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Representative Farms Economic Outlook for the August 2015 FAPRI/AFPC Baseline

Briefing Paper 15-2

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AFPC

**REPRESENTATIVE FARMS ECONOMIC
OUTLOOK FOR THE AUGUST 2015
FAPRI/AFPC BASELINE**

AFPC Briefing Paper 15-2

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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 2015 through 2020. 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 August 2015 Baseline.

Under the August 2015 Baseline, 24 of the 62 crop farms are considered in good liquidity condition (less than a 25 percent chance of negative ending cash by 2020). Five crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash, and the remaining 33 crop farms have greater than a 50 percent chance of negative ending cash. Additionally, 22 of the 62 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 32 crop farms have greater than a 50 percent probability of decreasing real net worth by 2020. The following discussion provides an overall evaluation by commodity considering both liquidity and equity measures.

- FEEDGRAIN FARMS: Ten of the 23 feedgrain farms are in good overall financial condition. Two are classified in marginal condition, and eleven are in poor condition.

- WHEAT FARMS: Four representative wheat farms are classified in good overall financial condition, one is in marginal condition, and six are in poor condition.

- COTTON FARMS: Three of the 15 cotton farms are classified in good condition, one is in marginal condition, and eleven are in poor condition.

- RICE FARMS: Five of the 13 rice farms are projected to be in good financial condition. One rice farm is projected to be in marginal condition; seven are in poor condition.

- DAIRY FARMS: Nine of the 18 dairies are in good overall financial condition. Seven are classified in marginal condition, and two are in poor condition.

- BEEF CATTLE RANCHES: Five of the 11 cattle ranches are classified in good financial condition, five are in marginal condition, and one is projected to be in poor condition.

REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE AUGUST 2015 FAPRI/AFPC BASELINE

The farm level economic impacts of the FAPRI August 2015 Baseline on representative crop and livestock operations are projected in this report, assuming provisions of the 2014 Farm Bill continue throughout the 2014-2020 study period. Crop farms are assumed to have elected ARC or PLC on a crop by crop basis that resulted in the highest projected ending cash reserves at the end of the period. Based on interviews with a sample of producers, farms are currently assumed to not purchase SCO/STAX. The analysis was conducted over the 2014-2020 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) August 2015 Baseline.

The FLIPSIM policy simulation model incorporates the historical risk faced by farmers for prices and production. This report presents the results of the August 2015 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 2020.

DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

- **Overall Financial Position, 2015-2020** -- 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 2020. 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** -- 2015-2020 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** -- 2015-2020 average annual PLC or ARC payments and marketing loan gains/LDPs for crop farms.
- **NCFI** -- 2015-2020 average net cash farm income equals average total receipts minus average total cash expenses.
- **Reserve 2020** -- equals total cash on hand at the end of year 2020. 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 2020** -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2020.
- **CRNW** -- annualized percentage change in the operator's real net worth from January 1, 2015 through December 31, 2020, after adjusting for inflation.

Table 1. FAPRI August 2015 Baseline Projections of Crop and Livestock Prices, 2014-2020.

	2014	2015	2016	2017	2018	2019	2020
Crop Prices							
Corn ($/bu.)	3.70	3.68	3.71	3.96	4.09	4.14	4.13
Wheat ($/bu.)	5.99	5.10	5.05	5.24	5.55	5.72	5.76
Cotton ($/lb.)	0.6050	0.6507	0.6378	0.6310	0.6584	0.6707	0.6722
Sorghum ($/bu.)	4.00	3.90	3.73	3.90	4.02	4.04	4.04
Soybeans ($/bu.)	10.05	9.12	9.15	9.98	10.31	10.42	10.50
Barley ($/bu.)	5.30	4.58	4.40	4.62	4.75	4.83	4.83
Oats ($/bu.)	3.21	2.35	2.66	2.72	2.77	2.80	2.80
Rice ($/cwt.)	13.30	13.78	13.84	13.71	14.06	14.26	14.32
Soybean Meal ($/ton)	352.91	310.59	314.38	335.04	343.03	348.30	346.70
All Hay ($/ton)	180.00	155.90	155.39	164.16	170.35	173.84	174.46
Peanuts ($/ton)	440.00	400.40	392.12	425.45	447.10	462.55	459.05
Cattle Prices							
Feeder Cattle ($/cwt)	225.07	242.01	224.95	198.26	181.60	168.93	162.75
Fed Cattle ($/cwt)	154.56	156.89	149.10	136.60	129.80	124.77	122.12
Culled Cows ($/cwt)	104.09	105.47	103.00	94.87	92.11	87.13	84.20
Milk Price							
U.S. All Milk Price ($/cwt)	24.07	16.96	16.70	17.63	18.32	18.76	19.00

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

Table 2. FAPRI August 2015 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2015-2020.

	2015	2016	2017	2018	2019	2020
Annual Rate of Change for Input Prices Paid						
Seed Prices (%)	0.00	1.63	2.87	3.54	3.72	2.04
All Fertilizer Prices (%)	-7.13	-0.44	1.27	2.19	3.67	2.50
Herbicide Prices (%)	-3.26	1.81	3.62	3.49	2.82	2.02
Insecticide Prices (%)	-6.65	2.82	2.39	2.67	2.15	1.69
Fuel and Lube Prices (%)	-31.89	3.99	7.67	11.13	8.26	-2.01
Machinery Prices (%)	3.00	2.81	2.31	3.54	3.59	3.39
Wages (%)	2.31	2.86	2.95	3.14	3.28	3.42
Supplies (%)	0.16	0.65	2.39	2.15	2.04	1.39
Repairs (%)	0.00	1.61	1.67	1.74	1.75	1.67
Services (%)	2.60	2.75	2.85	3.23	3.29	3.09
Taxes (%)	1.90	3.38	2.24	2.22	2.75	1.56
PPI Items (%)	-2.29	-0.24	0.46	1.21	1.92	1.29
PPI Total (%)	-1.64	0.14	0.83	1.49	2.07	1.47
Annual Change in Consumer Price Index (%)	0.12	2.35	2.39	2.50	2.43	2.50
Annual Rate of Change for U.S. Land Prices (%)	2.37	-3.00	0.00	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, ten feed grain farms are characterized as good, two are marginal, and eleven are in poor condition.

