	167.6
2004	218.6	109.0	430.7	174.9	167.2
2005	219.8	109.2	429.2	174.4	169.3
2006	169.5	80.9	330.4	133.8	120.4
Average	207.7	103.1	408.3	166.2	157.8
Return to family living (\$1000) <sup>h</sup>					
2000	45.2	25.5	41.6	72.4	39.8
2001	99.8	54.7	148.4	110.5	96.8
2002	69.2	47.1	91.3	100.6	78.2
2003	111.7	60.7	229.7	117.9	109.8
2004	99.3	57.0	223.1	118.2	99.2
2005	86.8	58.6	213.9	110.5	93.1
2006	34.7	36.7	152.1	81.6	57.8
Average	80.3	52.0	182.0	105.8	87.6
Average withdrawal assumed (\$1000) <sup>i</sup>	44.4	33.0	53.2	37.0	35.8
Beginning cash, 2002 (\$1000) <sup>j</sup>	72.9	17.6	91.4	113.6	66.2
Beginning cash/operating expenses (%) <sup>j</sup>	20.4	11.1	10.9	60.5	21.1
Probability of a cash flow deficit (%) <sup>k</sup>					
2002	24.8	25.6	40.8	3.2	5.4
2003	1.0	2.6	1.0	1.0	1.0
2004	2.0	8.2	1.0	1.2	1.0
2005	6.6	6.2	1.0	2.2	1.4
2006	61.2	46.6	12.4	13.0	28.6

### Table Reference Notes

- a. Cash receipts is total gross revenue from all sources, including cash sales in the market and government payments for crops that may not be planted. For a minority of farms this figure also includes a relatively small income from custom farming activity.
- b. Planted acres may exceed total crop acres due to double cropping practices. Forage crops are labeled as harvested acres for beef farms. These acres may be harvested mechanically (hay, haylage, silage) and/or grazed.
- c. All yield data are as reported by the panels. 2002 yields are the expected, or historical average yields (APH). Irrigated crops denoted by "Irr", otherwise yields are dryland.
- d. Financial risk outlook scores the farms by combining the magnitude and trend of two probabilities: the probability of cash flow deficit and the probability of declining net worth over the projection period. For example, farms with a probable cash flow deficit less than 25% and an increasing net worth receive a 'good' rating. Farms with probable cash flow deficit above 50% and declining real net worth receive a 'poor' rating. Note that this rating is size neutral. It only scores risk exposure to prices and production given the assumptions concerning debt and the cash withdrawn from the business.
- e. A beginning debt level on January 1, 2000 is assumed for each of the farms based on the farm type, information provided by the panels, and data supplied by USDA-ERS. Operator debt in 2000 is total liabilities/total assets, assuming a zero cash balance and no current liabilities. The debt ratio is assumed to be equal for long-term and intermediate term loans. Loan length is the same for all the farms, but interest rates are localized. Debt in future years fluctuates from this beginning starting point.
- f. Government payments include all receipts provided through the commodity titles of the farm bills. The payment types summarized in this variable are direct (fixed) payments, counter-cyclical payments, and loan deficiency payments. Dairy market loss payments are also included where applicable. Average government payments refers to the five-year projection period, 2002-2006.
- g. Net cash farm income is total cash receipts less all farm operating expenses, i.e., all cash expenses for production, including interest payments on outstanding debt. It is an intermediate step in determination of total cash outflow.
- h. Annual return to family living (net cash return) is the farms' after-tax bottom line for the given year. It is the residual after all other cash expenses are deducted from current year receipts. This calculation does not include carryover cash from prior years. (See the financial statement on page 6).
- i. Average withdrawal is the annual amount assumed to be extracted from the business for household purposes, averaged over five years. It is also used as a proxy for the value of managerial labor in determining rates of return. This amount is deducted from the return to family living (h) to derive a carryover balance for the following year. It may be more, or less, than the years' net cash return. If the withdrawal exceeds net cash return, then the deduction is made from accumulated cash reserves. If cash reserve is insufficient, then an offsetting operating loan is created and carried forward into the following year.  
  
For this analysis, the amount of the annual withdrawal is a function of receipts in the previous year and ranges between \$10,000 and \$50,000 in 2000 dollars for all of the farms. For many of the representative farms, typically those with less than \$250,000 in receipts, the average withdrawal is less than most families would willingly accept to provide for all family living expenses.
- j. Beginning cash in 2002 is the cash reserve accumulated by the farm in the previous two years of the analysis after the assumed family living withdrawal. It indicates the cash cushion the farm has going into the projection period, expressed in terms of dollars and percent of the projected operating expenses in 2002.
- k. Probability of cash flow deficit is the chance that total cash expenses will exceed total cash receipts within the given year as a result of price and production risk. Prior year losses are rolled forward as an extended operating loan. However, any gains from prior years (beginning cash balance and interest on savings) are not included in the current years receipts.

