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#### **Research Report**

# Representative farms economic outlook for the December 2010 FAPRI/AFPC baseline

AFPC Briefing Paper, No. 10-4

#### **Provided in Cooperation with:**

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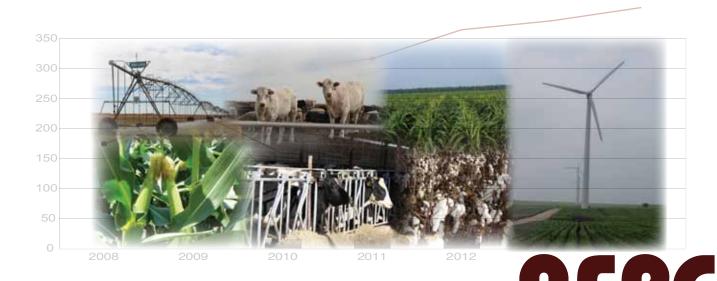






## Representative Farms Economic Outlook for the December 2010 FAPRI/AFPC Baseline

# Briefing Paper 10-4 December 2010



#### **Agricultural and Food Policy Center**

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#### REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE DECEMBER 2010 FAPRI/AFPC BASELINE

AFPC Briefing Paper 10-4

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#### **EXECUTIVE SUMMARY**

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate 98 representative crop, dairy, and livestock operations in major production areas in 28 states. The chief purpose of this analysis is to project those farms' economic viability by region and commodity for 2010 through 2015. 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 2010 Baseline.

Under the December 2010 Baseline, 36 of the 64 crop farms are considered in good liquidity condition (less than a 25 percent chance of negative ending cash by 2015). Sixteen crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash, and the remaining 12 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. Two are classified in marginal condition, and two are 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: Six of the 16 cotton farms are classified in good condition, six are in marginal condition, and four are in poor condition.
- RICE FARMS: Four of the 14 rice farms are projected to be in good financial condition, five are in marginal condition, and five are in poor condition.
- DAIRY FARMS: Ten of the 22 dairy farms are in good overall financial condition. Six are considered to be in marginal condition, and six 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 DECEMBER 2010 FAPRI/AFPC BASELINE

The farm level economic impacts of the FAPRI December 2010 Baseline on representative crop and livestock operations are projected in this report. The analysis was conducted over the 2008-2015 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 2010 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 2010 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 2015.

#### DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

- Overall Financial Position, 2010-2015 -- 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** -- 2010-2015 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** -- 2010-2015 average annual CCP or ACRE payments, direct payments, and marketing loan gains/LDPs for crops and the MILC program payment for dairy farms.
- **NCFI** -- 2010-2015 average net cash farm income equals average total receipts minus average total cash expenses.
- Reserve 2015 -- equals total cash on hand at the end of year 2015. 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 2015 -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2015.
- **CRNW** -- annualized percentage change in the operator's net worth from January 1, 2010 through December 31, 2015, after adjusting for inflation.

Table 1. FAPRI December 2010 Baseline Projections of Crop and Livestock Prices, 2008-2015

	2008	2009	2010	2011	2012	2013	2014	2015
Crop Prices								
Corn (\$/bu.)	4.06	3.55	4.94	4.25	4.26	4.24	4.30	4.25
Wheat (\$/bu.)	6.78	4.87	5.47	5.48	4.99	5.13	5.22	5.20
Cotton (\$/lb.)	0.4780	0.6290	0.8576	0.7413	0.7042	0.7205	0.7248	0.7276
Sorghum (\$/bu.)	3.20	3.22	5.12	3.82	4.27	4.07	4.23	4.16
Soybeans (\$/bu.)	9.97	9.59	11.13	10.67	10.26	10.45	10.64	10.67
Barley (\$/bu.)	5.37	4.66	3.82	4.05	4.15	4.13	4.17	4.15
Oats (\$/bu.)	3.15	2.02	2.37	2.47	2.54	2.54	2.55	2.54
Rice (\$/cwt.)	16.80	14.00	12.59	12.63	12.25	12.43	12.58	12.78
Soybean Meal (\$/ton)	315.87	296.89	311.15	291.52	279.36	282.32	287.16	285.90
All Hay (\$/ton)	152.00	108.00	113.42	114.96	112.67	111.17	111.53	113.17
Peanuts (\$/ton)	460.00	434.00	438.75	483.64	456.70	459.07	461.61	462.86
Cattle Prices								
Feeder Cattle (\$/cwt)	107.62	101.89	113.15	114.61	127.1	128.31	129.52	128.59
Fed Cattle (\$/cwt)	92.78	83.25	94.84	98.66	104.78	104.87	104.99	104.25
Culled Cows (\$/cwt)	54.92	47.01	57.88	59.98	65.41	65.61	65.81	64.73
Milk Price								
U.S. All Milk Price (\$/cwt)	18.45	12.93	16.05	16.56	17.02	17.31	17.76	18.26

