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Research Report

Representative farms economic outlook for the January 2013 FAPRI/AFPC Baseline

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Representative Farms Economic Outlook for the January 2013 FAPRI/AFPC Baseline

Briefing Paper 13-1

February 2013



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**REPRESENTATIVE FARMS ECONOMIC
OUTLOOK FOR THE JANUARY 2013
FAPRI/AFPC BASELINE**

AFPC Briefing Paper 13-1

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EXECUTIVE SUMMARY

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate 95 representative crop, dairy, and livestock operations in major production areas in 28 states. The chief purpose of this analysis is to project the economic viability of those farms by region and commodity for 2013 through 2017. The data necessary to simulate the economic activity of these operations is developed through ongoing cooperation with panels of agricultural producers in selected states. The Food and Agricultural Policy Research Institute (FAPRI) provided projected prices, policy variables, and input inflation rates in their January 2013 Baseline.

Under the January 2013 Baseline, 49 of the 63 crop farms are considered in good liquidity condition (less than a 25 percent chance of negative ending cash by 2017). One crop farm has between a 25 percent and a 50 percent likelihood of negative ending cash, and the remaining 13 crop farms have greater than a 50 percent chance of negative ending cash. Furthermore, 46 of the 63 crop farms are considered in good equity position (less than a 25 percent chance of decreasing real net worth during the study period). Eight crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and nine crop farms have greater than a 50 percent probability of decreasing real net worth. The following discussion provides an overall evaluation by commodity considering both liquidity and equity measures.

- **FEEDGRAIN FARMS:** Twenty of the 22 feedgrain farms are in good overall financial condition. One is classified in marginal condition, and one is in poor condition.
- **WHEAT FARMS:** All eleven representative wheat farms are classified in good overall financial condition.
- **COTTON FARMS:** Eight of the 16 cotton farms are classified in good condition, three are in marginal condition, and five are in poor condition.
- **RICE FARMS:** Four of the 14 rice farms are projected to be in good financial condition, five are in marginal condition, and five are in poor condition.
- **DAIRY FARMS:** Eleven of the 21 dairies are in good overall financial condition. Ten are classified in marginal condition, and none are in poor condition.
- **BEEF CATTLE RANCHES:** Eight of the 11 cattle ranches are classified in good financial condition, two are in marginal condition, and one is projected to be in poor condition.

REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2013 FAPRI/AFPC BASELINE

The farm level economic impacts of the FAPRI January 2013 Baseline on representative crop and livestock operations are projected in this report. The analysis was conducted over the 2009-2017 planning horizon using FLIPSIM, AFPC's whole farm simulation model. Data to simulate farming operations in the nation's major production regions came from two sources:

- Producer panel cooperation to develop economic information to describe and simulate representative crop, livestock, and dairy farms.
- Projected prices, policy variables, and input inflation rates from the Food and Agricultural Policy Research Institute (FAPRI) January 2013 Baseline.

The FLIPSIM policy simulation model incorporates the historical risk faced by farmers for prices and production. This report presents the results of the January 2013 Baseline in a risk context using selected simulated probabilities and ranges for annual net cash farm income values. The probability of a farm experiencing negative ending cash reserves and the probability of a farm losing real net worth are included as indicators of the cash flow and equity risks facing farms through the year 2017.

DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

- **Overall Financial Position, 2013-2017** -- As a means of summarizing the representative farms' economic efficiency, liquidity, and solvency position, AFPC classifies each farm as being in either a good (green), marginal (yellow) or poor (red) position. AFPC defines a farm to be in a good financial position when it has less than a 25 percent chance each of a negative ending cash position and less than a 25 percent chance of losing real net worth through 2017. If the probabilities of these events are between 25 and 50 percent the farm is classified as marginal. A probability greater than 50 percent places the farm in a poor financial position.
- **Receipts** -- 2013-2017 average cash receipts from all farm related sources, including market sales, CCP/ACRE, direct payments, marketing loan gains/LDPs, crop insurance indemnities, and other receipts.
- **Payments** -- 2013-2017 average annual CCP or ACRE payments, direct payments, and marketing loan gains/LDPs for crops and the MILC program payment for dairy farms.
- **NCFI** -- 2013-2017 average net cash farm income equals average total receipts minus average total cash expenses.
- **Reserve 2017** -- equals total cash on hand at the end of year 2017. Ending cash equals beginning cash reserves plus net cash farm income and interest earned on cash reserves less principal payments, federal taxes (income and self employment), state income taxes, family living withdrawals, and actual machinery replacement costs (not depreciation).
- **Net Worth 2017** -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2017.
- **CRNW** -- annualized percentage change in the operator's net worth from January 1, 2013 through December 31, 2017, after adjusting for inflation.

Table 1. FAPRI January 2013 Baseline Projections of Crop and Livestock Prices, 2009-2017

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Crop Prices									
Corn (\$/bu.)	3.55	5.18	6.22	7.08	5.07	4.70	4.73	4.75	4.80
Wheat (\$/bu.)	4.87	5.70	7.24	7.98	7.06	6.16	5.94	5.99	6.11
Cotton (\$/lb.)	0.6290	0.8150	0.8830	0.6976	0.7004	0.6907	0.6853	0.6987	0.7014
Sorghum (\$/bu.)	3.22	5.02	5.99	6.93	4.84	4.50	4.53	4.58	4.64
Soybeans (\$/bu.)	9.59	11.30	12.50	14.20	11.33	11.00	10.89	11.11	11.29
Barley (\$/bu.)	4.66	3.86	5.35	6.32	4.60	4.44	4.39	4.43	4.49
Oats (\$/bu.)	2.02	2.52	3.49	3.80	3.23	3.02	2.97	2.97	2.99
Rice (\$/cwt.)	14.40	12.70	14.30	14.67	14.65	13.90	13.83	13.97	14.08
Soybean Meal (\$/ton)	296.89	329.56	375.35	423.33	291.68	287.93	291.85	302.35	305.76
All Hay (\$/ton)	108.00	114.00	178.00	190.23	168.44	147.25	143.40	145.41	148.92
Peanuts (\$/ton)	434.00	450.00	636.00	570.10	461.13	512.77	504.71	506.54	508.58
Cattle Prices									
Feeder Cattle (\$/cwt)	101.89	115.40	141.25	158.19	166.63	171.25	172.10	165.88	158.94
Fed Cattle (\$/cwt)	83.25	95.38	114.73	122.86	129.18	129.49	129.85	128.57	126.09
Culled Cows (\$/cwt)	47.01	56.76	69.92	76.58	81.59	82.18	82.93	79.26	73.99
Milk Price									
U.S. All Milk Price (\$/cwt)	12.93	16.35	20.25	18.63	19.51	19.41	19.07	19.08	19.12

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia.

