Representative Farms Economic Outlook for the January 2011 FAPRI/AFPC Baseline

Briefing Paper 11-1

March 2011

Agricultural and Food Policy Center

AFPC

AFPC Briefing Series

The briefing series is designed to facilitate presentation by AFPC related to requests for specific policy impact analyses. The materials included in this package are intended only as visual support for an oral presentation. The user is cautioned against drawing extraneous conclusions from the material. In most instances, the briefing series will be followed by an AFPC Working Paper. AFPC welcomes comments and discussions of these results and their implications. Address such comments to:

> Agricultural and Food Policy Center
> Department of Agricultural Economics
> Texas A&M University
> College Station, TX 77843-2124

or call 979-845-5913.

REPRESENTATIVE FARMS ECONOMIC
OUTLOOK FOR THE JANUARY 2011
FAPRI/AFPC BASELINE

AFPC Briefing Paper 11-1

James W. Richardson
Joe L. Outlaw
George M. Knapek
J. Marc Raulston
Brian K. Herbst
David P. Anderson
Steven L. Klose

Agricultural and Food Policy Center
Department of Agricultural Economics
Texas AgriLife Research
Texas AgriLife Extension Service
Texas A&M University

March 2011

EXECUTIVE SUMMARY

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate 97 representative crop, dairy, and livestock operations in major production areas in 27 states. The chief purpose of this analysis is to project those farms' economic viability by region and commodity for 2011 through 2016. The data necessary to simulate the economic activity of these operations is developed through ongoing cooperation with panels of agricultural producers in selected states. The Food and Agricultural Policy Research Institute (FAPRI) provided projected prices, policy variables, and input inflation rates in their January 2011 Baseline.

Under the January 2011 Baseline, 37 of the 64 crop farms are considered in good liquidity condition (less than a 25 percent chance of negative ending cash by 2015). Twelve 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. Furthermore, 44 of the 64 crop farms are considered in good equity position (less than a 25 percent chance of decreasing real net worth during the study period). Ten crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and ten 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: Nineteen of the 23 feedgrain farms are in good overall financial condition. Three are classified in marginal condition, and one is in poor condition.

- WHEAT FARMS: Eight of the 11 wheat farms are classified in good financial condition and three are in marginal condition; no farms are in poor condition.

- COTTON FARMS: Eight of the 16 cotton farms are classified in good condition, four are in marginal condition, and four are in poor condition.

- RICE FARMS: Two of the 14 rice farms are projected to be in good financial condition, four are in marginal condition, and eight are in poor condition.

- DAIRY FARMS: Eleven of the 21 dairy farms are in good overall financial condition. Five are considered to be in marginal condition, and five are in poor condition.

- BEEF CATTLE RANCHES: Seven of the 12 cattle ranches are classified in good financial condition, four are in marginal condition, and only one is projected to be in poor condition.

**REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE
JANUARY 2011 FAPRI/AFPC BASELINE**

The farm level economic impacts of the FAPRI January 2011 Baseline on representative crop and livestock operations are projected in this report. The analysis was conducted over the 2009-2016 planning horizon using FLIPSIM, AFPC's whole farm simulation model. Data to simulate farming operations in the nation's major production regions came from two sources:

- Producer panel cooperation to develop economic information to describe and simulate representative crop, livestock, and dairy farms.

- Projected prices, policy variables, and input inflation rates from the Food and Agricultural Policy Research Institute (FAPRI) January 2011 Baseline.

The FLIPSIM policy simulation model incorporates the historical risk faced by farmers for prices and production. This report presents the results of the January 2011 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 2016.

DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

- **Overall Financial Position, 2011-2016** -- 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. 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** -- 2011-2016 average cash receipts from all farm related sources, including market sales, CCP/ACRE and direct payments, marketing loan gains/LDPs, crop insurance indemnities, and other receipts.
- **Payments** -- 2011-2016 average annual CCP or ACRE payments, direct payments, and marketing loan gains/LDPs for crops and the MILC program payment for dairy farms.
- **NCFI** -- 2011-2016 average net cash farm income equals average total receipts minus average total cash expenses.
- **Reserve 2016** -- equals total cash on hand at the end of year 2016. 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 2016** -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2016.
- **CRNW** -- annualized percentage change in the operator's net worth from January 1, 2011 through December 31, 2016, after adjusting for inflation.

Table 1. FAPRI January 2011 Baseline Projections of Crop and Livestock Prices, 2009-2016

	2009	2010	2011	2012	2013	2014	2015	2016
Crop Prices								
Corn ($/bu.)	3.55	5.32	5.01	4.70	4.70	4.74	4.74	4.74
Wheat ($/bu.)	4.87	5.70	5.86	5.60	5.41	5.39	5.43	5.47
Cotton ($/lb.)	0.6290	0.8407	0.8132	0.7687	0.7514	0.7466	0.7484	0.7541
Sorghum ($/bu.)	3.22	5.43	4.45	4.36	4.34	4.36	4.40	4.42
Soybeans ($/bu.)	9.59	11.69	12.31	11.48	11.33	11.31	11.34	11.40
Barley ($/bu.)	4.66	3.90	4.11	4.18	4.16	4.16	4.17	4.17
Oats ($/bu.)	2.02	2.35	2.59	2.62	2.61	2.61	2.60	2.60
Rice ($/cwt.)	14.00	12.41	12.66	12.02	12.42	12.59	13.03	13.27
Soybean Meal ($/ton)	296.89	322.72	307.59	284.37	283.91	284.13	285.54	287.94
All Hay ($/ton)	111.00	113.64	121.27	118.28	116.16	116.13	117.81	119.20
Peanuts ($/ton)	434.00	450.90	515.52	495.86	489.47	489.53	491.15	491.34
Cattle Prices								
	1.02	1.15	1.19	1.31	1.34	1.36	1.33	1.30
Feeder Cattle ($/cwt)	101.89	115.11	118.85	131.18	134.33	136.06	132.91	130.39
Fed Cattle ($/cwt)	83.25	95.38	105.49	109.99	110.36	110.80	108.80	107.51
Culled Cows ($/cwt)	47.01	56.89	64.59	67.48	68.73	69.68	66.86	64.40
Milk Price								
U.S. All Milk Price ($/cwt)	12.83	16.31	17.6	18.14	18.25	18.36	18.56	18.87

