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Richardson, James W. et al.

#### **Research Report**

Representative farms economic outlook for the Januar 2009 FAPRI/AFPC baseline

AFPC Briefing Paper, No. 09-1

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## Representative Farms Economic Outlook for the January 2009 FAPRI/AFPC Baseline

# Briefing Paper 09-1 March 2009



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

Department of Agricultural Economics Texas AgriLife Research Texas AgriLife Extension Service Texas A&M University College Station, Texas 77843-2124 Telephone: (979) 845-5913 Fax: (979) 845-3140 http://www.afpc.tamu.edu

#### REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2009 FAPRI/AFPC BASELINE

AFPC Briefing Paper 09-1

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

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College Station, Texas 77843-2124 Telephone: (979) 845-5913 Fax: (979) 845-3140 Web Site: http://www.afpc.tamu.edu/

#### **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 2009 through 2014. 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 2009 Baseline.

Under the January 2009 Baseline, 34 of the 64 crop farms are considered in good liquidity condition (less than a 25 percent chance of negative ending cash by 2014). Four crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash. The remaining 26 crop farms have greater than a 50 percent chance of negative ending cash. Additionally, 35 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). Nine crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and 20 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: Eleven of the 19 feedgrain farms are in good overall financial condition. Three are classified in marginal condition, and five are in poor condition.
- WHEAT FARMS: Nine of the 11 wheat farms are classified in good financial condition, two are marginal, and none are in poor condition.
- COTTON FARMS: Five of the 20 cotton farms are classified in good condition, three are in marginal condition, and twelve are in poor condition. In addition, ten of these farms have more than a 50 percent chance of losing real net worth by 2014.
- RICE FARMS: Six of the 14 rice farms are in good condition, two are classified in marginal condition, and six farms are projected to be in poor financial condition through 2014.
- DAIRY FARMS: Ten of the 22 dairy farms are in good overall financial condition. Three are considered to be in marginal condition, and nine are in poor condition.
- BEEF CATTLE RANCHES: Five of the 12 cattle ranches are classified in good financial condition, five are classified in marginal condition, and two are projected to be in poor condition.

## REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2009 FAPRI/AFPC BASELINE

The farm level economic impacts of the FAPRI January 2009 Baseline on representative crop and livestock operations are projected in this report. The analysis was conducted over the 2007-2014 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 2009 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 2009 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 2014.

#### DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

- Overall Financial Position, 2009-2014 -- 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 is 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** -- 2009-2014 average of 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** -- 2009-2014 average of annual CCP or ACRE payments, direct payments, and marketing loan gains/LDPs for crops and the MILC program payment for dairy farms
- **NCFI** -- 2009-2014 average net cash farm income equals average total receipts minus average total cash expenses.
- Reserve 2014 -- equals total cash on hand at the end of year 2014. 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 2014 -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2014.
- **CRNW** -- annualized percentage change in the operator's net worth from December 1, 2009 through December 31, 2014, after adjusting for inflation.

Table 1. FAPRI January 2009 Baseline Projections of Crop and Livestock Prices, 2007-2014

	2007	2008	2009	2010	2011	2012	2013	2014
Crop Prices								
Corn (\$/bu.)	4.20	3.91	3.71	3.69	3.85	3.88	4.02	4.09
Wheat (\$/bu.)	6.48	6.73	5.27	5.26	5.41	5.51	5.65	5.78
Cotton (\$/lb.)	0.5930	0.4914	0.5178	0.5585	0.5709	0.5792	0.5912	0.6013
Sorghum (\$/bu.)	4.08	3.30	3.22	3.22	3.38	3.46	3.60	3.69
Soybeans (\$/bu.)	10.10	9.37	8.75	8.78	9.08	9.30	9.55	9.78
Barley (\$/bu.)	4.02	5.06	4.15	4.03	4.15	4.18	4.31	4.36
Oats (\$/bu.)	2.63	2.97	2.62	2.54	2.58	2.60	2.67	2.71
Rice (\$/cwt.)	12.80	16.93	12.80	11.87	12.05	12.53	13.02	13.27
Soybean Meal (\$/ton)	320.42	283.21	253.83	242.97	239.41	241.20	245.51	250.19
All Hay (\$/ton)	128.00	157.38	136.26	130.94	128.88	128.46	129.58	131.30
Peanuts (\$/ton)	410.00	417.57	392.87	405.51	419.73	423.50	429.54	433.90
Cattle Prices								
Feeder Cattle (\$/cwt)	115.47	107.56	104.11	114.02	122.40	128.05	131.27	132.60
Fed Cattle (\$/cwt)	91.82	92.27	89.64	94.97	98.48	100.79	101.75	102.40
Culled Cows (\$/cwt)	52.12	54.77	52.57	57.36	58.47	59.28	59.44	60.93
Milk Price								
U.S. All Milk Price (\$/cwt)	19.13	18.34	12.99	14.23	16.00	16.52	16.70	16.88