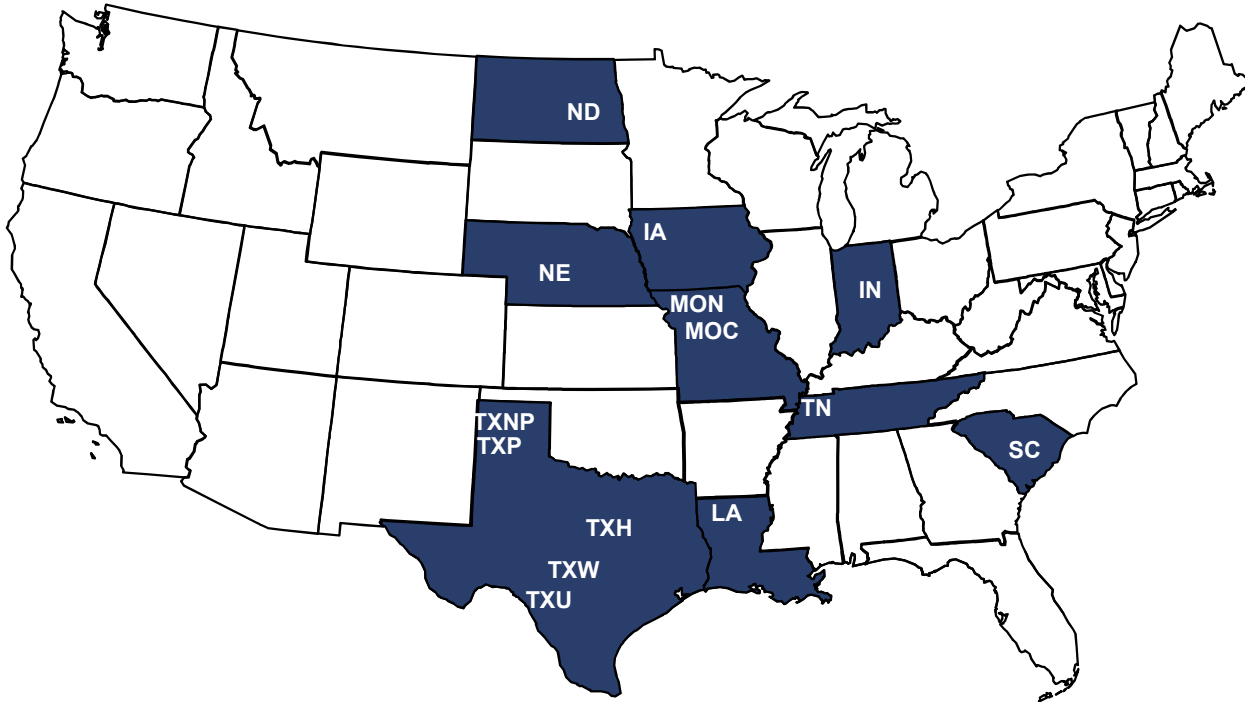
Table 2. FAPRI January 2013 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2010-2017

	2010	2011	2012	2013	2014	2015	2016	2017
Annual Rate of Change for Input Prices Paid								
Seed Prices (%)	3.68	7.10	7.83	3.91	0.95	-1.13	0.50	1.91
All Fertilizer Prices (%)	-6.23	36.93	6.36	3.29	-0.01	-1.28	-0.68	0.98
Herbicide Prices (%)	-6.38	-1.52	5.38	3.45	2.66	1.13	1.85	2.13
Insecticide Prices (%)	1.86	2.44	3.57	2.79	2.46	1.31	1.94	2.12
Fuel and Lube Prices (%)	24.02	27.46	-1.10	-6.52	-3.67	-3.62	3.60	3.24
Machinery Prices (%)	3.60	6.09	4.92	2.15	2.14	2.17	2.57	2.55
Wages (%)	0.53	1.59	3.65	2.61	2.44	2.61	2.80	2.88
Supplies (%)	1.31	4.52	2.47	2.57	2.05	1.36	1.68	1.64
Repairs (%)	1.89	3.70	3.57	2.48	2.10	2.09	2.29	2.35
Services (%)	3.21	1.86	2.44	1.92	2.00	1.53	2.12	2.35
Taxes (%)	3.43	5.21	4.50	4.12	3.15	2.89	2.56	2.36
PPI Items (%)	3.30	14.36	6.51	2.05	-3.24	-0.82	0.82	1.43
PPI Total (%)	3.31	11.76	6.70	2.29	-2.36	-0.27	1.29	1.83
Annual Change in Consumer Price Index (%)	1.64	3.14	2.08	1.44	1.72	1.57	1.84	1.84
Annual Rate of Change for U.S. Land Prices (%)	4.27	8.64	10.88	13.06	7.06	4.09	2.58	1.82

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia.

Representative Farm: Feed Grains

- Overall, twenty feed grain farms are characterized as good, one is marginal, and one is in poor condition.
- Only one (TXHG2500) of the twenty-two farms will be under severe cash flow stress; TXHG2500 and TXUG1200 both have high likelihoods (greater than a 50 percent chance) of losing real net worth.