- Ten of the twenty-three farms will be under severe cash flow stress; ten farms also have high likelihoods (greater than a 50 percent chance) of losing real net worth.
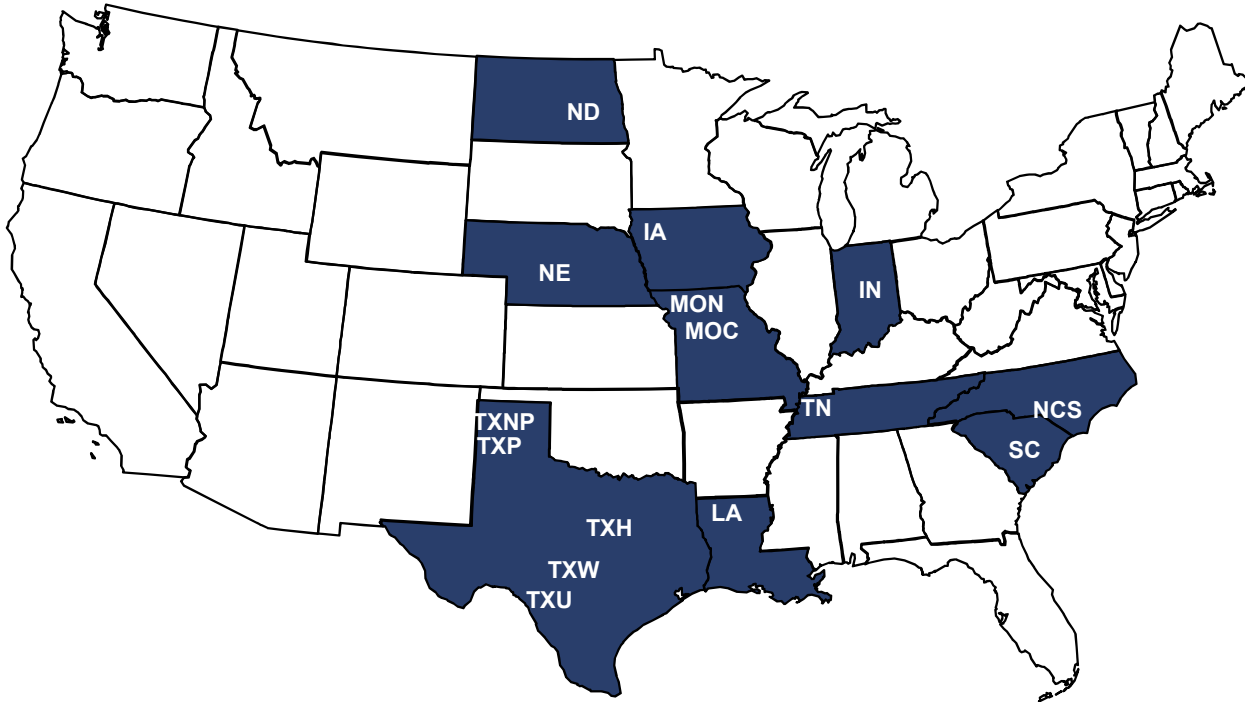
Characteristics of Panel Farms Producing Feed Grains, 2014.

	Cropland	Assets	Debt/Asset	Gross Receipts	Feed Grains
	(acres)	($1,000)	(ratio)	($1,000)	(acres)
IAG1350	1,350	6,575.00	0.21	926.00	1,350
IAG3400	3,400	16,135.00	0.21	2,111.50	3,400
NEG2400	2,400	7,200.00	0.17	1,718.60	2,400
NEG4300	4,300	26,074.00	0.18	3,271.90	4,000
NDG3000	3,000	4,516.00	0.22	1,117.80	2,500
NDG8000	8,000	28,170.00	0.20	3,334.50	5,750
ING1000	1,000	3,842.00	0.18	616.80	1,000
ING2200	2,200	10,819.00	0.19	1,481.40	2,200
MOCG2300	2,300	16,914.00	0.18	1,249.40	2,300
MOCG4000	4,000	22,975.00	0.17	1,977.60	4,000
MONG2300	2,300	11,593.00	0.17	1,780.10	2,250
LAG2640	2,640	2,056.00	0.26	1,653.50	2,244
LANG2500	2,500	9,398.00	0.17	1,814.10	1,750
TNG900	900	2,517.00	0.22	442.80	900
TNG2200	2,200	5,311.00	0.24	944.00	2,200
NCSP1800	1,800	5,010.00	0.22	986.60	1,440
SCG3500	3,500	12,527.00	0.18	2,326.90	2,625
TXNP3000	3,000	2,196.00	0.17	1,481.10	1,200
TXNP10000	10,000	18,403.00	0.17	5,463.40	5,700
TXPG2500	2,500	5,626.00	0.25	1,623.80	1,453
TXHG2500	2,500	2,626.00	0.36	625.20	1,700
TXWG1600	1,600	1,596.00	0.18	706.10	1,050
TXUG1600	1,600	828.00	0.09	1,343.20	150

