

Outlaw, Joe L. et al.

**Research Report**

## Representative farms economic outlook for the January 2022 FAPRI/AFPC baseline

AFPC Briefing Paper, No. 22-3

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# *Representative Farms Economic Outlook for the January 2022 FAPRI/AFPC Baseline*

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**Briefing Paper 22-3**

**March 2022**



## **Agricultural and Food Policy Center**

# **AFPC**

Department of Agricultural Economics  
Texas A&M AgriLife Research  
Texas A&M 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>  
@AFPCTAMU

**REPRESENTATIVE FARMS ECONOMIC  
OUTLOOK FOR THE JANUARY 2022  
FAPRI/AFPC BASELINE**

AFPC Briefing Paper 22-3

Joe L. Outlaw  
Bart L. Fischer  
George M. Knapek  
J. Marc Raulston  
Brian K. Herbst  
Henry L. Bryant  
Henry R. Nelson  
Natalie A. Graff



**Agricultural and Food Policy Center  
The Texas A&M University System**

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

## REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2022 FAPRI/AFPC BASELINE

The farm-level economic impacts of the FAPRI January 2022 Baseline on representative crop and livestock operations are projected in this report, assuming provisions of the 2018 Farm Bill are in effect and continue throughout the 2022-2027 study period. The current representative farm analysis output reflects an evaluation of ARC/PLC program elections for the farms given provisions of the 2018 Farm Bill. Producers are assumed to enroll in the program resulting in the highest ending cash reserves at the end of the projection period; as farm update meetings are conducted, adjustments, if necessary, are made to program elections. Coronavirus Food Assistance Program (CFAP) payments for 2020 on were included in this analysis on all eligible inventory/production/acres. The analysis was conducted using a whole farm simulation model developed by AFPC with necessary data sourced from:

- Producer panel cooperation to develop economic information to describe and simulate representative crop, livestock, and dairy farms, and
- Projected prices, policy variables, and input inflation rates from the Food and Agricultural Policy Research Institute (FAPRI) January 2022 Baseline.

The simulations incorporate historical risk faced by farmers for prices and production. This report presents the results of the January 2022 Baseline in a risk context using selected simulated probabilities and ranges for annual financial measures. 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 2027.

### DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

- **Overall Financial Position, 2022-2027** -- As a means of summarizing the representative farms' economic efficiencies, liquidity positions, and solvency positions, AFPC classifies each farm as being in a good (green), marginal (yellow) or poor (red) position. AFPC defines a farm to be in a good financial position when it has less than a 25 percent chance each of a negative ending cash position and less than a 25 percent chance of losing real net worth through 2027. If the probabilities of these occurrences are between 25 and 50 percent, the farm is classified as marginal. Probabilities greater than 50 percent place the farm in a poor financial position.
- **Receipts** -- 2022-2027 average cash receipts from all farm related sources, including market sales, PLC/ARC payments, marketing loan gains/LDPs, crop insurance indemnities, and other receipts.
- **Payments** -- 2022-2027 average annual PLC or ARC payments and marketing loan gains/LDPs for representative farms and ranches.
- **NCFI** -- 2022-2027 average net cash farm income equals average total receipts minus average total cash expenses.
- **Reserve 2027** -- equals total cash on hand at the end of year 2027. 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 2027** -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2027.
- **CRNW** -- annualized percentage change in the operator's real net worth from January 1, 2020 through December 31, 2027, after adjusting for inflation.

## **EXECUTIVE SUMMARY**

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate 94 representative crop, dairy, and livestock operations in major production areas in 30 states. The chief purpose of this analysis is to project the economic viability of those farms by region and commodity for 2022 through 2027. The data necessary to simulate the economic activity of these operations are cultivated through ongoing cooperation with panels of agricultural producers in selected states. The Food and Agricultural Policy Research Institute (FAPRI) provides projected prices, policy variables, and input inflation rates in their January 2022 Baseline.