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

Table 2. FAPRI January 2011 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2010-2016

	2010	2011	2012	2013	2014	2015	2016
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	-3.68	2.71	5.99	1.53	1.28	2.14	1.87
All Fertilizer Prices (%)	-7.00	9.39	6.86	3.68	1.36	2.07	1.65
Herbicide Prices (%)	-4.96	4.85	4.16	3.25	2.31	2.59	1.86
Insecticide Prices (%)	1.86	3.24	3.57	2.97	2.26	2.50	1.82
Fuel and Lube Prices (%)	24.12	7.54	6.02	3.70	2.60	3.36	2.85
Machinery Prices (%)	2.70	2.79	2.64	2.67	2.85	2.79	2.46
Wages (%)	1.07	2.38	2.10	2.34	2.70	2.82	3.05
Supplies (%)	1.31	3.08	3.20	2.59	2.05	1.97	1.38
Repairs (%)	1.89	2.24	2.42	2.60	2.78	2.65	2.51
Services (%)	3.14	1.47	2.36	2.54	2.37	2.56	2.20
Taxes (%)	12.61	2.28	3.89	3.90	4.57	3.89	2.83
PPI Items (%)	2.75	5.66	2.24	2.07	1.87	2.25	1.77
PPI Total (%)	2.73	5.05	2.45	2.60	2.17	2.66	1.94
Annual Change in Consumer Price Index (%)	1.65	1.55	1.88	2.01	2.22	2.23	2.13
Annual Rate of Change for U.S. Land Prices (%)	1.42	6.48	6.59	5.44	2.11	2.88	0.87

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

Representative Farm: Feed Grains

- Overall, nineteen feed grain farms are characterized as good, three are marginal, and one is in poor condition.

- Only one of the twenty-three farms will be under severe cash flow stress; this farm also has a high probability of losing real net worth.
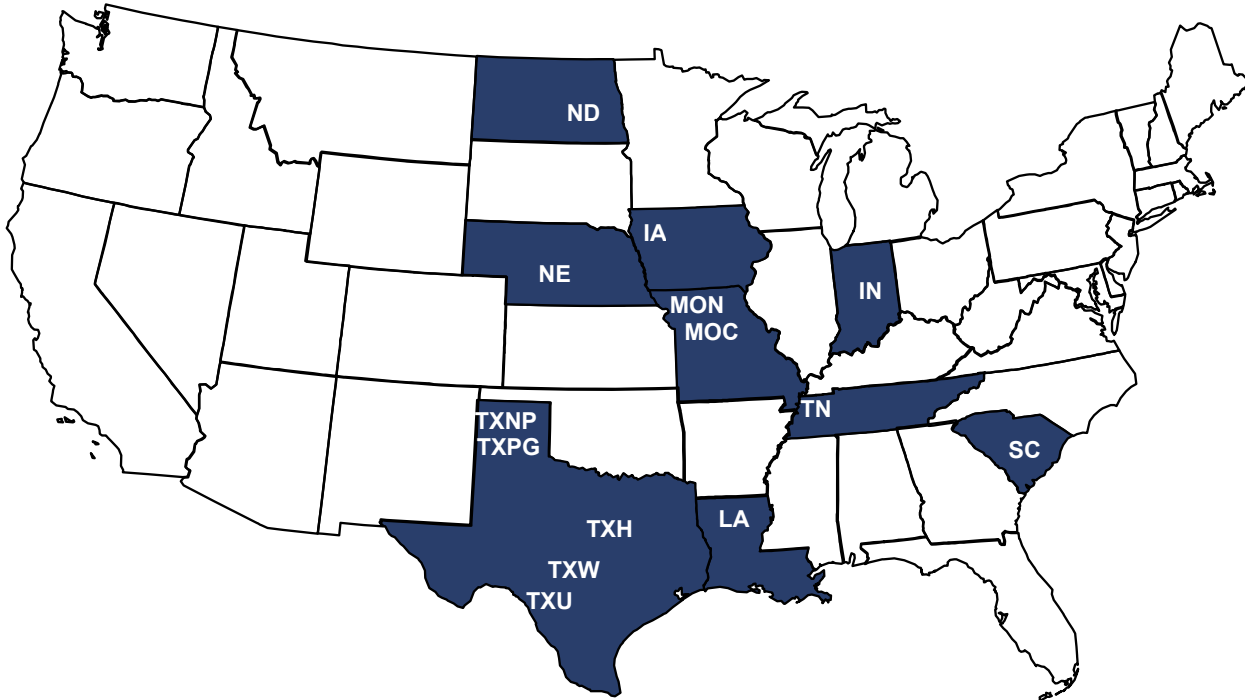
Characteristics of Panel Farms Producing Feed Grains, 2010.

	Cropland	Assets	Debt/Asset	Gross Receipts	Feed Grains
	(acres)	($1,000)	(ratio)	($1,000)	(acres)
IAG1350	1,350	2,404.00	0.17	810.50	1,350
IAG3400	3,400	6,939.00	0.19	1,876.80	3,400
NEG2400	2,400	3,943.00	0.16	1,813.30	2,400
NEG4300	4,300	7,767.00	0.19	2,785.40	3,870
NDG2500	2,500	1,952.00	0.17	692.40	2,000
NDG8000	8,000	10,736.00	0.26	2,579.90	6,450
ING1000	1,000	2,651.00	0.16	579.30	1,000
ING2200	2,200	6,016.00	0.17	1,427.00	2,200
MOCG2050	2,050	6,789.00	0.17	1,039.20	2,050
MOCG4000	4,000	12,361.00	0.15	1,915.60	4,000
MONG1850	1,850	6,218.00	0.18	933.20	1,800
LAG2640	2,640	1,159.00	0.23	1,596.50	1,716
LANG2500	2,500	5,315.00	0.18	1,878.00	1,750
TNG900	900	1,526.00	0.19	473.10	900
TNG2200	2,200	3,696.00	0.29	1,053.30	2,200
SCG3500	3,500	6,643.00	0.20	1,666.90	3,500
TXNP3000	3,000	1,650.00	0.21	1,457.70	1,200
TXNP8000	8,000	4,816.00	0.21	3,988.60	3,987
TXPG2500	2,500	3,514.00	0.26	1,361.20	1,058
TXPG3760	3,760	4,683.00	0.43	2,683.70	1,878
TXHG2000	2,000	1,407.00	0.23	464.90	1,500
TXWG1600	1,600	1,079.00	0.21	431.50	1,300
TXUG1200	1,200	230.00	0.99	610.60	750