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

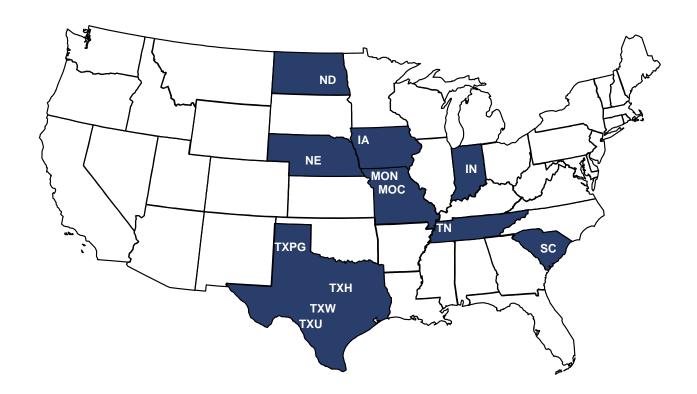
Table 2. FAPRI January 2009 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2008-2014

	2008	2009	2010	2011	2012	2013	2014
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	27.51	-3.79	0.53	4.29	3.24	3.98	2.90
All Fertilizer Prices (%)	51.10	-16.24	-6.78	6.95	3.29	5.00	3.00
Herbicide Prices (%)	5.88	-6.21	-2.77	0.87	0.46	1.12	0.59
Insecticide Prices (%)	9.52	-4.28	-0.05	2.32	0.58	1.03	0.86
Fuel and Lube Prices (%)	30.14	-16.96	-4.27	9.06	7.58	5.38	0.72
Machinery Prices (%)	8.03	-8.28	0.87	2.27	1.06	2.22	2.21
Wages (%)	3.89	-1.82	1.25	0.47	1.42	1.98	2.35
Supplies (%)	3.92	-8.02	1.10	3.77	1.74	2.07	0.89
Repairs (%)	3.48	-3.01	0.31	1.00	1.23	1.66	1.57
Services (%)	4.91	-8.25	-0.66	0.96	-0.68	0.21	0.00
Taxes (%)	7.98	-13.79	8.77	6.19	2.39	3.54	2.09
PPI Items (%)	21.81	-8.58	-0.48	3.55	2.51	2.39	1.66
PPI Total (%)	22.34	-8.67	0.40	3.87	2.65	2.47	1.80
Annual Change in Consumer Price Index (%)	3.80	-2.24	2.39	3.35	2.49	2.48	2.31
Annual Rate of Change for U.S. Land Prices (%)	8.80	7.61	2.41	2.09	0.97	1.63	3.14

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

## **Representative Farm: Feed Grains**

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



Characteristics of Panel Farms Producing Feed Grains, 2008.

	Cropland	Assets	Debt/Asset	Gross Receipts	Feed Grains
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
IAG1350	1,350	1,938.00	0.14	769.40	1,350
IAG3400	3,400	6,486.00	0.17	1,903.40	3,400
NEG1960	1,960	3,002.00	0.18	1,470.00	1,770
NEG4300	4,300	7,329.00	0.18	3,029.20	3,784
NDG2180	2,180	1,052.00	0.11	672.70	1,600
NDG7500	7,500	7,407.00	0.19	2,812.10	5,750
MOCG2050	2,050	6,248.00	0.16	948.60	2,050
MOCG4000	4,000	10,715.00	0.15	1,889.10	3,950
MONG1850	1,850	6,429.00	0.16	967.30	1,800
ING1000	1,000	2,582.00	0.16	516.30	1,000
ING2200	2,200	6,660.00	0.16	1,210.80	2,200
TXPG3760	3,760	4,620.00	0.19	3,162.40	1,878
TXHG2000	2,000	1,475.00	0.18	516.70	1,500
TXWG1600	1,600	1,136.00	0.24	485.90	1,300
TXUG1200	1,200	237.00	0.52	741.50	850
TNG900	900	1,004.00	0.17	385.50	900
TNG2750	2,750	4,005.00	0.18	1,262.90	2,750
SCG1500	1,500	1,204.00	0.20	949.90	600
SCG3500	3,500	7,054.00	0.16	1,875.00	3,500

