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Research Report

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

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

Briefing Paper 13-3

December 2013



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

AFPC Briefing Paper 13-3

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EXECUTIVE SUMMARY

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate 98 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 2018. 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 December 2013 Baseline.

Under the December 2013 Baseline, 46 of the 66 crop farms are considered in good liquidity condition (less than a 25 percent chance of negative ending cash by 2018). Five crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash, and the remaining 15 crop farms have greater than a 50 percent chance of negative ending cash. Additionally, 58 of the 66 crop farms are considered in good equity position (less than a 25 percent chance of decreasing real net worth during the study period). Five crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and only three 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:** Eighteen of the 24 feedgrain farms are in good overall financial condition. Five are classified in marginal condition, and one is in poor condition.
- **WHEAT FARMS:** Nine representative wheat farms are classified in good overall financial condition; two are in marginal condition
- **COTTON FARMS:** Twelve of the 17 cotton farms are classified in good condition, three are in marginal condition, and two are in poor condition.
- **RICE FARMS:** Seven of the 14 rice farms are projected to be in good financial condition, three are in marginal condition, and four are in poor condition.
- **DAIRY FARMS:** Eight of the 21 dairies are in good overall financial condition. Eight are also classified in marginal condition; five are in poor condition.
- **BEEF CATTLE RANCHES:** Seven of the 11 cattle ranches are classified in good financial condition, three are in marginal condition, and one is projected to be in poor condition.

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

The farm level economic impacts of the FAPRI December 2013 Baseline on representative crop and livestock operations are projected in this report. The analysis was conducted over the 2009-2018 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) December 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 December 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 2018.

DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

- **Overall Financial Position, 2013-2018** -- 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 2018. 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** -- 2013-2018 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** -- 2013-2018 average annual CCP or ACRE payments, direct payments, and marketing loan gains/LDPs for crops and the MILC program payment for dairy farms.
- **NCFI** -- 2013-2018 average net cash farm income equals average total receipts minus average total cash expenses.
- **Reserve 2018** -- equals total cash on hand at the end of year 2018. 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 2018** -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2018.
- **CRNW** -- annualized percentage change in the operator's net worth from December 1, 2013 through December 31, 2018, after adjusting for inflation.

Table 1. FAPRI December 2013 Baseline Projections of Crop and Livestock Prices, 2010-2018.

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Crop Prices									
Corn (\$/bu.)	5.18	6.22	6.89	4.47	4.15	4.12	4.16	4.21	4.22
Wheat (\$/bu.)	5.70	7.24	7.77	6.93	5.65	5.62	5.67	5.73	5.78
Cotton (\$/lb.)	0.8150	0.8830	0.7250	0.7487	0.7199	0.7236	0.7366	0.7425	0.7506
Sorghum (\$/bu.)	5.02	5.99	6.33	4.12	3.77	3.73	3.78	3.83	3.86
Soybeans (\$/bu.)	11.30	12.50	14.40	12.26	10.54	10.40	10.56	10.68	10.74
Barley (\$/bu.)	3.86	5.35	6.43	5.77	4.71	4.74	4.76	4.82	4.85
Oats (\$/bu.)	2.52	3.49	3.89	3.62	3.34	3.24	3.24	3.26	3.27
Rice (\$/cwt.)	12.70	14.50	14.90	15.38	13.89	12.83	12.99	12.94	13.07
Soybean Meal (\$/ton)	329.56	375.35	446.49	361.45	311.60	305.74	314.67	319.38	323.90
All Hay (\$/ton)	114.00	178.00	187.00	182.51	141.30	133.82	135.79	140.13	144.89
Peanuts (\$/ton)	450.00	636.00	602.00	473.76	543.05	546.97	543.99	546.74	546.46
Cattle Prices									
Feeder Cattle (\$/cwt)	115.40	141.25	158.19	160.14	172.72	173.85	165.10	159.14	151.04
Fed Cattle (\$/cwt)	95.38	114.73	122.86	125.75	130.26	130.26	126.41	124.12	120.64
Culled Cows (\$/cwt)	56.76	69.82	76.68	76.82	77.84	78.92	74.28	69.32	63.30
Milk Price									
U.S. All Milk Price (\$/cwt)	16.35	20.25	18.56	19.83	19.35	18.31	17.93	17.83	17.92