Characteristics of Panel Farms Producing Feed Grains, 2012.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Feed Grains (acres)
IAG1350	1,350	3,839.00	0.12	1,074.00	1,350
IAG3400	3,400	10,020.00	0.13	2,404.60	3,400
NEG2400	2,400	5,908.00	0.12	2,347.00	2,400
NEG4300	4,300	11,378.00	0.16	3,661.90	3,870
NDG2500	2,500	2,757.00	0.12	1,076.30	2,000
NDG8000	8,000	13,969.00	0.15	3,632.10	6,450
ING1000	1,000	3,696.00	0.09	713.20	1,000
ING2200	2,200	8,729.00	0.10	1,623.00	2,200
MOCG2300	2,300	14,643.00	0.09	2,001.90	2,300
MOCG4000	4,000	23,918.00	0.08	3,097.50	4,000
MONG1850	1,850	8,909.00	0.10	1,238.20	1,800
LAG2640	2,640	1,733.00	0.25	1,977.40	2,244
LANG2500	2,500	8,033.00	0.15	2,156.80	1,750
TNG900	900	2,380.00	0.21	549.00	900
TNG2200	2,200	4,769.00	0.12	1,163.60	2,200
SCG3500	3,500	11,264.00	0.13	2,737.60	2,625
TXNP3000	3,000	2,540.00	0.16	1,785.20	1,200
TXNP8000	8,000	7,680.00	0.08	4,920.60	3,987
TXPG2500	2,500	4,743.00	0.18	1,678.50	1,058
TXHG2500	2,500	2,174.00	0.26	741.40	1,700
TXWG1600	1,600	1,333.00	0.09	605.00	1,050
TXUG1200	1,200	293.00	0.06	953.60	750

Representative Farm: Feed Grains

Economic Viability of Representative Farms over the 2013-2017 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2017	2013-2017	2013-2017
20/1/1				
IAG1350			1-1	1-1
IAG3400			1-1	1-1
NEG2400			1-1	1-1
NEG4300			1-1	1-1
NDG2500			1-1	1-1
NDG8000			1-1	1-1
ING1000			1-1	1-1
ING2200			1-1	1-1
MOCG2300			1-1	1-1
MOCG4000			1-1	1-1
MONG1850			1-1	1-1
LAG2640			1-3	1-10
LANG2500			1-1	1-1
TNG900			1-1	1-1
TNG2200			1-1	1-1
SCG3500			1-1	1-1
TXNP3000			1-1	1-1
TXNP8000			1-1	1-1
TXPG2500			1-4	1-4
TXHG2500			65-98	1-67
TXWG1600			1-7	1-15
TXUG1200			2-19	1-59

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:

<25	25-50	>50
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2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2013 and 2017.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2009 to 2013 and from 2009 to 2017.

Implications of the January 2013 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	Receipts	Payments	NCFI	Reserve 2017	Net Worth 2017	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
IAG1350	1,079.23	29.15	435.70	1,828.49	5,161.43	6.09
IAG3400	2,434.96	12.24	1,098.49	4,357.10	13,273.93	6.24
NEG2400	2,310.61	22.44	730.69	3,702.26	7,904.96	5.39
NEG4300	3,679.89	13.67	1,259.86	5,635.40	14,286.48	5.22
NDG2500	1,098.10	29.58	358.50	1,437.40	3,962.30	5.57
NDG8000	3,822.54	8.44	1,401.58	5,634.21	19,005.71	5.82
ING1000	726.99	20.32	232.31	664.97	4,572.94	4.41
ING2200	1,660.96	33.42	560.65	2,083.62	10,889.12	5.21
MOCG2300	1,446.56	22.17	645.93	1,626.49	16,259.98	4.75
MOCG4000	2,252.39	5.64	1,077.74	3,496.95	27,391.19	5.10
MONG1850	1,335.03	28.89	428.49	1,112.89	10,871.06	4.92
LAG2640	2,112.50	117.88	439.75	1,139.02	2,691.45	7.67
LANG2500	2,195.06	96.50	653.30	2,376.64	9,653.20	5.59
TNG900	574.98	10.93	212.16	496.33	2,832.47	4.80
TNG2200	1,220.22	28.04	384.66	1,081.06	5,878.29	3.54
SCG3500	2,638.40	61.19	663.79	3,122.24	14,862.26	4.49
TXNP3000	1,903.48	55.01	406.37	1,729.99	3,852.62	6.76
TXNP8000	4,925.24	42.57	943.68	5,406.77	11,482.25	5.38
TXPG2500	1,715.28	91.60	317.63	763.87	5,512.40	3.00
TXHG2500	800.52	38.70	66.35	(582.40)	1,902.92	(1.23)
TXWG1600	586.47	32.18	108.57	234.16	1,728.20	1.94
TXUG1200	914.53	45.73	87.27	197.70	386.67	(2.92)

1 Receipts are average annual total cash receipts including government payments, 2013-2017 (\$1,000)

2 Payments are average annual total government payments, 2013-2017 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2017 (\$1,000)