## Representative Farm Panels

<p><b>No. 1 2000 acres feedgrain-soy</b>            Facilitator: Brooks Hurst – Atchison County            Sam Graves – Atchison County            Steve Alexander – Nodaway County            Terry Ecker – Nodaway County</p>	<p>Lyle Brown – Atchison County            Brooks Hurst – Atchison County</p>	<p>NWFG2000</p>
<p><b>No. 2 2050 acres feedgrain-soy</b>            Facilitator: Tom Waters – Ray County            Dwight McMullen – Ray County            Perry Vandiver – Ray County            Max Hockemeier – Ray County</p>	<p>Steve Ewert – Clay County            Tom Waters – Ray County</p>	<p>NWFG2050</p>
<p><b>No. 3 1700 acres feedgrain-soy</b>            Facilitator: Parman Green – UOE Ag Business Specialist            James Wheeler – Carroll County            Gerald Kitchen – Saline County            Ron Linneman – Carroll County</p>	<p>Larry Davies – Livingston County            Dennis Hensiek – Carroll County            Jack Harriman – Saline County</p>	<p>NCFG1700</p>
<p><b>No. 4 3630 acres feedgrain-soy</b>            Facilitator: Parman Green – UOE Ag Business Specialist            Mike Hisle – Saline County            Ron Gibson – Carroll County            Ron Venable – Saline County            Charles Reid – Carroll County</p>	<p>John Vogelsmeier – Saline County            Glen Kaiser – Carroll County            Ronald Jenkins – Carroll County            D. J. Tweedie – Carroll County</p>	<p>NCFG3630</p>
<p><b>No. 5 2040 acres feedgrain-soy</b>            Facilitator: John Schaffer – Lewis County            Jerry Ketsenburg – Ralls County            John Wood - Lewis County            David Lillard – Lewis County            Alton Vannice – Marion County</p>	<p>John Schaffer – Lewis County            Earl Gard – Marion County            Bill Goldinger – Marion County</p>	<p>NEFG2040</p>
<p><b>No. 6 1150 acres feedgrain-soy</b>            Facilitator: Brian Willott –FAPRI at MU and Jake Freyer – Audrain County            Donnie Schwartz – Audrain County            Jon Robnett – Audrain County            Rodney Willingham – Audrain County            Adam Blaue – Montgomery County            Richard Primus – Audrain County</p>	<p>Jake Freyer – Audrain County            Jim Gastler – Callaway County            Jules Willot – Audrain County            Bill Kessler - Audrain County            Jeffrey Fennewald – Audrain County</p>	<p>NEFG1150</p>
<p><b>No. 7 1850 acres feedgrain-soy</b>            Facilitator: John Eggleston – Scotland County            Jamie Triplett – Scotland County            G.W. Carroll – Shelby County            Dale Samp - Randolph County            Sam Cobb – Montgomery County</p>	<p>Brent Rockhold – Scotland County            Brian Munzlinger – Lewis County            Jeff Otto – Knox County</p>	<p>NEFG1850</p>
<p><b>No. 8 1800 acres feedgrain-soy</b>            Facilitator: Neil Bredehoeft – Lafayette County            Ron Catlett – Saline County            Ellis Dieckhoff – Lafayette County            Dennis Schneider – Lafayette County</p>	<p>Neil Bredehoeft – Lafayette County            Lynn Fahrmeier – Lafayette County</p>	<p>WCFG1800</p>
<p><b>No. 9 800 acres feedgrain-soy</b>            Facilitator: Rick Mammen – UOE Agronomy Specialist            Harvey Letton – Barton County            Wally Norton – Barton County</p>	<p>Don Lucietta – Barton County            Dale Norwood – Barton County</p>	<p>SWFG800</p>