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

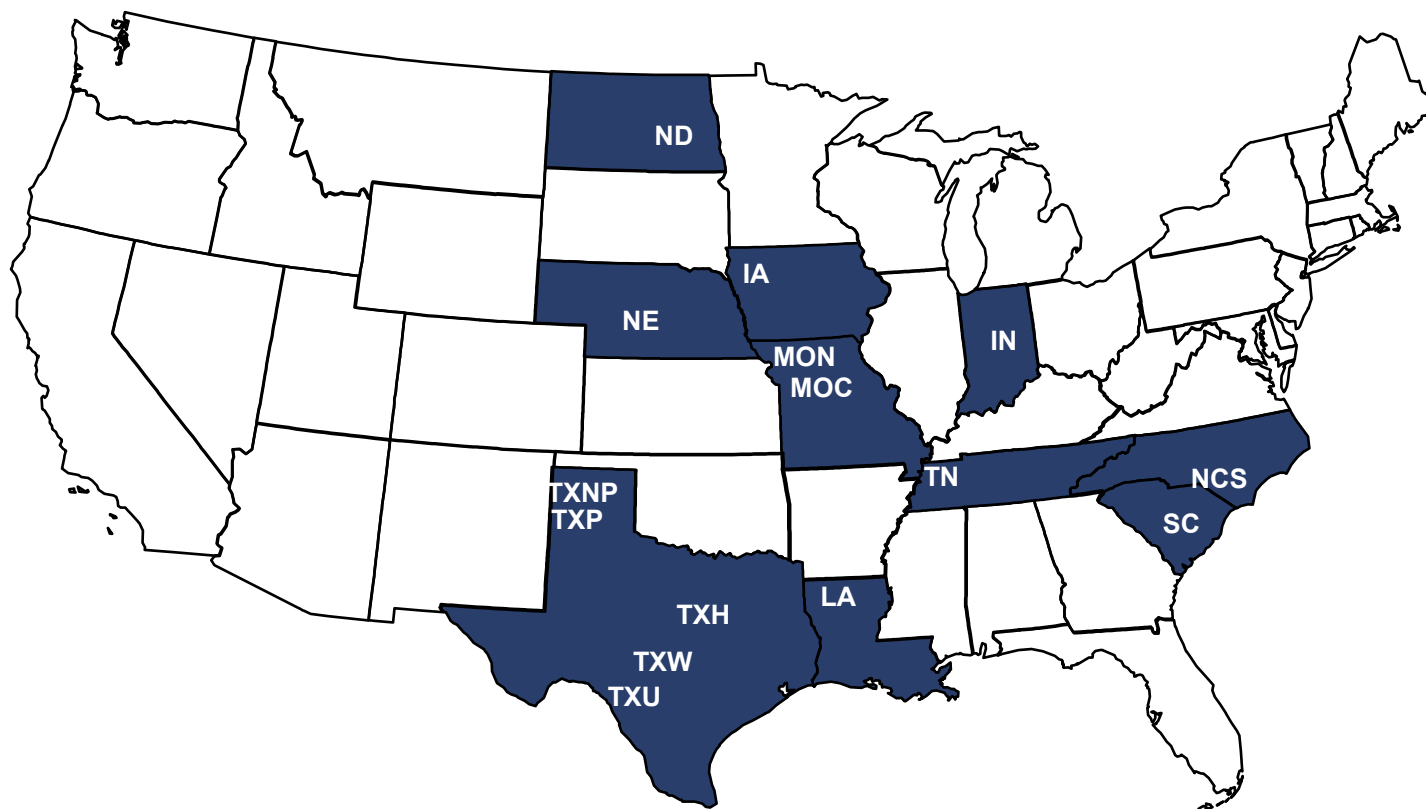
Table 2. FAPRI December 2013 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2011-2018.

	2011	2012	2013	2014	2015	2016	2017	2018
Annual Rate of Change for Input Prices Paid								
Seed Prices (%)	7.10	8.13	5.34	-0.45	0.04	0.75	1.24	2.16
All Fertilizer Prices (%)	36.93	5.76	-7.47	-11.16	-3.71	2.09	0.39	0.54
Herbicide Prices (%)	-1.52	6.15	2.48	1.27	1.95	2.97	1.59	1.68
Insecticide Prices (%)	2.44	4.17	5.19	1.98	2.18	2.90	1.63	1.68
Fuel and Lube Prices (%)	27.46	-0.55	-0.83	-2.68	-1.64	0.31	1.37	2.51
Machinery Prices (%)	6.09	5.33	2.27	0.86	2.18	2.68	2.23	2.48
Wages (%)	1.59	3.65	3.77	2.56	2.68	2.95	3.04	3.04
Supplies (%)	4.52	2.47	0.55	0.62	1.47	2.06	1.20	1.31
Repairs (%)	3.70	3.57	0.38	1.91	2.38	2.65	2.40	2.41
Services (%)	1.86	1.83	2.54	2.01	2.46	2.96	2.08	2.29
Taxes (%)	4.23	2.25	3.08	2.55	3.60	3.11	1.95	2.32
PPI Items (%)	14.36	6.05	1.72	-4.66	-0.29	1.47	1.20	1.48
PPI Total (%)	12.30	5.71	1.99	-3.54	0.23	1.89	1.59	1.68
Annual Change in Consumer Price Index (%)	2.13	2.08	1.48	1.63	1.72	1.92	1.87	1.94
Annual Rate of Change for U.S. Land Prices (%)	8.64	10.88	9.43	3.45	2.00	2.00	2.00	2.00

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

Representative Farm: Feed Grains

- Overall, eighteen feed grain farms are characterized as good, five are marginal, and one is in poor condition.
- Three of the twenty-four farms will be under severe cash flow stress: NCSP1800, TXHG2500, and TXUG1200. The latter two have moderate to high likelihoods (greater than a 25 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	5,904.00	0.12	1,415.90	1,350
IAG3400	3,400	14,195.00	0.14	3,149.60	3,400
NEG2400	2,400	7,171.00	0.14	3,059.90	2,400
NEG4300	4,300	23,681.00	0.14	5,821.70	4,000
NDG2500	2,500	3,147.00	0.10	1,427.30	2,000
NDG8000	8,000	15,392.00	0.14	4,988.10	6,450
ING1000	1,000	4,183.00	0.08	971.60	1,000
ING2200	2,200	9,871.00	0.09	2,160.40	2,200
MOCG2300	2,300	14,812.00	0.09	1,989.20	2,300
MOCG4000	4,000	24,144.00	0.08	3,076.80	4,000
MONG1850	1,850	9,931.00	0.09	1,617.90	1,800
LAG2640	2,640	1,865.00	0.23	1,977.40	2,244
LANG2500	2,500	9,178.00	0.14	2,660.80	1,750
TNG900	900	2,688.00	0.19	749.30	900
TNG2200	2,200	5,200.00	0.11	1,576.90	2,200
NCSP1800	1,800	4,403.00	0.13	2,277.20	1,440
SCG3500	3,500	12,057.00	0.12	3,396.50	2,625
TXNP3000	3,000	3,030.00	0.13	2,227.30	1,200
TXNP10000	10,000	17,987.00	0.09	7,400.70	4,200
TXPG2500	2,500	4,891.00	0.17	1,678.50	1,058
TXPG3760	3,760	6,626.00	0.14	4,776.00	1,878
TXHG2500	2,500	2,173.00	0.16	974.80	1,700
TXWG1600	1,600	1,470.00	0.08	754.30	1,050
TXUG1200	1,200	509.00	0.04	1,157.20	750

Representative Farm: Feed Grains

Economic Viability of Representative Farms over the 2013-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2018	2013-2018	2013-2018
18/5/1				
IAG1350			1-42	1-1
IAG3400			1-22	1-1
NEG2400			1-1	1-1
NEG4300			1-2	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	1-1
LANG2500			1-1	1-1
TNG900			1-1	1-1
TNG2200			1-1	1-1
NCSP1800			2-67	1-1
SCG3500			1-1	1-1
TXNP3000			1-1	1-1
TXNP10000			1-1	1-1
TXPG2500			1-23	1-1
TXPG3760			3-70	1-9
TXHG2500			73-99	1-57
TXWG1600			1-28	1-1
TXUG1200			3-38	3-28

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 2018.