Representative Farm: Feed Grains

Economic Viability of Representative Farms over the 2011-2016 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
19/3/1	2011	2016	2011-2016	2011-2016
IAG1350			1-1	1-1
IAG3400			1-1	1-1
NEG2400			1-1	1-1
NEG4300			1-1	1-1
NDG2500			2-1	1-1
NDG8000			1-1	1-1
ING1000			3-1	1-1
ING2200			1-1	1-1
MOCG2050			1-1	1-1
MOCG4000			1-1	1-1
MONG1850			5-13	1-1
LAG2640			2-4	1-9
LANG2500			1-1	1-1
TNG900			1-6	1-3
TNG2200			1-7	1-5
SCG3500			1-4	1-3
TXNP3000			1-13	1-13
TXNP8000			1-1	1-5
TXPG2500			2-23	1-10
TXPG3760			54-81	1-63
TXHG2000			5-27	1-15
TXWG1600			23-37	1-16
TXUG1200			49-44	1-45

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 2011 and 2016.

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 2011 and from 2009 to 2016.

Implications of the January 2011 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	Receipts ($1,000)	Payments ($1,000)	NCFI ($1,000)	Reserve 2016 ($1,000)	Net Worth 2016 ($1,000)	CRNW (%)
IAG1350	1,119.16	51.11	507.49	1,554.41	4,171.45	10.35
IAG3400	2,525.66	17.26	1,248.03	3,753.58	10,825.23	10.14
NEG2400	2,378.64	45.69	881.15	3,214.42	6,693.69	9.81
NEG4300	3,725.85	45.99	1,405.57	4,568.25	11,802.62	8.53
NDG2500	1,120.49	61.32	438.24	1,380.84	3,386.58	10.23
NDG8000	3,761.65	45.45	1,582.79	5,329.55	16,057.54	8.88
ING1000	726.51	20.24	265.48	553.21	3,581.02	5.96
ING2200	1,637.10	39.24	605.18	1,689.65	8,521.82	6.43
MOCG2050	1,318.63	42.59	744.79	2,208.58	9,937.50	7.41
MOCG4000	2,482.53	2.41	1,508.33	5,208.67	18,833.16	8.79
MONG1850	1,245.79	58.07	387.21	574.16	8,106.03	5.62
LAG2640	2,035.18	129.05	447.35	1,356.91	2,444.57	11.18
LANG2500	2,154.50	112.02	644.61	1,698.46	7,515.50	6.70
TNG900	554.76	10.89	225.28	417.00	2,243.65	5.54
TNG2200	1,185.96	27.47	427.73	962.73	4,867.54	4.65
SCG3500	2,148.54	87.50	637.21	1,864.12	9,049.25	6.68
TXNP3000	1,757.42	58.69	268.55	603.63	2,346.15	5.04
TXNP8000	4,893.81	93.59	943.35	3,513.70	8,545.72	7.39
TXPG2500	1,663.18	92.41	313.30	431.10	4,225.32	3.58
TXPG3760	3,527.03	116.40	44.47	(1,487.87)	3,621.02	(2.05)
TXHG2000	605.84	31.46	131.32	153.00	1,645.83	3.10
TXWG1600	571.92	31.78	121.72	122.30	1,353.47	4.12
TXUG1200	953.09	50.81	124.64	96.17	280.62	4.69

1 Receipts are average annual total cash receipts including government payments, 2011-2016 ($1,000)

2 Payments are average annual total government payments, 2011-2016 ($1,000)

3 NCFI is average annual net cash farm income, 2011-2016 ($1,000)

4 Reserve 2016 is average ending cash reserves, 2016 ($1,000)

5 Net Worth 2016 is average nominal ending net worth, 2016 ($1,000)

6 CRNW is average percentage change in real net worth over 2011-2016 period, (%)

Representative Farm: Wheat

- Eight wheat farms are projected to be in good overall financial condition and three are in marginal condition; no farms are expected to be in poor condition.

- Three of the eleven wheat farms will feel severe liquidity pressure over the period.

- None of the wheat farms have a greater than 50 percent chance of losing real equity.
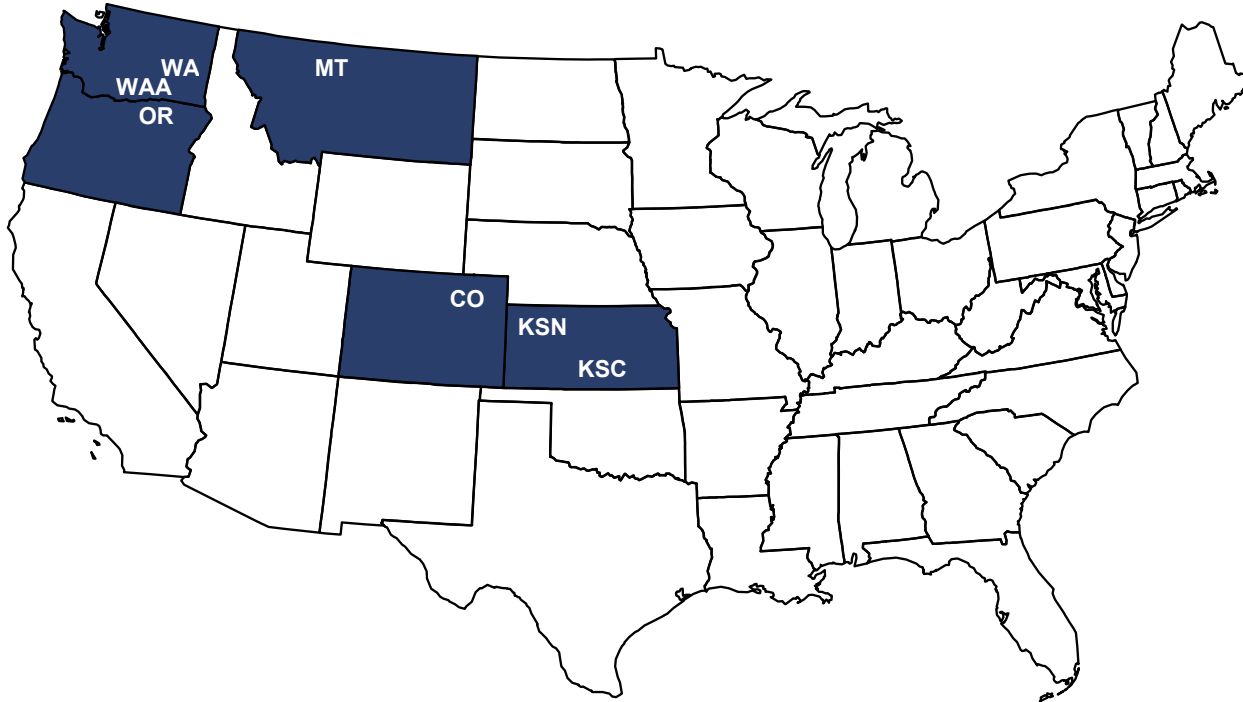
Characteristics of Panel Farms Producing Wheat, 2010.