<b>No. 10 1800 acres feedgrain-soy</b>		SEFG1800
Facilitator: John Moreton – Mississippi County		
Ron Rolwing – Mississippi County	Mike Geske - New Madrid County	
Daniel Babb – Mississippi County	Wayne Corse – Mississippi County	
<b>No. 11 4000 acres feedgrain-soy</b>		SEFG4000
Facilitator:		
Jack Moxley – Mississippi County	John Moreton – Mississippi County	
Bart Stallings – Mississippi County	Hoyt Barnes – Mississippi County	
Jim Burke – Mississippi County		
<b>No. 12 1600 acres feedgrain, soy, cotton, rice</b>		SECT1600
Facilitators: Dave Madison, Pemiscot County Port Authority Director and Mike Blankenship, Pemiscot County		
USDA/FSA		
Danny Davis – Dunklin County	Rance Daniels – Dunklin County	
Johnny Arbuckle – Pemiscot County	Johnny Watkins – Pemiscot County	
Mike Stetson – Pemiscot County	Tony Watkins – Pemiscot County	
Brian Waldrop – Pemiscot County	Dwight Blankenship – Dunklin County	
Steve Dunavant – Pemiscot County		
<b>No. 13 3000 acres feedgrain, soy, cotton</b>		SECT3000
Facilitators: Dave Madison, Pemiscot County Port Authority Director and Mike Blankenship, Pemiscot County		
USDA/FSA		
Ted Streete – Pemiscot County	James Raulerson – Pemiscot County	
Mike Clayton – Pemiscot County	Dalma Reid – Pemiscot County	
Steve Reid - Pemiscot County		
<b>No. 14 4000 acres soybeans and rice</b>		SERW4000
Facilitator: Bruce Beck – UOE Agronomy-rice Specialist		
C.P. Johnson – Butler County	Frank Smody – Butler County	
Rodney Eaker – Butler County	Jim Bieller – Butler County	
<b>No. 15 400 acres feedgrain, soybeans and rice</b>		SERC400
Facilitator: Walter Smith – Stoddard County NRCS		
Sean Rutledge - New Madrid County	Ted Pullen – Stoddard County	
Alex Green - Pemiscot County		
<b>No. 16 2500 acres feedgrain, soybeans and rice</b>		SERC2500
Facilitator: David Guethle – Stoddard County		
Dale Conner – Stoddard County	Larry Riley – Stoddard County	
Andy Turman – Stoddard County	C.D. Stewart – Stoddard County	
<b>No. 17 4000 acres feedgrain, soybeans and rice</b>		SERE4000
Facilitator: David Guethle – Stoddard County Extension Center		
Terry Scott – Dunklin County	Dick Burnett – Stoddard County	
Tom Jennings – Scott County	Scott Wheeler – Stoddard County	
Galen Lawrence – Scott County		
<b>No. 18 1400 acres feedgrain-soy, 200 beef cows</b>		NWCB2050
Facilitator: Mike Killingsworth –Killingsworth Ag Services		
Jack Baldwin – Nodaway County	Kevin Rosenbohm – Nodaway County	
Gary Ecker – Nodaway County	Roger Vest – Nodaway County	
<b>No. 19 1200 acres feedgrain-soy, 100 beef cows</b>		NWCB1200
Facilitator: Curtis Walker – NRCS DeKalb County Field Office		
Rob Mattson – DeKalb County	Dennis Marshall – DeKalb County	
Rodney Hahn – DeKalb County	Dwayne Groebe – DeKalb County	
Chris Curtis – DeKalb County		