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

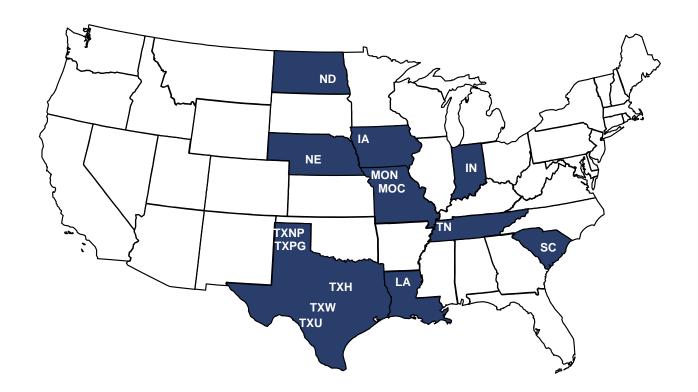
Table 2. FAPRI December 2010 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	15.44	-3.90	2.04	6.39	1.71	1.42	2.42
All Fertilizer Prices (%)	-31.10	-8.62	7.07	9.88	2.42	0.73	2.10
Herbicide Prices (%)	8.46	-5.13	0.50	5.41	3.32	1.95	2.45
Insecticide Prices (%)	3.21	2.32	-0.10	3.59	2.79	1.87	2.36
Fuel and Lube Prices (%)	-33.72	23.13	3.36	6.60	3.68	2.56	3.45
Machinery Prices (%)	6.22	2.56	-0.21	2.04	2.22	2.54	2.75
Wages (%)	2.19	1.03	2.09	1.98	2.30	2.69	2.77
Supplies (%)	2.68	1.97	1.55	4.58	3.08	2.08	2.04
Repairs (%)	1.92	2.33	1.67	2.53	2.55	2.65	2.60
Services (%)	8.90	3.57	-0.42	2.23	2.14	1.93	2.39
Taxes (%)	13.88	12.06	1.07	4.42	3.77	4.39	3.94
PPI Items (%)	-4.21	2.52	3.70	2.20	2.08	1.85	2.25
PPI Total (%)	-3.19	2.71	3.22	2.53	2.70	2.14	2.66
Annual Change in Consumer Price Index (%)	-0.32	1.63	1.57	1.87	1.97	2.10	2.12
Annual Rate of Change for U.S. Land Prices (%)	-3.23	-1.63	6.00	2.00	2.00	2.00	2.00

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

## **Representative Farm: Feed Grains**

- Overall, nineteen feed grain farms are characterized as good, two are marginal, and two are in poor condition.
- Two of twenty-three farms will be under severe cash flow stress, and two farms have a high probability of losing real net worth.



Characteristics of Panel Farms Producing Feed Grains, 2009.

	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 2010-2015 Period** 

Farm Name	Overall I	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
19/2/2	2010	2015	2010-2015	2010-2015
IAG1350			1-1	1-1
IAG3400			1-1	1-1
NEG2400			1-1	1-1
NEG4300			1-1	1-1
NDG2500			1-1	1-1
NDG8000			1-1	1-1
ING1000			1-3	1-1
ING2200			1-1	1-1
MOCG2050			1-1	1-1
MOCG4000			1-1	1-1
MONG1850			68-38	1-1
LAG2640			2-8	1-10
LANG2500			1-2	1-1
TNG900			2-15	1-3
TNG2200			63-40	1-4
SCG3500			4-10	1-4
TXNP3000			3-18	1-15
TXNP8000			2-10	1-5
TXPG2500			55-50	1-13
TXPG3760			86-94	1-85
TXHG2000			59-37	1-20
TXWG1600			61-48	1-24
TXUG1200			71-56	1-52