	Cropland (acres)	Assets ($1,000)	Debt/Asset (ratio)	Gross Receipts ($1,000)	Wheat (acres)
WAW1725	1,725	1,594.00	0.19	618.30	1,147
WAW5500	5,500	6,859.00	0.18	1,874.20	3,055
WAAW3500	3,500	1,441.00	0.17	342.80	1,500
ORW3600	3,600	1,374.00	0.14	434.50	1,600
MTW4500	4,500	2,781.00	0.17	467.60	2,330
KSCW2000	2,000	1,834.00	0.15	469.70	1,200
KSCW4500	4,500	2,987.00	0.22	910.60	2,700
KSNW4000	4,000	1,963.00	0.16	774.20	1,500
KSNW5500	5,500	3,511.00	0.16	1,542.90	1,820
COW3000	3,000	1,444.00	0.15	383.20	970
COW5640	5,640	2,523.00	0.19	674.80	2,256

Representative Farm: Wheat

Economic Viability of Representative Farms over the 2011-2016 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
8/3/0	2011	2016	2011-2016	2011-2016
WAW1725			1-1	1-1
WAW5500			1-1	1-1
WAAW3500			83-75	1-6
MTW4500			45-62	1-5
ORW3600			1-1	1-1
KSCW2000			1-18	1-1
KSCW4500			1-1	1-1
KSNW4000			1-3	1-1
KSNW5500			1-4	1-3
COW3000			1-3	1-1
COW5640			46-57	1-11

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 2011 and 2016.

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 2011 and from 2009 to 2016.

Implications of the January 2011 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat

	Receipts	Payments	NCFI	Reserve 2016	Net Worth 2016	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
WAW1725	686.11	49.43	320.10	1,165.09	2,569.58	9.31
WAW5500	2,032.67	117.40	615.48	2,118.14	8,760.53	5.51
WAAW3500	377.11	30.96	107.17	(111.87)	1,506.66	2.90
ORW3600	467.32	32.18	245.08	565.36	1,873.37	7.36
MTW4500	531.06	51.15	134.99	(101.85)	2,961.17	3.31
KSCW2000	553.52	47.93	196.17	267.06	2,142.71	4.92
KSCW4500	1,187.10	102.75	527.96	1,570.70	4,386.23	8.51
KSNW4000	877.23	36.37	334.13	723.39	3,076.12	7.15
KSNW5500	1,540.34	50.79	399.09	1,139.06	5,005.68	5.73
COW3000	437.78	27.25	189.93	322.38	1,897.06	6.14
COW5640	775.10	69.63	235.98	(34.63)	2,679.73	4.25

1 Receipts are average annual total cash receipts including government payments, 2011-2016 ($1,000)

2 Payments are average annual total government payments, 2011-2016 ($1,000)

3 NCFI is average annual net cash farm income, 2011-2016 ($1,000)

4 Reserve 2016 is average ending cash reserves, 2016 ($1,000)

5 Net Worth 2016 is average nominal ending net worth, 2016 ($1,000)

6 CRNW is average percentage change in real net worth over 2011-2016 period, (%)

Representative Farm: Cotton

- Eight of the sixteen cotton farms are characterized in good overall financial condition, four are in marginal condition, and four are in poor condition.

