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#### **Research Report**

# Representative farms economic outlook for the January 2003 FAPRI-AFPC baseline

AFPC Briefing Paper, No. 03-1

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# Representative Farms Economic Outlook for the January 2003 FAPRI/AFPC Baseline





AFPC Briefing Paper 03-1

March 2003

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### REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2003 FAPRI/AFPC BASELINE

AFPC Briefing Paper 03-1

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### REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2003 FAPRI/AFPC BASELINE

The farm level economic impacts of the Farm Security and Rural Investment Act of 2002 on representative crop and livestock operations are projected in this report. The analysis was conducted over the 2001-2007 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 2003 Baseline.

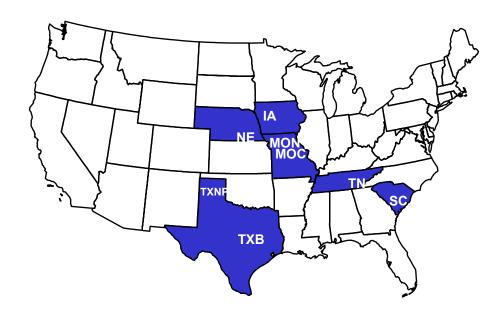
The FLIPSIM policy simulation model incorporates the historical risk faced by farmers for prices and production. This report presents the results of the January 2003 Baseline in a risk context using selected simulated probabilities and ranges for annual net cash farm income values. The probability of a farm experiencing annual cash flow deficits 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 2007.

#### **Definitions of Variables in the Summary Tables**

- Overall Financial Position, 2003-2007 -- 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 assumes a farm is in a good financial position when it has less than a 25 percent chance each of a cash flow deficit and 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 -- sum of cash receipts from all sources, including market sales, CCP and direct payments, loan deficiency payments, crop insurance indemnities, and other farm related receipts.
- Payments -- sum of annual counter cyclical payments, direct payments, and marketing loan gains/LDP for crops and the milk program payment for dairy farms.
- NCFI -- net cash farm income equals total receipts minus all cash expenses.
- Reserves 2007 -- equals total cash on hand at the end of year 2007. 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).
- **Nominal Net Worth** -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2007.
- **CRNW** -- annualized percentage change in the operator's net worth from January 1, 2003 through December 31, 2007, after adjusting for inflation.

# **Representative Farm: Feed Grain**

- Overall, three feed grain farms are characterized as good, eight are vulnerable, and five are in poor condition.
- The majority of the farms will be under cash flow stress with very few losing real wealth.
- These representative farm results are slightly less favorable than the July 2002 Baseline, primarily due to lower projected prices.



**Characteristics of Panel Farms Producing Feed Grains.** 

	Cropland Assets		Debt/Asset	Gross Receipts	Feed Grains
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
IAG1350	1,350	1,008.00	0.15	421.50	675
IAG2750	2,750	1,830.00	0.20	725.50	1,375
IAG4200	4,200	3,763.00	0.16	1,411.30	2,100
NEG900	900	1,081.00	0.25	319.90	600
NEG1300	1,300	1,358.00	0.19	465.90	871
MOCG1700	1,700	2,657.00	0.18	444.60	825
MOCG3630	3,630	4,067.00	0.21	809.10	1,650
MONG2050	2,050	2,693.00	0.16	587.30	900
TXNP1750	1,750	479.00	0.23	555.10	880
TXNP7000	7,000	2,434.00	0.15	2,018.20	4,280
TXBG2000	2,000	626.00	0.22	412.90	1,350
TXBG2700	1,300	788.00	0.28	414.60	1,150
TNG900	900	546.00	0.23	245.50	450
TNG2400	2,400	1,832.00	0.13	711.80	1,080
SCG1500	1,500	1,093.00	0.33	450.10	846
SCG3500	3,500	3,491.00	0.25	1,317.60	1,400