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

<25

25-50

>50

Implications of the December 2010 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	Receipts	Payments	NCFI	Reserve 2015	Net Worth 2015	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
IAG1350	1,022.98	47.51	433.72	1,237.36	3,547.63	9.94
IAG3400	2,330.43	43.41	1,095.68	3,274.76	9,515.33	8.89
NEG2400	2,192.20	51.83	766.08	2,685.62	5,830.28	8.71
NEG4300	3,433.44	60.13	1,203.57	3,648.31	10,219.77	7.52
NDG2500	1,039.63	57.11	379.52	1,118.61	2,907.99	10.05
NDG8000	3,506.00	70.17	1,382.21	3,983.14	13,640.80	9.01
ING1000	674.97	20.18	236.05	431.71	3,129.14	5.46
ING2200	1,543.08	41.46	544.34	1,301.25	7,323.58	6.21
MOCG2050	1,198.49	45.54	658.49	1,828.99	8,599.58	7.19
MOCG4000	2,257.50	8.39	1,339.87	4,513.87	16,595.15	8.00
MONG1850	1,150.89	54.56	321.66	148.01	6,792.75	4.95
LAG2640	1,929.07	119.32	419.77	1,144.18	2,143.15	12.70
LANG2500	2,057.33	114.50	626.65	1,514.17	6,678.91	6.90
TNG900	518.45	10.86	201.89	250.36	1,842.08	5.74
TNG2200	1,110.44	27.68	381.65	240.77	3,777.35	5.44
SCG3500	1,999.22	92.81	571.35	1,533.73	7,799.88	6.09
TXNP3000	1,681.84	51.00	268.95	457.40	2,059.57	5.63
TXNP8000	4,676.18	80.78	918.50	2,480.31	7,065.86	8.41
TXPG2500	1,576.12	88.15	297.35	41.51	3,429.69	3.68
TXPG3760	3,188.02	102.71	(185.62)	(3,487.16)	1,040.78	(11.32)
TXHG2000	571.49	29.93	120.64	84.09	1,399.66	3.09
TXWG1600	538.72	29.34	105.67	7.40	1,125.76	3.42
TXUG1200	907.23	41.07	112.68	(45.90)	138.65	(8.14)

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2010-2015 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2010 and 2015.

<sup>3</sup> 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 2008 to 2010 and from 2008 to 2015.

<sup>2</sup> Payments are average annual total government payments, 2010-2015 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2010-2015 (\$1,000)

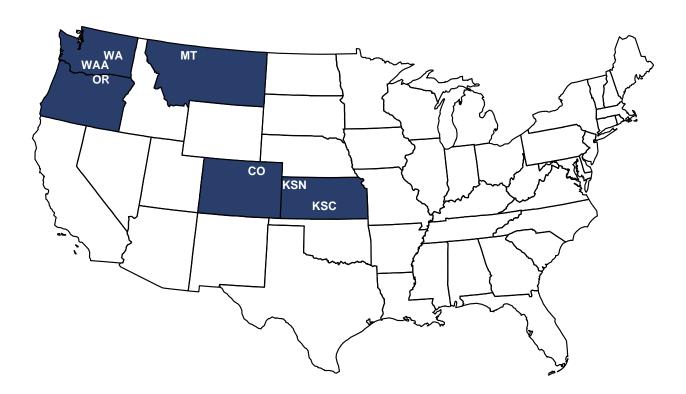
<sup>4</sup> Reserve 2015 is average ending cash reserves, 2015 (\$1,000)

<sup>5</sup> Net Worth 2015 is average nominal ending net worth, 2015 (\$1,000)  $\,$ 

<sup>6</sup> CRNW is average percentage change in real net worth over 2010-2015 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.
- Only one of the eleven wheat farms will feel severe liquidity pressure over the period.
- None of the wheat farms have greater than a 25 percent chance of losing real equity.



Characteristics of Panel Farms Producing Wheat, 2009.