- Four of the farms are projected to experience severe cash flow problems, and three farms have more than a 50 percent chance of losing real equity over the period.
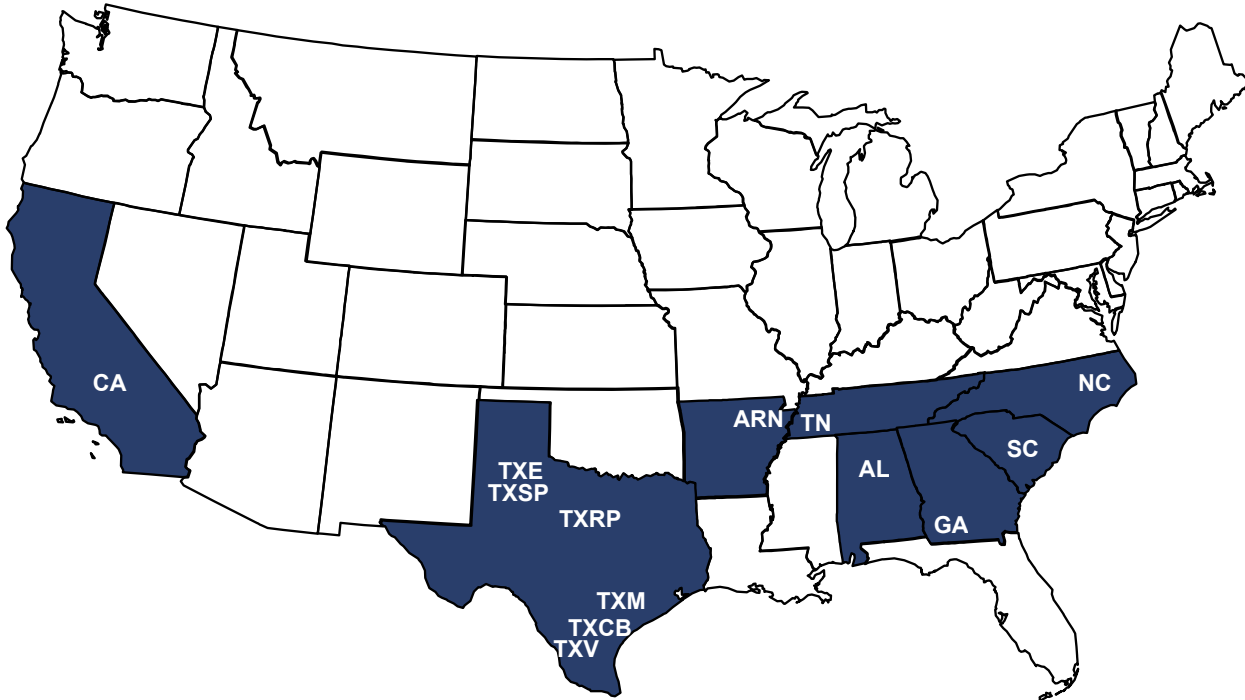
Characteristics of Panel Farms Producing Cotton, 2010.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cotton
	(acres)	($1,000)	(ratio)	($1,000)	(acres)
TXSP2500	2,500	896.00	0.42	652.50	1,958
TXSP3745	3,745	1,562.00	0.24	1,077.30	2,916
TXEC5000	5,000	1,901.00	0.18	1,956.20	3,650
TXRP2500	2,500	600.00	0.19	383.90	1,000
TXMC1800	1,800	967.00	0.16	643.40	600
TXCB2250	2,250	1,281.00	0.26	688.70	1,000
TXCB8000	8,000	2,135.00	0.23	1,684.90	2,800
TXVC4500	4,500	3,106.00	0.20	1,632.00	1,495
CAC4000	4,000	17,901.00	0.16	6,037.10	1,333
ARNC5000	5,000	6,558.00	0.24	3,649.10	5,000
TNC2100	2,100	2,762.00	0.11	1,154.30	525
TNC4050	4,050	5,167.00	0.14	2,398.90	2,025
ALC3000	3,000	1,748.00	0.30	1,212.30	1,500
GAC2300	2,300	4,521.00	0.37	1,818.20	1,495
SCC1500	1,500	1,134.00	0.25	852.50	525
NCC1500	1,500	2,369.00	0.24	1,144.50	225

Representative Farm: Cotton

Economic Viability of Representative Farms over the 2011-2016 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
8/4/4	2011	2016	2011-2016	2011-2016
TXSP2500			85-98	1-94
TXSP3745			79-99	1-93
TXEC5000			1-6	1-10
TXRP2500			62-61	1-47
TXMC1800			20-46	1-26
TXCB2250			48-33	1-16
TXCB8000			1-16	1-18
TXVC4500			1-1	1-1
CAC4000			1-1	1-1
ARNC5000			18-48	1-26
TNC2100			1-1	1-1
TNC4050			1-1	1-2
ALC3000			10-19	1-20
GAC2300			85-98	1-72
SCC1500			15-48	1-33
NCC1500			1-1	1-1

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

<25	25-50	>50

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2011 and 2016.

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 2011 and from 2009 to 2016.

Implications of the January 2011 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton

	Receipts	Payments	NCFI	Reserve 2016	Net Worth 2016	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
TXSP2500	772.84	60.14	(65.38)	(1,136.20)	(250.25)	(27.15)
TXSP3745	1,275.78	100.12	(34.32)	(2,022.52)	(46.81)	(18.67)
TXEC5000	2,305.20	151.71	396.43	1,068.64	2,816.34	6.27
TXRP2500	540.42	38.79	70.54	(117.75)	509.94	(0.31)
TXMC1800	799.98	58.64	182.12	30.37	1,257.35	3.26
TXCB2250	909.47	71.35	188.19	172.45	1,626.19	7.00
TXCB8000	3,378.85	198.68	699.00	1,594.17	3,926.81	9.31
TXVC4500	1,988.83	134.95	626.14	2,113.59	5,323.78	9.74
CAC4000	6,956.75	9.60	1,290.65	3,676.09	22,066.84	6.11
ARNC5000	4,333.98	119.78	637.36	(58.82)	6,917.75	2.42
TNC2100	1,431.65	48.13	577.05	2,275.77	4,976.06	10.36
TNC4050	2,791.51	117.82	735.41	2,769.78	7,895.85	7.96
ALC3000	1,921.74	134.64	437.46	816.01	2,532.87	6.51
GAC2300	2,275.73	184.78	(9.31)	(1,957.50)	3,247.70	(2.05)
SCC1500	1,064.62	80.55	130.74	(18.28)	1,226.78	1.67
NCC1500	1,102.14	56.39	400.72	1,069.41	3,216.00	7.66

1 Receipts are average annual total cash receipts including government payments, 2011-2016 ($1,000)

2 Payments are average annual total government payments, 2011-2016 ($1,000)

3 NCFI is average annual net cash farm income, 2011-2016 ($1,000)

4 Reserve 2016 is average ending cash reserves, 2016 ($1,000)

5 Net Worth 2016 is average nominal ending net worth, 2016 ($1,000)

6 CRNW is average percentage change in real net worth over 2011-2016 period, (%)

Representative Farm: Rice

- Two of the fourteen representative rice farms are projected to be in good overall financial condition, four are in marginal condition, and eight are in poor conditioon.

- Seven of the rice farms are expected to face severe cash flow problems, and six farms have have high likelihoods of losing real equity.

Characteristics of Panel Farms Producing Rice, 2010.