### **Representative Farm: Feed Grain**

#### **Economic Viability of Representative Farms over the 2003-2007 Period**

Farm Name	P(Cash Flow Deficit)	P(Real Net Worth Declines)
3/8/5	2003-2007	2003-2007
IAG1350	29-31	1-10
IAG2750	26-25	1-1
IAG4200	18-41	1-4
NEG900	56-78	1-27
NEG1300	44-32	1-20
MOCG1700	15-9	1-1
MOCG3630	23-11	1-1
MONG2050	34-40	1-9
TXNP1750	34-50	1-23
TXNP7000	28-40	1-6
TXBG2000	57-58	1-42
TXBG2700	99-98	1-91
TNG900	26-11	1-1
TNG2400	32-42	1-7
SCG1500	99-99	1-87
SCG3500	86-97	1-84

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

< 25

26 - 50

> 50

### Implications of the January 2003 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds.

	Receipts	Payments	NCFI	Reserve 2007	Net Worth 2007	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
IAG1350	434.68	73.50	114.85	175.39	982.08	2.36
IAG2750	748.06	125.86	270.29	437.49	1,824.36	4.07
IAG4200	1,457.78	252.69	424.76	766.57	3,735.33	2.79
NEG900	326.62	56.37	100.42	(8.39)	871.33	1.19
NEG1300	477.38	79.83	139.19	150.86	1,162.81	1.19
MOCG1700	466.44	75.56	210.78	413.59	2,553.88	2.89
MOCG3630	849.55	136.24	374.71	611.27	3,846.66	3.40
MONG2050	634.21	78.02	188.19	229.95	2,525.27	1.84
TXNP1750	621.49	91.54	144.28	151.50	551.64	6.77
TXNP7000	2,020.09	326.23	472.64	573.77	2,593.78	3.97
TXBG2000	403.80	82.69	71.11	17.62	500.65	0.35
TXBG2700	412.49	46.25	7.55	(277.39)	359.83	(6.86)
TNG900	248.58	38.77	84.49	135.53	536.54	4.65
TNG2400	722.06	109.92	214.87	339.78	1,819.64	2.38
SCG1500	457.21	74.27	20.89	(315.10)	547.93	(4.34)
SCG3500	1,284.03	262.01	47.78	(732.53)	2,150.14	(2.96)

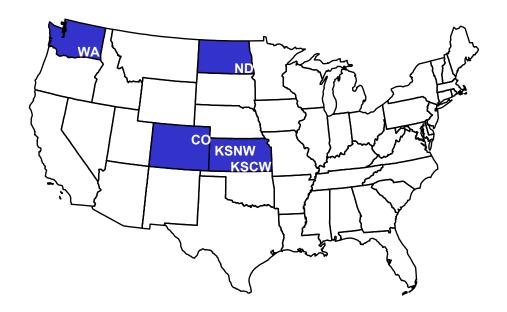
- 1 Receipts are average annual total cash receipts including government payments, 2003-2007 (\$1,000)
- 2 Payments are average annual total government payments, 2003-2007 (\$1,000)
- 3 NCFI are average annual net cash farm income, 2003-2007 (\$1,000)
- 4 Reserve 2007 are average ending cash reserves, 2007 (\$1,000)
- 5 Net Worth 2007 are average nominal ending net worth, 2007 (\$1,000)
- 6 CRNW are average percentage in real net worth over 2003-2007 period, (%)

<sup>2</sup> P(Cash Flow Deficit) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2003 and 2007.

<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 2001 to 2002 and from 2001 to 2007.

# **Representative Farm: Wheat**

- Three wheat farms are projected to be in good financial condition with five in moderate condition and only two in poor condition.
- Two-thirds of the wheat farms will feel liquidity pressure over the period.
- · Three wheat farms have a significant chance of losing real equity.
- These results are slightly worse than the July 2002 Baseline.



#### Characteristics of Panel Farms Producing Wheat.

	Cropland	Assets	Debt/Asset	Gross Receipts	Wheat
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
WAW1725	1,725	1,310.00	0.21	455.30	1,035
WAW4675	4,675	3,884.00	0.19	1,058.30	3,043
NDW2180	2,180	558.00	0.11	350.80	700
NDW6250	6,250	2,589.00	0.20	1,235.80	2,700
KSCW1385	1,385	654.00	0.16	166.20	928
KSCW4000	4,000	1,489.00	0.13	591.40	2,845
KSNW2800	2,800	1,099.00	0.17	313.30	935
KSNW4300	4,300	1,667.00	0.08	646.00	2,000
COW3000	3,000	1,082.00	0.21	297.20	1,125
COW5440	5,440	1,714.00	0.15	534.10	1,900