#### Representative Farm: Feed Grains

**Economic Viability of Representative Farms over the 2009-2014 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
11/3/5	2009	2014	2009-2014	2009-2014
IAG1350			1-1	1-1
IAG3400			1-1	1-1
NEG1960			1-1	1-1
NEG4300			1-1	1-1
NDG2180			1-1	1-1
NDG7500			1-1	1-1
MOCG2050			1-1	1-1
MOCG4000			1-1	1-1
MONG1850			70-60	1-2
ING1000			68-84	1-12
ING2200			1-1	1-1
TXPG3760			91-99	1-96
TXHG2000			77-56	1-40
TXWG1600			67-74	1-40
TXUG1200			95-92	1-86
TNG900			96-98	1-93
TNG2750			1-7	1-3
SCG1500			41-66	1-58
SCG3500			1-4	1-6

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

Implications of the January 2009 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	Receipts	Payments	NCFI	Reserve 2014	Net Worth 2014	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
IAG1350	798.73	37.11	197.81	544.39	2,210.21	4.64
IAG3400	1,973.93	87.55	576.63	1,294.29	7,002.05	4.13
NEG1960	1,481.06	59.47	483.72	1,471.81	3,798.56	7.71
NEG4300	3,010.93	79.97	985.92	3,207.52	8,894.41	6.38
NDG2180	684.86	40.72	256.42	878.47	1,634.61	9.65
NDG7500	2,869.27	35.79	1,191.07	4,310.53	10,024.50	8.83
MOCG2050	977.16	41.90	453.52	837.66	7,033.08	4.50
MOCG4000	1,920.70	35.01	1,072.21	2,976.55	13,201.33	5.91
MONG1850	1,038.95	48.89	215.50	(112.43)	6,490.42	2.60
ING1000	533.52	25.00	108.10	(152.47)	2,484.47	1.71
ING2200	1,249.31	54.94	340.98	606.09	7,073.74	3.37
TXPG3760	3,077.39	171.86	(308.44)	(2,359.98)	2,246.58	(9.37)
TXHG2000	516.78	40.46	71.67	(17.62)	1,364.79	0.65
TXWG1600	491.96	45.72	62.00	(120.82)	982.45	0.72
TXUG1200	739.46	69.37	8.28	(358.24)	(157.06)	(54.75)
TNG900	397.73	13.85	(5.17)	(348.90)	607.70	(5.74)
TNG2750	1,292.66	51.93	385.76	571.30	4,303.59	3.67
SCG1500	939.24	140.12	59.28	(122.25)	966.80	(1.84)
SCG3500	1,869.40	132.93	427.11	1,312.41	7,812.60	3.50

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2009-2014 (\$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 2009 and 2014.

<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 2007 to 2009 and from 2007 to 2014.

<sup>2</sup> Payments are average annual total government payments, 2009-2014 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2009-2014 (\$1,000)

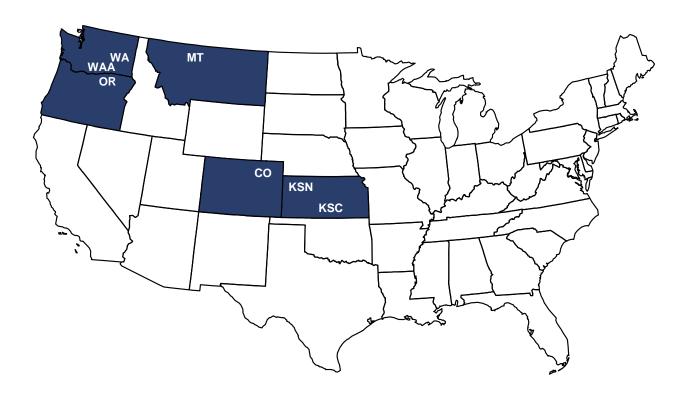
<sup>4</sup> Reserve 2014 is average ending cash reserves, 2014 (\$1,000)

<sup>5</sup> Net Worth 2014 is average nominal ending net worth, 2014 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2009-2014 period, (%)

## Representative Farm: Wheat

- Nine wheat farms are projected to be in good overall financial condition. Two farms are expected to be in marginal condition, and none are in poor condition.
- Only one of the eleven wheat farms will feel moderate liquidity pressure over the period.
- None of the wheat farms have a 50 percent or greater chance of losing real equity.