	Cropland	Assets	Debt/Asset	Gross Receipts	Wheat
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(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 2010-2015 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
8/3/0	2010	2015	2010-2015	2010-2015
WAW1725			1-1	1-1
WAW5500			1-1	1-1
WAAW3500			56-56	1-7
MTW4500			7-41	1-5
ORW3600			1-1	1-1
KSCW2000			1-1	1-1
KSCW4500			1-1	1-1
KSNW4000			1-12	1-1
KSNW5500			3-23	1-13
COW3000			1-1	1-1
COW5640			16-35	1-8

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

Implications of the December 2010 FAPRI Baseline on the Economic Viability of Representative **Farms Primarily Producing Wheat** 

	Receipts	Payments	NCFI	Reserve 2015	Net Worth 2015	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
WAW1725	664.27	48.63	312.89	1,143.56	2,424.47	10.99
WAW5500	1,974.59	123.29	626.35	2,090.66	8,091.10	6.11
WAAW3500	362.56	29.44	108.59	(13.73)	1,420.89	3.01
ORW3600	450.11	30.30	240.83	721.15	1,882.64	7.70
MTW4500	505.85	48.53	144.03	101.75	2,795.64	3.41
KSCW2000	520.01	43.96	188.53	468.47	2,085.26	4.95
KSCW4500	1,113.73	96.20	486.89	1,364.65	3,889.89	8.39
KSNW4000	853.37	36.31	280.32	382.52	2,471.67	6.05
KSNW5500	1,473.09	52.31	288.45	450.12	3,863.62	3.72
COW3000	413.73	25.25	183.78	422.39	1,783.66	6.41
COW5640	735.43	64.15	238.34	189.47	2,632.30	4.68

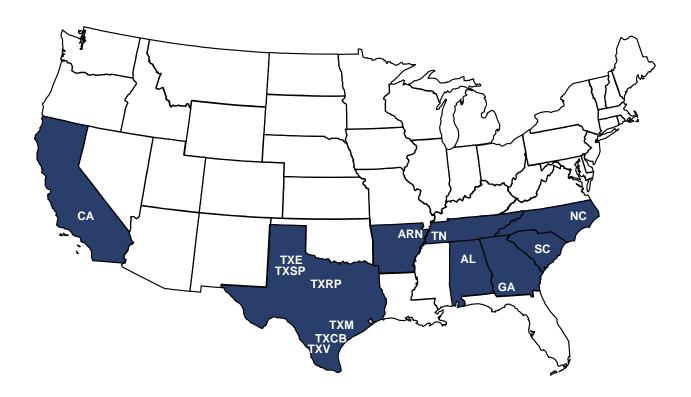
- 1 Receipts are average annual total cash receipts including government payments, 2010-2015 (\$1,000)
- 2 Payments are average annual total government payments, 2010-2015 (\$1,000)
- 3 NCFI is average annual net cash farm income, 2010-2015 (\$1,000)
- 4 Reserve 2015 is average ending cash reserves, 2015 (\$1,000)
- 5 Net Worth 2015 is average nominal ending net worth, 2015 (\$1,000)
- 6 CRNW is average percentage change in real net worth over 2010-2015 period, (%)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2010 and 2015.

<sup>3</sup> 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 2008 to 2010 and from 2008 to 2015.

## **Representative Farm: Cotton**

- Six of the sixteen cotton farms are characterized in good overall financial condition, six 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, 2009.

	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 2010-2015 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
6/6/4	2010	2015	2010-2015	2010-2015
TXSP2500			85-92	1-86
TXSP3745			73-93	1-84
TXEC5000			1-5	1-11
TXRP2500			53-34	1-29
TXMC1800			43-55	1-38
TXCB2250			44-33	1-18
TXCB8000			19-25	1-25
TXVC4500			3-1	1-1
CAC4000			1-1	1-1
ARNC5000			26-36	1-10
TNC2100			1-1	1-1
TNC4050			1-1	1-3
ALC3000			32-50	1-34
GAC2300			97-99	1-77
SCC1500			51-48	1-28
NCC1500			1-1	1-1

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

Implications of the December 2010 FAPRI Baseline on the Economic Viability of Representative **Farms Primarily Producing Cotton** 