	Cropland (acres)	Assets ($1,000)	Debt/Asset (ratio)	Gross Receipts ($1,000)	Rice (acres)
CAR550	550	2,371.00	0.14	841.60	500
CAR3000	3,000	9,476.00	0.17	5,220.50	3,000
CABR1300	1,300	5,575.00	0.16	1,982.60	1,200
CACR800	800	3,687.00	0.15	1,351.30	800
TXR1350	1,350	1,459.00	0.14	546.80	450
TXR3000	3,000	1,228.00	0.08	1,340.30	1,200
TXBR1800	1,800	741.00	0.30	961.70	600
TXER3200	3,200	1,359.00	0.14	1,535.00	1,067
LASR1200	1,200	767.00	0.14	790.90	660
ARMR7500	7,500	8,258.00	0.24	4,857.80	1,875
ARSR3240	3,240	3,945.00	0.20	1,895.30	1,620
ARWR1400	1,400	2,910.00	0.15	980.60	700
ARHR3000	3,000	4,862.00	0.22	1,973.60	1,450
MOWR4000	4,000	11,809.00	0.19	2,772.80	2,000

Representative Farm: Rice

Economic Viability of Representative Farms over the 2011-2016 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
2/4/8	2011	2016	2011-2016	2011-2016
CAR550			42-89	1-48
CAR3000			5-43	1-35
CABR1300			3-1	1-2
CACR800			3-6	1-4
TXR1350			83-98	1-88
TXR3000			4-47	1-55
TXBR1800			91-97	1-87
TXER3200			59-94	1-87
LASR1200			3-29	1-35
ARMR7500			4-38	1-31
ARSR3240			50-64	1-35
ARWR1400			74-97	1-77
ARHR3000			82-95	1-74
MOWR4000			15-28	1-4

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 2011 and 2016.

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 2011 and from 2009 to 2016.

Implications of the January 2011 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice

	Receipts	Payments	NCFI	Reserve 2016	Net Worth 2016	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
CAR550	781.53	70.57	109.38	(449.09)	1,849.06	(0.21)
CAR3000	4,457.56	167.50	336.17	35.61	7,862.31	2.09
CABR1300	1,955.14	151.13	584.79	2,017.08	7,027.64	6.48
CACR800	1,299.80	108.88	250.21	760.72	4,128.92	4.84
TXR1350	504.11	55.04	(36.45)	(968.87)	623.54	(7.66)
TXR3000	1,235.59	128.60	121.75	(9.94)	785.70	(3.04)
TXBR1800	878.28	85.37	(64.00)	(1,314.63)	(689.11)	14.45
TXER3200	1,509.91	149.32	(125.19)	(1,609.10)	(216.22)	(23.89)
LASR1200	783.12	60.24	118.90	173.11	708.97	2.94
ARMR7500	5,571.98	210.71	827.10	684.63	8,645.11	1.64
ARSR3240	1,958.82	189.66	321.03	(476.16)	3,455.71	2.31
ARWR1400	968.17	77.88	33.64	(1,280.91)	1,879.84	(3.80)
ARHR3000	2,093.01	190.23	38.63	(2,443.34)	2,724.09	(4.88)
MOWR4000	2,840.81	195.23	671.29	819.96	13,273.96	4.30

1 Receipts are average annual total cash receipts including government payments, 2011-2016 ($1,000)

2 Payments are average annual total government payments, 2011-2016 ($1,000)

3 NCFI is average annual net cash farm income, 2011-2016 ($1,000)

4 Reserve 2016 is average ending cash reserves, 2016 ($1,000)

5 Net Worth 2016 is average nominal ending net worth, 2016 ($1,000)

6 CRNW is average percentage change in real net worth over 2011-2016 period, (%)

Representative Farm: Dairy

- Eleven of twenty-one dairy operations are in good overall financial condition. Five dairies are classified in marginal condition, and five are in poor condition.

- Ten of the dairies are projected to experience severe liquidity pressure, but none of the dairies are expected to face a 50 percent or greater chance of losing real equity.
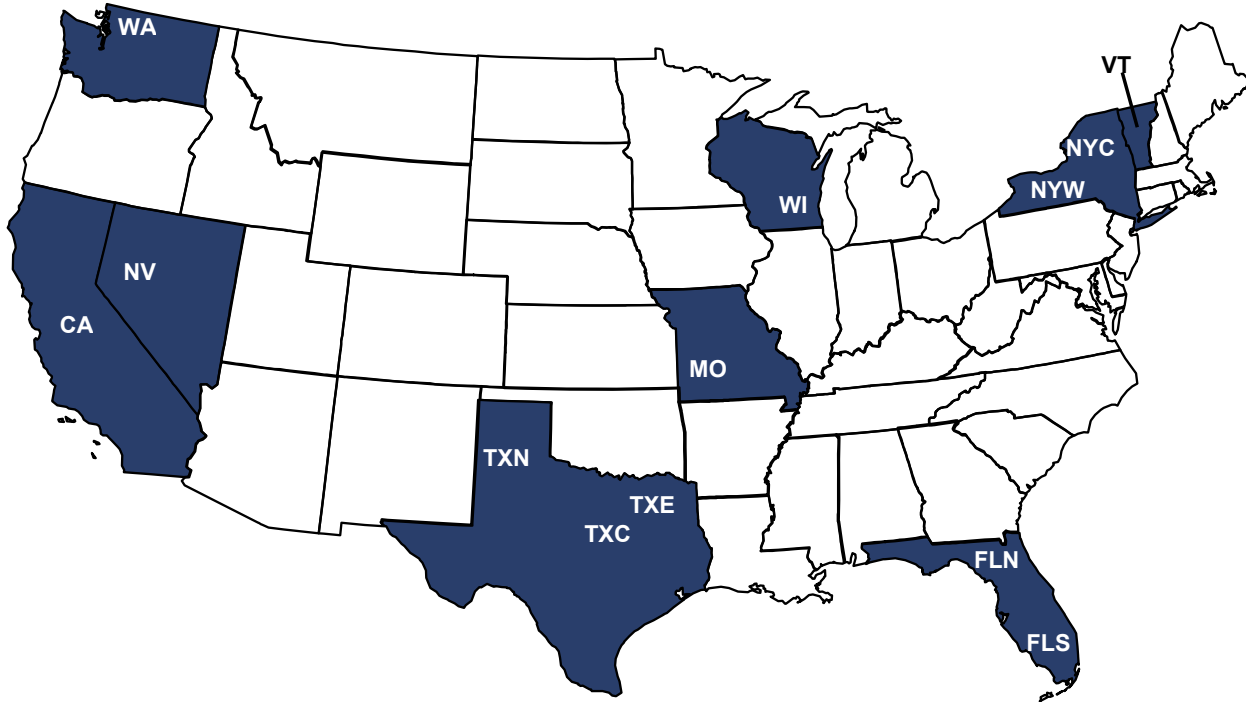
Characteristics of Panel Farms Producing Milk, 2010.