Representative Farm: Feed Grains

Economic Viability of Representative Farms over the 2015-2020 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
10/2/11	2015	2020	2015-2020	2015-2020
IAG1350			95-99	85-78
IAG3400			79-94	73-64
NEG2400			1-43	62-58
NEG4300			1-52	38-51
NDG3000			1-38	65-49
NDG8000			1-1	7-14
ING1000			1-10	11-11
ING2200			1-50	24-30
MOCG2300			1-1	1-5
MOCG4000			1-1	1-4
MONG2300			1-1	1-5
LAG2640			39-62	75-67
LANG2500			1-2	4-17
TNG900			51-76	74-53
TNG2200			25-76	83-56
NCSP1800			49-98	99-96
SCG3500			1-7	12-24
TXNP3000			18-56	60-47
TXNP10000			1-1	1-1
TXPG2500			10-22	35-13
TXHG2500			99-99	99-99
TXWG1600			58-99	75-99
TXUG1600			1-3	16-12

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 2015 and 2020.

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 2014 to 2015 and from 2014 to 2020.

Implications of the August 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	Receipts	Payments	NCFI	Reserve 2020	Net Worth 2020	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
IAG1350	1,002.61	39.06	(3.09)	(1,459.26)	4,639.41	(2.11)
IAG3400	2,290.33	94.90	111.38	(2,258.50)	12,412.27	(1.00)
NEG2400	1,858.97	74.65	183.99	224.73	6,046.08	(0.52)
NEG4300	3,511.38	126.57	398.30	(58.58)	22,211.01	(0.11)
NDG3000	1,231.95	45.36	179.10	198.62	3,706.53	0.34
NDG8000	3,619.34	127.73	1,007.70	4,207.98	26,952.38	2.05
ING1000	614.45	20.57	198.27	249.85	3,657.38	1.80
ING2200	1,476.23	46.93	294.14	(4.10)	9,709.40	1.08
MOCG2300	1,543.70	46.72	736.98	1,774.79	17,405.07	2.81
MOCG4000	2,339.15	70.40	1,094.56	3,080.59	24,377.75	3.10
MONG2300	1,700.89	50.98	476.97	1,515.93	11,649.86	1.82
LAG2640	1,785.45	68.26	128.75	(306.21)	1,338.67	(2.65)
LANG2500	1,960.34	69.35	380.65	1,129.25	9,231.12	1.68
TNG900	491.88	13.72	115.12	(217.41)	2,026.64	0.02
TNG2200	1,055.17	41.80	206.26	(424.82)	4,193.53	0.11
NCSP1800	1,191.18	97.63	17.26	(1,135.37)	3,088.81	(3.34)
SCG3500	2,386.75	139.03	377.35	1,320.52	11,756.93	1.50
TXNP3000	1,671.56	79.23	181.50	(77.21)	2,078.31	0.40
TXNP10000	5,907.51	263.81	1,664.20	7,098.85	22,139.23	4.97
TXPG2500	1,745.51	75.61	392.75	478.01	5,317.38	2.91
TXHG2500	700.52	43.97	(89.57)	(2,069.59)	346.60	(12.99)
TXWG1600	541.65	30.37	(27.44)	(919.56)	613.85	(8.73)
TXUG1600	1,396.88	105.04	211.94	586.86	1,142.98	5.11

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)

2 Payments are average annual total government payments, 2015-2020 ($1,000)

3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)

4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)

5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)

6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)

Representative Farm: Wheat

- Four wheat farms are projected to be in good overall financial condition, one is in marginal condition, and six are in poor condition.

- Six of the eleven wheat farms are expected to feel significant liquidity pressure over the period; similarly, five of those farms have a greater than 50 percent chance of losing real equity.
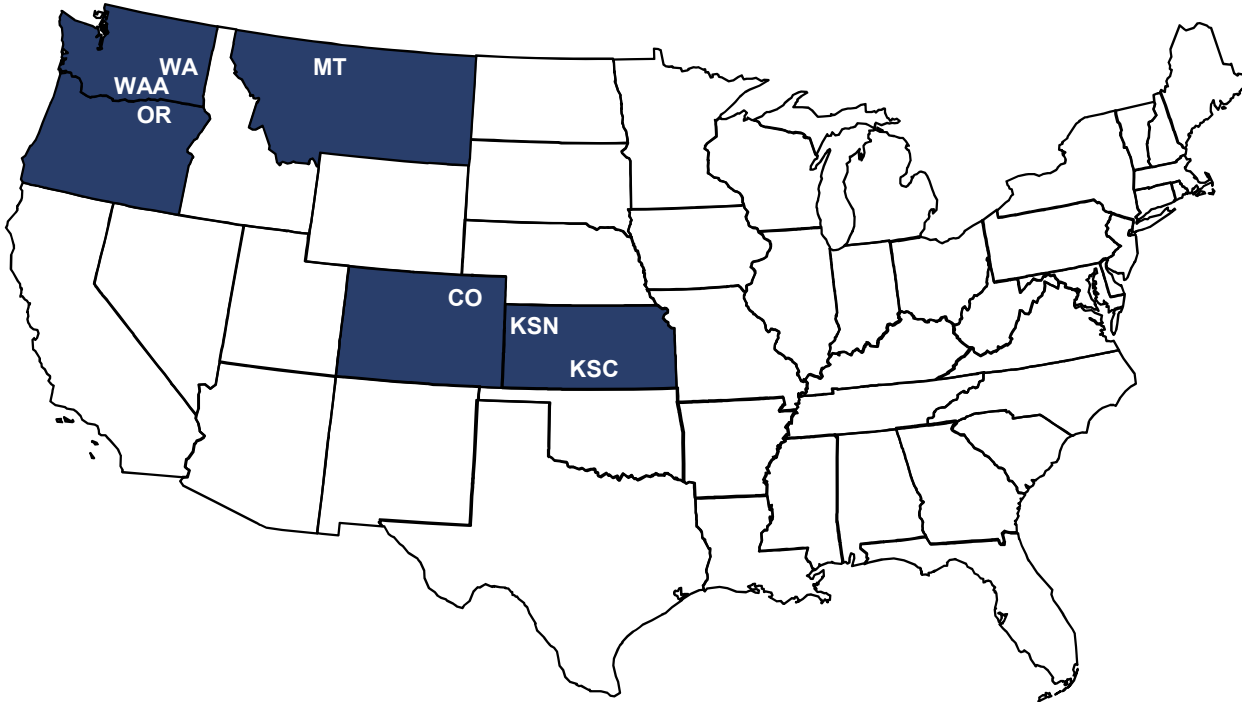
Characteristics of Panel Farms Producing Wheat, 2014.