# **Representative Farm: Wheat**

#### **Economic Viability of Representative Farms over the 2003-2007 Period**

Farm Name	P(Cash Flow Deficit)	P(Real Net Worth Declines)
3/5/2	2003-2007	2003-2007
WAW1725	6-39	1-0
WAW4675	19-28	1-0
NDW2180	49-36	1-40
NDW6250	29-33	1-0
KSCW1385	60-77	1-63
KSCW4000	4-0	1-1
KSNW2800	96-99	1-90
KSNW4300	32-38	1-10
COW3000	2-1	1-1
COW5440	8-22	1-1

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

< 25</li>
 2 P(Cash Flow Deficit) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for

### Implications of the January 2003 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat.

	Receipts	Payments	NCFI	Reserve 2007	Net Worth 2007	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
WAW1725	438.11	59.58	168.61	408.00	1,334.36	4.58
WAW4675	1,028.22	156.59	362.50	719.58	3,751.98	3.11
NDW2180	362.37	53.31	84.20	134.67	515.69	0.79
NDW6250	1,252.76	164.96	391.36	816.90	2,614.57	4.32
KSCW1385	159.28	34.25	57.48	11.42	530.93	(0.60)
KSCW4000	553.73	91.76	288.76	680.29	1,700.50	5.08
KSNW2800	317.47	52.53	45.16	(262.12)	757.15	(3.17)
KSNW4300	640.60	96.63	177.30	327.52	1,752.76	2.40
COW3000	294.51	36.98	142.47	275.56	1,131.57	5.12
COW5440	514.36	70.14	229.57	393.95	1,767.86	3.49

- 1 Receipts are average annual total cash receipts including government payments, 2003-2007 (\$1,000)
- 2 Payments are average annual total government payments, 2003-2007 (\$1,000)
- 3 NCFI are average annual net cash farm income, 2003-2007 (\$1,000)
- 4 Reserve 2007 are average ending cash reserves, 2007 (\$1,000)
- 5 Net Worth 2007 are average nominal ending net worth, 2007 (\$1,000)
- 6 CRNW are average percentage in real net worth over 2003-2007 period, (%)

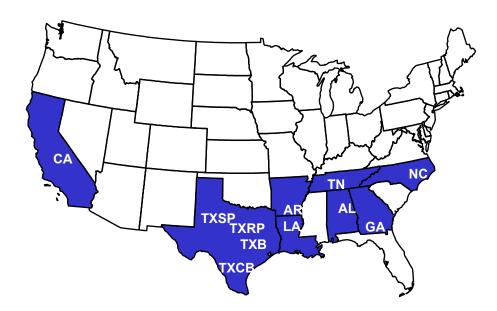
<sup>2003</sup> and 2007.

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.

<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 2001 to 2002 and from 2001 to 2007.

## **Representative Farm: Cotton**

- Three of fourteen farms are characterized as being in good overall condition, with six in moderate and five in poor condition.
- Most of the farms are projected to have cash flow problems over the period.
- Five of fourteen cotton farms are expected to experience significant losses in real equity.
- Relative to the July 2002 Baseline, the cotton farm results indicate considerably worse cash flow problems, primarily due to lower prices.



#### **Characteristics of Panel Farms Producing Cotton.**

-					
	Cropland	Assets	Debt/Asset	Gross Receipts	Cotton
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
CAC2400	2,000	4,647.00	0.16	2,215.10	1,000
CAC9000	9,000	15,437.00	0.17	10,887.10	4,500
TXSP2239	2,239	731.00	0.17	652.60	1,616
TXSP3745	3,745	1,360.00	0.20	842.80	2,625
TXRP2500	2,500	404.00	0.24	268.60	1,240
TXBC1400	1,400	537.00	0.13	289.50	150
TXCB1850	1,850	883.00	0.17	554.10	925
LAC2640	2,640	971.00	0.33	930.50	1,498
ARC5000	5,000	3,661.00	0.19	2,505.90	1,801
TNC1900	1,900	1,508.00	0.14	710.70	915
TNC4050	4,050	3,583.00	0.18	1,675.80	2,670
ALC3000	3,000	1,599.00	0.15	1,379.50	2,075
GAC1700	1,700	1,940.00	0.26	1,293.00	1,020
NCC1500	1,500	1,572.00	0.15	706.70	1,000