<b>No. 20 1460 acres feedgrain-soy and 25 beef cows</b>	NECB1460
Facilitator: Gary Noel – NRCS Ralls County Field Office	
Joe Hagan – Monroe County	Micah Lehenbauer – Ralls County
Don Griffin - Ralls County	Tuley Elliott – Ralls County
Phillip Thompson – Ralls County	Danny Benson – Ralls County
Pat Hays – Monroe County	
<b>No. 21 1150 acres feedgrain-soy and 40 beef cows</b>	NECB1150
Facilitator: Brian Willott - FAPRI at MU and Jake Freyer – Audrain County	
Jim Gastler – Callaway County	Richard Primus – Audrain County
Jules Willot – Audrain County	Jeffrey Fennwald – Audrain County
Bill Kessler – Audrain County	Donnie Schwartz – Audrain County
Jon Robnett – Audrain County	Adam Blaue – Montgomery County
Rodney Willingham – Audrain County	
<b>No. 22 800 acres feedgrain-soy and 75 beef cows</b>	WCCB800
Facilitator: Brad Powell - NRCS Bates County Field Office	
Andy Starkebaum – Cass County	Freeman Stanfill – Bates County
Terry VanSandt – Bates County	Trent Smith – Cass County
Brad Addleman – Bates County	
<b>No. 23 515 acres feedgrain-soy and 40 beef cows</b>	ECCB515
Facilitator: Joe Trujillo – FAPRI at MU	
LeRoy Lukefahr – Perry County	Brian Koenig – Perry County
Dean Lukefahr – Perry County	Kevin Bachmann - Perry County
Terry Weinrich – Bollinger County	
<b>No. 24 1700 acres feedgrain-soy and 200 beef cows</b>	ECCB1700
Facilitator: Joe Trujillo – FAPRI at MU	
Dale Huber – Perry County	Marion Brown - Ste. Genevieve County
Robert Breig - Ste. Genevieve County	Norman Reiss Perry County
<b>No. 25 240 acres feedgrain-soy and 150 beef cows</b>	SWCB240
Facilitator: Brian Gillen - Lockwood H.S., Vo-Ag	
Mike Theurer – Dade County	Ray Hunter – Lawrence County
Randall Erisman – Dade County	Chuck Daniel – Dade County
Gary Wolf – Lawrence County	James Nivens – Lawrence County
<b>No. 26 1800 acres feedgrain-soy and 135 beef cows</b>	SWCB1800
Facilitator: Rick Mammen – UOE Agronomy Specialist	
Rose Overman – Barton County	Mark Whittle – Barton County
Jerry Schnelle – Barton County	Wayne Schnelle – Dade County
<b>No. 27 1150 acres feedgrain and 40 beef cows</b>	NEHC1150
Facilitator: Brian Willott - FAPRI at MU and Jake Freyer – Audrain County	
Jim Gastler – Callaway County	Richard Primus – Audrain County
Jules Willot – Audrain County	Jeffrey Fennwald – Audrain County
Bill Kessler – Audrain County	Donnie Schwartz – Audrain County
Jon Robnett – Audrain County	Adam Blaue – Montgomery County
Rodney Willingham – Audrain County	
<b>No. 28 1500 acres feedgrains-soy and 3000 head grow-finish hogs</b>	ECHC1500
Facilitator: Gary Hoette – UOE Agronomy Specialist	
Harold Clark – Montgomery County	Mike Grosse – Montgomery County
Bill Deichman – Audrain County	Charles Grosse – Montgomery County
Mark Stevens – Montgomery County	Jim Foster – Montgomery County

<b>No. 29 550 acres feedtrain-soy, 70 beef cows and 2-houses contract nursery pigs</b>		WCHBC550
Facilitator: Wayne Prewitt – UOE Ag Business Specialist		
Rocky Rush – Jasper County	Gary Waltz – Jasper County	
Ronnie Means – Barton County	Lawrence Tally – Vernon County	
Tommy Wait – Vernon County	Wayne Jeans – Vernon County	
Bill Handy – Vernon County		
<b>No. 30 250 acres feedgrain-soy, 125 beef cows, and 200 sows F-F</b>		CTHBC250
Facilitator: Russ Kremer – Missouri Farmers Union		
Leo Brandt – Osage County	John Muenks – Osage County	
Luke Deeken – Osage County	Doug Luebbering – Cole County	
<b>No.31 1500 sow farrow-to-finish</b>		NEH1500
Facilitator:		
Jim Fisher – Montgomery County	Scott Hays – Monroe County	
Jerry Epperson – Montgomery County	Kathy Chinn – Shelby County	
<b>No. 32 350 beef cows</b>		SCBF350
Facilitator:		
Ken Lenox – Phelps County	Tom Gollhofer – Dent County	
George Barnitz – Dent County	Doug & Pat Black – Phelps County	
<b>No. 33 200 beef cows</b>		SWBF200
Facilitator: Tony Rickard – UOE Dairy Specialist		
Eugene Mielkey – Barry County	Neal Vinyard – Barry County	
Larry Henbest – Barry County	Basil Ferguson – Lawrence County	
<b>No. 34 260 beef cows</b>		SWBF260
Facilitator: Eldon Cole – UOE Livestock Specialist		
Rod Lewis – Lawrence County	Ben Kaal – Lawrence County	
Nolan Kleiboeker - Lawrence County	Steve Parker – Lawrence County	
<b>No. 35 350 beef cows</b>		SCBF350
Facilitator: Stacy Hambleton - Dade County Extension Center		
Calvin Crawford – Oregon County	Doug & Alice Robison – Oregon County	
Carol Grimes – Oregon County	Wilbur Spreutels – Oregon County	
Don Johnson – Oregon County		
<b>No. 36 150 beef cows</b>		SCBF150
Facilitator: Randy Saner – UOE Livestock Specialist		
Cindy Ulm – Howell County	Don Proffitt – Howell County	
Becky Day – Howell County	Charlie Rymer – Howell County	
Al Vance – Howell County		
<b>No. 37 150 cow dairy and 240 acres feedgrain-soy</b>		ECDY150
Facilitator: Matt Herring and Ken Bolte- UOE Natural Resources and Ag. Business Specialists		
Bob Riegel – Franklin County	Daryl Rademacher – Gasconade County	
Eugene Scheer – Franklin County	Roy Koeling – Gasconade County	
<b>No. 38 85 cow dairy</b>		SWDY85
Facilitator: Stacey Hamilton – UOE Dairy Specialist		
Allen Sulgrove – Taney County	Doug Owen – Webster County	
Joe Peebles – Christian County	Larry Winfree – Stone County	
<b>No. 39 400 cow dairy</b>		SWDY400
Facilitator: Stacey Hamilton – UOE Dairy Specialist		
Wayne Whitehead – Webster County	Steve Gallivan – Dallas County	
John McArthur – Dade County	Freddie Martin – Hickory County	