	Cropland	Assets	Debt/Asset	Gross Receipts	Wheat
	(acres)	($1,000)	(ratio)	($1,000)	(acres)
WAW2000	2,000	2,459.00	0.16	820.10	1,320
WAW7000	7,000	9,539.00	0.19	2,572.30	4,060
WAAW4500	4,000	2,312.00	0.19	486.50	2,000
ORW4100	4,100	2,175.00	0.19	479.40	1,950
MTW7000	7,000	7,161.00	0.17	1,154.60	4,200
KSCW2000	2,000	2,977.00	0.23	469.10	1,000
KSCW5300	5,300	6,085.00	0.17	1,050.50	3,445
KSNW4000	4,000	4,680.00	0.22	813.00	1,500
KSNW5980	5,980	9,773.00	0.24	1,348.50	1,820
COW3000	3,000	3,116.00	0.18	419.40	970
COW5640	5,640	4,631.00	0.22	762.30	1,900

Representative Farm: Wheat

Economic Viability of Representative Farms over the 2015-2020 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
4/1/6	2015	2020	2015-2020	2015-2020
WAW2000			1-1	1-7
WAW7000			84-99	94-96
WAAW4500			73-96	80-83
MTW7000			1-1	1-2
ORW4100			1-19	31-43
KSCW2000			1-55	44-47
KSCW5300			1-1	3-6
KSNW4000			91-82	68-51
KSNW5980			99-99	94-80
COW3000			1-1	2-13
COW5640			3-85	65-62

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 2015 and 2020.

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 2014 to 2015 and from 2014 to 2020.

Implications of the August 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat

	Receipts	Payments	NCFI	Reserve 2020	Net Worth 2020	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
WAW2000	783.34	24.69	211.03	913.39	2,544.69	2.54
WAW7000	2,495.69	98.91	(157.01)	(4,084.22)	4,667.10	(6.45)
WAAW4500	452.55	19.77	12.34	(596.28)	1,471.27	(3.67)
ORW4100	434.43	22.70	123.38	224.52	1,835.40	0.16
MTW7000	1,195.41	90.53	506.87	2,116.65	7,621.62	3.36
KSCW2000	513.48	18.16	116.24	(36.13)	2,405.88	0.01
KSCW5300	1,171.45	46.52	382.58	2,022.62	6,520.56	3.21
KSNW4000	847.57	38.95	154.58	(469.33)	3,790.00	0.29
KSNW5980	1,444.76	60.56	(3.79)	(2,602.59)	6,421.35	(2.27)
COW3000	416.72	17.55	139.79	336.14	2,987.08	1.67
COW5640	736.71	34.24	125.92	(414.09)	3,560.62	(0.64)

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)

2 Payments are average annual total government payments, 2015-2020 ($1,000)

3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)

4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)

5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)

6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)

Representative Farm: Cotton

- Three of the fifteen cotton farms are characterized in good overall financial condition over the 2015-2020 period, one is in marginal condition, and eleven are in poor condition.

- Ten of the farms are projected to experience severe cash flow problems (having a greater than 50 percent chance of a cash flow deficit).