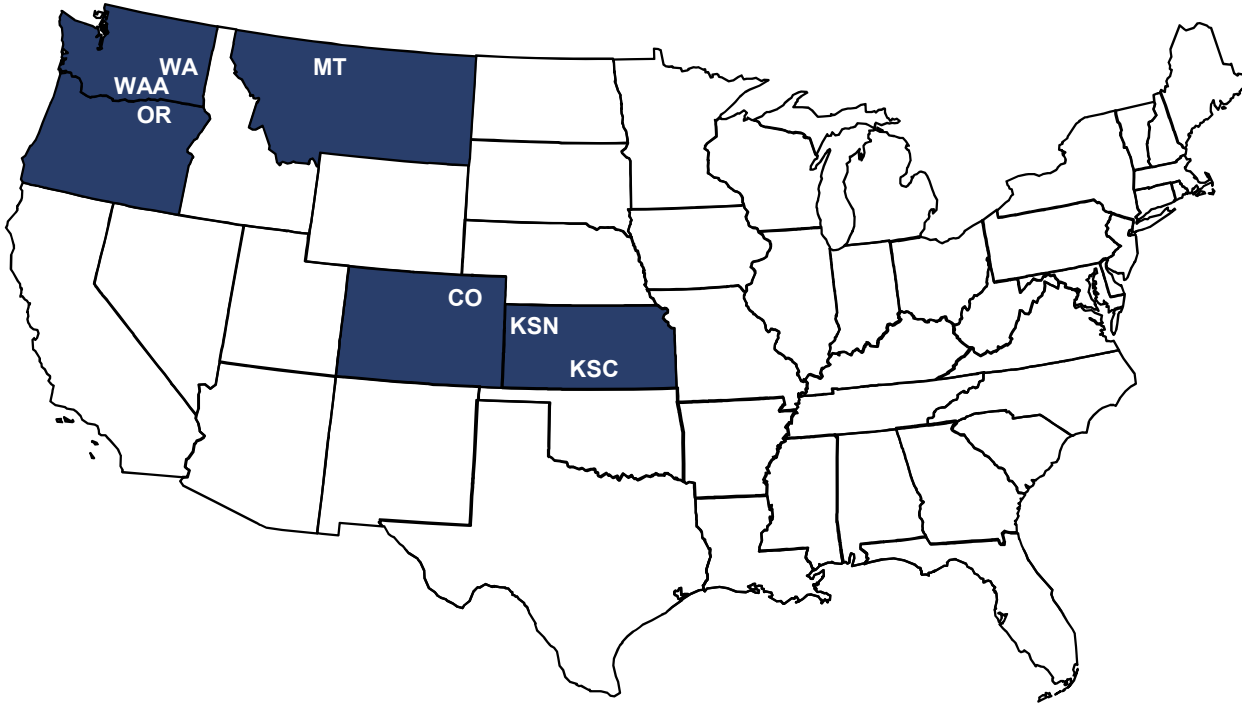
4 Reserve 2017 is average ending cash reserves, 2017 (\$1,000)

5 Net Worth 2017 is average nominal ending net worth, 2017 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2017 period, (%)

Representative Farm: Wheat

- All eleven wheat farms are projected to be in good overall financial condition.
- None of the eleven wheat farms will feel any sizable liquidity pressure over the period.
- None of the wheat farms have a greater than 25 percent chance of losing real equity.



Characteristics of Panel Farms Producing Wheat, 2012.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Wheat (acres)
WAW1725	1,725	2,340.00	0.08	718.40	1,147
WAW5500	5,500	9,277.00	0.09	2,160.80	3,055
WAAW3500	3,500	1,795.00	0.16	403.10	1,500
ORW3600	3,600	1,794.00	0.14	501.30	1,600
MTW4500	4,500	3,780.00	0.11	581.80	2,330
KSCW2000	2,000	2,382.00	0.11	553.70	1,200
KSCW4500	4,500	4,251.00	0.16	1,172.20	2,700
KSNW4000	4,000	3,351.00	0.16	947.40	1,500
KSNW5500	5,500	5,463.00	0.12	1,607.50	1,820
COW3000	3,000	2,501.00	0.15	467.20	970
COW5640	5,640	3,824.00	0.13	846.70	1,900

Representative Farm: Wheat

Economic Viability of Representative Farms over the 2013-2017 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2017	2013-2017	2013-2017
11/0/0				
WAW1725			1-1	1-1
WAW5500			1-1	1-1
WAAW3500			1-16	1-1
MTW4500			1-1	1-1
ORW3600			1-1	1-1
KSCW2000			1-1	1-1
KSCW4500			1-1	1-1
KSNW4000			1-1	1-1
KSNW5500			1-1	1-1
COW3000			1-1	1-1
COW5640			1-1	1-1

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:

<25

25-50

>50

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2013 and 2017.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2009 to 2013 and from 2009 to 2017.

Implications of the January 2013 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat

	Receipts	Payments	NCFI	Reserve 2017	Net Worth 2017	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
WAW1725	710.87	32.96	317.61	1,485.51	3,242.12	5.97
WAW5500	2,104.25	66.05	584.62	2,786.54	11,104.91	3.71
WAAW3500	408.11	23.43	137.90	122.41	2,174.37	3.61
ORW3600	532.25	24.64	295.05	921.92	2,541.11	6.49
MTW4500	632.34	45.69	230.73	506.51	4,438.00	4.49
KSCW2000	578.77	24.69	188.27	349.30	2,747.74	3.58
KSCW4500	1,165.08	53.48	448.12	1,752.19	5,164.75	5.31
KSNW4000	970.91	36.57	383.34	1,326.97	4,239.84	5.85
KSNW5500	1,633.02	50.82	400.40	1,793.11	6,673.19	4.42
COW3000	479.26	16.97	215.79	645.17	3,130.40	5.29
COW5640	853.41	35.74	290.97	773.64	4,512.78	3.48

1 Receipts are average annual total cash receipts including government payments, 2013-2017 (\$1,000)

2 Payments are average annual total government payments, 2013-2017 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2017 (\$1,000)