### **Representative Farm: Cotton**

#### **Economic Viability of Representative Farms over the 2003-2007 Period**

Farm Name	P(Cash Flow Deficit)	P(Real Net Worth Declines)
3/6/5	2003-2007	2003-2007
CAC2400	17-23	1-1
CAC9000	25-35	1-13
TXSP2239	21-52	1-22
TXSP3745	69-66	1-36
TXRP2500	61-76	1-49
TXBC1400	15-19	1-5
TXCB1850	40-44	1-16
LAC2640	71-73	1-58
ARC5000	17-59	1-1
TNC1900	1-3	1-1
TNC4050	24-26	1-7
ALC3000	24-39	1-3
GAC1700	56-87	1-29
NCC1500	54-99	1-86

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

< 25 > 50

### Implications of the January 2003 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton.

	Receipts	Payments	NCFI	Reserve 2007	Net Worth 2007	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAC2400	2,110.15	259.11	441.45	1,229.12	4,738.53	3.33
CAC9000	10,865.42	1,184.71	1,919.34	4,434.46	16,249.24	4.05
TXSP2239	609.35	119.37	109.08	93.83	645.44	2.07
TXSP3745	821.21	174.66	132.94	14.11	1,134.15	1.01
TXRP2500	281.91	82.49	64.21	(4.79)	326.96	0.35
TXBC1400	292.40	64.68	96.30	186.20	607.29	4.48
TXCB1850	547.00	123.40	144.13	305.14	947.10	4.27
LAC2640	934.53	215.45	84.54	(81.53)	577.38	(1.95)
ARC5000	2,458.11	713.45	540.82	917.11	3,605.35	3.23
TNC1900	704.30	154.65	324.37	849.96	2,036.96	8.36
TNC4050	1,738.61	354.86	582.52	1,400.86	3,967.69	5.27
ALC3000	1,354.68	331.95	413.85	1,222.92	2,074.85	7.89
GAC1700	1,172.35	222.02	156.29	(83.66)	1,375.99	0.63
NCC1500	698.42	156.75	69.58	(132.12)	1,133.21	(3.07)

- 1 Receipts are average annual total cash receipts including government payments, 2003-2007 (\$1,000)
- 2 Payments are average annual total government payments, 2003-2007 (\$1,000)
- 3 NCFI are average annual net cash farm income, 2003-2007 (\$1,000)
- 4 Reserve 2007 are average ending cash reserves, 2007 (\$1,000)
- 5 Net Worth 2007 are average nominal ending net worth, 2007 (\$1,000)
- 6 CRNW are average percentage in real net worth over 2003-2007 period, (%)

<sup>2</sup> P(Cash Flow Deficit) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2003 and 2007.

<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 2001 to 2002 and from 2001 to 2007.

# **Representative Farm: Rice**

- None of the sixteen rice farms are projected to be in good overall financial condition with one in moderate and fifteen in poor condition.
- Almost all rice farms are expected to face severe cash flow problems and real equity losses.
- Relative to previous analyses, the rice farms are severely disadvantaged due to decreases in the U.S. rice price without a corresponding decrease in the adjusted world price.



**Characteristics of Panel Farms Producing Rice.** 

	Cropland	Assets	Debt/Asset	Gross Receipts	Rice
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
CAR424	424	840.00	0.31	279.70	400
CAR2365	2,365	3,219.00	0.27	1,644.30	2,240
CABR1365	1,365	2,527.00	0.25	693.70	1,000
CACR1420	1,420	1,995.00	0.36	894.20	1,278
TXR1553	1,553	437.00	0.25	354.60	450
TXR3774	3,774	842.00	0.35	916.70	1,589
TXBR1650	1,650	589.00	0.19	459.10	550
TXER3200	3,200	930.00	0.26	1,062.80	1,280
LASR1200	1,200	311.00	0.15	360.60	660
LANR2500	2,500	2,139.00	0.22	974.10	1,000
MOWR4000	4,000	5,500.00	0.20	1,504.60	2,000
MOER4000	4,000	4,518.00	0.18	1,411.70	1,334
ARSR3640	3,640	4,247.00	0.18	1,235.70	1,742
ARWR1200	1,200	1,633.00	0.22	495.00	600
ARHR3000	3,000	3,093.00	0.20	1,212.00	1,500
MSR4735	4,736	1,527.00	0.28	1,669.60	1,335