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 2018.

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

	Receipts	Payments	NCFI	Reserve 2018	Net Worth 2018	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
IAG1350	1,084.12	29.74	157.62	133.05	6,271.74	1.54
IAG3400	2,463.44	58.16	458.02	850.75	15,318.02	2.09
NEG2400	1,982.43	53.52	348.24	1,893.55	7,477.73	1.99
NEG4300	3,660.03	52.27	675.91	2,921.76	24,613.52	2.14
NDG2500	1,047.24	29.53	322.27	1,628.56	3,971.63	4.74
NDG8000	3,613.39	28.61	1,290.90	6,478.71	18,904.20	5.12
ING1000	684.67	20.31	214.93	731.93	4,418.84	3.33
ING2200	1,587.29	43.32	522.21	2,257.32	10,454.85	4.00
MOCG2300	1,342.76	36.98	570.63	1,700.37	15,152.67	3.48
MOCG4000	2,078.48	17.67	937.45	3,386.94	25,302.70	3.82
MONG1850	1,264.64	29.04	384.76	1,260.93	10,281.61	3.66
LAG2640	1,984.36	110.87	357.10	1,199.36	2,728.17	5.58
LANG2500	2,142.95	120.59	606.25	2,879.24	9,651.26	4.65
TNG900	544.42	10.93	198.83	630.25	2,823.97	3.51
TNG2200	1,159.90	28.04	369.17	1,284.60	5,799.39	2.90
NCSP1800	1,257.40	26.86	127.71	(45.72)	4,054.35	(0.19)
SCG3500	2,619.77	92.46	714.66	3,655.50	14,416.36	3.94
TXNP3000	1,842.25	64.90	313.07	1,744.54	3,737.70	4.88
TXNP10000	6,029.51	58.18	1,891.12	9,815.34	24,424.52	5.76
TXPG2500	1,595.95	86.39	205.51	587.91	5,007.41	0.77
TXPG3760	3,532.74	108.52	(13.47)	(312.62)	5,695.43	(1.68)
TXHG2500	730.30	38.96	7.45	(745.83)	1,588.63	(4.56)
TXWG1600	551.00	31.86	75.72	202.26	1,593.26	0.16
TXUG1200	895.02	50.99	59.27	191.84	380.30	(5.78)

1 Receipts are average annual total cash receipts including government payments, 2013-2018 (\$1,000)

2 Payments are average annual total government payments, 2013-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2018 (\$1,000)

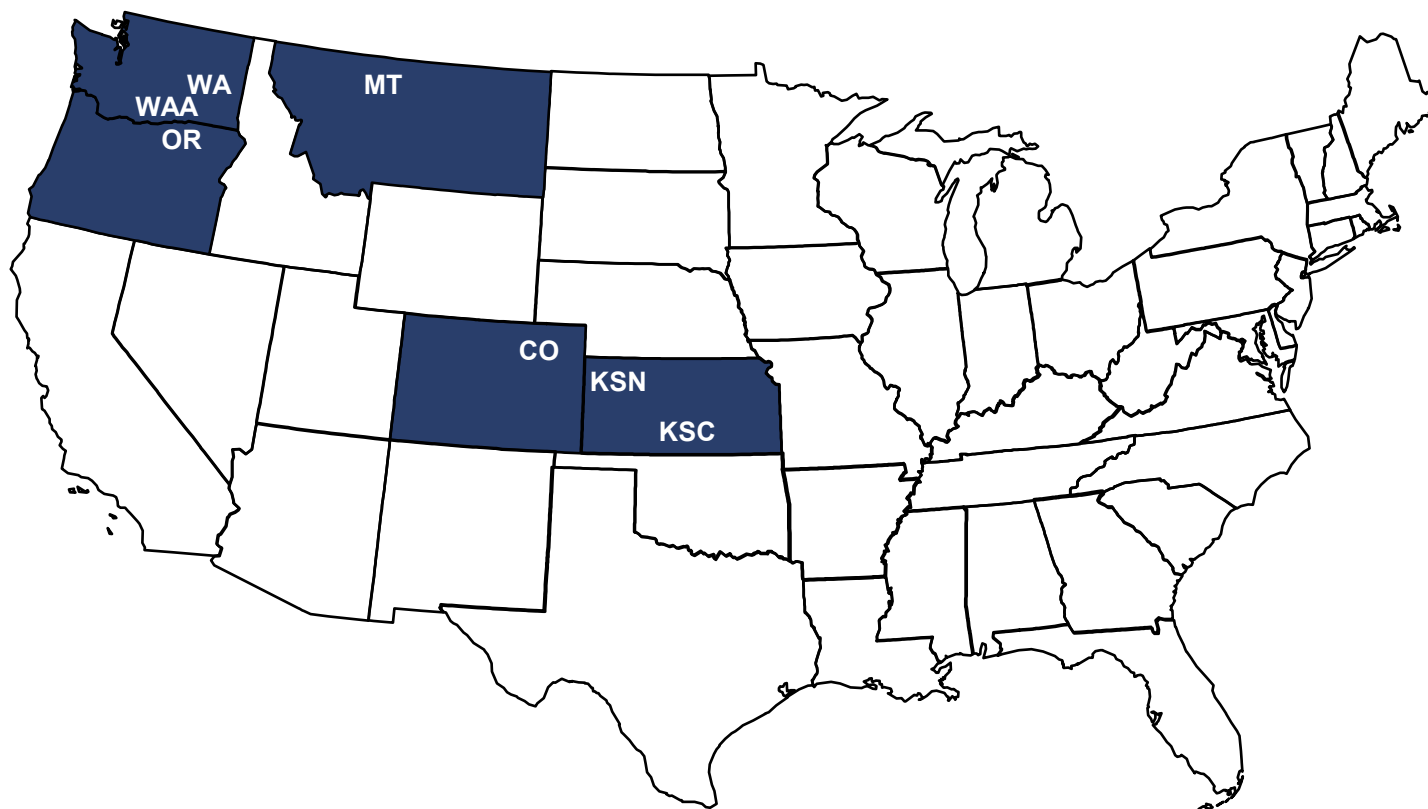
4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