- Ten farms are also expected to have a greater than 50 percent chance of losing real equity over the period.
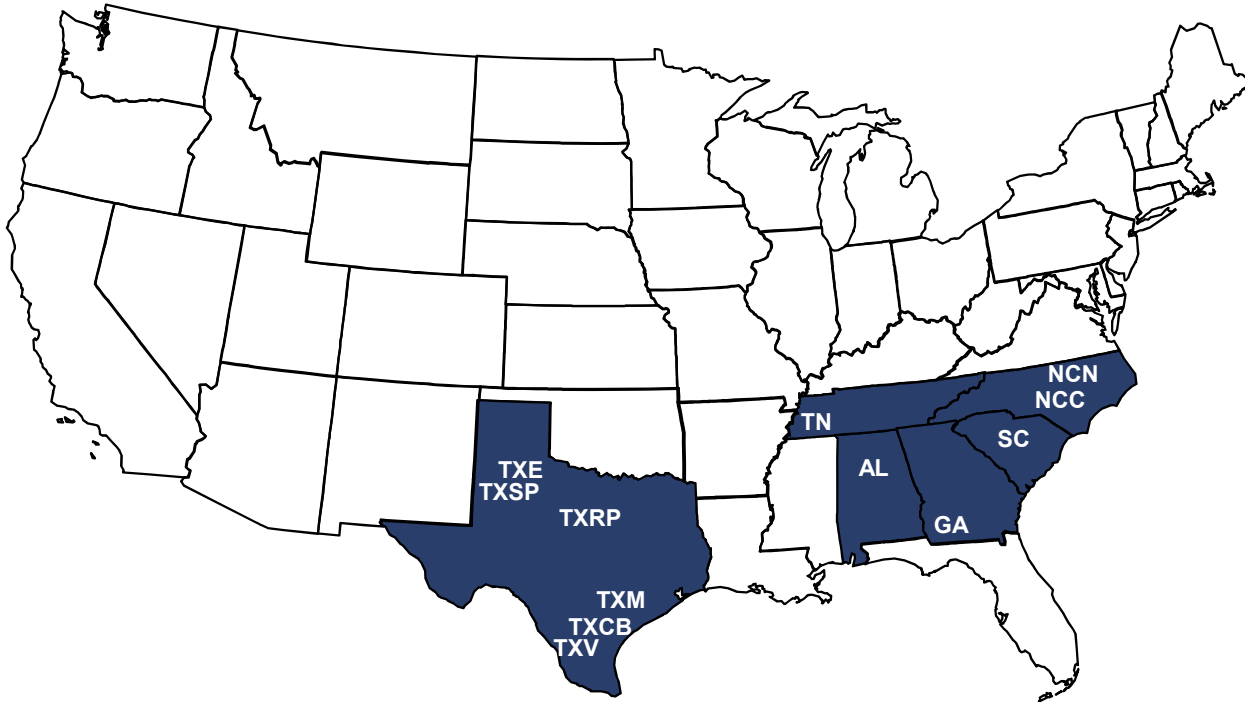
Characteristics of Panel Farms Producing Cotton, 2014.

	Cropland (acres)	Assets ($1,000)	Debt/Asset (ratio)	Gross Receipts ($1,000)	Cotton (acres)
TXSP2500	2,500	1,608.00	0.31	829.30	2,275
TXSP4500	4,500	3,310.00	0.23	1,885.30	4,047
TXEC5000	5,000	3,989.00	0.25	1,932.30	4,150
TXRP2500	2,500	1,238.00	0.24	350.00	1,000
TXMC1800	1,800	1,660.00	0.38	787.20	900
TXCB2500	2,500	2,064.00	0.33	820.10	1,250
TXCB8000	8,000	3,888.00	0.24	3,038.00	3,600
TXVC4500	4,500	6,298.00	0.17	1,876.30	1,395
TNC2500	2,500	2,970.00	0.09	1,379.00	250
TNC4050	4,050	7,383.00	0.21	2,511.60	2,025
ALC3000	3,000	2,525.00	0.29	1,503.90	1,050
GAC2300	2,300	10,177.00	0.22	2,273.40	1,200
SCC1800	1,800	4,244.00	0.23	1,296.30	900
NCC1700	1,700	2,831.00	0.18	1,000.50	225
NCNP1500	1,500	3,362.00	0.22	935.20	375

Representative Farm: Cotton

Economic Viability of Representative Farms over the 2015-2020 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
3/1/11	2015	2020	2015-2020	2015-2020
TXSP2500			76-95	77-86
TXSP4500			10-60	46-52
TXEC5000			27-19	13-5
TXRP2500			99-99	97-97
TXMC1800			95-99	99-98
TXCB2500			99-99	98-99
TXCB8000			53-78	87-84
TXVC4500			1-5	9-10
TNC2500			1-1	2-1
TNC4050			1-49	70-52
ALC3000			50-98	94-97
GAC2300			6-52	45-33
SCC1800			6-40	45-34
NCC1700			1-75	79-79
NCNP1500			85-99	96-96

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 2015 and 2020.

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 2014 to 2015 and from 2014 to 2020.

Implications of the August 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton

	Receipts ($1,000)	Payments ($1,000)	NCFI ($1,000)	Reserve 2020 ($1,000)	Net Worth 2020 ($1,000)	CRNW (%)
TXSP2500	902.33	50.84	1.14	(1,306.19)	377.63	(11.77)
TXSP4500	1,986.77	113.24	285.62	(237.77)	2,704.76	0.05
TXEC5000	2,222.70	137.95	474.78	477.88	4,172.41	4.36
TXRP2500	418.57	26.39	29.69	(403.69)	686.79	(5.00)
TXMC1800	859.64	60.55	(23.70)	(1,162.80)	189.43	(13.62)
TXCB2500	891.69	69.22	(103.65)	(1,777.06)	78.54	(15.95)
TXCB8000	3,286.44	252.60	148.71	(1,376.49)	1,643.96	(7.30)
TXVC4500	2,009.37	129.75	401.34	1,174.74	6,501.52	2.56
TNC2500	1,428.56	56.69	350.50	2,149.03	3,886.37	5.07
TNC4050	2,619.90	163.30	155.32	44.40	6,139.91	0.27
ALC3000	1,632.48	110.26	16.44	(1,797.95)	343.58	(13.78)
GAC2300	2,623.61	340.42	324.53	3.04	8,994.03	1.00
SCC1800	1,445.91	157.84	208.45	134.42	3,791.21	1.36
NCC1700	1,015.02	33.67	106.52	(298.72)	2,035.78	(2.16)
NCNP1500	1,050.89	124.97	35.57	(1,453.13)	1,834.52	(5.07)

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)

2 Payments are average annual total government payments, 2015-2020 ($1,000)

3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)

4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)

5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)

6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)

Representative Farm: Rice

- Five of the thirteen representative rice farms are projected to be in good overall financial condition, one is in marginal condition, and seven are in poor condition.