Characteristics of Panel Farms Producing Wheat, 2008.

	Cropland	Assets	Debt/Asset	Gross Receipts	Wheat
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
WAW1725	1,725	1,612.00	0.19	705.40	1,147
WAW5500	5,500	6,869.00	0.22	2,105.10	3,055
WAAW3500	3,500	1,502.00	0.15	386.60	1,500
ORW3600	3,600	1,447.00	0.12	482.70	1,600
MTW4500	4,500	3,021.00	0.14	635.20	2,330
KSCW1600	1,600	1,312.00	0.14	399.80	1,072
KSCW4000	4,000	2,786.00	0.14	946.40	2,000
KSNW2800	2,800	1,954.00	0.16	520.50	1,400
KSNW5000	5,000	3,486.00	0.14	1,263.30	2,325
COW3000	3,000	1,565.00	0.13	432.80	970
COW5640	5,640	2,632.00	0.14	842.40	2,256

### Representative Farm: Wheat

Economic Viability of Representative Farms over the 2009-2014 Period

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
9/2/0	2009	2014	2009-2014	2009-2014
WAW1725			1-1	1-1
WAW5500			1-1	1-1
WAAW3500			1-1	1-1
MTW4500			1-1	1-3
ORW3600			1-1	1-1
KSCW1600			1-8	1-28
KSCW4000			1-1	1-1
KSNW2800			1-27	1-11
KSNW5000			1-1	1-1
COW3000			1-1	1-1
COW5640			1-1	1-1

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

Implications of the January 2009 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat

	Receipts	Payments	NCFI	Reserve 2014	Net Worth 2014	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
WAW1725	689.67	49.42	348.43	1,179.05	2,434.79	10.03
WAW5500	2,056.34	134.70	754.09	2,111.62	8,200.78	6.04
WAAW3500	385.11	33.15	157.46	262.29	1,757.70	3.53
ORW3600	473.94	30.81	276.26	841.25	2,030.95	7.14
MTW4500	536.76	49.06	178.50	546.18	3,188.09	2.71
KSCW1600	374.78	40.45	90.54	167.33	1,273.79	1.03
KSCW4000	926.35	88.41	326.60	929.32	3,207.84	4.32
KSNW2800	502.41	48.66	116.43	80.14	1,922.50	2.12
KSNW5000	1,228.60	94.12	326.67	920.17	3,953.66	4.09
COW3000	406.98	25.91	183.20	579.62	1,870.88	4.71
COW5640	763.27	66.50	301.51	707.19	3,014.90	4.51

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2009-2014 (\$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 2009 and 2014.

<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 2007 to 2009 and from 2007 to 2014.

<sup>2</sup> Payments are average annual total government payments, 2009-2014 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2009-2014 (\$1,000)

<sup>4</sup> Reserve 2014 is average ending cash reserves, 2014 (\$1,000)

<sup>5</sup> Net Worth 2014 is average nominal ending net worth, 2014 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2009-2014 period, (%)

## **Representative Farm: Cotton**

- Five of the twenty cotton farms are characterized in good overall financial condition, three farms are in marginal condition, and twelve are in poor condition.
- Twelve of the farms are projected to experience severe cash flow problems over the period.
- Ten of the twenty cotton farms have more than a 50 percent chance of losing real equity.



Characteristics of Panel Farms Producing Cotton, 2008.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cotton
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
TXNP3000	3,000	1,805.00	0.17	1,793.50	630
TXNP8000	8,000	5,165.00	0.19	4,425.50	1,872
TXSP2500	2,500	974.00	0.13	586.90	1,958
TXSP3745	3,745	1,844.00	0.16	1,044.80	2,916
TXPC2500	2,500	2,651.00	0.24	1,435.10	1,367
TXEC5000	5,000	1,416.00	0.39	1,606.00	3,800
TXRP2500	2,500	640.00	0.24	373.90	1,117
TXMC1800	1,800	978.00	0.35	721.20	900
TXCB2250	2,250	1,331.00	0.15	876.20	1,000
TXCB5500	5,500	1,350.00	0.40	1,773.10	2,750
TXVC4500	4,500	3,165.00	0.20	1,647.20	2,388
CAC4000	4,000	19,231.00	0.14	8,948.60	1,333
LAC2640	2,640	1,241.00	0.19	1,925.70	924
ARC7500	7,500	8,595.00	0.24	5,488.00	1,500
ARNC5000	5,000	6,897.00	0.17	3,995.20	5,000
TNC1900	1,900	2,683.00	0.09	1,086.40	990
TNC4050	4,050	5,601.00	0.44	1,950.50	2,670
ALC3000	3,000	1,719.00	0.32	1,363.80	1,500
GAC2300	2,300	4,576.00	0.31	1,870.90	1,495
NCC1500	1,500	3,280.00	0.18	921.80	575