5 Net Worth 2018 is average nominal ending net worth, 2018 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2018 period, (%)

Representative Farm: Wheat

- Nine wheat farms are projected to be in good overall financial condition, and two are projected to be in marginal condition.
- Only one of the eleven wheat farms (WAAW4500) is expected to feel significant 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)
WAW2000	2,000	2,550.00	0.07	1,071.60	1,320
WAW7000	7,000	9,706.00	0.10	3,407.20	4,060
WAAW4500	4,000	1,992.00	0.14	735.40	2,000
ORW4100	4,100	2,273.00	0.17	649.70	1,950
MTW7000	7,000	6,025.00	0.14	1,418.00	4,200
KSCW2000	2,000	2,704.00	0.10	722.90	1,200
KSCW4500	4,500	4,808.00	0.14	1,545.70	2,700
KSNW4000	4,000	3,891.00	0.13	1,270.10	1,500
KSNW5500	5,500	6,340.00	0.10	2,185.90	1,820
COW3000	3,000	2,837.00	0.13	592.20	970
COW5640	5,640	4,320.00	0.11	1,073.20	1,900

Representative Farm: Wheat

Economic Viability of Representative Farms over the 2013-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2018	2013-2018	2013-2018
9/2/0				
WAW2000			1-1	1-1
WAW7000			1-33	1-1
WAAW4500			1-57	1-1
MTW7000			1-1	1-1
ORW4100			1-1	1-1
KSCW2000			1-2	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 2018.

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 2018.

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

	Receipts	Payments	NCFI	Reserve 2018	Net Worth 2018	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
WAW2000	862.46	42.86	304.44	1,798.18	3,377.68	4.81
WAW7000	2,718.00	127.04	201.02	996.28	9,249.58	(1.03)
WAAW4500	509.04	32.32	90.96	7.67	1,992.08	0.43
ORW4100	494.16	24.01	188.68	713.90	2,281.90	1.19
MTW7000	1,274.60	71.79	615.89	2,065.46	7,465.54	4.91
KSCW2000	542.46	24.61	160.04	450.81	2,678.00	2.10
KSCW4500	1,081.21	53.35	380.87	1,674.59	4,880.10	3.91
KSNW4000	882.43	36.49	317.83	1,260.82	3,980.77	4.11
KSNW5500	1,479.30	53.00	300.92	1,703.90	6,212.92	2.79
COW3000	449.29	16.91	198.84	721.93	3,026.90	4.25
COW5640	801.33	35.64	255.07	864.50	4,374.94	2.40

1 Receipts are average annual total cash receipts including government payments, 2013-2018 (\$1,000)

2 Payments are average annual total government payments, 2013-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2018 (\$1,000)

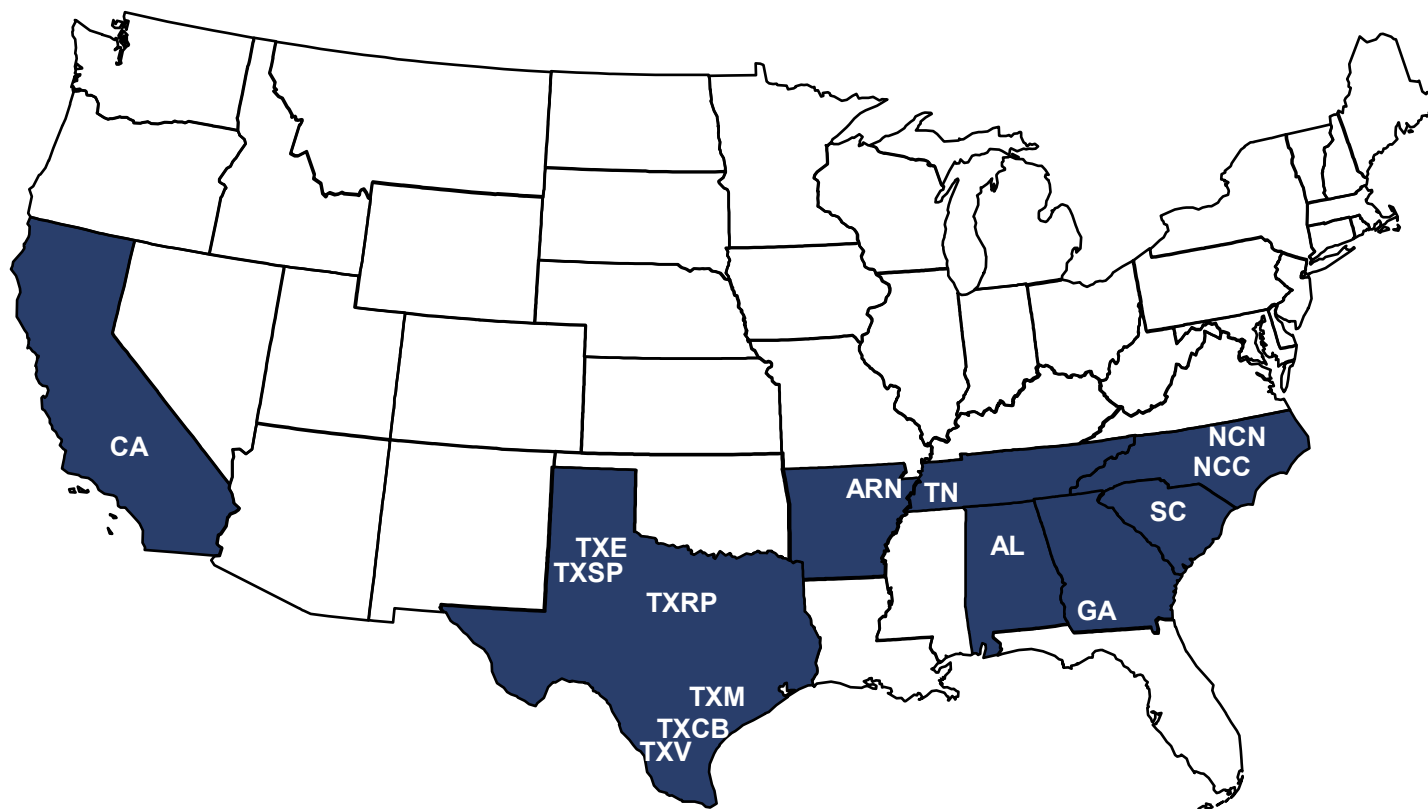
4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

