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Research Report

Representative farms economic outlook for the December 2014 FAPRI/AFPC Baseline

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Representative Farms Economic Outlook for the December 2014 FAPRI/AFPC Baseline

Briefing Paper 14-2

December 2014



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**REPRESENTATIVE FARMS ECONOMIC
OUTLOOK FOR THE DECEMBER 2014
FAPRI/AFPC BASELINE**

AFPC Briefing Paper 14-2

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EXECUTIVE SUMMARY

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate 91 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 2014 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 2014 Baseline.

Under the December 2014 Baseline, 31 of the 63 crop farms are considered in good liquidity condition (less than a 25 percent chance of negative ending cash by 2018). Six crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash, and the remaining 26 crop farms have greater than a 50 percent chance of negative ending cash. Additionally, 42 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). Six crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and 15 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:** Thirteen of the 23 feedgrain farms are in good overall financial condition. Eight are classified in marginal condition, and two are in poor condition.
- **WHEAT FARMS:** Five representative wheat farms are classified in good overall financial condition, four are in marginal condition, and two are in poor condition.
- **COTTON FARMS:** Seven of the 16 cotton farms are classified in good condition, two are in marginal condition, and seven are in poor condition.
- **RICE FARMS:** Six of the 13 rice farms are projected to be in good financial condition. No rice farms are projected to be in marginal condition; seven are in poor condition.
- **DAIRY FARMS:** Fourteen of the 18 dairies are in good overall financial condition. Three are classified in marginal condition, and one is in poor condition.
- **BEEF CATTLE RANCHES:** Six of the ten 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 2014 FAPRI/AFPC BASELINE

The farm level economic impacts of the FAPRI December 2014 Baseline on representative crop and livestock operations are projected in this report, assuming the 2014 Farm Bill. The analysis was conducted over the 2012-2018 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 2014 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 2014 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, 2014-2018** -- 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** -- 2014-2018 average cash receipts from all farm related sources, including market sales, PLC/ARC payments, marketing loan gains/LDPs, crop insurance indemnities, and other receipts.
- **Payments** -- 2014-2018 average annual PLC or ARC payments and marketing loan gains/LDPs for crop farms.
- **NCFI** -- 2014-2018 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 real net worth from January 1, 2014 through December 31, 2018, after adjusting for inflation.

Table 1. FAPRI December 2014 Baseline Projections of Crop and Livestock Prices, 2012-2018.

	2012	2013	2014	2015	2016	2017	2018
Crop Prices							
Corn (\$/bu.)	6.89	4.46	3.50	3.83	3.99	4.09	4.21
Wheat (\$/bu.)	7.77	6.87	5.90	5.25	5.35	5.55	5.79
Cotton (\$/lb.)	0.7250	0.7790	0.6143	0.5960	0.5940	0.5974	0.6142
Sorghum (\$/bu.)	6.33	4.28	3.45	3.56	3.76	3.83	3.93
Soybeans (\$/bu.)	14.40	13.00	9.96	9.11	9.51	9.88	10.24
Barley (\$/bu.)	6.43	6.06	5.15	4.75	4.68	4.80	4.94
Oats (\$/bu.)	3.89	3.75	3.24	3.21	3.28	3.32	3.39
Rice (\$/cwt.)	15.10	16.10	14.39	14.20	13.88	13.74	13.79
Soybean Meal (\$/ton)	446.49	467.31	333.29	318.68	332.36	334.49	339.11
All Hay (\$/ton)	187.00	176.00	178.10	152.34	144.78	151.07	157.45
Peanuts (\$/ton)	602.00	498.00	430.17	464.63	444.98	452.49	456.12
Cattle Prices							
Feeder Cattle (\$/cwt)	158.19	158.84	223.19	232.05	207.50	182.94	167.16
Fed Cattle (\$/cwt)	122.86	125.89	154.21	155.08	143.49	131.83	124.38
Culled Cows (\$/cwt)	76.68	76.38	104.38	107.81	92.48	81.17	76.61
Milk Price							
U.S. All Milk Price (\$/cwt)	18.56	20.12	24.22	18.61	17.84	17.75	17.84