Under the January 2022 Baseline, 42 of the 64 crop farms are in good liquidity condition (less than a 25 percent chance of negative ending cash reserves by 2027). Nine crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash reserves, and the remaining 13 crop farms have greater than a 50 percent chance of negative ending cash reserves. Additionally, 59 of the 64 crop farms are in a good equity position (less than a 25 percent chance of decreasing real net worth during the study period). Three crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and two crop farms have greater than a 50 percent probability of decreasing real net worth by 2027. The following discussion provides an overall evaluation by commodity considering both liquidity and equity measures.

- **FEEDGRAIN FARMS:** Twenty of the 25 feedgrain farms are in good overall financial condition. Five farms are classified in marginal condition; none are in poor condition.
- **WHEAT FARMS:** Seven representative wheat farms are classified in good overall financial condition, three are in marginal condition, and one is in poor condition.
- **COTTON FARMS:** Nine of the 13 cotton farms are classified in good condition, three are in marginal condition, and one is in poor condition.
- **RICE FARMS:** Six of the 15 rice farms are projected to be in good financial condition. Six rice farms are also projected to be in marginal condition, while three are in poor condition.
- **DAIRY FARMS:** Fourteen of the 20 dairies are in good overall financial condition. Three dairies are classified in marginal condition along with another three in poor condition.
- **BEEF CATTLE RANCHES:** Five of the 10 cattle ranches are classified in good financial condition, and five are projected to be in marginal condition; none are in poor condition.

**Table 1. FAPRI January 2022 Baseline Crop and Livestock Prices, 2020-2027.**

	2020	2021	2022	2023	2024	2025	2026	2027
<b>Crop Prices</b>								
Corn (\$/bu.)	4.53	5.44	4.73	4.65	4.50	4.47	4.42	4.37
Wheat (\$/bu.)	5.05	7.18	6.08	5.99	5.70	5.75	5.67	5.68
Upland Cotton Lint (\$/lb.)	0.6630	0.8926	0.7589	0.7552	0.7445	0.7519	0.7428	0.7398
Sorghum (\$/bu.)	5.04	5.50	4.89	4.81	4.69	4.67	4.65	4.62
Soybeans (\$/bu.)	10.80	12.48	12.71	11.46	11.53	11.34	11.36	11.26
Barley (\$/bu.)	4.75	5.15	4.97	5.04	4.83	4.76	4.72	4.69
Oats (\$/bu.)	2.77	3.89	3.50	3.40	3.32	3.30	3.30	3.30
All Rice (\$/cwt.)	14.00	15.03	14.54	14.39	14.46	14.53	14.64	14.76
Soybean Meal (\$/ton)	374.19	355.31	330.44	293.53	295.35	292.39	297.78	297.05
All Hay (\$/ton)	156.00	186.92	181.96	174.53	171.17	169.78	169.28	169.52
Peanuts (\$/ton)	420.00	467.35	467.70	451.47	449.15	447.13	447.41	448.48
<b>Cattle Prices</b>								
Feeder Cattle (\$/cwt)	145.82	157.65	176.55	190.94	195.54	198.69	203.63	204.93
Fed Cattle (\$/cwt)	108.51	122.40	135.38	141.23	143.45	145.42	148.03	148.86
Culled Cows (\$/cwt)	58.56	63.56	71.44	75.95	77.02	78.67	80.67	81.15
<b>Milk Price</b>								
U.S. All Milk Price (\$/cwt)	18.25	18.66	21.97	20.00	19.15	18.89	19.04	19.25