- No. 40 130 cow grazing dairy** SWDY130  
 Facilitator: Stacey Hamilton – UOE Dairy Specialist  
 Bernie VanDalfsen – Jasper County      Jeff Buckner – Cedar County  
 John McArthur – Dade County              Charles Fletcher – Barry County
- No. 41 150 cow dairy and backgrounding** SCDY150  
 Facilitator: Ted Probert and Karla Deaver – UOE Dairy Specialists  
 David Hutsell – Wright County      Nathan Roth – Wright County  
 David Gray – Wright County      Ted & Barbara Sheppard – Texas County  
 Roger & Linda McClanahan – Wright County
- No. 42 6-Houses broilers and 50 beef cows** SWBRBF6  
 Facilitator: Mike Lucareillo – Tyson Foods  
 David Brittenham – Lawrence County      Cliff Fitchpatrick – Newton County  
 Ron Campbell – Lawrence County      Roger Schnake – Lawrence County
- No. 43 4-Houses broilers and 50 beef cows** SWBRBF4  
 Facilitator: Jim Durham – Simmons Foods  
 Jerry Evans – Newton County      Bill Wilson – McDonald County  
 Don Kier – Barry County      Murphy Biglow – McDonald County

## Panel Updates

Since publication of the most recent baseline outlook in June 2001, meetings have been held with the following panels to update the database. In addition, all producers were surveyed for 2001 yield and price data. Farm panels meet on schedule once every two years to review alignment of the rep farm with their own operations and adjust and/or revalidate simulation prices, production and costs.

Farm Number	County	Farm Type	Updates
New panels			
7	Knox	Feedgrain-soy	Members are all co-owners of ethanol plant.
24	Perry	Crop-beef	515 acres of cropland and 40 beef cows.
25	Perry	Crop-beef	1700 acres of cropland and 200 beef cows.
29	Vernon	Pork-beef-crop	Raising nursery pigs under contract, 2 houses.
32	Dent	Beef	350 beef cows.
34	Lawrence	Beef	260 beef cows and backgrounding.
36	Howell	Beef	150 beef cows.
37	Franklin	Dairy	150 milk cows and 240 acres of row crops.
41	Wright	Dairy	150 milk cows and stocker steer enterprise.
Farms making structural changes			
4	Carroll	Feedgrain-soy	Increased row crop acreage by 330 to 3630
9	Barton	Feedgrain-soy	Producers have exited the cattle business.
18	Nodaway	Feedgrain-soy	Increased row crop acreage by 650 to 2050.
28	Montgomery	Pork-crop	Increased cropland acres by 300 to 1500. Producers substituted the farrow-to-finish enterprise with a grow-finish enterprise.
39	Dade	Dairy	Increased milking herd by 70 cows to 400.
Farms re-validating prices, production, and costs			
1	Atchison	Feedgrain-soy	
3	Carroll	Feedgrain-soy	
12	Pemiscot	Cotton	
13	Pemiscot	Cotton	
17	Stoddard	Rice	
19	Dekalb	Crop-beef	
20	Ralls	Crop-beef	
26	Barton	Crop-beef	
30	Osage	Pork-beef-crop	
35	Oregon	Beef	
33	Barry	Beef	
38	Christian	Dairy	
42	Lawrence	Broiler-beef	Updated contract information and CAFO data
43	McDonald	Broiler-beef	Updated contract information and CAFO data