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

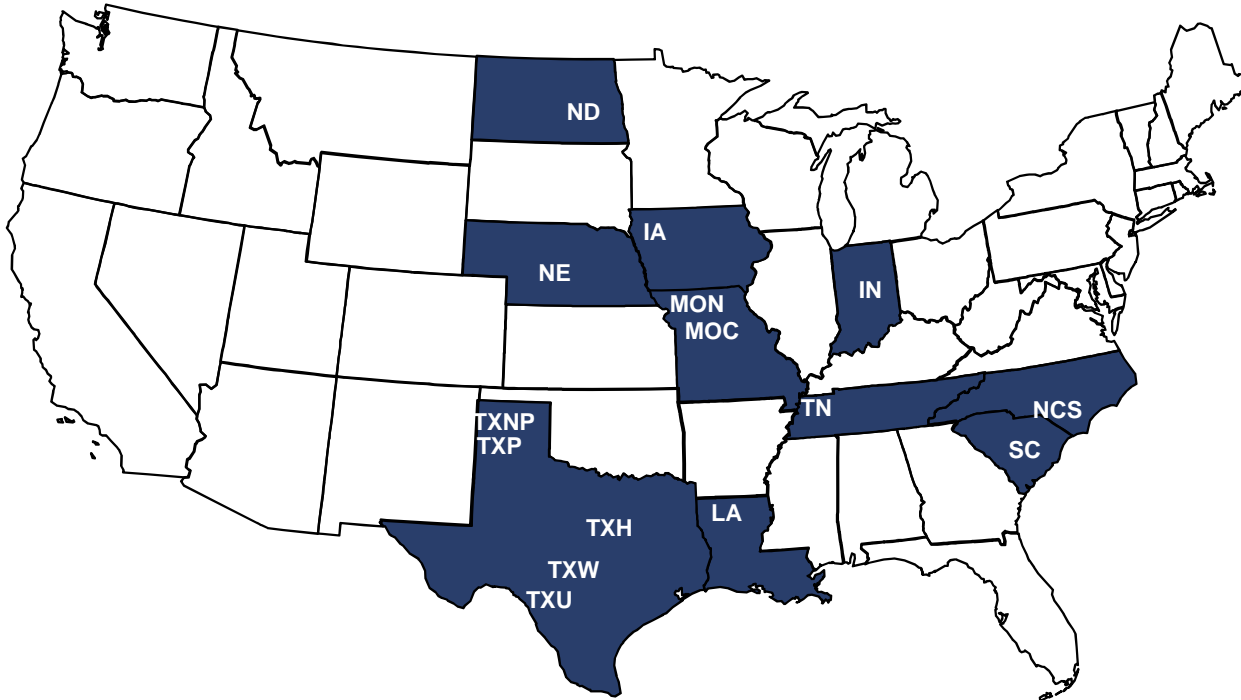
Table 2. FAPRI December 2014 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2013-2018.

	2013	2014	2015	2016	2017	2018
Annual Rate of Change for Input Prices Paid						
Seed Prices (%)	3.77	2.73	-0.77	-1.93	-0.45	1.3
All Fertilizer Prices (%)	-1.89	0.24	-5.48	-3.85	2.77	5.78
Herbicide Prices (%)	1.89	2.08	-0.16	-1.36	2.13	4.14
Insecticide Prices (%)	6.73	1.73	-1.6	-3.25	0.58	3.64
Fuel and Lube Prices (%)	-1.01	1.79	-3.55	-2.17	0.67	3.11
Machinery Prices (%)	2.86	2.78	-3.37	-0.06	3.6	4.42
Wages (%)	2.91	1.42	0.97	3.27	3.37	3.49
Supplies (%)	0.97	1.68	0.64	1.13	1.6	1.61
Repairs (%)	0.97	1.52	0.07	0.4	0.64	1.7
Services (%)	3.92	2.75	0.92	2.15	3.16	3.47
Taxes (%)	1.98	1.94	2.99	3.95	1.77	1.87
PPI Items (%)	1.9	6.15	-4.22	-2.19	1.04	1.72
PPI Total (%)	1.9	4.91	-3.31	-1.38	1.45	1.92
Annual Change in Consumer Price Index (%)	1.46	1.77	1.35	1.58	1.96	2.07
Annual Rate of Change for U.S. Land Prices (%)	8.33	8.06	-0.48	-0.45	0.98	1.11

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

Representative Farm: Feed Grains

- Overall, thirteen feed grain farms are characterized as good, eight are marginal, and two are in poor condition.
- Six of the twenty-four farms will be under severe cash flow stress; TXHG2500 and TXWG1600 both have high likelihoods (greater than a 50 percent chance) of losing real net worth.



Characteristics of Panel Farms Producing Feed Grains, 2013.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Feed Grains (acres)
IAG1350	1,350	6,280.00	0.17	1,148.10	1,350
IAG3400	3,400	15,633.00	0.18	2,625.80	3,400
NEG2400	2,400	7,055.00	0.14	2,136.90	2,400
NEG4300	4,300	24,801.00	0.16	3,992.80	4,000
NDG3000	3,000	4,113.00	0.15	1,338.70	2,500
NDG8000	8,000	26,240.00	0.16	4,352.90	5,750
ING1000	1,000	3,576.00	0.12	766.10	1,000
ING2200	2,200	10,496.00	0.16	1,861.20	2,200
MOCG2300	2,300	16,430.00	0.15	1,588.70	2,300
MOCG4000	4,000	22,111.00	0.14	2,290.40	4,000
MONG2300	2,300	11,017.00	0.14	2,124.00	2,250
LAG2640	2,640	2,213.00	0.23	2,014.50	2,244
LANG2500	2,500	8,985.00	0.15	2,203.50	1,750
TNG900	900	2,482.00	0.27	535.40	900
TNG2200	2,200	5,076.00	0.19	1,150.00	2,200
NCSP1800	1,800	4,801.00	0.13	1,179.20	1,440
SCG3500	3,500	11,713.00	0.16	2,807.30	2,625
TXNP3000	3,000	2,301.00	0.16	1,741.90	1,200
TXNP10000	10,000	17,137.00	0.14	6,353.70	5,700
TXPG2500	2,500	5,265.00	0.20	1,918.40	1,453
TXHG2500	2,500	2,386.00	0.19	724.70	1,700
TXWG1600	1,600	1,510.00	0.14	594.10	1,050
TXUG1600	1,600	836.00	0.04	1,538.30	150