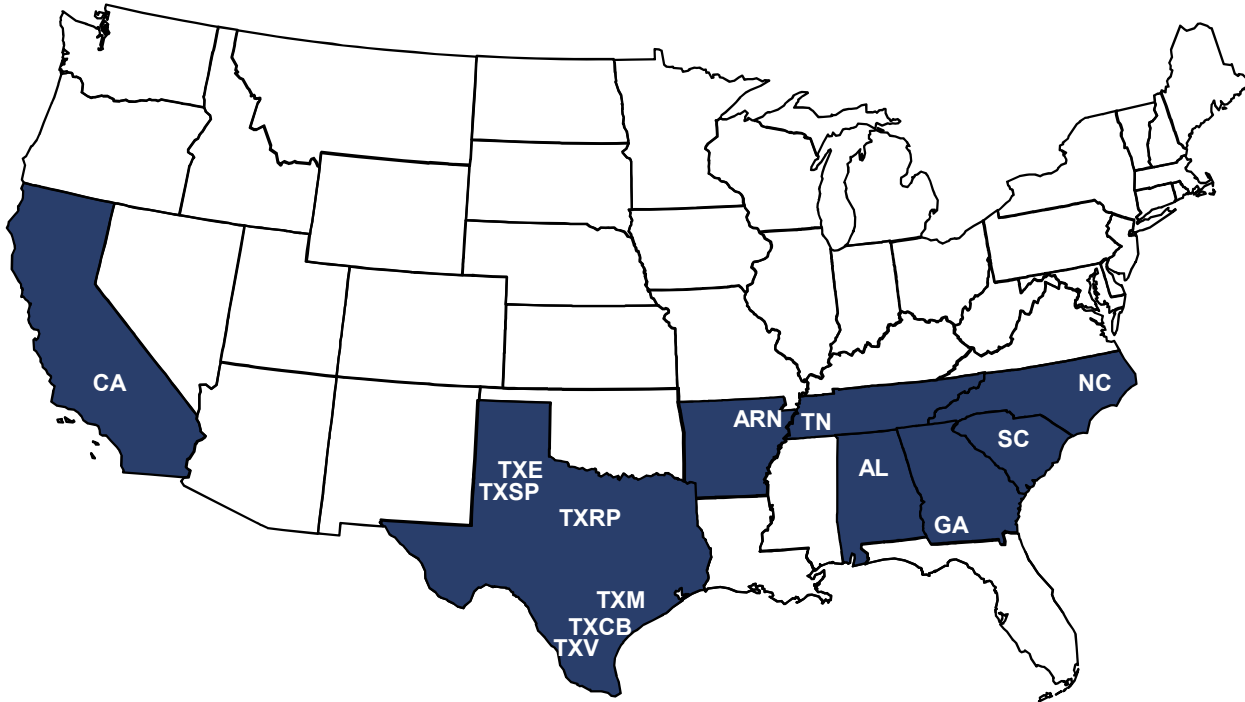
4 Reserve 2017 is average ending cash reserves, 2017 (\$1,000)

5 Net Worth 2017 is average nominal ending net worth, 2017 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2017 period, (%)

Representative Farm: Cotton

- Eight of the sixteen cotton farms are characterized in good overall financial condition, three are in marginal condition, and five are in poor condition.
- Five of the farms are projected to experience severe cash flow problems; four of these farms are also expected to have more than a 50 percent chance of losing real equity over the period.



Characteristics of Panel Farms Producing Cotton, 2012.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cotton (acres)
TXSP2500	2,500	1,465.00	0.09	962.80	2,275
TXSP4500	4,500	3,598.00	0.13	2,178.10	4,047
TXEC5000	5,000	2,724.00	0.11	2,346.00	3,650
TXRP2500	2,500	663.00	0.07	553.40	1,000
TXMC1800	1,800	1,266.00	0.42	961.20	900
TXCB2500	2,500	1,966.00	0.28	974.00	1,250
TXCB8000	8,000	4,349.00	0.24	3,424.90	3,600
TXVC4500	4,500	4,943.00	0.19	2,003.40	1,495
CAC4000	4,000	25,665.00	0.11	7,748.50	1,333
ARNC5000	5,000	8,185.00	0.20	4,450.00	5,000
TNC2100	2,100	4,010.00	0.10	1,421.70	525
TNC4050	4,050	6,877.00	0.09	2,786.50	2,025
ALC3000	3,000	2,470.00	0.19	1,818.40	1,050
GAC2300	2,300	8,286.00	0.15	2,606.20	1,200
SCC1800	1,800	4,166.00	0.14	1,519.30	900
NCC1500	1,500	2,950.00	0.17	1,078.40	225

Representative Farm: Cotton

Economic Viability of Representative Farms over the 2013-2017 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2017	2013-2017	2013-2017
8/3/5				
TXSP2500			28-54	1-47
TXSP4500			1-1	1-10
TXEC5000			1-24	1-75
TXRP2500			12-99	1-98
TXMC1800			45-87	1-62
TXCB2500			29-83	1-51
TXCB8000			1-9	1-36
TXVC4500			1-1	1-1
CAC4000			1-1	1-1
ARNC5000			18-81	1-44
TNC2100			1-1	1-1
TNC4050			1-1	1-1
ALC3000			1-7	1-35
GAC2300			1-1	1-1
SCC1800			1-1	1-1
NCC1500			1-1	1-1

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:

<25

25-50

>50

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2013 and 2017.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2009 to 2013 and from 2009 to 2017.

Implications of the January 2013 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton

	Receipts	Payments	NCFI	Reserve 2017	Net Worth 2017	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
TXSP2500	974.22	53.48	127.62	(76.95)	1,474.39	0.03
TXSP4500	2,117.04	104.21	449.87	1,339.35	4,057.64	3.56
TXEC5000	2,117.12	136.52	132.46	277.28	2,340.27	(1.85)
TXRP2500	490.80	35.90	(7.85)	(366.41)	397.56	(8.38)
TXMC1800	963.35	61.34	114.28	(408.43)	951.14	(2.10)
TXCB2500	985.57	64.15	61.63	(354.45)	1,680.42	(0.13)
TXCB8000	3,573.75	167.71	479.04	1,385.21	4,328.21	1.85
TXVC4500	1,992.03	123.95	587.71	2,633.95	6,483.02	6.29
CAC4000	7,528.73	33.42	1,951.68	8,275.47	32,390.12	6.12
ARNC5000	4,248.61	204.78	360.18	(1,014.65)	7,464.05	0.24
TNC2100	1,419.32	63.47	500.23	2,506.75	5,909.72	6.83
TNC4050	2,678.07	110.62	474.41	2,473.70	9,036.36	4.48
ALC3000	1,883.29	135.13	339.45	813.34	2,626.97	1.66
GAC2300	2,667.46	174.06	414.44	891.10	10,198.33	4.13
SCC1800	1,533.91	104.26	327.11	1,213.39	5,146.27	4.33
NCC1500	1,085.89	54.24	343.10	1,047.66	3,619.43	4.92

1 Receipts are average annual total cash receipts including government payments, 2013-2017 (\$1,000)

2 Payments are average annual total government payments, 2013-2017 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2017 (\$1,000)

4 Reserve 2017 is average ending cash reserves, 2017 (\$1,000)

5 Net Worth 2017 is average nominal ending net worth, 2017 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2017 period, (%)

Representative Farm: Rice

- Four of the fourteen representative rice farms are projected to be in good overall financial condition, five are in marginal condition, and five are in poor condition.
- Seven of the rice farms are expected to face severe cash flow problems; three of those farms have high likelihoods of losing real equity.