5 Net Worth 2018 is average nominal ending net worth, 2018 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2018 period, (%)

Representative Farm: Cotton

- Twelve of the seventeen cotton farms are characterized in good overall financial condition, three are in marginal condition, and two are in poor condition.
- Five of the farms are projected to experience moderate to severe cash flow problems; two of these farms are also expected to have more than a 40 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	1,487.00	0.09	964.90	2,275
TXSP4500	4,500	3,804.00	0.12	2,194.30	4,047
TXEC5000	5,000	3,757.00	0.16	1,636.70	4,150
TXRP2500	2,500	734.00	0.07	593.30	1,000
TXMC1800	1,800	1,266.00	0.29	1,125.80	900
TXCB2500	2,500	2,132.00	0.26	1,111.20	1,250
TXCB8000	8,000	5,110.00	0.21	4,162.20	3,600
TXVC4500	4,500	5,582.00	0.17	2,413.80	1,495
CAC4000	4,000	28,602.00	0.10	8,639.60	1,333
ARNC5000	5,000	8,419.00	0.20	4,443.50	5,000
TNC2100	2,100	4,451.00	0.09	1,711.50	525
TNC4050	4,050	7,380.00	0.08	3,119.40	2,025
ALC3000	3,000	2,918.00	0.16	2,229.70	1,050
GAC2300	2,300	9,152.00	0.14	2,965.90	1,200
SCC1800	1,800	4,535.00	0.13	1,713.40	900
NCC1500	1,500	3,289.00	0.15	1,273.00	225
NCNP1500	1,500	2,875.00	0.13	1,351.70	375

Representative Farm: Cotton

Economic Viability of Representative Farms over the 2013-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2018	2013-2018	2013-2018
12/3/2				
TXSP2500			16-26	1-9
TXSP4500			1-1	1-1
TXEC5000			1-1	1-1
TXRP2500			4-99	1-80
TXMC1800			28-85	7-42
TXCB2500			25-84	1-9
TXCB8000			1-5	1-1
TXVC4500			1-1	1-1
CAC4000			1-1	1-1
ARNC5000			3-13	1-1
TNC2100			1-1	1-1
TNC4050			1-1	1-1
ALC3000			1-6	1-1
GAC2300			1-1	1-1
SCC1800			1-1	1-1
NCC1500			1-1	1-1
NCNP1500			7-70	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 2018.

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 2018.

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

	Receipts	Payments	NCFI	Reserve 2018	Net Worth 2018	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
TXSP2500	1,056.48	66.67	198.67	396.89	1,858.47	3.42
TXSP4500	2,292.94	135.39	612.98	2,429.15	5,031.05	6.69
TXEC5000	2,537.89	168.14	799.37	2,190.56	5,641.04	9.37
TXRP2500	507.68	38.26	2.94	(271.98)	448.84	(7.94)
TXMC1800	949.58	68.53	109.22	(305.58)	999.98	(2.82)
TXCB2500	984.70	70.91	54.02	(290.17)	1,614.59	(1.95)
TXCB8000	3,548.29	214.10	483.78	1,994.11	4,853.18	1.92
TXVC4500	1,917.30	130.27	505.82	2,910.47	6,520.75	5.23
CAC4000	7,569.93	80.85	1,912.45	9,129.67	31,035.90	5.19
ARNC5000	4,609.99	262.47	765.89	1,378.02	9,411.85	3.69
TNC2100	1,393.01	65.89	500.33	2,829.39	5,991.97	6.43
TNC4050	2,741.42	141.28	589.95	3,286.83	9,322.34	4.84
ALC3000	1,817.52	130.13	304.79	1,089.75	2,889.62	1.84
GAC2300	2,737.31	169.21	552.49	1,737.47	10,364.64	4.26
SCC1800	1,578.20	105.50	385.50	1,769.83	5,416.00	4.67
NCC1500	1,054.27	47.78	329.45	1,373.83	3,794.94	4.46
NCNP1500	1,130.49	69.62	165.28	(42.63)	2,978.68	0.68

1 Receipts are average annual total cash receipts including government payments, 2013-2018 (\$1,000)

2 Payments are average annual total government payments, 2013-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2018 (\$1,000)

4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

5 Net Worth 2018 is average nominal ending net worth, 2018 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2018 period, (%)