Representative Farm: Feed Grains

Economic Viability of Representative Farms over the 2014-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2014	2018	2014-2018	2014-2018
13/8/2				
IAG1350			52-83	1-19
IAG3400			21-62	1-4
NEG2400			1-15	1-2
NEG4300			1-18	1-1
NDG3000			1-18	1-2
NDG8000			1-1	1-1
ING1000			1-4	1-1
ING2200			1-25	1-1
MOCG2300			1-1	1-1
MOCG4000			1-1	1-1
MONG2300			1-1	1-1
LAG2640			20-46	13-37
LANG2500			1-1	1-1
TNG900			5-62	1-1
TNG2200			1-46	1-1
NCSP1800			1-63	1-11
SCG3500			1-1	1-1
TXNP3000			13-43	1-17
TXNP10000			1-1	1-1
TXPG2500			4-15	1-1
TXHG2500			97-99	44-98
TXWG1600			2-89	1-51
TXUG1600			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(Negative Ending Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2014 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 2012 to 2014 and from 2012 to 2018.

Implications of the December 2014 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	1,023.49	24.05	47.06	(581.99)	4,891.18	(1.02)
IAG3400	2,328.15	58.20	232.55	(383.48)	12,840.30	0.04
NEG2400	1,879.16	47.50	189.00	827.97	6,014.60	0.02
NEG4300	3,528.42	79.51	445.98	1,340.97	21,353.73	0.39
NDG3000	1,250.40	51.01	202.36	546.34	3,771.10	1.14
NDG8000	3,657.41	135.14	1,089.62	4,773.86	25,939.73	2.42
ING1000	625.33	16.04	204.60	347.22	3,647.26	1.82
ING2200	1,501.09	34.20	331.14	317.69	9,325.55	1.20
MOCG2300	1,552.19	28.92	764.32	1,898.46	16,332.45	2.92
MOCG4000	2,374.54	43.57	1,146.74	3,127.12	22,843.53	3.19
MONG2300	1,643.25	0.02	438.53	1,383.37	11,073.04	1.73
LAG2640	1,809.80	39.74	138.96	151.27	1,697.56	0.03
LANG2500	1,978.94	49.22	393.08	1,488.33	8,750.56	2.46
TNG900	501.76	8.40	130.20	(67.34)	2,024.92	1.46
TNG2200	1,072.10	26.46	229.92	94.27	4,400.88	0.93
NCSP1800	1,226.80	38.21	80.85	(117.83)	3,819.42	(1.61)
SCG3500	2,427.87	99.69	435.03	1,727.05	11,395.81	1.91
TXNP3000	1,678.48	49.76	132.11	116.77	2,006.89	0.48
TXNP10000	5,937.67	176.08	1,683.26	6,693.36	20,540.90	5.60
TXPG2500	1,759.45	57.99	358.30	550.01	4,979.10	2.90
TXHG2500	710.61	38.79	(37.46)	(1,062.54)	1,123.64	(7.78)
TXWG1600	527.71	23.34	29.40	(220.54)	1,060.18	(3.54)
TXUG1600	1,400.43	76.06	211.98	778.19	1,193.43	7.64

1 Receipts are average annual total cash receipts including government payments, 2014-2018 (\$1,000)

2 Payments are average annual total government payments, 2014-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2014-2018 (\$1,000)

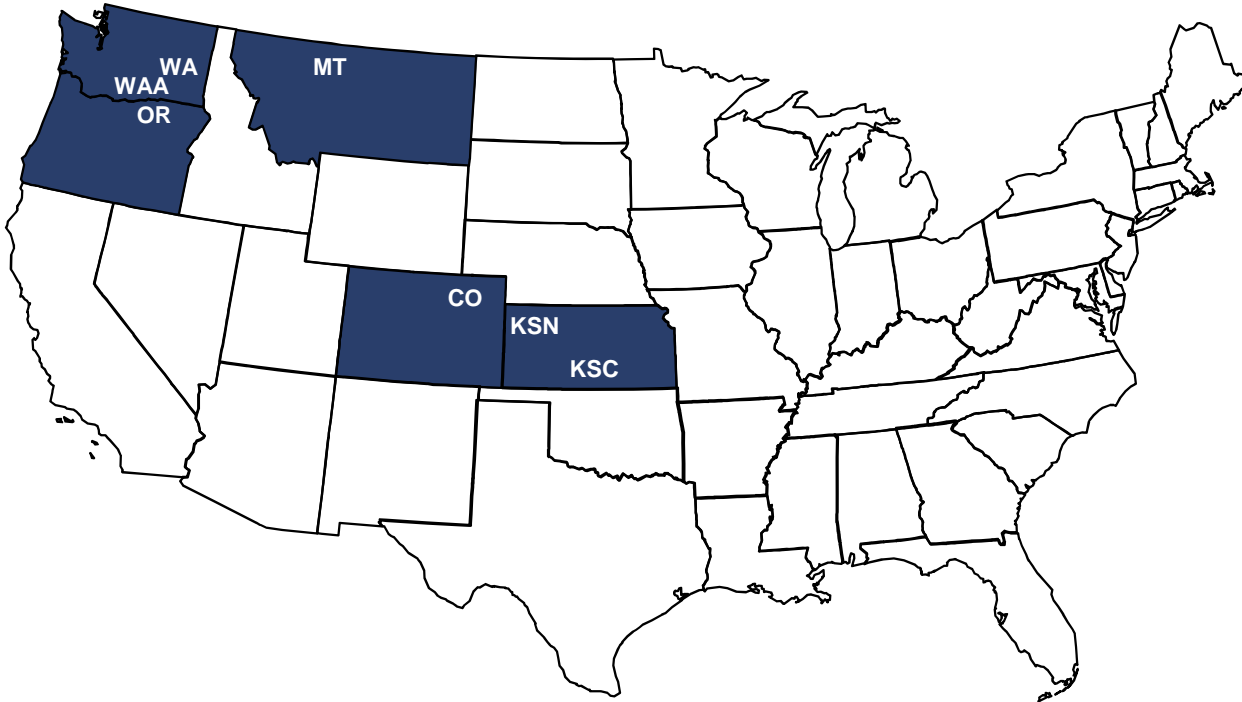
4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