Characteristics of Panel Farms Producing Rice, 2012.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Rice (acres)
CAR550	550	2,905.00	0.19	807.30	500
CAR3000	3,000	10,652.00	0.14	4,626.50	3,000
CABR1300	1,300	7,659.00	0.14	2,033.50	1,200
CACR800	800	4,690.00	0.10	1,343.60	800
TXR1500	1,500	1,794.00	0.14	691.40	400
TXR3000	3,000	1,528.00	0.07	824.80	0
TXBR1800	1,800	816.00	0.91	905.20	600
TXER3200	3,200	2,135.00	0.17	1,520.50	1,067
LASR1480	1,480	1,392.00	0.15	939.00	800
ARMR7500	7,500	10,504.00	0.20	5,569.80	1,875
ARSR3240	3,240	5,056.00	0.27	1,961.20	1,620
ARWR1400	1,400	3,471.00	0.26	983.20	700
ARHR3000	3,000	7,105.00	0.25	2,518.90	1,800
MOWR4000	4,000	15,301.00	0.13	2,862.40	2,000

Representative Farm: Rice

Economic Viability of Representative Farms over the 2013-2017 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2017	2013-2017	2013-2017
4/5/5				
CAR550			15-96	1-4
CAR3000			2-9	1-7
CABR1300			1-1	1-1
CACR800			2-1	1-1
TXR1500			12-51	1-16
TXR3000			1-1	1-27
TXBR1800			97-95	1-65
TXER3200			13-76	1-38
LASR1480			67-99	1-93
ARMR7500			1-21	1-31
ARSR3240			13-38	1-10
ARWR1400			81-99	1-71
ARHR3000			92-99	1-42
MOWR4000			1-1	1-1

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:

<25	25-50	>50
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2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2013 and 2017.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2009 to 2013 and from 2009 to 2017.

Implications of the January 2013 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice

	Receipts	Payments	NCFI	Reserve 2017	Net Worth 2017	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAR550	853.48	66.82	173.91	(220.77)	2,778.91	2.87
CAR3000	4,835.33	147.62	651.33	1,811.37	11,575.97	3.83
CABR1300	2,151.63	137.93	755.69	3,035.34	9,427.38	6.14
CACR800	1,393.43	103.08	331.83	1,265.95	5,709.15	4.87
TXR1500	806.04	68.99	150.41	(25.16)	1,890.27	2.16
TXR3000	1,471.56	121.86	258.01	816.54	1,705.18	2.48
TXBR1800	1,021.26	80.83	75.44	(510.65)	134.17	22.67
TXER3200	1,714.86	140.54	161.39	(367.51)	2,282.63	0.48
LASR1480	999.48	60.04	32.24	(686.01)	926.99	(6.05)
ARMR7500	5,586.23	143.88	702.34	1,135.07	10,509.00	1.25
ARSR3240	2,055.39	155.05	385.91	97.59	4,698.46	3.43
ARWR1400	1,026.56	74.16	67.32	(1,062.21)	2,726.43	(1.47)
ARHR3000	2,407.31	160.07	230.14	(1,586.60)	6,090.69	0.36
MOWR4000	3,082.10	142.02	793.16	1,742.83	17,413.87	4.18

1 Receipts are average annual total cash receipts including government payments, 2013-2017 (\$1,000)

2 Payments are average annual total government payments, 2013-2017 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2017 (\$1,000)

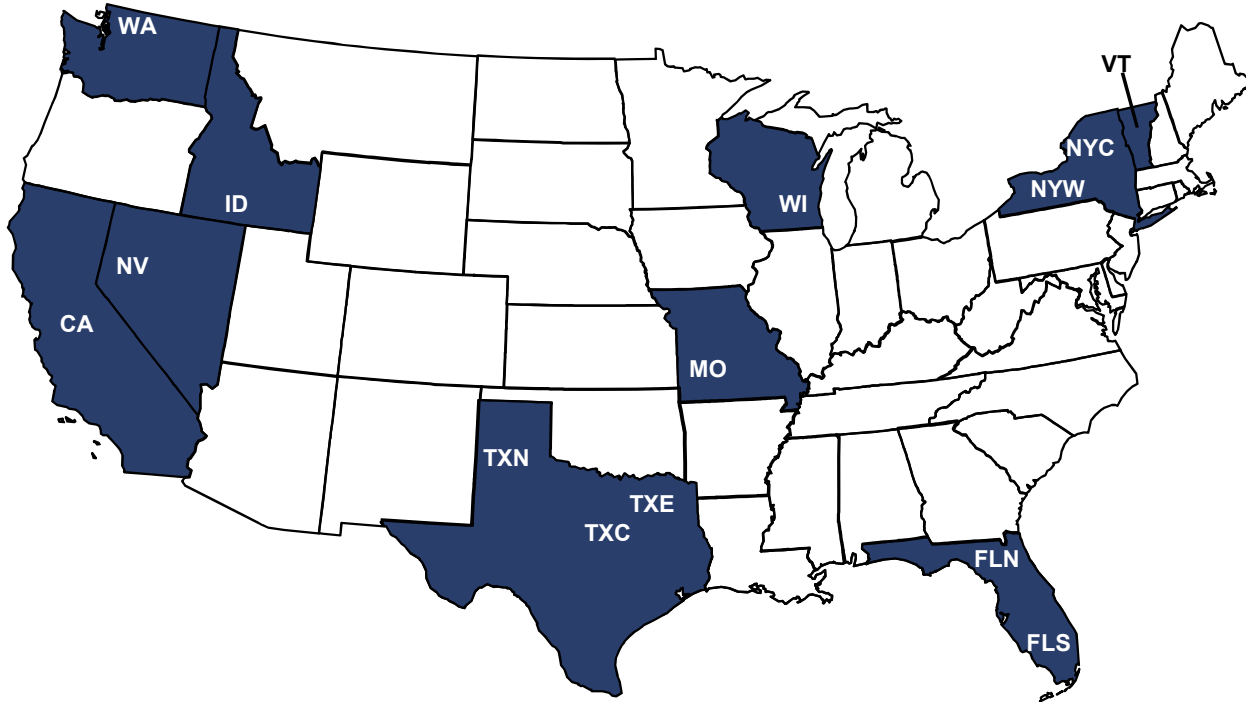
4 Reserve 2017 is average ending cash reserves, 2017 (\$1,000)