	Cropland (acres)	Assets ($1,000)	Debt/Asset (ratio)	Gross Receipts ($1,000)	Cows (number)
CAD1710	700	20,286.00	0.32	5,075.70	1,710
WAD250	200	3,730.00	0.31	845.90	250
WAD850	605	8,560.00	0.36	2,707.30	850
IDD1000	360	6,404.00	0.29	3,394.70	1,000
IDD3000	1,500	21,186.00	0.26	9,817.40	3,000
TXND3000	520	14,965.00	0.31	8,736.60	3,000
TXCD550	750	4,097.00	0.32	1,551.40	550
TXCD1300	560	7,302.00	0.36	3,799.60	1,300
TXED450	850	3,073.00	0.38	1,255.50	450
TXED1000	750	6,172.00	0.39	2,991.60	1,000
WID145	600	2,546.00	0.25	610.70	145
WID1000	2,000	7,449.00	0.36	3,958.60	1,000
NYWD600	1,200	5,199.00	0.42	2,085.20	600
NYWD1200	2,100	10,383.00	0.32	4,238.80	1,200
NYCD110	325	1,127.00	0.21	440.40	110
NYCD550	1,100	5,243.00	0.41	2,200.70	550
VTD140	220	1,314.00	0.35	493.60	140
VTD400	1,000	4,252.00	0.39	1,431.50	400
MOGD500	0	2,123.00	0.27	939.70	500
MOCD500	530	3,984.00	0.40	1,614.60	500
FLND550	600	3,843.00	0.23	1,778.80	550
FLSD1500	400	12,003.00	0.40	5,475.80	1,500

Representative Farm: Dairy

Economic Viability of Representative Farms over the 2011-2016 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
11/5/5	2011	2016	2011-2016	2011-2016
CAD1710			99-66	1-1
WAD250			99-62	1-1
WAD850			99-29	1-1
NVD500			99-93	1-43
TXND3000			79-4	1-1
TXCD550			99-6	1-1
TXCD1300			99-49	1-5
TXED400			99-91	1-28
TXED1000			99-78	1-15
WID145			89-10	1-1
WID1000			98-45	1-5
NYWD600			99-98	1-36
NYWD1200			92-4	1-1
NYCD110			50-1	1-1
NYCD550			99-81	1-2
VTD140			99-97	1-26
VTD400			99-87	1-6
MOGD500			81-2	1-1
MOCD500			99-94	1-27
FLND550			83-1	1-1
FLSD1500			99-34	1-4

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 2011 and 2016.

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 2011 and from 2009 to 2016.

Implications of the January 2011 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk

	Receipts	Payments	NCFI	Reserve 2016	Net Worth 2016	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
CAD1710	7,936.28	0.00	1,183.46	(671.89)	20,181.58	5.96
WAD250	1,293.91	0.00	279.34	(78.51)	3,982.04	6.71
WAD850	4,337.54	0.00	824.12	690.43	9,482.59	9.22
NVD500	2,303.34	0.00	84.35	(1,227.74)	2,194.07	1.62
TXND3000	13,724.87	0.00	2,459.57	5,737.04	19,808.45	12.60
TXCD550	2,364.13	0.00	465.19	778.00	5,224.90	10.38
TXCD1300	5,778.78	0.00	675.49	25.52	7,327.75	8.51
TXED400	1,457.70	0.00	114.77	(826.20)	1,669.86	4.80
TXED1000	4,626.17	0.00	453.14	(1,029.31)	5,271.40	7.35
WID145	852.63	0.00	263.94	297.21	3,059.79	7.62
WID1000	5,822.24	15.21	678.50	131.89	7,991.24	10.77
NYWD600	3,113.80	0.00	149.12	(1,903.82)	3,579.27	2.14
NYWD1200	6,353.96	0.00	1,225.65	2,498.09	13,130.47	10.14
NYCD110	615.52	4.54	231.71	404.15	1,638.43	9.56
NYCD550	3,229.98	0.00	420.43	(603.03)	5,133.50	7.49
VTD140	704.93	0.00	71.09	(342.91)	1,071.95	2.91
VTD400	2,156.55	0.00	208.12	(722.60)	3,748.66	5.25
MOGD500	1,400.44	0.00	403.70	796.64	3,125.06	11.98
MOCD500	2,441.06	0.00	186.35	(1,409.86)	2,920.59	3.87
FLND550	2,575.55	0.00	617.16	1,448.71	5,839.61	11.97
FLSD1500	7,718.00	0.00	899.43	949.27	9,055.77	11.75

1 Receipts are average annual total cash receipts including government payments, 2011-2016 ($1,000)

2 Payments are average annual total government payments, 2011-2016 ($1,000)

3 NCFI is average annual net cash farm income, 2011-2016 ($1,000)

4 Reserve 2016 is average ending cash reserves, 2016 ($1,000)

5 Net Worth 2016 is average nominal ending net worth, 2016 ($1,000)

6 CRNW is average percentage change in real net worth over 2011-2016 period, (%)

Representative Farm: Cow/Calf

- Seven of twelve cow-calf operations are projected to be in good overall financial condition, four are marginal, and one is expected to be in poor condition.

- Five of the operations will face significant liquidity pressure over the period, as their likelihoods of experiencing negative ending cash in 2016 exceed 50 percent.