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

6 CRNW is average percentage change in real net worth over 2014-2018 period, (%)

Representative Farm: Wheat

- Five wheat farms are projected to be in good overall financial condition, four are in marginal condition, and 2 are in poor condition.
- Six of the eleven wheat farms are expected to feel significant liquidity pressure over the period; however, only one of the wheat farms (WAW7000) has a greater than 50 percent chance of losing real equity.



Characteristics of Panel Farms Producing Wheat, 2013.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Wheat (acres)
WAW2000	2,000	2,159.00	0.12	969.30	1,320
WAW7000	7,000	9,384.00	0.16	3,016.60	4,060
WAAW4500	4,000	2,266.00	0.15	569.40	2,000
ORW4100	4,100	2,130.00	0.19	592.00	1,950
MTW7000	7,000	6,388.00	0.12	1,397.30	4,200
KSCW2000	2,000	2,917.00	0.19	585.20	1,200
KSCW4500	4,500	4,854.00	0.17	1,224.50	2,700
KSNW4000	4,000	4,487.00	0.21	745.50	1,500
KSNW5980	5,980	9,180.00	0.20	1,311.20	1,820
COW3000	3,000	2,853.00	0.17	493.10	970
COW5640	5,640	4,216.00	0.16	903.80	1,900

Representative Farm: Wheat

Economic Viability of Representative Farms over the 2014-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2014	2018	2014-2018	2014-2018
5/4/2				
WAW2000			1-1	1-1
WAW7000			26-91	1-56
WAAW4500			5-66	1-8
MTW7000			1-1	1-1
ORW4100			1-2	1-1
KSCW2000			1-81	1-6
KSCW4500			1-1	1-1
KSNW4000			44-58	1-1
KSNW5980			90-94	1-45
COW3000			1-2	1-1
COW5640			1-56	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 2014 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 2012 to 2014 and from 2012 to 2018.

Implications of the December 2014 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	818.67	39.25	252.78	1,061.87	2,536.08	4.76
WAW7000	2,609.58	138.48	40.60	(1,249.91)	6,497.58	(3.15)
WAAW4500	469.36	33.58	45.66	(60.40)	1,756.02	(1.47)
ORW4100	444.27	18.21	134.37	334.14	1,857.93	0.57
MTW7000	1,191.77	80.08	502.62	1,949.42	6,940.53	3.67
KSCW2000	491.52	19.01	80.32	(204.28)	2,213.77	(1.21)
KSCW4500	993.70	41.51	275.75	1,191.24	4,598.17	2.60
KSNW4000	861.22	33.24	171.30	(68.75)	3,890.75	1.02
KSNW5980	1,464.42	48.27	53.55	(1,272.63)	7,009.18	(1.33)
COW3000	420.46	14.06	146.93	239.74	2,588.89	1.60
COW5640	742.93	27.43	154.42	(33.72)	3,559.17	0.39

1 Receipts are average annual total cash receipts including government payments, 2014-2018 (\$1,000)

2 Payments are average annual total government payments, 2014-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2014-2018 (\$1,000)

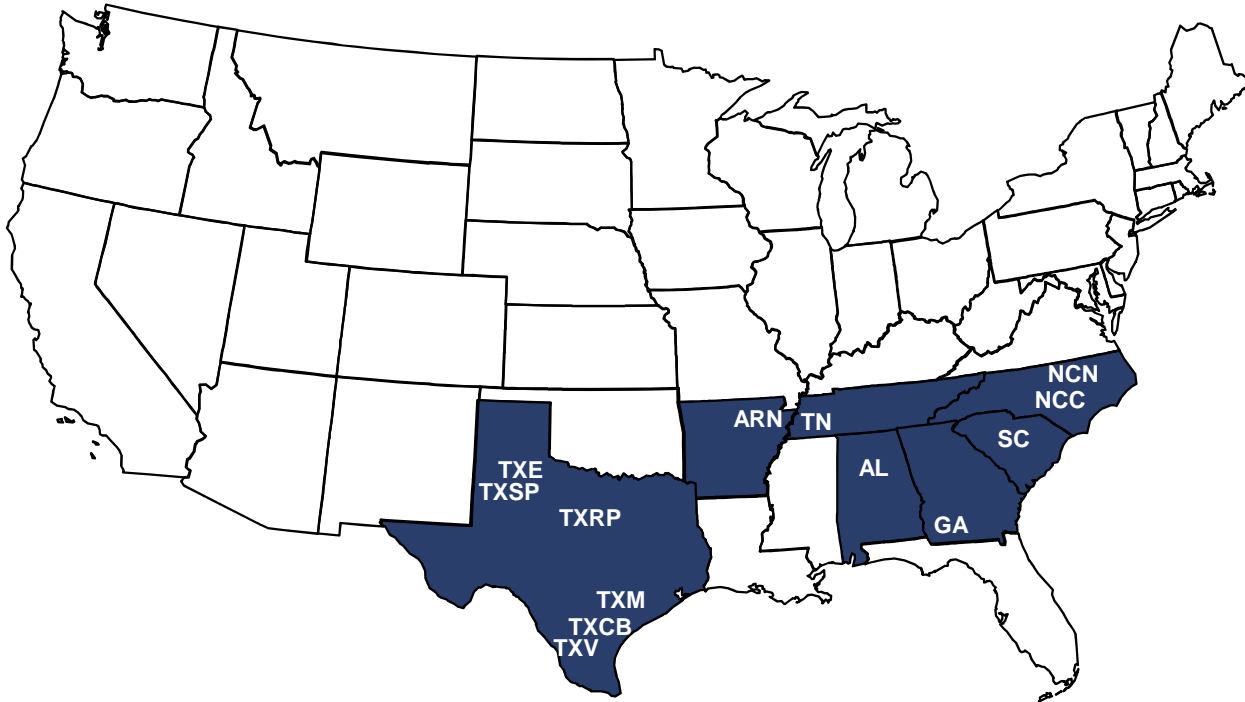
4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