5 Net Worth 2017 is average nominal ending net worth, 2017 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2017 period, (%)

Representative Farm: Dairy

- Eleven of twenty-one dairy operations are in good overall financial condition. Ten dairies are classified in marginal condition, and none are in poor condition.
- Ten of the dairies are projected to experience severe liquidity pressure, but none of the dairies are expected to face a 50 percent or greater chance of losing real equity.



Characteristics of Panel Farms Producing Milk, 2012.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cows (number)
CAD1710	700	27,451.00	0.24	7,742.40	1,710
WAD250	250	3,864.00	0.22	1,133.80	250
WAD850	605	8,931.00	0.32	4,292.30	850
IDD3000	1,500	26,645.00	0.28	14,762.60	3,000
NVD500	200	4,333.00	0.16	2,648.10	500
TXND3000	520	16,182.00	0.47	13,651.70	3,000
TXCD700	1,000	6,199.00	0.31	3,032.90	700
TXCD1300	560	8,866.00	0.37	5,649.80	1,300
TXED400	950	2,872.00	0.39	1,575.10	400
WID145	600	3,743.00	0.17	964.40	145
WID1000	2,000	10,297.00	0.27	6,053.20	1,000
NYWD600	1,200	6,339.00	0.35	3,223.20	600
NYWD1200	2,100	12,574.00	0.17	6,521.70	1,200
NYCD110	325	1,483.00	0.16	622.30	110
NYCD550	1,100	6,455.00	0.36	3,218.60	550
VTD140	220	1,647.00	0.32	709.50	140
VTD400	1,000	5,192.00	0.35	2,143.00	400
MOGD550	0	3,647.00	0.10	1,545.80	550
MOGD180	0	1,508.00	0.05	530.40	180
FLND550	600	4,741.00	0.16	2,524.20	550
FLSD1500	400	11,278.00	0.40	7,764.60	1,500

Representative Farm: Dairy

Economic Viability of Representative Farms over the 2013-2017 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2017	2013-2017	2013-2017
11/10/0				
CAD1710			99-71	1-1
WAD250			92-23	1-1
WAD850			94-24	1-1
IDD3000			98-56	1-4
NVD500			31-1	1-1
TXND3000			99-74	1-21
TXCD700			99-52	1-1
TXCD1300			99-80	1-15
TXED400			99-81	1-11
WID145			1-1	1-1
WID1000			93-23	1-1
NYWD600			99-88	1-4
NYWD1200			1-1	1-1
NYCD110			1-1	1-1
NYCD550			99-93	1-3
VTD140			99-99	1-16
VTD400			99-97	1-2
MOGD550			1-1	1-1
MOGD180			1-1	1-1
FLND550			34-1	1-1
FLSD1500			99-47	1-7

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:

<25

25-50

>50

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2013 and 2017.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2009 to 2013 and from 2009 to 2017.

Implications of the January 2013 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk

	Receipts	Payments	NCFI	Reserve 2017	Net Worth 2017	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAD1710	8,471.05	3.31	1,546.86	(827.32)	25,625.90	4.69
WAD250	1,242.35	2.97	357.66	189.03	4,683.34	6.19
WAD850	4,729.31	5.20	956.88	776.75	10,133.01	7.51
IDD3000	16,171.52	1.26	2,418.03	(665.73)	27,599.19	6.46
NVD500	2,910.13	0.31	634.00	1,288.05	5,517.47	7.63
TXND3000	15,019.53	2.21	1,710.27	(2,118.88)	12,271.78	6.17
TXCD700	3,327.74	0.31	585.72	(31.54)	6,648.03	5.89
TXCD1300	6,194.37	0.31	730.25	(1,135.14)	7,465.26	4.30
TXED400	1,672.78	0.31	282.47	(404.44)	2,661.00	5.44
WID145	982.93	3.23	379.89	771.09	4,236.31	6.77
WID1000	6,402.52	5.66	1,188.41	1,096.95	10,845.39	8.03
NYWD600	3,484.13	18.89	470.62	(744.10)	5,878.22	4.74
NYWD1200	7,045.58	0.39	1,762.33	4,495.05	17,263.56	8.08
NYCD110	667.47	4.86	277.38	492.57	1,969.19	7.40
NYCD550	3,510.09	9.83	554.00	(922.26)	5,891.64	5.04
VTD140	762.99	4.16	105.83	(367.35)	1,407.80	2.25
VTD400	2,339.15	14.16	318.26	(810.56)	4,724.91	4.11
MOGD550	1,680.88	0.31	819.61	2,760.63	5,692.84	10.23
MOGD180	568.35	0.30	327.27	1,228.32	2,370.12	9.19
FLND550	2,779.38	0.31	744.21	1,564.00	6,930.98	9.00
FLSD1500	8,530.33	0.31	1,191.81	16.08	11,237.57	7.96

1 Receipts are average annual total cash receipts including government payments, 2013-2017 (\$1,000)

2 Payments are average annual total government payments, 2013-2017 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2017 (\$1,000)