	Receipts	Payments	NCFI	Reserve 2015	Net Worth 2015	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
TXSP2500	764.17	51.90	(27.60)	(876.59)	(89.77)	(24.13)
TXSP3745	1,264.65	89.30	44.94	(1,420.31)	347.67	(13.07)
TXEC5000	2,280.38	111.88	465.35	1,350.39	2,906.27	8.46
TXRP2500	556.19	32.88	96.80	127.74	672.12	4.29
TXMC1800	771.03	51.00	181.81	(32.17)	1,075.99	2.28
TXCB2250	888.21	56.24	189.72	202.44	1,519.58	7.33
TXCB8000	3,285.20	159.24	705.42	1,041.03	3,172.40	9.37
TXVC4500	1,953.79	116.80	625.40	1,784.53	4,737.66	10.93
CAC4000	6,342.73	16.92	977.94	3,569.47	19,455.56	4.36
ARNC5000	4,313.80	146.79	807.61	415.54	6,908.58	4.15
TNC2100	1,378.18	54.09	536.74	2,143.94	4,541.55	10.44
TNC4050	2,711.65	97.94	743.24	2,868.53	7,379.02	7.95
ALC3000	1,499.21	105.53	353.59	(24.30)	1,722.68	2.68
GAC2300	2,182.79	168.49	1.72	(2,312.40)	2,245.75	(3.64)
SCC1500	1,008.08	70.61	133.77	(14.26)	1,099.55	2.74
NCC1500	1,038.75	51.27	379.55	989.96	2,968.07	8.61

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2010-2015 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2010 and 2015.

<sup>3</sup> 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 2008 to 2010 and from 2008 to 2015.

<sup>2</sup> Payments are average annual total government payments, 2010-2015 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2010-2015 (\$1,000)

<sup>4</sup> Reserve 2015 is average ending cash reserves, 2015 (\$1,000) 5 Net Worth 2015 is average nominal ending net worth, 2015 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2010-2015 period, (%)

## Representative Farm: Rice

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



Characteristics of Panel Farms Producing Rice, 2009.

	Cuantand	A	Dalat/Assat	Cuasa Dagainta	Dia.
-	Cropland	Assets	Debt/Asset	Gross Receipts	Rice
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(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 2010-2015 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
4/5/5	2010	2015	2010-2015	2010-2015
CAR550			1-32	1-35
CAR3000			3-11	1-25
CABR1300			1-1	1-1
CACR800			3-1	1-4
TXR1350			52-92	1-77
TXR3000			3-16	1-35
TXBR1800			64-82	1-70
TXER3200			52-78	1-73
LASR1200			3-5	1-19
ARMR7500			24-45	1-30
ARSR3240			6-42	1-28
ARWR1400			60-86	1-66
ARHR3000			74-84	1-62
MOWR4000			9-23	1-4

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

25-50

>50

Implications of the December 2010 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice

	Receipts	Payments	NCFI	Reserve 2015	Net Worth 2015	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAR550	787.03	73.30	156.93	175.51	2,192.25	1.17
CAR3000	4,383.34	121.97	461.44	2,160.77	9,138.86	3.03
CABR1300	1,952.28	126.96	639.33	2,677.47	7,023.15	7.13
CACR800	1,293.74	113.20	295.63	1,294.14	4,232.78	5.20
TXR1350	502.11	57.17	16.24	(504.51)	892.80	(4.19)
TXR3000	1,229.64	132.72	207.63	733.92	1,481.90	4.52
TXBR1800	882.31	89.68	14.10	(551.94)	65.62	(14.78)
TXER3200	1,490.75	154.61	(6.84)	(796.84)	433.11	(11.48)
LASR1200	769.61	57.00	156.21	528.60	1,021.31	7.68
ARMR7500	5,331.35	182.67	856.62	244.59	7,694.04	2.39
ARSR3240	1,890.16	180.00	389.89	235.42	3,813.88	3.45
ARWR1400	931.97	81.23	78.22	(751.67)	2,091.94	(2.23)
ARHR3000	2,014.77	183.08	134.35	(1,693.45)	3,061.42	(2.92)
MOWR4000	2,732.38	177.52	717.97	1,193.00	12,343.09	4.57

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2010-2015 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2010 and 2015.