- Seven of the rice farms are expected to face severe cash flow problems; seven farms also have high likelihoods of losing real equity.

Characteristics of Panel Farms Producing Rice, 2014.

	Cropland	Assets	Debt/Asset	Gross Receipts	Rice
	(acres)	($1,000)	(ratio)	($1,000)	(acres)
CAR550	550	3,603.00	0.24	753.60	500
CAR3000	3,000	13,194.00	0.19	4,545.20	3,000
CABR1300	1,300	9,238.00	0.18	1,912.00	1,200
CACR800	800	5,763.00	0.15	1,262.40	800
TXR1500	1,500	2,028.00	0.24	697.90	600
TXR3000	3,000	1,334.00	0.19	1,276.80	1,200
TXBR1800	1,800	1,321.00	0.10	0.10	0
TXER3200	3,200	2,522.00	0.18	1,518.50	1,067
LASR2000	2,000	3,055.00	0.26	1,309.20	1,000
ARMR6500	6,500	11,482.00	0.33	3,691.10	325
ARSR3240	3,240	6,626.00	0.21	1,956.80	1,296
ARWR2500	2,500	7,740.00	0.20	1,491.90	1,250
ARHR3000	3,000	7,660.00	0.28	2,025.50	1,800

Representative Farm: Rice

Economic Viability of Representative Farms over the 2015-2020 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
5/1/7	2015	2020	2015-2020	2015-2020
CAR550			99-99	79-85
CAR3000			2-11	2-17
CABR1300			1-1	1-1
CACR800			2-10	2-19
TXR1500			89-99	89-87
TXR3000			1-64	47-67
TXBR1800			1-1	1-1
TXER3200			81-99	95-98
LASR2000			1-1	41-18
ARMR6500			99-99	99-99
ARSR3240			2-18	73-51
ARWR2500			8-72	54-42
ARHR3000			99-99	99-99

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 2015 and 2020.

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 2014 to 2015 and from 2014 to 2020.

Implications of the August 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice

	Receipts	Payments	NCFI	Reserve 2020	Net Worth 2020	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
CAR550	791.17	14.30	75.86	(883.58)	2,413.94	(2.63)
CAR3000	4,728.02	81.27	526.38	1,601.94	12,538.33	1.41
CABR1300	2,020.46	34.35	593.07	2,928.29	10,057.09	3.15
CACR800	1,302.01	22.72	215.20	641.83	5,490.94	0.88
TXR1500	751.99	16.68	96.09	(593.37)	1,353.33	(2.55)
TXR3000	1,375.98	29.97	176.41	(124.63)	1,051.47	(2.22)
TXBR1800	1,067.82	26.90	311.11	1,674.39	2,287.86	9.61
TXER3200	1,563.47	32.85	(5.90)	(1,725.06)	1,067.71	(8.24)
LASR2000	1,360.39	29.14	213.16	744.25	2,725.11	2.06
ARMR6500	3,923.86	123.17	(1,027.83)	(12,120.81)	(1,692.51)	(21.42)
ARSR3240	2,093.28	60.52	295.34	677.20	5,561.42	0.37
ARWR2500	1,742.07	55.57	246.91	(377.21)	6,834.09	0.58
ARHR3000	2,219.11	64.38	31.88	(3,536.08)	3,697.27	(5.65)

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)

2 Payments are average annual total government payments, 2015-2020 ($1,000)

3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)

4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)

5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)

6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)

Representative Farm: Dairy

- Nine of eighteen dairy operations are in good overall financial condition. Seven dairies are classified in marginal condition, and two are in poor condition.