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

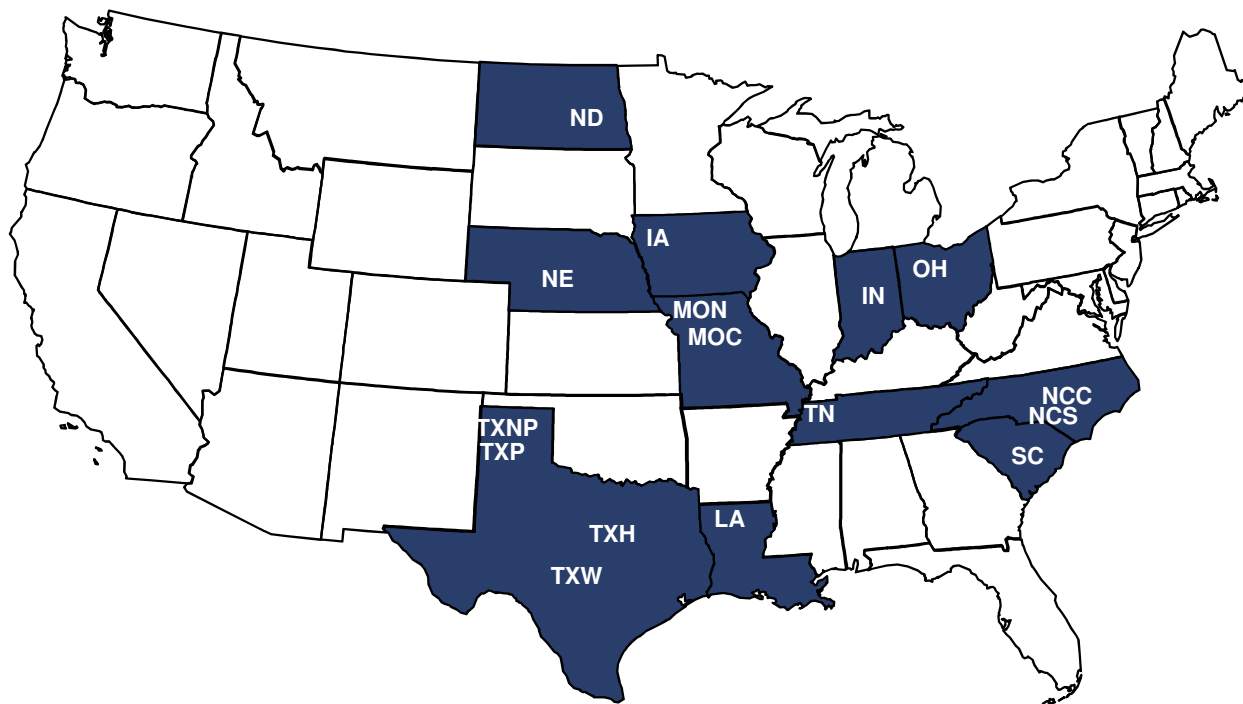
**Table 2. FAPRI January 2022 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2021-2027.**

	2021	2022	2023	2024	2025	2026	2027
<b>Annual Rate of Change for Input Prices Paid</b>							
Seed Prices (%)	-0.29	5.98	4.34	2.40	1.63	1.32	1.22
All Fertilizer Prices (%)	16.75	44.42	-16.62	-8.60	-1.02	0.55	1.45
Herbicide Prices (%)	0.10	10.98	-1.44	1.06	1.74	1.88	1.95
Insecticide Prices (%)	2.84	7.06	0.61	1.67	2.03	2.06	2.11
Fuel and Lube Prices (%)	1.21	24.66	-3.66	-2.87	-1.99	0.04	1.56
Machinery Prices (%)	6.79	15.07	-0.93	-0.09	1.26	1.65	1.66
Wages (%)	3.97	5.98	4.76	4.13	3.94	3.83	3.78
Supplies (%)	8.58	7.01	2.67	2.18	2.29	2.28	2.18
Repairs (%)	5.73	8.80	3.69	2.90	3.04	3.05	2.94
Services (%)	2.86	7.77	1.73	2.11	2.53	2.60	2.64
Taxes (%)	1.43	3.90	7.51	6.15	2.27	0.68	2.18
PPI Items (%)	6.23	9.78	-0.34	0.23	1.07	1.52	1.45
PPI Total (%)	5.68	9.02	0.72	1.08	1.56	1.82	1.81
<b>Annual Change in Consumer Price Index (%)</b>	4.67	4.18	2.22	2.08	2.08	2.18	2.30
<b>Annual Rate of Change for U.S. Land Prices (%)</b>	6.96	5.28	0.05	-2.74	0.32	0.82	0.82