Representative Farm: Rice

- Seven of the fourteen representative rice farms are projected to be in good overall financial condition, three are in marginal condition, and four are in poor condition.
- Seven of the rice farms are expected to face severe cash flow problems. Only one of those farms has a high likelihood of losing real equity, while three have a moderate (25 to 50 percent) chance 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	3,242.00	0.17	884.20	500
CAR3000	3,000	11,981.00	0.13	5,089.90	3,000
CABR1300	1,300	8,408.00	0.12	2,228.40	1,200
CACR800	800	5,199.00	0.09	1,472.30	800
TXR1500	1,500	1,805.00	0.14	691.40	400
TXR3000	3,000	1,624.00	0.06	824.80	0
TXBR1800	1,800	816.00	0.89	905.20	600
TXER3200	3,200	2,396.00	0.12	1,940.50	1,067
LASR1480	1,480	1,415.00	0.09	1,088.10	800
ARMR7500	7,500	10,896.00	0.19	5,569.80	1,875
ARSR3240	3,240	5,845.00	0.23	2,315.30	1,620
ARWR1400	1,400	3,517.00	0.20	1,168.40	700
ARHR3000	3,000	7,106.00	0.26	2,518.90	1,800
MOWR4000	4,000	16,996.00	0.12	3,393.60	2,000

Representative Farm: Rice

Economic Viability of Representative Farms over the 2013-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2018	2013-2018	2013-2018
7/3/4				
CAR550			3-94	1-1
CAR3000			4-13	1-1
CABR1300			1-1	1-1
CACR800			4-1	1-1
TXR1500			2-67	1-4
TXR3000			1-1	1-1
TXBR1800			92-97	77-88
TXER3200			4-93	4-25
LASR1480			20-99	1-31
ARMR7500			1-11	1-1
ARSR3240			4-20	1-1
ARWR1400			29-99	1-38
ARHR3000			82-99	1-20
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

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 2018.

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 2018.

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

	Receipts	Payments	NCFI	Reserve 2018	Net Worth 2018	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAR550	830.87	66.80	150.42	(152.19)	2,630.47	0.75
CAR3000	4,710.16	157.23	514.87	2,176.01	11,232.51	1.99
CABR1300	2,107.05	151.22	702.10	3,374.29	9,254.53	5.24
CACR800	1,356.35	103.05	286.14	1,355.52	5,535.96	3.47
TXR1500	777.92	68.97	127.89	(8.25)	1,792.99	0.19
TXR3000	1,419.56	121.82	225.76	990.85	1,878.05	1.37
TXBR1800	985.79	80.81	55.43	(480.15)	164.27	(16.56)
TXER3200	1,637.16	140.50	77.58	(480.95)	1,986.41	(3.81)
LASR1480	981.98	60.02	21.21	(605.14)	954.51	(7.19)
ARMR7500	5,516.34	214.73	754.20	2,414.51	11,443.96	1.34
ARSR3240	2,024.69	154.98	382.43	601.68	4,992.11	2.01
ARWR1400	1,009.96	74.14	48.79	(1,002.94)	2,592.44	(3.42)
ARHR3000	2,309.34	160.00	146.14	(1,690.60)	5,531.14	(2.14)
MOWR4000	3,046.55	154.45	817.26	2,856.98	17,483.26	3.50

1 Receipts are average annual total cash receipts including government payments, 2013-2018 (\$1,000)

2 Payments are average annual total government payments, 2013-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2018 (\$1,000)

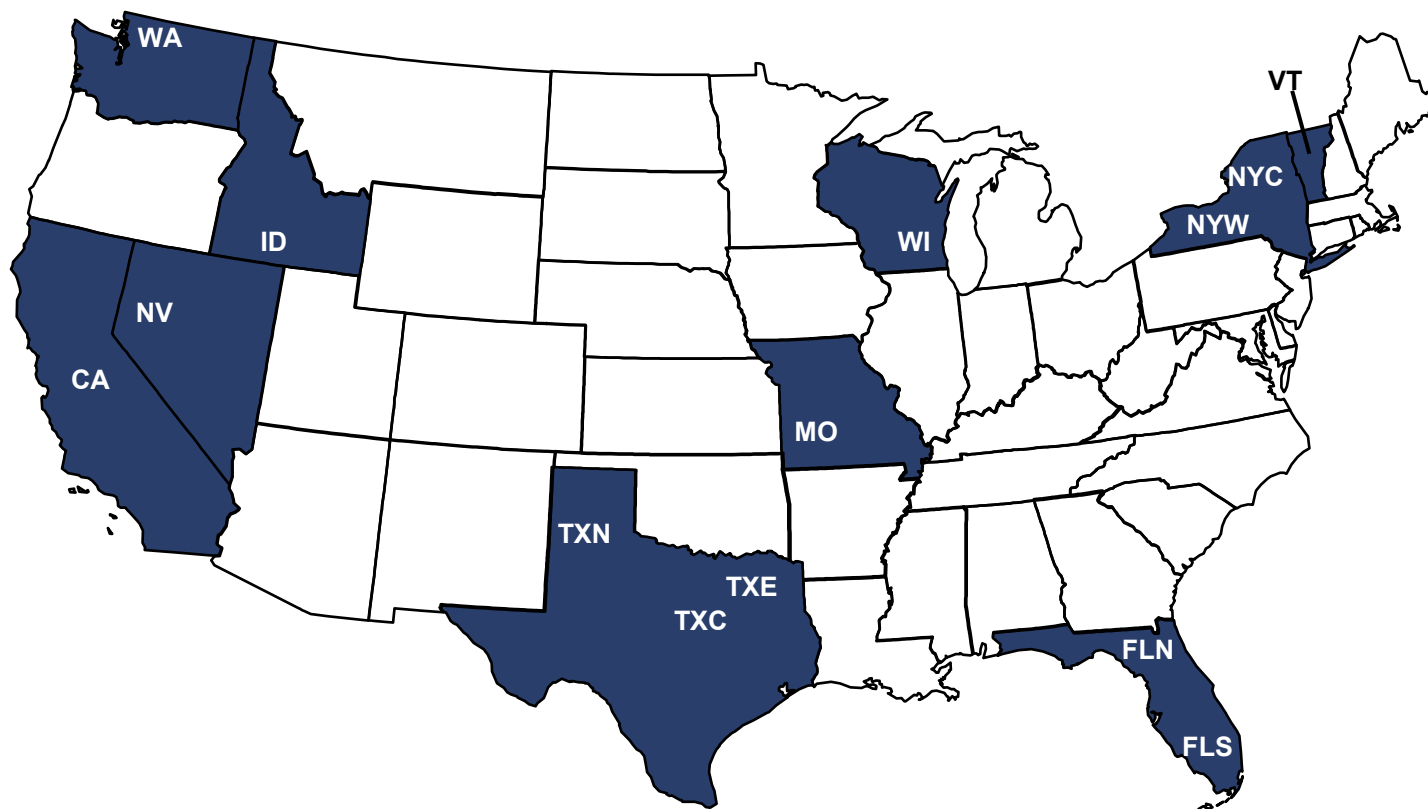
4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