# **Representative Farm: Rice**

#### **Economic Viability of Representative Farms over the 2003-2007 Period**

Farm Name	P(Cash Flow Deficit)	P(Real Net Worth Declines)
0/1/15	2003-2007	2003-2007
CAR424	99-99	1-99
CAR2365	82-99	1-94
CABR1365	99-99	1-98
CACR1420	99-99	1-99
TXR1553	99-99	1-99
TXR3774	74-99	1-95
TXBR1650	99-99	1-99
TXER3200	99-99	1-99
LASR1200	88-99	1-99
LANR2500	99-99	1-99
MOWR4000	57-89	1-84
MOER4000	59-64	1-64
ARSR3640	37-40	1-17
ARWR1200	99-99	1-99
ARHR3000	99-99	1-99
MSR4735	99-99	1-99

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

< 25 > 50

### Implications of the January 2003 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice.

	Receipts	Payments	NCFI	Reserve 2007	Net Worth 2007	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAR424	269.96	133.65	(44.06)	(631.78)	63.61	(18.19)
CAR2365	1,586.72	782.64	(218.92)	(2,104.76)	499.76	(16.29)
CABR1365	672.06	338.24	(94.63)	(1,239.38)	900.06	(10.01)
CACR1420	870.18	440.07	(302.60)	(2,206.41)	(713.47)	(38.42)
TXR1553	334.02	152.34	(6.46)	(361.30)	(24.39)	(22.32)
TXR3774	861.27	381.89	60.14	(313.59)	268.22	(10.58)
TXBR1650	434.59	202.96	(41.90)	(507.47)	(97.63)	(25.42)
TXER3200	997.72	435.23	17.51	(395.57)	308.93	(11.22)
LASR1200	347.29	130.45	17.52	(189.54)	53.44	(16.27)
LANR2500	944.42	317.79	(34.86)	(952.78)	862.88	(8.73)
MOWR4000	1,460.53	518.21	109.82	(562.94)	3,703.77	(2.80)
MOER4000	1,408.26	439.84	216.29	195.59	3,613.27	(0.27)
ARSR3640	1,181.68	440.97	293.43	421.12	3,674.96	0.97
ARWR1200	476.68	178.37	21.55	(525.93)	803.48	(6.52)
ARHR3000	1,168.56	445.19	29.50	(823.99)	1,816.57	(4.70)
MSR4735	1,654.91	498.15	(37.61)	(1,265.11)	(128.98)	(23.01)

- 1 Receipts are average annual total cash receipts including government payments, 2003-2007 (\$1,000)
- 2 Payments are average annual total government payments, 2003-2007 (\$1,000)
- 3 NCFI are average annual net cash farm income, 2003-2007 (\$1,000)
- 4 Reserve 2007 are average ending cash reserves, 2007 (\$1,000)
- 5 Net Worth 2007 are average nominal ending net worth, 2007 (\$1,000)
- 6 CRNW are average percentage in real net worth over 2003-2007 period, (%)

<sup>2</sup> P(Cash Flow Deficit) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2003 and 2007.

<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 2001 to 2002 and from 2001 to 2007.

## **Representative Farm: Dairy**

- Nine of the dairies are classified as being in a good overall financial position. Two are in a marginal financial position and twelve are in poor shape.
- Nine of the dairies have a greater than 40 percent probability of decreasing real net worth over the period.