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

6 CRNW is average percentage change in real net worth over 2014-2018 period, (%)

Representative Farm: Cotton

- Seven of the sixteen cotton farms are characterized in good overall financial condition, two are in marginal condition, and seven are in poor condition.
- Seven of the farms are projected to experience severe cash flow problems (having greater than a 50 percent chance of a cash flow deficit).
- Seven farms are expected to have more than a 50 percent chance of losing real equity over the period.



Characteristics of Panel Farms Producing Cotton, 2013.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cotton (acres)
TXSP2500	2,500	1,467.00	0.13	1,001.40	2,275
TXSP4500	4,500	3,193.00	0.18	2,269.70	4,047
TXEC5000	5,000	3,808.00	0.16	2,325.20	4,150
TXRP2500	2,500	751.00	0.16	588.00	1,000
TXMC1800	1,800	1,440.00	0.18	954.10	900
TXCB2500	2,500	1,941.00	0.28	967.10	1,250
TXCB8000	8,000	4,019.00	0.12	3,552.40	3,600
TXVC4500	4,500	5,939.00	0.18	1,720.50	1,395
ARNC5000	5,000	7,991.00	0.19	4,524.00	5,000
TNC2100	2,100	3,846.00	0.12	1,431.80	525
TNC4050	4,050	6,872.00	0.15	2,841.30	2,025
ALC3000	3,000	2,709.00	0.18	1,808.40	1,050
GAC2300	2,300	9,699.00	0.19	2,609.80	1,200
SCC1800	1,800	4,077.00	0.21	1,507.70	900
NCC1700	1,700	2,789.00	0.14	1,055.30	225
NCNP1500	1,500	3,229.00	0.13	1,110.30	375

Representative Farm: Cotton

Economic Viability of Representative Farms over the 2014-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2014	2018	2014-2018	2014-2018
7/2/7				
TXSP2500			42-71	30-51
TXSP4500			1-22	1-6
TXEC5000			1-1	1-1
TXRP2500			91-99	27-99
TXMC1800			55-94	19-77
TXCB2500			94-99	60-92
TXCB8000			10-46	3-39
TXVC4500			6-1	1-1
ARNC5000			53-80	11-54
TNC2100			1-1	1-1
TNC4050			1-1	1-1
ALC3000			1-66	1-54
GAC2300			1-20	1-1
SCC1800			1-17	1-1
NCC1700			1-48	1-27
NCNP1500			15-96	1-60

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 2014 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 2012 to 2014 and from 2012 to 2018.

Implications of the December 2014 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	949.63	31.86	67.28	(341.46)	1,077.56	(3.75)
TXSP4500	2,061.33	69.34	330.39	526.51	3,103.09	2.13
TXEC5000	2,291.00	88.90	539.69	1,343.78	4,710.21	6.31
TXRP2500	464.85	20.83	(56.85)	(649.41)	51.18	(18.28)
TXMC1800	877.96	44.79	23.39	(594.17)	679.40	(7.52)
TXCB2500	925.05	51.77	(34.19)	(946.28)	769.39	(8.47)
TXCB8000	3,375.83	193.89	255.70	302.78	3,114.05	(2.06)
TXVC4500	2,040.08	102.32	447.19	1,404.21	6,314.42	4.25
ARNC5000	4,170.34	142.92	228.87	(1,268.61)	5,803.03	(2.41)
TNC2100	1,284.15	41.09	366.50	1,618.69	4,598.09	5.02
TNC4050	2,524.77	99.32	297.66	1,116.26	6,779.78	1.93
ALC3000	1,670.92	59.52	106.86	(272.82)	1,606.01	(5.31)
GAC2300	2,587.40	130.92	305.02	389.25	8,566.80	1.61
SCC1800	1,460.16	66.02	225.74	425.26	3,812.56	2.36
NCC1700	1,006.51	18.21	97.75	28.85	2,157.57	(2.13)
NCNP1500	1,044.00	45.85	55.77	(578.01)	2,314.96	(3.45)

1 Receipts are average annual total cash receipts including government payments, 2014-2018 (\$1,000)

2 Payments are average annual total government payments, 2014-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2014-2018 (\$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 2014-2018 period, (%)

Representative Farm: Rice

- Six of the thirteen representative rice farms are projected to be in good overall financial condition, none are in marginal condition, and seven are in poor condition.
- Seven of the rice farms are expected to face severe cash flow problems; five of those farms have high likelihoods of losing real equity.