#### **Representative Farm: Cotton**

Economic Viability of Representative Farms over the 2009-2014 Period

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
5/3/12	2009	2014	2009-2014	2009-2014
TXNP3000			1-22	1-26
TXNP8000			5-5	1-5
TXSP2500			67-88	1-90
TXSP3745			48-96	1-96
TXPC2500			91-97	1-89
TXEC5000			99-99	1-99
TXRP2500			75-73	1-65
TXMC1800			90-95	1-88
TXCB2250			25-48	1-42
TXCB5500			86-96	1-90
TXVC4500			41-22	1-14
CAC4000			1-1	1-1
LAC2640			1-4	1-13
ARC7500			17-51	1-38
ARNC5000			16-46	1-20
TNC1900			1-2	1-2
TNC4050			99-99	1-99
ALC3000			68-74	1-53
GAC2300			99-99	1-99
NCC1500			27-83	1-40

<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 January 2009 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton

	Receipts	Payments	NCFI	Reserve 2014	Net Worth 2014	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
TXNP3000	1,536.89	66.85	177.14	303.72	1,863.57	2.43
TXNP8000	4,223.03	157.78	589.08	1,436.02	5,990.55	5.68
TXSP2500	682.39	104.31	(43.61)	(460.07)	354.98	(12.88)
TXSP3745	1,095.38	174.73	(26.89)	(707.38)	792.72	(11.25)
TXPC2500	1,392.78	169.17	(21.29)	(984.84)	1,530.71	(6.23)
TXEC5000	1,579.33	260.67	(88.66)	(1,605.91)	(308.30)	(35.09)
TXRP2500	366.04	57.84	30.37	(137.20)	430.65	(3.63)
TXMC1800	739.93	91.75	(44.07)	(828.40)	43.19	(23.61)
TXCB2250	756.70	105.70	98.34	(12.63)	1,231.45	0.93
TXCB5500	1,837.83	235.70	(143.69)	(2,033.83)	(663.29)	(67.42)
TXVC4500	1,815.74	234.40	312.45	408.96	3,374.02	4.09
CAC4000	6,661.01	57.66	1,505.22	6,271.95	23,020.36	4.17
LAC2640	1,724.38	202.57	268.95	754.35	1,611.60	7.50
ARC7500	4,958.08	348.17	566.14	(43.02)	7,282.55	0.53
ARNC5000	3,753.13	458.61	488.39	123.70	6,573.37	1.23
TNC1900	1,083.42	118.09	246.90	539.75	3,146.22	3.52
TNC4050	1,903.87	267.90	(896.88)	(7,152.24)	(1,500.24)	(34.52)
ALC3000	1,328.75	202.90	206.35	(317.25)	1,181.29	(1.43)
GAC2300	1,893.07	316.71	(411.41)	(3,525.58)	922.99	(15.40)
NCC1500	898.12	105.60	`109.71	(194.37)	2,908.62	0.24

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2009-2014 (\$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 2009 and 2014.

<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 2007 to 2009 and from 2007 to 2014.

<sup>2</sup> Payments are average annual total government payments, 2009-2014 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2009-2014 (\$1,000)  $\,$ 

<sup>4</sup> Reserve 2014 is average ending cash reserves, 2014 (\$1,000)

<sup>5</sup> Net Worth 2014 is average nominal ending net worth, 2014 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2009-2014 period, (%)

## **Representative Farm: Rice**

- Six of the fourteen rice farms are projected to be in good overall financial condition, two are in marginal condition, and six are in poor condition.
- Six of the rice farms are expected to face both severe cash flow problems and high likelihoods of losing real equity.



Characteristics of Panel Farms Producing Rice, 2008.