**Characteristics of Panel Farms Producing Milk.** 

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(number)
CAD1710	800	9,423.00	0.22	4,838.10	1,710
NMD2000	400	5,844.00	0.26	5,757.10	2,000
WAD185	120	981.00	0.19	674.80	185
WAD900	605	4,397.00	0.23	3,012.50	900
IDD750	240	3,484.00	0.29	2,310.70	750
IDD2100	560	9,459.00	0.17	6,159.70	2,100
TXND2400	260	8,652.00	0.23	6,362.70	2,400
TXCD500	250	1,941.00	0.33	1,276.00	500
TXCD1300	460	5,268.00	0.20	4,098.00	1,300
TXED330	600	1,703.00	0.36	736.00	330
TXED750	750	3,510.00	0.17	2,094.50	750
MOD85	260	879.00	0.36	194.90	85
MOD400	730	1,892.00	0.35	880.20	400
FLND500	600	2,587.00	0.18	1,791.90	500
FLSD1500	400	6,275.00	0.32	4,154.70	1,500
WID135	600	1,990.00	0.26	462.10	135
WID700	1,200	3,852.00	0.22	2,154.10	700
NYWD800	1,440	4,405.00	0.23	2,572.60	800
NYWD1200	2,160	6,967.00	0.22	3,811.00	1,200
NYCD110	296	774.00	0.18	414.80	110
NYCD500	1,100	2,988.00	0.20	1,670.30	500
VTD134	220	850.00	0.20	443.20	134
VTD350	700	2,735.00	0.22	1,180.20	350

### **Representative Farm: Dairy**

#### Economic Viability of Representative Farms over the 2003-2007 Period

Farm Name	P(Cash Flow Deficit)	P(Real Net Worth Declines)
9/2/12	2003-2007	2003-2007
CAD1710	52-14	1-0
NMD2000	92-59	1-21
WAD185	34-22	1-0
WAD900	68-52	1-25
IDD750	99-91	1-54
IDD2100	44-11	1-0
TXND2400	70-69	1-38
TXCD500	99-99	1-90
TXCD1300	46-17	1-2
TXED330	99-99	1-99
TXED750	56-14	1-0
WID135	99-87	1-40
WID700	64-52	1-19
NYWD800	89-90	1-64
NYWD1200	90-89	1-64
NYCD110	9-1	1-1
NYCD500	76-39	1-3
VTD134	43-11	1-0
VTD350	99-98	1-80
MOD85	99-99	1-96
MOD400	99-99	1-71
FLND500	15-7	1-1
FLSD1500	99-99	1-82

<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 2003 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk.

	Receipts	Payments	NCFI	Reserve 2007	Net Worth 2007	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAD1710	5,213.72	47.18	816.64	2,192.48	9,382.34	4.64
NMD2000	6,246.17	15.22	532.30	71.49	5,416.53	4.20
WAD185	713.27	22.90	177.53	419.61	1,208.65	7.68
WAD900	3,254.85	57.05	296.62	352.24	3,920.73	2.47
IDD750	2,512.12	15.22	73.19	(746.98)	2,393.25	(0.53)
IDD2100	6,759.71	55.10	1,492.07	3,700.10	11,772.71	7.69
TXND2400	6,901.39	15.22	304.08	(455.86)	7,006.24	1.14
TXCD500	1,365.80	15.22	(58.85)	(860.77)	739.86	(7.84)
TXCD1300	4,420.67	15.22	665.80	1,689.99	5,782.19	5.62
TXED330	779.92	15.22	(97.00)	(1,067.84)	418.79	(11.55)
TXED750	2,244.89	15.22	462.34	1,224.66	4,141.45	6.52
MOD85	201.90	12.51	16.58	(228.69)	456.97	(3.46)
MOD400	949.93	28.22	30.59	(537.70)	1,024.90	(3.11)
FLND500	1,894.55	15.22	505.80	1,309.28	3,441.18	9.08
FLSD1500	4,433.48	15.22	(123.99)	(2,285.63)	3,197.76	(4.47)
WID135	492.82	22.65	77.54	(70.81)	1,509.16	0.28
WID700	2,367.46	39.18	280.59	314.81	3,472.03	2.46
NYWD800	2,762.78	34.66	138.35	(438.82)	3,184.21	(1.18)
NYWD1200	4,104.77	47.71	194.25	(670.77)	5,072.71	(1.10)
NYCD110	415.86	6.13	152.55	360.04	947.55	7.90
NYCD500	1,778.23	19.22	285.72	287.60	2,890.80	3.39
VTD134	448.41	5.70	117.35	201.78	898.88	5.07
VTD350	1,243.72	2.07	24.50	(499.80)	1,846.45	(2.36)