- Only one of the twelve operations is projected to face a severe threat of losing real equity over the period.
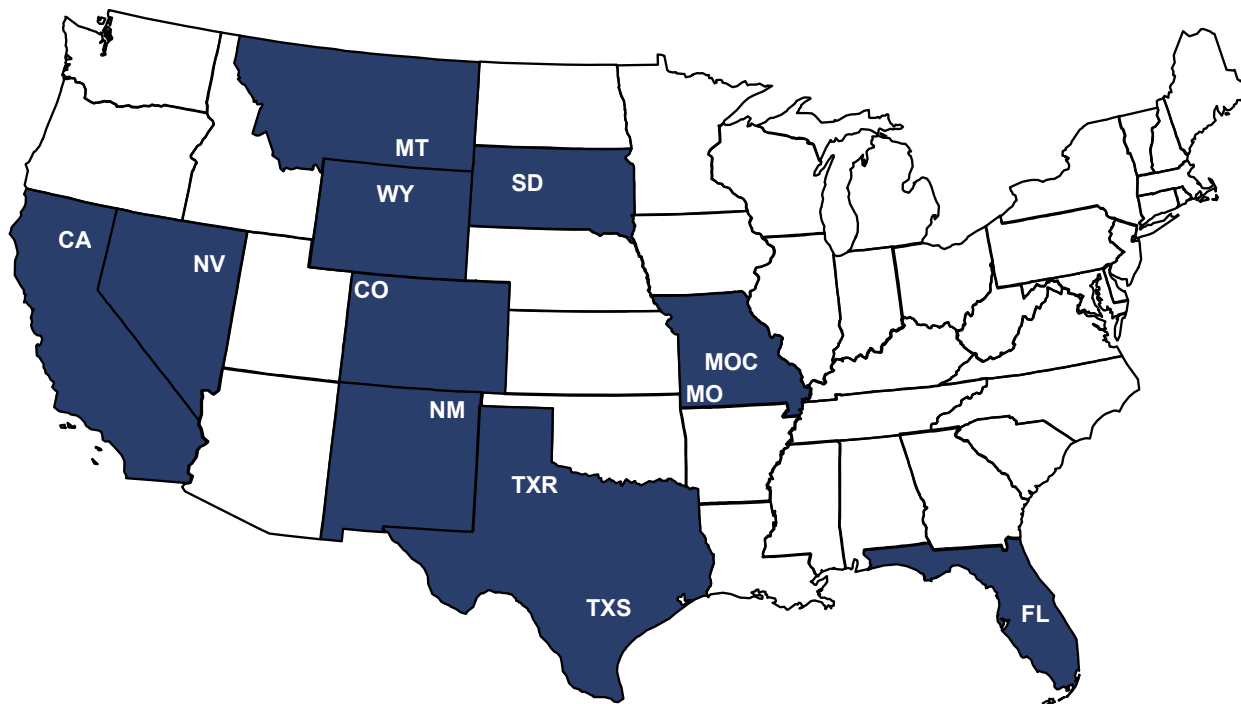
Characteristics of Panel Farms Producing Beef Cattle, 2010.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	($1,000)	(ratio)	($1,000)	(number)
CAB500	0	4,257.00	0.05	248.20	500
NVB700	1,300	5,059.00	0.02	376.40	700
MTB500	0	5,007.00	0.04	262.30	500
WYB435	330	3,461.00	0.04	247.70	435
COB250	450	14,106.00	0.02	154.10	250
NMB240	0	5,482.00	0.03	154.80	240
SDB375	1,150	5,158.00	0.02	203.80	375
MOB250	280	2,530.00	0.02	266.20	250
MOCB400	40	3,993.00	0.02	239.10	400
TXRB500	0	6,569.00	0.01	397.60	500
TXSB200	0	3,276.00	0.05	145.00	200
FLB1155	5,400	16,863.00	0.01	593.90	1,155

Representative Farm: Cow/Calf

Economic Viability of Representative Farms over the 2011-2016 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
7/4/1	2011	2016	2011-2016	2011-2016
CAB500	🟨	🟥	99-99	1-98
NVB700	🟨		40-5	1-1
MTB500	🟩		5-1	1-1
WYB435	🟨	🟨	99-98	1-1
COB250	🟨	🟨	94-96	1-1
NMB240	🟨	🟨	99-99	1-1
SDB375	🟩		20-12	1-1
MOB250	🟩		1-1	1-1
MOCB400	🟩		17-8	1-1
TXRB500	🟩		1-1	1-1
TXSB200	🟨	🟨	95-94	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 2011 and 2016.

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 2011 and from 2009 to 2016.

Implications of the January 2011 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle

	Receipts ($1,000)	Payments ($1,000)	NCFI ($1,000)	Reserve 2016 ($1,000)	Net Worth 2016 ($1,000)	CRNW (%)
CAB500	331.91	0.00	(43.09)	(715.84)	3,709.08	(1.74)
NVB700	482.46	0.00	113.15	222.65	6,696.38	3.38
MTB500	341.96	0.00	119.52	319.67	6,629.13	3.70
WYB435	319.13	0.00	37.36	(268.70)	4,074.64	1.96
COB250	221.28	0.00	35.00	(112.31)	17,904.40	2.98
NMB240	191.03	0.00	19.79	(130.94)	6,776.57	2.65
SDB375	268.43	0.00	82.66	113.54	6,595.97	3.07
MOB250	335.33	2.83	155.95	465.67	3,558.90	4.53
MOCB400	308.01	0.00	81.07	175.51	5,239.53	3.26
TXRB500	484.02	0.00	124.29	348.26	8,725.93	3.52
TXSB200	172.66	0.00	46.05	(94.80)	3,927.79	2.37
FLB1155	748.89	0.00	228.73	961.73	22,421.83	3.58

1 Receipts are average annual total cash receipts including government payments, 2011-2016 ($1,000)

2 Payments are average annual total government payments, 2011-2016 ($1,000)

3 NCFI is average annual net cash farm income, 2011-2016 ($1,000)

4 Reserve 2016 is average ending cash reserves, 2016 ($1,000)

5 Net Worth 2016 is average nominal ending net worth, 2016 ($1,000)

6 CRNW is average percentage change in real net worth over 2011-2016 period, (%)