- Five of the dairies are projected to experience severe liquidity pressure; however, only one dairy faces a greater than 50 percent chance of losing real equity.
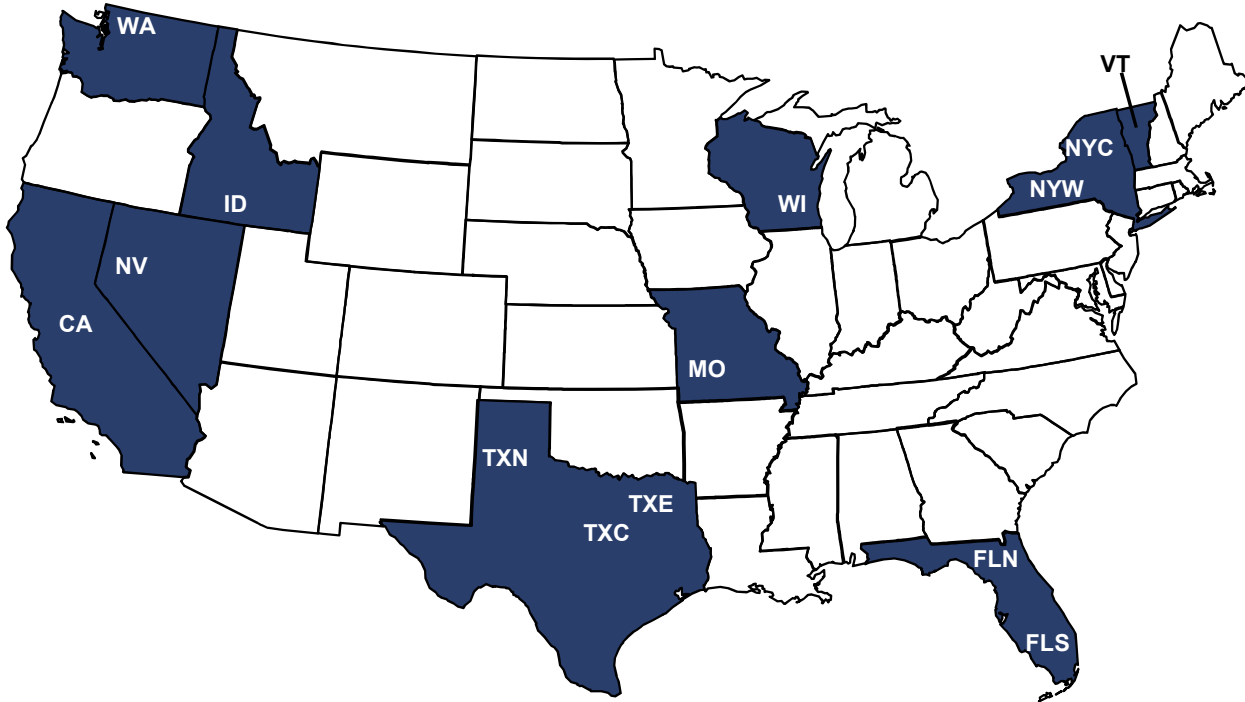
Characteristics of Panel Farms Producing Milk, 2014.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	($1,000)	(ratio)	($1,000)	(number)
CAD2000	1,200	26,797.00	0.24	12,765.70	2,000
WAD250	250	4,724.00	0.26	1,406.10	250
WAD850	605	12,653.00	0.24	6,011.30	850
IDD3000	1,500	33,259.00	0.22	19,741.30	3,000
NVD1000	200	9,092.00	0.21	6,816.00	1,000
TXND3800	1,920	31,932.00	0.26	23,548.70	3,800
TXCD1300	560	9,195.00	0.25	7,344.80	1,300
TXED400	950	3,437.00	0.28	1,944.30	400
WID145	600	3,741.00	0.26	1,090.40	145
WID1000	2,000	13,512.00	0.23	7,696.40	1,000
NYWD500	1,000	7,031.00	0.21	3,674.40	500
NYWD1200	2,100	17,298.00	0.22	8,529.90	1,200
VTD140	220	1,806.00	0.29	858.40	140
VTD400	1,000	5,810.00	0.26	2,766.50	400
MOGD550	0	4,351.00	0.22	1,874.50	550
MOGD180	0	1,411.00	0.22	682.50	180
FLND550	600	4,551.00	0.24	3,603.00	550
FLSD1750	400	13,116.00	0.24	11,039.60	1,750

Representative Farm: Dairy

Economic Viability of Representative Farms over the 2015-2020 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
9/7/2	2015	2020	2015-2020	2015-2020
CAD2000			1-3	1-1
WAD250			94-94	1-27
WAD850			1-1	1-1
IDD3000			35-47	1-11
NVD1000			1-1	1-1
TXND3800			5-34	1-6
TXCD1300			49-48	1-8
TXED400			36-60	1-12
WID145			1-8	1-2
WID1000			1-1	1-1
NYWD500			1-1	1-1
NYWD1200			1-1	1-1
VTD140			99-99	11-94
VTD400			26-59	1-8
MOGD550			1-1	1-1
MOGD180			1-1	1-1
FLND550			9-27	1-3
FLSD1750			63-52	1-16

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 2015 and 2020.

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 2014 to 2015 and from 2014 to 2020.

Implications of the August 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk

	Receipts ($1,000)	Payments ($1,000)	NCFI ($1,000)	Reserve 2020 ($1,000)	Net Worth 2020 ($1,000)	CRNW (%)
CAD2000	10,163.01	31.76	1,757.61	3,843.25	25,088.77	2.42
WAD250	1,124.36	3.26	163.79	(615.63)	3,693.92	0.22
WAD850	4,754.12	12.24	1,026.49	3,274.76	12,939.58	3.92
IDD3000	15,354.28	17.11	1,644.60	458.84	28,968.76	0.81
NVD1000	5,271.46	0.00	849.85	2,747.19	9,077.37	2.57
TXND3800	18,619.12	31.51	2,215.59	1,878.94	26,033.46	0.52
TXCD1300	5,872.33	0.00	571.47	46.63	7,542.87	0.14
TXED400	1,529.37	0.00	219.75	(132.41)	2,713.33	0.05
WID145	901.63	2.94	253.13	322.90	3,283.96	1.67
WID1000	6,304.93	48.22	1,254.67	4,512.58	13,978.81	3.90
NYWD500	3,006.44	17.98	898.16	4,406.63	8,779.47	6.41
NYWD1200	6,817.96	29.77	1,636.01	6,812.69	18,824.40	4.36
VTD140	702.65	2.75	29.12	(709.68)	903.22	(4.97)
VTD400	2,221.93	9.95	258.77	(113.21)	4,642.80	0.32
MOGD550	1,508.09	0.00	619.46	2,182.33	5,171.75	5.94
MOGD180	554.28	0.00	198.02	517.12	1,513.67	4.27
FLND550	2,930.55	0.00	389.41	464.93	4,161.46	1.41
FLSD1750	9,004.61	0.00	693.07	(275.48)	10,508.31	(0.29)

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)

2 Payments are average annual total government payments, 2015-2020 ($1,000)

3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)

4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)

5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)

6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)

Representative Farm: Cow/Calf

- Five of eleven cow-calf operations are projected to be in good overall financial condition, five are in marginal condition, and one is in poor condition.

- Only one of the operations will face significant liquidity pressure over the period; NMB160 has a 99 percent chance of experiencing negative ending cash in 2020.