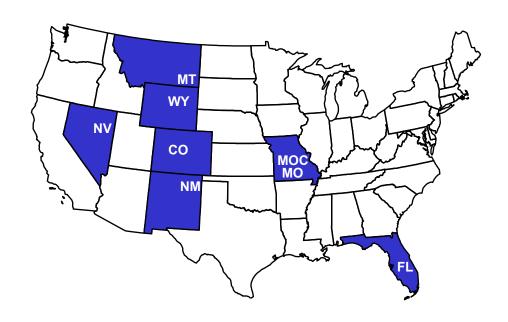
- 1 Receipts are average annual total cash receipts including government payments, 2003-2007 (\$1,000)
- 2 Payments are average annual total government payments, 2003-2007 (\$1,000)
- 3 NCFI are average annual net cash farm income, 2003-2007 (\$1,000)
- 4 Reserve 2007 are average ending cash reserves, 2007 (\$1,000)
- 5 Net Worth 2007 are average nominal ending net worth, 2007 (\$1,000)
- 6 CRNW are average percentage in real net worth over 2003-2007 period, (%)

<sup>2</sup> P(Cash Flow Deficit) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2003 and 2007.

<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 2001 to 2002 and from 2001 to 2007.

## **Representative Farm: Cow/Calf**

- Five of eight cow-calf operations are projected to be in good overall financial condition. Three are in poor condition over the 2003-2007 period.
- Three of the ranches are expected to face increasing liquidity pressure over the period.



**Characteristics of Panel Farms Producing Beef Cattle.** 

	Cropland Assets		Debt/Asset	Gross Receipts	Cows	
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(number)	
NVB680	1,900	1,837.00	0.03	235.00	680	
MTB500	-	2,252.00	0.01	226.90	500	
WYB300	200	3,181.00	0.03	131.00	300	
COB250	450	8,233.00	0.01	113.40	250	
NMB300	-	2,280.00	0.03	157.40	300	
MOB150	440	844.00	0.10	125.70	150	
MOCB350	-	1,966.00	0.01	167.70	350	
FLB1155	5,400	9,167.00	0.01	436.30	1,155	

### **Representative Farm: Cow/Calf**

#### **Economic Viability of Representative Farms over the 2003-2007 Period**

Farm Name	P(Cash Flow Deficit)	P(Real Net Worth Declines)
5/0/3	2003-2007	2003-2007
NVB680	99-96	1-72
MTB500	1-3	1-0
WYB300	40-23	1-4
COB250	14-84	1-27
NMB300	1-1	1-2
MOB150	26-9	1-2
MOCB350	61-84	1-71
FLB1155	0-18	1-7

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

### Implications of the January 2003 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle.

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	Receipts	Payments	NCFI	Reserve 2007	Net Worth 2007	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
NVB680	268.15	-	(2.84)	(198.50)	1,663.64	(1.39)
MTB500	250.41	-	122.45	464.72	2,598.33	2.46
WYB300	144.73	-	59.00	90.71	3,220.18	0.74
COB250	146.18	-	45.00	115.26	8,160.89	0.09
NMB300	174.44	-	68.23	187.56	2,375.15	1.09
MOB150	132.91	8.37	60.27	80.68	833.69	1.60
MOCB350	184.01	-	24.76	(21.33)	1,896.85	(0.48)
FLB1155	479.64	-	147.52	438.91	9,441.66	0.63

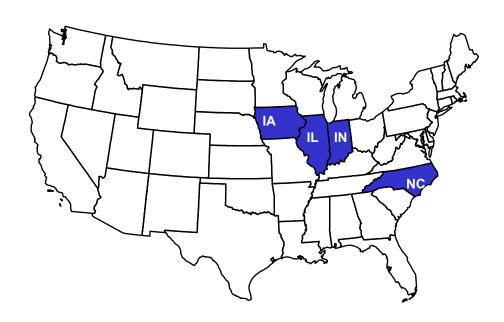
- 1 Receipts are average annual total cash receipts including government payments, 2003-2007 (\$1,000)
- 2 Payments are average annual total government payments, 2003-2007 (\$1,000)
- 3 NCFI are average annual net cash farm income, 2003-2007 (\$1,000)
- 4 Reserve 2007 are average ending cash reserves, 2007 (\$1,000)
- 5 Net Worth 2007 are average nominal ending net worth, 2007 (\$1,000)
- 6 CRNW are average percentage in real net worth over 2003-2007 period, (%)

 <sup>&</sup>lt; 25</li>
 P(Cash Flow Deficit) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2003 and 2007.