5 Net Worth 2018 is average nominal ending net worth, 2018 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2018 period, (%)

Representative Farm: Dairy

- Eight of twenty-one dairy operations are in good overall financial condition. Eight dairies are also classified in marginal condition, and five are in poor condition.
- Twelve of the dairies are projected to experience severe liquidity pressure; five of these face greater than a 50 percent 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	26,984.00	0.26	7,696.70	1,710
WAD250	250	3,864.00	0.23	1,131.20	250
WAD850	605	8,932.00	0.35	4,289.70	850
IDD3000	1,500	26,624.00	0.28	14,742.20	3,000
NVD500	200	4,330.00	0.16	2,717.10	500
TXND3000	520	16,188.00	0.48	13,530.40	3,000
TXCD700	1,000	5,812.00	0.35	3,004.10	700
TXCD1300	560	8,545.00	0.41	5,600.30	1,300
TXED400	950	2,873.00	0.53	1,429.70	400
WID145	600	2,986.00	0.22	882.10	145
WID1000	2,000	9,801.00	0.20	6,135.30	1,000
NYWD500	1,000	5,327.00	0.14	2,679.70	500
NYWD1200	2,100	12,851.00	0.21	6,298.80	1,200
NYCD110	325	1,534.00	0.16	619.30	110
NYCD550	1,100	6,457.00	0.36	3,213.90	550
VTD140	220	1,554.00	0.38	656.80	140
VTD400	1,000	4,656.00	0.27	2,080.30	400
MOGD550	0	3,695.00	0.10	1,532.60	550
MOGD180	0	1,556.00	0.05	524.30	180
FLND550	550	3,517.00	0.20	2,755.30	550
FLSD1500	400	11,013.00	0.44	7,739.70	1,500

Representative Farm: Dairy

Economic Viability of Representative Farms over the 2013-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2018	2013-2018	2013-2018
8/8/5				
CAD1710			99-93	1-1
WAD250			99-97	1-1
WAD850			97-39	1-1
IDD3000			99-87	1-7
NVD500			39-1	1-1
TXND3000			99-96	95-84
TXCD700			99-81	1-1
TXCD1300			99-97	50-63
TXED400			99-99	99-97
WID145			39-27	1-1
WID1000			59-30	1-1
NYWD500			1-1	1-1
NYWD1200			16-1	1-1
NYCD110			1-1	1-1
NYCD550			99-98	1-10
VTD140			99-97	41-92
VTD400			99-94	1-1
MOGD550			1-1	1-1
MOGD180			1-1	1-1
FLND550			92-66	1-4
FLSD1500			99-99	75-81

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 2018.

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 2018.

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

	Receipts	Payments	NCFI	Reserve 2018	Net Worth 2018	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAD1710	8,341.37	31.09	1,101.56	(2,689.11)	21,741.69	2.61
WAD250	1,110.72	26.69	139.44	(673.38)	3,664.22	1.56
WAD850	4,637.74	29.76	788.58	208.19	9,790.77	5.03
IDD3000	15,063.62	27.95	1,182.54	(4,620.63)	22,008.76	1.76
NVD500	2,808.05	24.04	515.42	884.54	4,910.16	5.40
TXND3000	14,091.61	26.63	579.48	(6,031.95)	7,938.45	(3.36)
TXCD700	3,141.71	24.04	422.86	(622.22)	5,532.71	3.72
TXCD1300	5,842.93	24.04	304.24	(2,781.89)	5,243.34	(1.47)
TXED400	1,494.91	24.04	(106.88)	(2,375.15)	503.82	(15.87)
WID145	882.05	26.95	255.03	192.65	3,110.21	3.56
WID1000	6,035.75	29.56	853.04	792.22	10,150.68	3.56
NYWD500	2,934.87	32.21	849.28	3,067.17	7,430.59	7.71
NYWD1200	6,649.96	27.68	1,373.90	2,688.68	14,817.14	5.31
NYCD110	663.90	28.57	261.35	538.10	1,925.27	6.44
NYCD550	3,392.42	34.69	341.16	(1,614.40)	4,841.92	1.04
VTD140	701.68	27.88	23.95	(700.69)	865.76	(4.28)
VTD400	2,193.81	37.88	240.10	(629.12)	4,092.62	1.46
MOGD550	1,618.70	24.04	779.28	2,810.48	5,599.19	9.93
MOGD180	563.16	23.94	327.01	1,345.60	2,422.93	9.36
FLND550	2,871.37	24.04	290.55	(197.78)	3,434.44	2.24
FLSD1500	8,079.79	24.04	(91.47)	(6,226.91)	4,218.57	(5.44)

1 Receipts are average annual total cash receipts including government payments, 2013-2018 (\$1,000)

2 Payments are average annual total government payments, 2013-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2018 (\$1,000)