	Cropland	Assets	Debt/Asset	Gross Receipts	Rice
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
CAR550	550	2,162.00	0.15	808.90	500
CAR2365	2,365	6,986.00	0.15	3,637.40	2,240
CABR1300	1,300	5,085.00	0.17	1,998.30	1,200
CACR715	715	2,640.00	0.17	1,141.50	650
TXR1350	1,350	1,412.00	0.20	644.60	450
TXR3000	3,000	1,063.00	0.10	1,578.70	1,200
TXBR1800	1,800	536.00	0.46	1,152.50	600
TXER3200	3,200	1,306.00	0.23	1,759.70	1,067
LASR1200	1,200	623.00	0.18	901.40	660
LANR2500	2,500	5,233.00	0.18	1,968.20	500
MOWR4000	4,000	11,973.00	0.17	3,162.20	2,000
ARSR3240	3,240	3,688.00	0.16	2,191.40	1,620
ARWR1200	1,200	3,196.00	0.41	900.40	600
ARHR3000	3,000	4,979.00	0.21	2,278.00	1,450

#### Representative Farm: Rice

Economic Viability of Representative Farms over the 2009-2014 Period

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
6/2/6	2009	2014	2009-2014	2009-2014
CAR550			15-95	1-87
CAR2365			2-33	1-39
CABR1300			2-16	1-19
CACR715			2-20	1-20
TXR1350			93-99	1-90
TXR3000			2-5	1-11
TXBR1800			97-99	1-98
TXER3200			92-97	1-96
LASR1200			2-6	1-8
LANR2500			4-2	1-1
MOWR4000			2-7	1-4
ARSR3240			2-22	1-26
ARWR1200			99-99 1-99	
ARHR3000			84-98	1-91

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

25-50

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Implications of the January 2009 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice

•	Receipts	Payments	NCFI	Reserve 2014	Net Worth 2014	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAR550	647.80	70.27	29.89	(215.59)	1,731.35	(2.25)
CAR2365	2,905.92	190.78	208.46	171.39	6,314.81	(0.03)
CABR1300	1,603.36	168.21	213.87	399.06	4,768.58	0.92
CACR715	916.81	94.05	90.23	130.22	2,454.21	0.97
TXR1350	510.09	54.16	24.54	(368.60)	1,019.97	(3.94)
TXR3000	1,250.37	126.17	234.88	818.80	1,428.42	6.57
TXBR1800	908.86	85.33	(36.98)	(850.41)	(324.24)	(44.56)
TXER3200	1,459.72	146.45	(56.01)	(776.63)	390.93	3.76
LASR1200	763.22	52.10	153.46	417.38	845.66	8.05
LANR2500	1,921.95	139.64	510.71	949.10	6,085.64	4.82
MOWR4000	2,654.35	195.13	640.51	1,221.07	12,152.19	2.80
ARSR3240	1,838.62	174.86	332.00	364.48	3,537.18	1.17
ARWR1200	750.41	69.64	(328.43)	(3,006.05)	110.07	(21.46)
ARHR3000	1,918.28	170.48	50.35	(1,410.25)	3,440.66	(3.85)

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2009-2014 (\$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 2009 and 2014.

<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 2007 to 2009 and from 2007 to 2014.

<sup>2</sup> Payments are average annual total government payments, 2009-2014 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2009-2014 (\$1,000)

<sup>4</sup> Reserve 2014 is average ending cash reserves, 2014 (\$1,000)

<sup>5</sup> Net Worth 2014 is average nominal ending net worth, 2014 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2009-2014 period, (%)

## **Representative Farm: Dairy**

- Ten of twenty-two dairy operations are in good overall financial condition. Three dairies are classified in marginal condition, and nine are in poor condition.
- Ten of the dairies are projected to experience severe liquidity pressure.
- Only one dairy is projected to face a 50 percent or greater probability of losing real equity.