- NMB160 is also the only cow-calf operation projected to face a severe threat of losing real equity over the period.
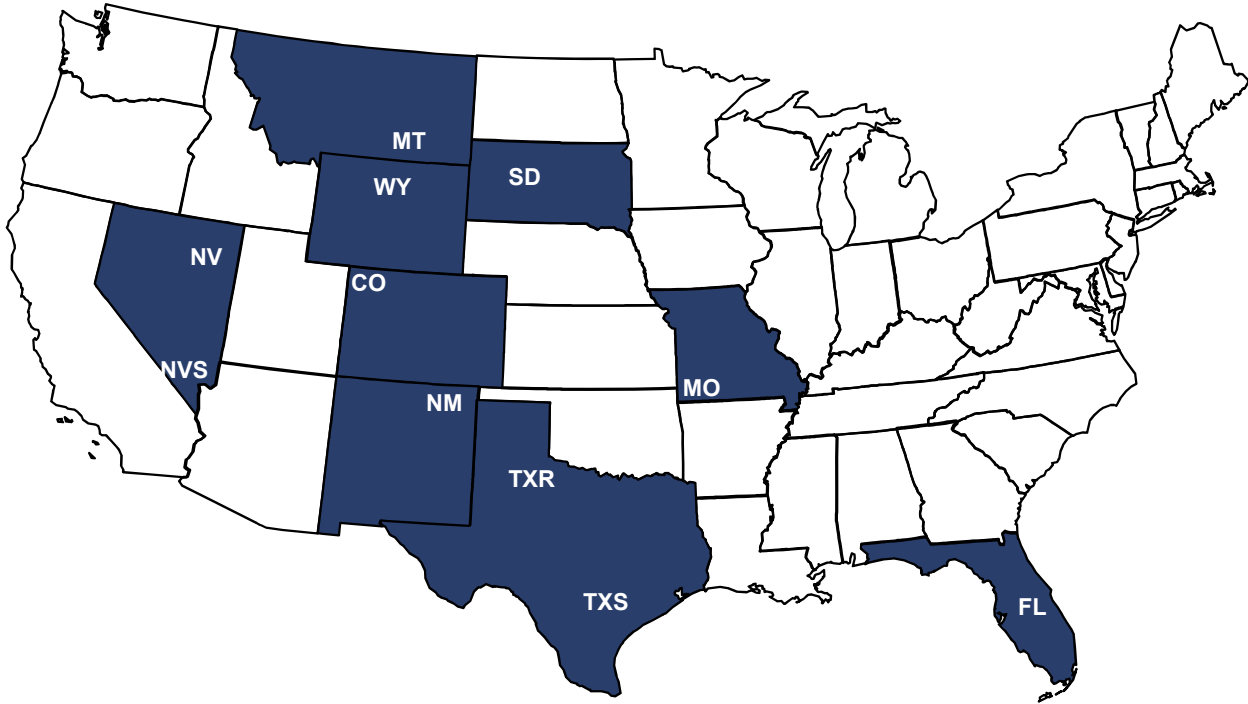
Characteristics of Panel Farms Producing Beef Cattle, 2014.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	($1,000)	(ratio)	($1,000)	(number)
NVB650	1,300	8,644.00	0.02	704.80	650
NVSB550	125	3,070.00	0.03	735.30	550
MTB600	0	8,649.00	0.02	671.90	600
WYB475	330	6,441.00	0.03	505.30	435
COB250	650	16,025.00	0.01	316.20	250
NMB160	0	7,229.00	0.02	214.20	160
SDB375	1,150	7,989.00	0.01	458.20	375
MOB250	280	3,544.00	0.03	477.30	250
TXRB400	0	8,888.00	0.03	650.30	400
TXSB275	0	5,387.00	0.02	350.30	275
FLB1155	5,400	25,983.00	0.01	1,195.70	1,155

Representative Farm: Cow/Calf

Economic Viability of Representative Farms over the 2015-2020 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
5/5/1	2015	2020	2015-2020	2015-2020
NVB650			1-1	1-16
NVSB550			1-1	1-1
MTB600			1-1	1-17
WYB475			1-1	1-25
COB250			1-1	1-35
NMB160			99-99	6-61
SDB375			1-1	1-27
MOB250			1-1	1-3
TXRB400			32-1	1-29
TXSB275			1-10	1-43
FLB1155			1-1	1-25

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 2015 and 2020.

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 2014 to 2015 and from 2014 to 2020.

Implications of the August 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle

	Receipts	Payments	NCFI	Reserve 2020	Net Worth 2020	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
NVB650	621.17	0.00	227.31	583.80	9,348.36	0.29
NVSB550	669.59	0.00	346.80	1,541.30	3,927.88	2.21
MTB600	589.14	0.00	278.46	957.19	9,233.42	0.18
WYB475	513.80	0.00	197.72	434.49	6,680.90	(0.12)
COB250	319.36	0.00	138.21	253.93	16,737.42	0.03
NMB160	188.88	0.00	71.21	(388.76)	7,019.89	(0.90)
SDB375	402.48	0.00	177.18	256.31	8,414.37	(0.10)
MOB250	439.63	4.18	244.21	836.05	3,976.30	0.99
TXRB400	569.82	0.00	215.02	359.28	9,260.10	0.03
TXSB275	313.27	0.00	115.77	97.84	5,436.18	(0.40)
FLB1155	1,064.08	0.00	479.11	2,038.10	28,011.74	0.40

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)

2 Payments are average annual total government payments, 2015-2020 ($1,000)

3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)

4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)

5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)

6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)