Characteristics of Panel Farms Producing Rice, 2013.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Rice (acres)
CAR550	550	3,394.00	0.24	901.90	500
CAR3000	3,000	12,613.00	0.17	5,373.30	3,000
CABR1300	1,300	8,461.00	0.15	2,273.40	1,200
CACR800	800	5,370.00	0.13	1,502.10	800
TXR1500	1,500	2,042.00	0.18	862.20	600
TXR3000	3,000	1,427.00	0.13	1,575.00	1,200
TXBR1800	1,800	1,153.00	0.13	80.80	0
TXER3200	3,200	2,562.00	0.14	1,850.10	1,067
LASR1480	1,480	1,599.00	0.25	1,067.30	800
ARMR6500	6,500	11,368.00	0.20	5,832.80	325
ARSR3240	3,240	6,422.00	0.17	2,782.90	1,296
ARWR1400	1,400	3,566.00	0.19	1,112.80	700
ARHR3000	3,000	7,238.00	0.16	2,515.00	1,800

Representative Farm: Rice

Economic Viability of Representative Farms over the 2014-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2014	2018	2014-2018	2014-2018
6/0/7				
CAR550			99-99	1-30
CAR3000			2-9	2-8
CABR1300			1-1	1-1
CACR800			2-9	1-1
TXR1500			15-93	1-34
TXR3000			1-20	1-10
TXBR1800			1-1	1-1
TXER3200			7-99	2-86
LASR1480			99-99	81-99
ARMR6500			86-99	44-99
ARSR3240			2-15	1-3
ARWR1400			99-99	40-99
ARHR3000			90-99	8-95

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 2014 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 2012 to 2014 and from 2012 to 2018.

Implications of the December 2014 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	789.93	12.61	75.25	(654.99)	2,331.63	(1.79)
CAR3000	4,701.38	71.69	443.38	1,710.66	11,497.33	1.29
CABR1300	2,020.72	30.30	575.21	2,600.66	8,973.88	3.70
CACR800	1,294.73	20.04	192.41	605.96	5,047.54	1.03
TXR1500	748.91	14.71	81.94	(251.37)	1,514.63	(2.26)
TXR3000	1,370.48	26.44	133.28	242.61	1,161.25	(1.90)
TXBR1800	835.46	23.73	256.60	1,177.69	1,746.25	10.32
TXER3200	1,554.64	29.32	(38.90)	(1,075.48)	1,248.47	(8.60)
LASR1480	928.52	15.12	(75.63)	(1,229.34)	208.31	(16.24)
ARMR6500	3,895.30	86.49	(920.77)	(7,688.34)	1,756.37	(15.66)
ARSR3240	2,061.71	47.88	222.47	717.96	5,176.20	(0.26)
ARWR1400	926.89	21.92	(77.92)	(1,798.98)	1,638.12	(7.98)
ARHR3000	2,216.82	48.72	25.03	(2,068.43)	4,755.63	(4.56)

1 Receipts are average annual total cash receipts including government payments, 2014-2018 (\$1,000)

2 Payments are average annual total government payments, 2014-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2014-2018 (\$1,000)

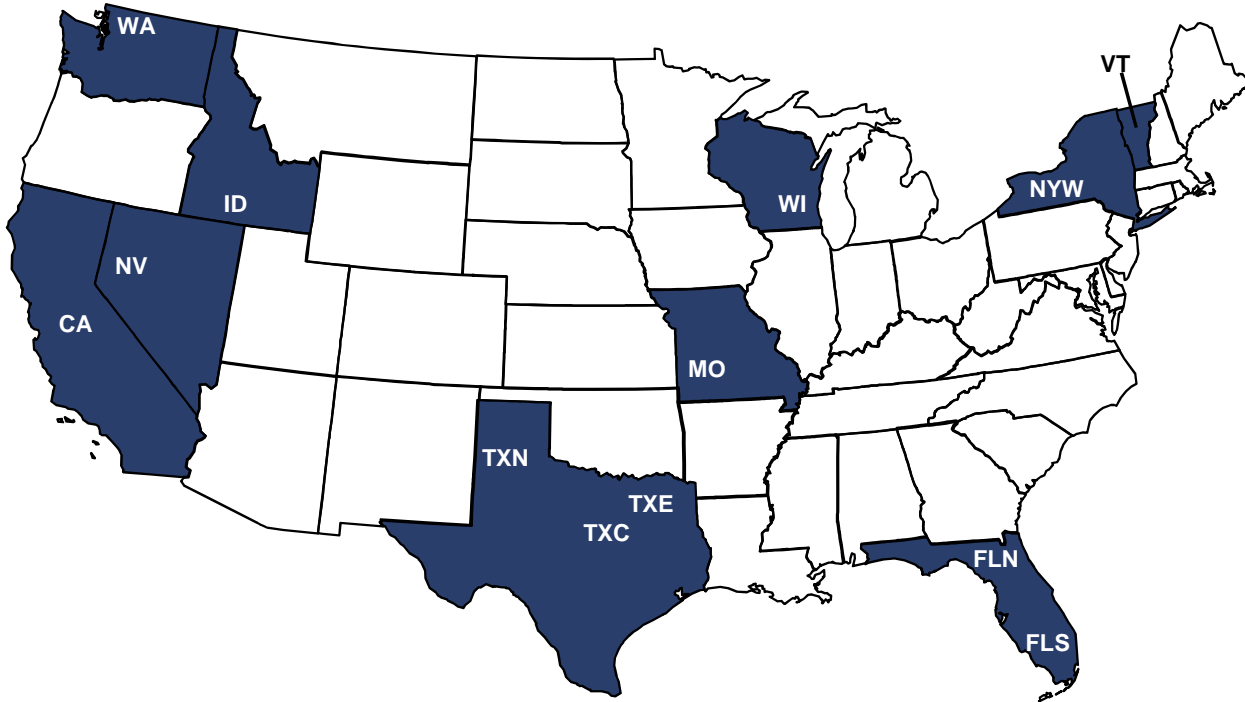
4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