Characteristics of Panel Farms Producing Milk, 2008.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(number)
CAD1710	700	22,031.00	0.18	7,211.70	1,710
WAD250	200	3,996.00	0.19	1,140.60	250
WAD850	605	9,458.00	0.19	3,808.90	850
IDD1000	360	7,483.00	0.13	4,740.50	1,000
IDD3000	1,500	24,755.00	0.13	13,898.40	3,000
TXND3000	480	13,854.00	0.10	12,546.00	3,000
TXCD550	750	4,708.00	0.16	2,125.60	550
TXCD1300	560	8,502.00	0.15	5,201.20	1,300
TXED450	850	3,362.00	0.17	1,705.90	450
TXED1000	750	6,949.00	0.17	4,163.70	1,000
WID145	600	2,813.00	0.19	822.60	145
WID775	1,200	6,864.00	0.15	4,092.50	775
NYWD600	1,200	5,446.00	0.19	2,733.70	600
NYWD1200	2,100	11,761.00	0.18	5,583.70	1,200
NYCD110	325	1,326.00	0.16	542.80	110
NYCD550	1,100	5,574.00	0.21	2,845.70	550
VTD140	220	1,926.00	0.14	751.40	140
VTD400	1,000	4,784.00	0.19	2,005.10	400
MOGD500	0	2,751.00	0.15	1,283.70	500
MOCD500	530	4,354.00	0.17	2,240.80	500
FLND550	600	4,732.00	0.18	2,560.80	550
FLSD1500	400	12,508.00	0.20	7,026.60	1,500

#### Representative Farm: Dairy

**Economic Viability of Representative Farms over the 2009-2014 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
10/3/9	2009	2014	2009-2014	2009-2014
CAD1710			57-61	1-30
WAD250			70-53	1-11
WAD850			46-36	1-20
IDD1000			39-21	1-11
IDD3000			18-12	1-8
TXND3000			72-58	1-49
TXCD550			20-9	1-5
TXCD1300			52-44	1-39
TXED450			70-62	1-38
TXED1000			55-51	1-40
WID145			1-1	1-1
WID775			1-1	1-1
NYWD600			95-95	1-73
NYWD1200			6-7	1-8
NYCD110			1-1	1-1
NYCD550			84-75	1-34
VTD140			56-31	1-12
VTD400			82-71	1-34
MOGD500			1-1	1-1
MOCD500			72-71	1-42
FLND550			72-23	1-3
FLSD1500			98-82	1-43

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

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Implications of the January 2009 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk

	Receipts	Payments	NCFI	Reserve 2014	Net Worth 2014	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAD1710	6,378.71	0.04	287.38	(678.91)	18,467.39	0.85
WAD250	1,032.52	0.00	134.59	(92.60)	3,603.43	2.27
WAD850	3,421.32	0.00	294.71	235.90	8,244.27	2.44
IDD1000	4,273.65	0.00	371.84	476.79	7,199.37	4.79
IDD3000	12,491.65	0.00	1,519.30	3,752.02	25,393.51	4.66
TXND3000	11,397.45	0.00	(66.47)	(1,621.03)	10,251.09	(0.28)
TXCD550	1,940.14	0.00	220.22	647.67	4,795.97	4.29
TXCD1300	4,764.86	0.00	166.99	14.83	6,970.14	0.90
TXED450	1,563.18	0.00	37.29	(253.75)	2,793.75	1.00
TXED1000	3,781.75	0.00	145.71	(263.01)	5,589.25	0.81
WID145	742.40	0.01	219.15	530.39	2,943.34	4.87
WID775	3,708.01	0.00	975.93	3,940.48	8,984.10	9.80
NYWD600	2,488.22	0.00	(79.45)	(1,398.14)	3,637.08	(2.56)
NYWD1200	5,080.27	0.00	559.30	1,683.06	11,541.31	4.01
NYCD110	496.66	4.51	160.82	349.57	1,474.89	5.12
NYCD550	2,603.82	0.00	141.07	(766.14)	4,527.33	1.43
VTD140	693.50	0.00	98.34	62.52	1,895.62	2.30
VTD400	1,839.73	0.00	73.01	(372.80)	4,035.52	1.03
MOGD500	1,172.12	0.00	282.83	988.29	3,102.83	6.51
MOCD500	2,039.92	0.00	95.83	(468.78)	3,451.10	0.59
FLND550	2,409.62	0.00	343.73	340.48	5,162.92	6.02
FLSD1500	6,627.42	0.00	(32.05)	(2,200.60)	9,927.14	0.43

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2009-2014 (\$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 2009 and 2014.

<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 2007 to 2009 and from 2007 to 2014.