<sup>3</sup> 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 2008 to 2010 and from 2008 to 2015.

<sup>2</sup> Payments are average annual total government payments, 2010-2015 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2010-2015 (\$1,000)

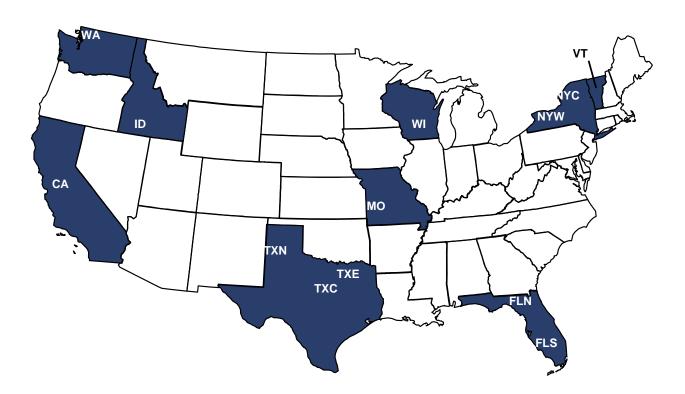
<sup>4</sup> Reserve 2015 is average ending cash reserves, 2015 (\$1,000)

<sup>5</sup> Net Worth 2015 is average nominal ending net worth, 2015 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2010-2015 period, (%)

## **Representative Farm: Dairy**

- Ten of twenty-two dairy operations are in good overall financial condition. Six dairies are classified in marginal condition, and six are in poor condition.
- Twelve of the dairies are projected to experience severe liquidity pressure, but only two dairies are expected to face a 50 percent or greater chance of losing real equity.



Characteristics of Panel Farms Producing Milk, 2009.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(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 2010-2015 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
10/6/6	2010	2015	2010-2015	2010-2015
CAD1710			99-72	1-1
WAD250			99-69	1-1
WAD850			99-55	1-3
IDD1000			95-10	1-1
IDD3000			90-4	1-1
TXND3000			69-4	1-1
TXCD550			99-15	1-1
TXCD1300			99-52	1-7
TXED450			99-65	1-6
TXED1000			99-80	1-25
WID145			69-6	1-1
WID1000			98-47	1-5
NYWD600			99-99	1-54
NYWD1200			90-7	1-1
NYCD110			29-1	1-1
NYCD550			99-92	1-8
VTD140			99-98	1-38
VTD400			99-97	1-28
MOGD500			73-6	1-1
MOCD500			99-96	1-38
FLND550			65-1	1-1
FLSD1500			99-99	1-53

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

25-50

>50

Implications of the December 2010 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk

	Receipts	Payments	NCFI	Reserve 2015	Net Worth 2015	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAD1710	7,469.74	0.63	937.70	(987.57)	18,055.64	4.99
WAD250	1,201.59	0.60	203.51	(291.37)	3,423.37	5.47
WAD850	4,013.00	0.60	577.73	(82.56)	7,977.67	7.36
IDD1000	4,993.23	0.60	906.67	1,744.79	8,637.74	12.90
IDD3000	14,645.28	0.60	3,260.14	7,339.26	29,367.03	12.55
TXND3000	12,726.39	0.60	2,072.43	4,965.69	18,825.57	11.71
TXCD550	2,197.75	0.60	367.00	517.78	4,616.63	9.64
TXCD1300	5,379.54	0.60	554.59	(71.91)	6,923.41	7.71
TXED450	1,768.45	0.60	191.07	(204.56)	2,812.92	7.69
TXED1000	4,296.75	0.60	309.34	(1,198.22)	4,716.02	5.24
WID145	811.00	0.60	245.41	384.69	2,869.99	7.56
WID1000	5,541.18	16.07	538.14	56.80	7,284.13	9.56
NYWD600	2,918.19	0.60	54.79	(2,162.17)	2,873.50	(0.10)
NYWD1200	5,956.01	0.60	1,000.09	1,879.29	11,743.84	9.33
NYCD110	578.79	5.12	208.83	418.31	1,549.86	9.50
NYCD550	3,034.04	0.60	314.14	(1,085.64)	4,296.25	6.64
VTD140	660.43	0.60	45.54	(389.98)	898.56	1.07
VTD400	2,014.10	0.60	117.01	(1,045.93)	3,032.17	3.12
MOGD500	1,318.55	0.60	347.61	682.13	2,869.01	11.72
MOCD500	2,297.42	0.60	115.63	(1,482.02)	2,540.02	2.01
FLND550	2,434.96	0.60	535.75	1,326.58	5,392.13	11.29
FLSD1500	7,321.63	0.60	(210.92)	(5,520.44)	6,228.34	(1.19)