<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 2001 to 2002 and from 2001 to 2007.

# **Representative Farm: Hog**

- Three of the hog farms are projected to be in good financial position, one in moderate, and two in poor condition through the 2007 period.
- Five of the 6 farms face serious liquidity problems during the period.



#### **Characteristics of Panel Farms Producing Hogs.**

	Cropland	Assets	Debt/Asset	Gross Receipts	Sows
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(number)
IAH400	667	893.00	0.24	768.80	400
ILH200	1,400	1,218.00	0.46	426.80	200
ILH750	1,950	5,085.00	0.35	1,586.80	750
INH200	770	1,865.00	0.40	417.20	200
INH1200	3,200	5,446.00	0.36	2,613.10	1,200
NCH350	100	1,019.00	0.40	562.90	350

# **Representative Farm: Hog**

#### **Economic Viability of Representative Farms over the 2003-2007 Period**

Farm Name	P(Cash Flow Deficit)	P(Real Net Worth Declines)
3/1/2	2003-2007	2003-2007
ILH200	99-99	1-99
ILH750	99-38	1-1
INH200	99-99	1-66
INH1200	97-37	1-0
IAH400	2-0	1-1
NCH350	99-75	1-13

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

< 25</li>
 26 - 50
 P(Cash Flow Deficit) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for

### Implications of the January 2003 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Hogs.

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	Receipts	Payments	NCFI	Reserve 2007	Net Worth 2007	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
ILH200	517.97	58.45	34.86	(472.30)	458.03	(5.55)
ILH750	1,933.44	110.43	551.79	221.58	4,532.16	5.49
INH200	505.52	42.64	73.09	(527.52)	1,093.02	(0.65)
INH1200	3,247.66	204.74	703.58	453.31	4,989.45	6.64
IAH400	931.40	33.39	389.26	984.89	1,581.13	17.62
NCH350	686.96	-	97.77	(32.58)	740.75	3.59

- 1 Receipts are average annual total cash receipts including government payments, 2003-2007 (\$1,000)
- 2 Payments are average annual total government payments, 2003-2007 (\$1,000)
- 3 NCFI are average annual net cash farm income, 2003-2007 (\$1,000)
- 4 Reserve 2007 are average ending cash reserves, 2007 (\$1,000)
- 5 Net Worth 2007 are average nominal ending net worth, 2007 (\$1,000)
- 6 CRNW are average percentage in real net worth over 2003-2007 period, (%)

<sup>2003</sup> and 2007.

<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 2001 to 2002 and from 2001 to 2007.

#### New and Updated Farms and Ranches Since the Last Baseline Update

Since publication of the July 2002 baseline update, three new farms have been added to the national representative farm set:

CAC9000	9,000-acre cotton farm located in Californ	ia's San Joaquin Valley (Kings County)

GAC1700 1,700-acre cotton farm located in southwest Georgia (Decatur County)
4,200-acre feedgrain farm located in northwestern Iowa (Webster County)

Since July 2002, the following 18 farms have been updated. Significant changes are indicated.

TXNP1750	Size increased from 1,600 acres
TXNP7000	Size increased from 6,700 acres

TXBG2000 No change in size

TXBG2700 Size increased from 2,000 acres CAC2400 Size increased from 2,000 acres

FLND500 No change in size
FLSD1800 No change in size
NMD2000 No change in size
NYCD110 No change in size
NYCD400 No change in size
NYWD800 No change in size
NYWD1200 No change in size

TXCD500 Size increased from 400 cows TXCD1300 Size increased from 825 cows TXED330 Size increased from 310 cows

TXED750 No change in size

WAD250 Size increased from 185 cows WAD850 Size decreased from 900 cows

WID135 Size increased 65 cows WID700 Size increased 100 cows COB250 Size decreased 50 cows