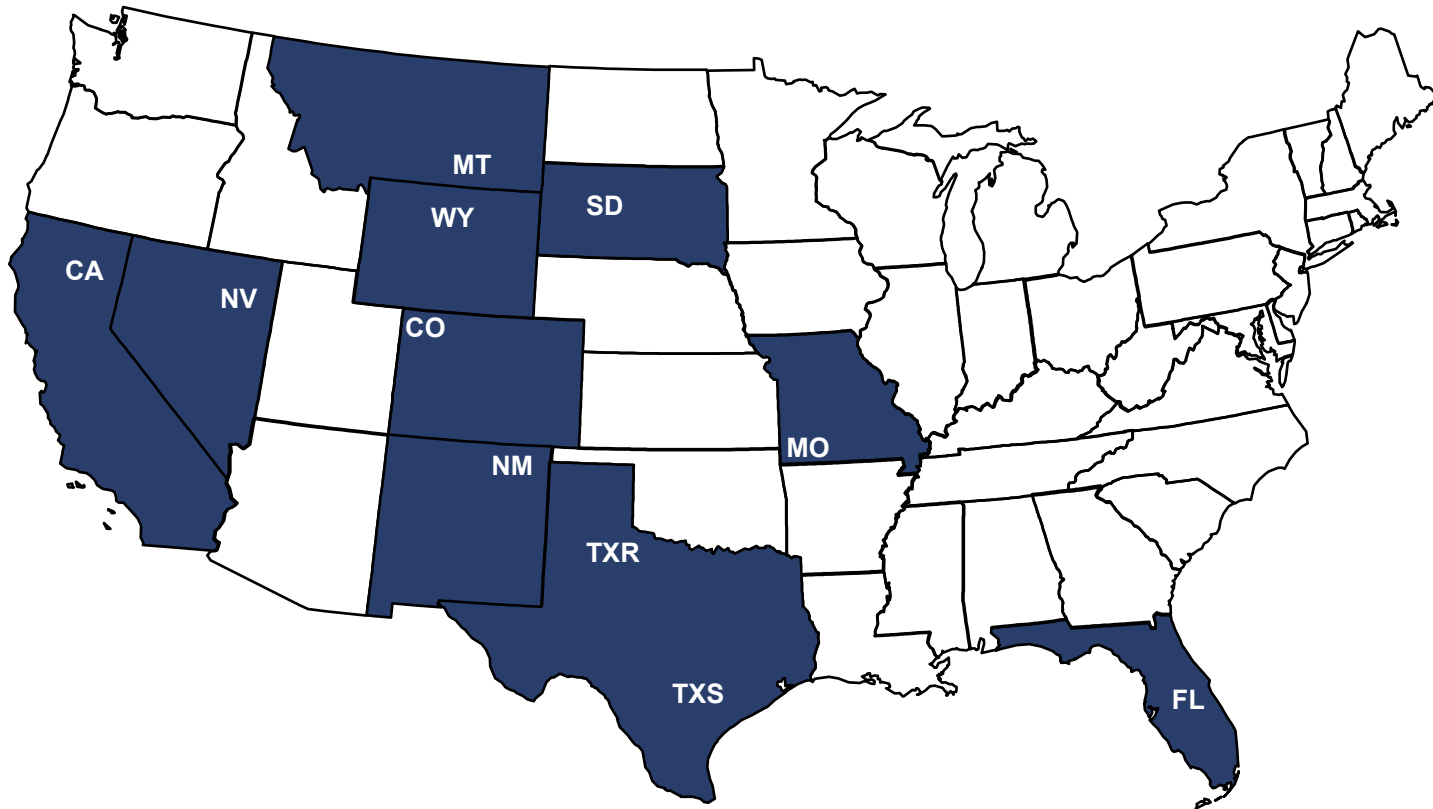
4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

5 Net Worth 2018 is average nominal ending net worth, 2018 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2018 period, (%)

Representative Farm: Cow/Calf

- Seven of the eleven cow-calf operations are projected to be in good overall financial condition, three are marginal, and one is expected to be in poor condition.
- Four operations will face significant liquidity pressure over the period, as their likelihoods of experiencing negative ending cash in 2018 exceeds 50 percent.
- Only one of the twelve operations (CAB500) 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
NVB650	1,300	6,950.00	0.01	511.40	650
MTB500	0	6,544.00	0.02	409.00	500
WYB435	330	4,500.00	0.04	389.30	435
COB250	450	21,595.00	0.01	278.50	250
NMB160	0	6,148.00	0.01	154.90	160
SDB375	1,150	6,807.00	0.03	309.20	375
MOB250	280	3,615.00	0.02	416.90	250
TXRB250	0	7,333.00	0.03	567.10	335
TXSB200	0	4,390.00	0.05	198.30	200
FLB1155	5,400	21,755.00	0.01	876.70	1,155

Representative Farm: Cow/Calf

Economic Viability of Representative Farms over the 2013-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2013	2018	2013-2018	2013-2018
7/3/1				
CAB500			99-99	6-72
NVB650			58-31	1-1
MTB500			1-1	1-1
WYB435			92-26	1-1
COB250			1-4	1-1
NMB160			57-99	1-1
SDB375			93-39	1-1
MOB250			1-1	1-1
TXRB250			99-99	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(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2013 and 2018.

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 2018.

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

	Receipts	Payments	NCFI	Reserve 2018	Net Worth 2018	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAB500	414.67	0.00	35.52	(225.99)	4,345.11	(0.67)
NVB650	515.63	0.00	121.63	67.02	7,646.29	1.72
MTB500	416.05	0.00	182.33	457.66	7,882.07	2.38
WYB435	395.26	0.00	107.79	45.96	5,125.62	1.64
COB250	265.78	0.00	77.72	99.65	21,217.08	1.91
NMB160	156.42	0.00	52.18	(36.01)	7,171.81	1.54
SDB375	330.15	0.00	105.99	40.83	7,872.78	1.59
MOB250	361.81	3.21	172.20	463.16	4,083.26	2.58
TXRB250	383.58	0.00	(161.84)	(1,179.89)	7,380.70	(0.74)
TXSB200	201.69	0.00	34.48	(234.96)	5,153.95	1.22
FLB1155	892.30	0.00	347.83	1,282.23	26,494.00	2.32

1 Receipts are average annual total cash receipts including government payments, 2013-2018 (\$1,000)

2 Payments are average annual total government payments, 2013-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2013-2018 (\$1,000)

4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

5 Net Worth 2018 is average nominal ending net worth, 2018 (\$1,000)

6 CRNW is average percentage change in real net worth over 2013-2018 period, (%)

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