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2010-2015 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2010 and 2015.

<sup>3</sup> 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 2008 to 2010 and from 2008 to 2015.

<sup>2</sup> Payments are average annual total government payments, 2010-2015 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2010-2015 (\$1,000)

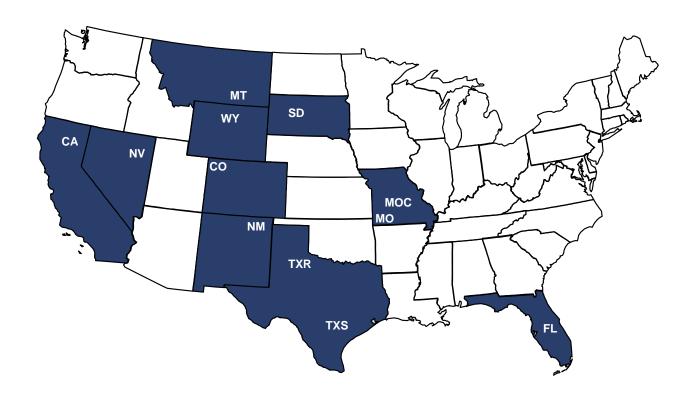
<sup>4</sup> Reserve 2015 is average ending cash reserves, 2015 (\$1,000)

<sup>5</sup> Net Worth 2015 is average nominal ending net worth, 2015 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2010-2015 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 2015 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, 2009.

	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 2010-2015 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
7/4/1	2010	2015	2010-2015	2010-2015
CAB500			99-99	1-97
NVB700			69-15	1-1
MTB500			63-1	1-1
WYB435			99-98	1-3
COB250			99-98	1-1
NMB240			99-99	1-1
SDB375			31-13	1-1
MOB250			1-1	1-1
MOCB400			56-11	1-1
TXRB500			7-1	1-1
TXSB200			99-99	1-1
FLB1155			1-1	1-1

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

Implications of the December 2010 FAPRI Baseline on the Economic Viability of Representative **Farms Primarily Producing Beef Cattle** 

	Receipts	Payments	NCFI	Reserve 2015	Net Worth 2015	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAB500	312.37	0.00	(47.09)	(723.07)	3,676.76	(1.60)
NVB700	458.34	0.00	101.18	132.43	5,935.75	3.00
MTB500	323.70	0.00	104.50	186.81	5,862.74	3.29
WYB435	302.12	0.00	33.50	(256.20)	3,671.22	1.63
COB250	209.52	0.00	30.23	(138.57)	15,671.74	2.31
NMB240	182.48	0.00	12.74	(204.43)	5,906.90	1.98
SDB375	253.66	0.00	75.84	105.57	5,882.35	2.59
MOB250	315.92	2.82	146.56	467.64	3,226.53	4.32
MOCB400	291.94	0.00	76.66	129.26	4,627.54	2.88
TXRB500	462.73	0.00	110.94	309.57	7,758.86	3.07
TXSB200	165.00	0.00	39.04	(175.98)	3,426.49	1.77
FLB1155	713.34	0.00	211.12	805.84	19,776.01	3.06

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2010-2015 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2010 and 2015.

<sup>3</sup> 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 2008 to 2010 and from 2008 to 2015.

<sup>2</sup> Payments are average annual total government payments, 2010-2015 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2010-2015 (\$1,000)

<sup>4</sup> Reserve 2015 is average ending cash reserves, 2015 (\$1,000)

<sup>5</sup> Net Worth 2015 is average nominal ending net worth, 2015 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2010-2015 period, (%)