<sup>2</sup> Payments are average annual total government payments, 2009-2014 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2009-2014 (\$1,000)

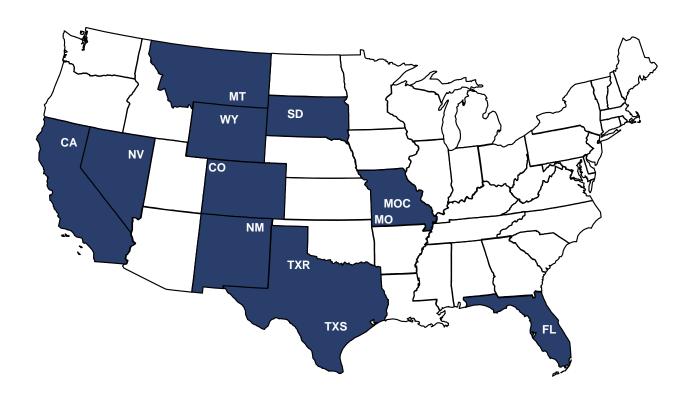
<sup>4</sup> Reserve 2014 is average ending cash reserves, 2014 (\$1,000)

<sup>5</sup> Net Worth 2014 is average nominal ending net worth, 2014 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2009-2014 period, (%)

## Representative Farm: Cow/Calf

- Five of twelve cow-calf operations are projected to be in good overall financial condition. Five ranches are expected to be in marginal condition, and two are in poor condition.
- Seven of the operations will face significant liquidity pressure over the period, as their likelihoods of experiencing negative ending cash exceed 50 percent.
- Two operations are projected to face a severe threat of losing real equity over the period.



Characteristics of Panel Farms Producing Beef Cattle, 2008.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(number)
CAB500	0	5,659.00	0.05	275.10	500
NVB700	1,300	4,770.00	0.02	350.80	700
MTB500	0	4,687.00	0.03	285.00	500
WYB335	330	3,635.00	0.03	270.30	335
COB250	450	17,965.00	0.01	217.70	250
NMB240	0	5,711.00	0.02	163.50	240
SDB375	1,150	5,408.00	0.01	219.80	375
MOB250	280	2,625.00	0.02	292.80	250
MOCB400	40	4,151.00	0.01	259.40	400
TXRB500	0	7,191.00	0.01	459.10	500
TXSB200	0	3,057.00	0.04	133.00	185
FLB1155	5,400	41,309.00	0.01	631.60	1,155

#### Representative Farm: Cow/Calf

**Economic Viability of Representative Farms over the 2009-2014 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
5/5/2	2009	2014	2009-2014	2009-2014
CAB500			99-99	1-99
NVB700			95-80	1-3
MTB500			39-1	1-1
WYB335			99-99	1-52
COB250			1-73	1-7
NMB240			99-93	1-7
SDB375			1-1	1-1
MOB250			1-1	1-1
MOCB400			16-4	1-1
TXRB500			1-1	1-1
TXSB200			99-99	1-12
FLB1155			91-68	1-5

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

25-50

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Implications of the January 2009 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle

	Receipts	Payments	NCFI	Reserve 2014	Net Worth 2014	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAB500	312.30	0.00	(92.49)	(820.05)	4,879.96	(2.32)
NVB700	391.46	0.00	52.15	(103.10)	5,286.36	1.57
MTB500	316.92	0.00	94.37	127.75	5,466.29	2.04
WYB335	289.53	0.00	(4.19)	(339.36)	3,785.12	(0.02)
COB250	228.11	0.00	29.12	(24.88)	19,704.37	1.02
NMB240	178.42	0.00	25.37	(83.11)	6,423.29	1.02
SDB375	245.94	0.00	89.67	204.85	6,298.19	1.65
MOB250	303.64	2.83	136.57	415.25	3,177.53	2.95
MOCB400	285.62	0.00	71.69	123.15	4,708.44	1.55
TXRB500	478.09	0.00	171.17	645.70	8,760.33	2.32
TXSB200	161.16	0.00	42.44	(102.44)	3,322.71	0.82
FLB1155	695.16	0.00	85.28	(100.65)	47,447.99	1.14

 $<sup>1 \ \ \</sup>text{Receipts are average annual total cash receipts including government payments, 2009-2014 (\$1,000)}$ 

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2009 and 2014.

<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 2007 to 2009 and from 2007 to 2014.

<sup>2</sup> Payments are average annual total government payments, 2009-2014 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2009-2014 (\$1,000)

<sup>4</sup> Reserve 2014 is average ending cash reserves, 2014 (\$1,000)

<sup>5</sup> Net Worth 2014 is average nominal ending net worth, 2014 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2009-2014 period, (%)

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