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

6 CRNW is average percentage change in real net worth over 2014-2018 period, (%)

Representative Farm: Dairy

- Fourteen of eighteen dairy operations are in good overall financial condition. Three dairies are classified in marginal condition, and one is in poor condition.
- Three of the dairies are projected to experience severe liquidity pressure, with one of these facing a greater than 75 percent chance of losing real equity.



Characteristics of Panel Farms Producing Milk, 2013.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cows (number)
CAD2000	1,500	27,976.00	0.24	10,481.80	2,000
WAD250	250	4,366.00	0.23	1,139.10	250
WAD850	605	10,576.00	0.20	4,845.40	850
IDD3000	1,500	28,450.00	0.23	15,952.80	3,000
NVD1000	500	8,160.00	0.19	5,491.60	1,000
TXND3000	520	16,139.00	0.33	14,887.50	3,000
TXCD1300	560	7,882.00	0.33	5,942.70	1,300
TXED400	950	2,741.00	0.28	1,602.90	400
WID145	600	3,301.00	0.22	901.00	145
WID1000	2,000	11,049.00	0.21	6,276.00	1,000
NYWD500	1,000	5,521.00	0.19	3,041.20	500
NYWD1200	2,100	14,028.00	0.21	6,961.90	1,200
VTD140	220	1,617.00	0.26	705.40	140
VTD400	1,000	4,837.00	0.23	2,262.20	400
MOGD550	0	3,593.00	0.19	1,538.60	550
MOGD180	0	1,124.00	0.18	562.00	180
FLND550	600	3,654.00	0.23	2,961.80	550
FLSD1500	400	11,399.00	0.33	8,332.80	1,500

Representative Farm: Dairy

Economic Viability of Representative Farms over the 2014-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2014	2018	2014-2018	2014-2018
14/3/1				
CAD2000			33-13	83-22
WAD250			82-80	1-1
WAD850			3-1	1-1
IDD3000			61-29	1-4
NVD1000			5-1	6-2
TXND3000			36-15	8-6
TXCD1300			84-50	5-14
TXED400			54-25	1-2
WID145			8-5	1-1
WID1000			1-5	1-1
NYWD500			1-1	1-1
NYWD1200			1-1	1-1
VTD140			99-99	6-79
VTD400			52-42	1-1
MOGD550			1-1	1-1
MOGD180			1-1	1-1
FLND550			36-13	1-1
FLSD1500			94-52	21-21

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 2014 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 2012 to 2014 and from 2012 to 2018.

Implications of the December 2014 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)	(%)
CAD2000	10,098.89	0.00	1,859.58	2,344.43	21,242.98	2.93
WAD250	1,113.30	0.00	189.55	(278.79)	3,647.38	0.64
WAD850	4,735.56	0.00	1,147.77	3,074.85	11,961.18	5.06
IDD3000	15,537.97	0.00	2,431.35	2,367.01	28,435.51	2.65
NVD1000	5,288.81	0.00	988.61	2,349.79	8,065.70	4.62
TXND3000	14,687.32	0.00	2,351.96	3,518.63	16,894.23	4.83
TXCD1300	5,885.65	0.00	711.35	47.20	6,955.75	1.68
TXED400	1,530.60	0.00	307.69	290.48	2,873.08	3.07
WID145	868.43	0.00	243.37	330.53	3,051.55	2.19
WID1000	6,134.04	0.00	1,087.86	2,786.85	11,465.78	3.42
NYWD500	2,974.72	0.00	947.26	3,418.91	7,522.00	7.71
NYWD1200	6,792.85	0.00	1,782.64	5,412.80	16,709.89	5.47
VTD140	690.59	0.00	54.35	(418.58)	1,062.53	(3.43)
VTD400	2,210.38	0.00	323.85	96.36	4,509.72	1.16
MOGD550	1,523.81	0.00	646.61	1,918.11	4,656.54	7.79
MOGD180	555.50	0.00	210.68	452.96	1,427.51	5.65
FLND550	2,956.12	0.00	486.62	704.92	4,106.00	4.04
FLSD1500	8,342.19	0.00	903.81	(110.89)	9,764.39	2.31

1 Receipts are average annual total cash receipts including government payments, 2014-2018 (\$1,000)

2 Payments are average annual total government payments, 2014-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2014-2018 (\$1,000)