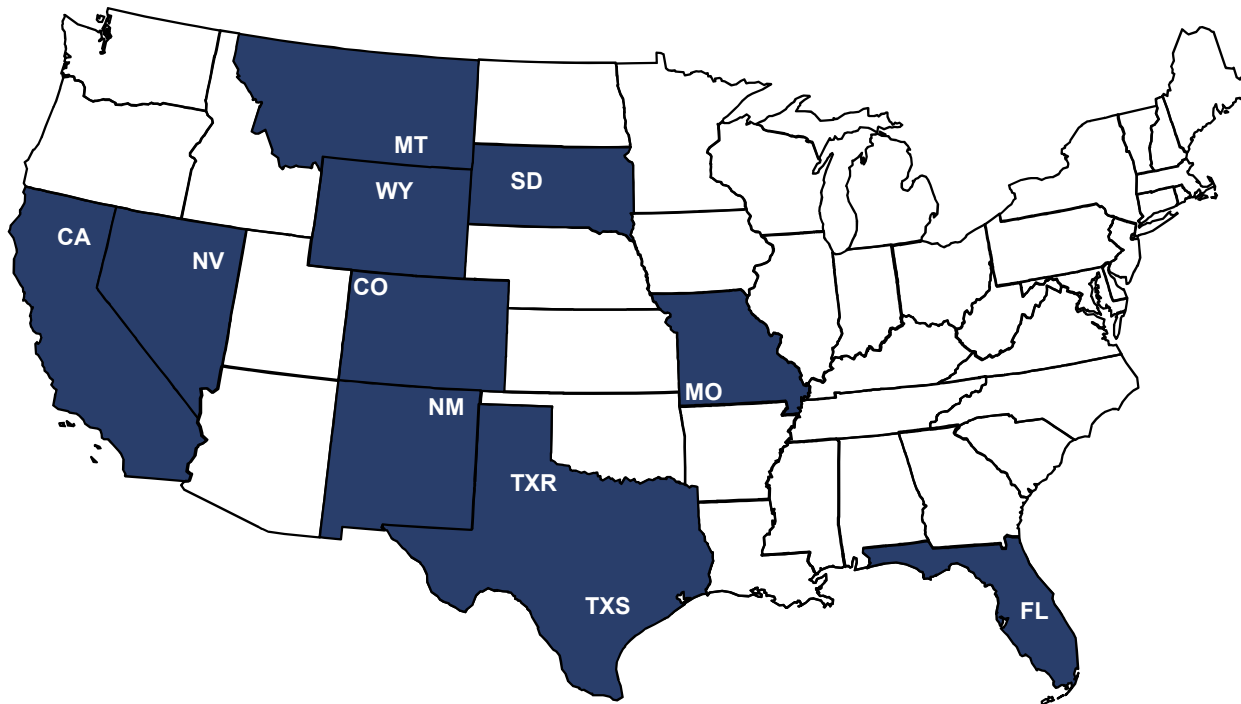
4 Reserve 2017 is average ending cash reserves, 2017 (\$1,000)

5 Net Worth 2017 is average nominal ending net worth, 2017 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2017 period, (%)

Representative Farm: Cow/Calf

- Eight of eleven cow-calf operations are projected to be in good overall financial condition, two are marginal, and one is expected to be in poor condition.
- Three operations will face significant liquidity pressure over the period, as their likelihoods of experiencing negative ending cash in 2017 exceeds 50 percent.
- Only one of the twelve operations is projected to face a severe threat of losing real equity over the period.



Characteristics of Panel Farms Producing Beef Cattle, 2012.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cows (number)
CAB500	0	4,616.00	0.05	404.60	500
NVB700	1,300	7,924.00	0.01	570.20	700
MTB500	0	6,545.00	0.02	408.90	500
WYB435	330	4,499.00	0.04	389.40	435
COB250	450	21,615.00	0.01	278.60	250
NMB160	0	6,165.00	0.01	154.90	160
SDB375	1,150	6,655.00	0.02	321.40	375
MOB250	280	3,586.00	0.02	417.00	250
TXRB500	0	8,594.00	0.01	561.20	500
TXSB200	0	4,390.00	0.05	198.30	200
FLB1155	5,400	21,798.00	0.01	876.50	1,155

Representative Farm: Cow/Calf

Economic Viability of Representative Farms over the 2013-2017 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2017	2013-2017	2013-2017
8/2/1				
CAB500			99-99	1-66
NVB700			1-1	1-1
MTB500			1-1	1-1
WYB435			91-11	1-1
COB250			1-8	1-1
NMB160			1-58	1-1
SDB375			1-1	1-1
MOB250			1-1	1-1
TXRB500			1-1	1-1
TXSB200			99-99	1-1
FLB1155			1-1	1-1

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:

<25

25-50

>50

2 P(Negative Ending Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2013 and 2017.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2009 to 2013 and from 2009 to 2017.

Implications of the January 2013 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle

	Receipts	Payments	NCFI	Reserve 2017	Net Worth 2017	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAB500	424.73	0.00	52.34	(206.28)	4,375.74	(0.35)
NVB700	596.03	0.00	210.18	574.62	8,794.84	3.22
MTB500	427.09	0.00	199.35	532.04	8,589.83	3.63
WYB435	405.14	0.00	120.96	69.50	5,536.32	2.83
COB250	273.04	0.00	80.59	57.71	23,228.72	3.23
NMB160	161.08	0.00	58.62	(4.51)	7,874.03	2.86
SDB375	336.95	0.00	147.70	336.78	8,579.09	3.32
MOB250	378.91	3.22	178.42	427.31	4,317.67	3.57
TXRB500	585.95	0.00	227.31	709.74	11,446.57	3.64
TXSB200	205.32	0.00	33.78	(268.29)	5,601.58	2.49
FLB1155	914.10	0.00	357.00	1,332.51	28,914.65	3.53

1 Receipts are average annual total cash receipts including government payments, 2013-2017 (\$1,000)

2 Payments are average annual total government payments, 2013-2017 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2017 (\$1,000)

4 Reserve 2017 is average ending cash reserves, 2017 (\$1,000)

5 Net Worth 2017 is average nominal ending net worth, 2017 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2017 period, (%)