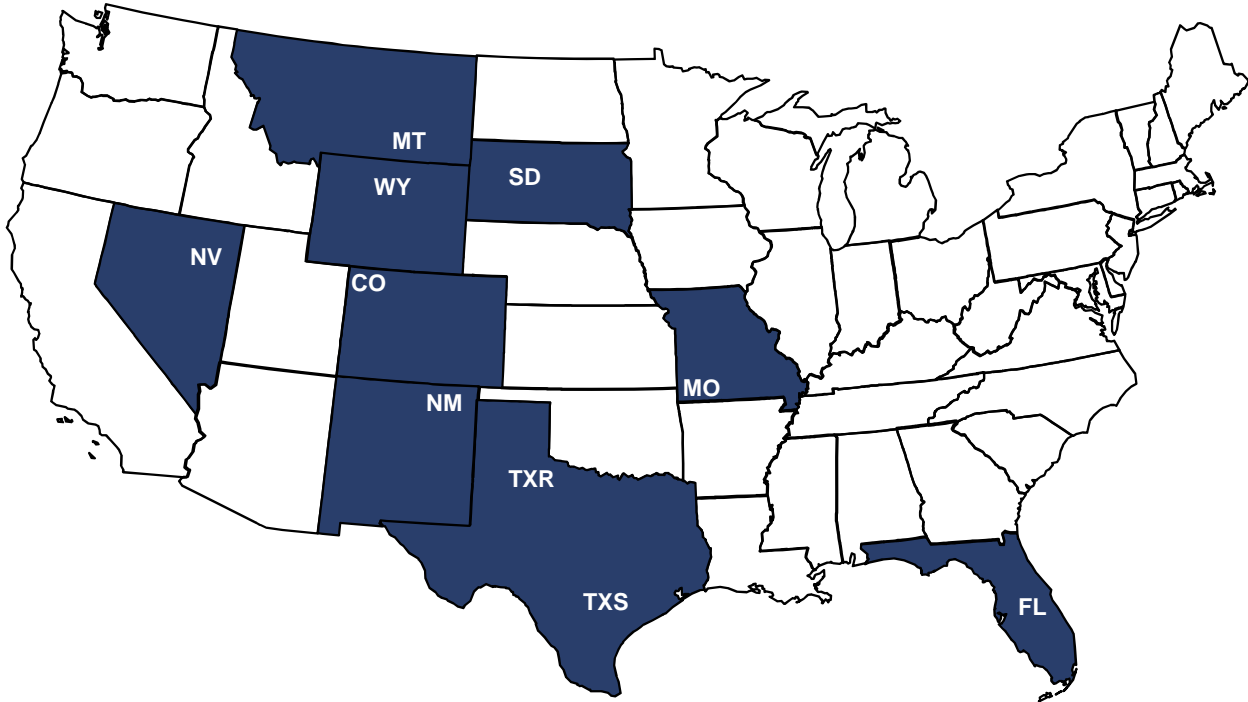
4 Reserve 2018 is average ending cash reserves, 2018 (\$1,000)

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

6 CRNW is average percentage change in real net worth over 2014-2018 period, (%)

Representative Farm: Cow/Calf

- Six of ten 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 are 70 percent or greater.
- Only one of the eleven operations is projected to face a severe threat of losing real equity over the period.



Characteristics of Panel Farms Producing Beef Cattle, 2013.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cows (number)
NVB650	1,300	7,632.00	0.01	505.40	650
MTB600	0	7,494.00	0.02	472.20	600
WYB475	330	5,695.00	0.03	417.30	435
COB250	650	14,689.00	0.01	269.10	250
NMB160	0	6,606.00	0.02	155.30	160
SDB375	1,150	7,207.00	0.03	324.70	375
MOB250	280	3,031.00	0.01	430.60	250
TXRB250	0	7,876.00	0.05	376.40	335
TXSB275	0	4,907.00	0.02	260.90	275
FLB1155	5,400	23,328.00	0.01	878.70	1,155

Representative Farm: Cow/Calf

Economic Viability of Representative Farms over the 2014-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2014	2018	2014-2018	2014-2018
6/3/1				
NVB650			1-2	1-1
MTB600			1-1	1-1
WYB475			6-6	1-1
COB250			1-1	1-1
NMB160			99-99	1-1
SDB375			98-79	1-1
MOB250			1-1	1-1
TXRB250			99-99	1-98
TXSB275			28-74	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 2014 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 2012 to 2014 and from 2012 to 2018.

Implications of the December 2014 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)	(%)
NVB650	545.04	0.00	158.91	214.38	7,901.07	0.33
MTB600	510.40	0.00	213.93	544.58	8,138.03	0.56
WYB475	448.89	0.00	137.59	123.16	5,899.00	0.03
COB250	279.80	0.00	105.01	178.40	15,196.69	0.15
NMB160	165.38	0.00	54.71	(246.85)	6,604.50	(0.40)
SDB375	350.00	0.00	119.41	(66.15)	7,410.42	(0.07)
MOB250	401.78	0.00	206.90	553.07	3,460.35	1.44
TXRB250	403.91	0.00	(135.87)	(1,240.85)	6,905.97	(2.22)
TXSB275	279.69	0.00	85.93	(43.46)	5,245.43	(0.37)
FLB1155	939.61	0.00	369.95	1,311.89	25,263.33	0.64

1 Receipts are average annual total cash receipts including government payments, 2014-2018 (\$1,000)

2 Payments are average annual total government payments, 2014-2018 (\$1,000)

3 NCFI is average annual net cash farm income, 2014-2018 (\$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 2014-2018 period, (%)