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

# Representative Farm: Feed Grains

- Overall, twenty feed grain farms are characterized as good, five are marginal, and none are in poor condition.
- Five of the twenty-five farms will be under moderate to severe cash flow stress; however, none of the farms have a greater than 25 percent chance of losing real net worth.



**Characteristics of Panel Farms Producing Feed Grains, 2021.**

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Feed Grains (acres)
IAG1350	1,350	3,565.00	0.15	1,283.10	1,350
IAG3400	3,400	11,879.00	0.18	3,058.80	3,400
NEG2400	2,400	7,219.00	0.15	2,911.10	2,400
NEG4500	4,500	21,515.00	0.16	5,014.40	4,000
NDG3000	3,000	4,888.00	0.16	1,695.70	2,500
NDG9000	9,000	23,144.00	0.18	5,281.90	7,000
ING1000	1,000	4,218.00	0.17	877.20	1,000
ING3500	3,500	13,292.00	0.16	3,300.20	3,500
OHG700	700	3,694.00	0.17	595.40	700
OHG1500	1,500	4,910.00	0.16	1,309.70	1,350
MOCG2300	2,300	13,564.00	0.16	1,785.30	2,300
MOCG4200	4,200	19,711.00	0.15	3,228.70	4,200
MONG2300	2,300	14,097.00	0.16	1,968.50	2,250
LANG2500	2,500	4,793.00	0.18	2,247.50	1,625
TNG2500	2,500	6,046.00	0.18	1,912.80	2,500
TNG5000	5,000	13,135.00	0.15	4,161.30	5,000
NCSP2000	2,000	5,626.00	0.16	1,871.70	1,600
NCC2030	2,000	2,748.00	0.08	1,373.90	1,400
SCC2000	2,000	4,013.00	0.13	1,808.00	1,200
SCG3500	3,500	8,800.00	0.14	3,823.00	2,150
TXNP3450	3,450	9,637.00	0.12	3,425.00	1,554
TXNP10880	10,880	22,978.00	0.13	10,957.00	5,234
TXPG2500	2,500	7,084.00	0.17	2,429.00	1,183
TXHG3000	3,000	3,098.00	0.19	1,440.10	2,000
TXWG1600	1,600	2,078.00	0.15	757.80	1,100



# Representative Farm: Feed Grains

## Economic Viability of Representative Farms over the 2022-2027 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2022	2027	2022-2027	2022-2027
20/5/0				
IAG1350			39-64	1-4
IAG3400			6-12	1-1
NEG2400			1-1	1-1
NEG4500			3-37	1-1
NDG3000			1-4	1-1
NDG9000			1-1	1-1
ING1000			1-1	1-1
ING3500			1-1	1-1
OHG700			9-15	1-1
OHG1500			1-1	1-1
MOCG2300			1-2	1-1
MOCG4200			1-1	1-1
MONG2300			4-1	1-1
LANG2500			1-14	1-1
TNG2500			3-4	1-1
TNG5000			1-1	1-1
NCSP2000			24-46	1-1
NCC2030			1-1	1-1
SCC2000			4-19	1-1
SCG3500			1-2	1-1
TXNP3450			1-1	1-1
TXNP10880			1-1	1-1
TXPG2500			2-3	1-1
TXHG3000			8-27	1-5
TXWG1600			50-80	1-11

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

<25	25-50	>50
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2 P(Negative Ending Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2022 and 2027.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2020 to 2022 and from 2020 to 2027.

## Implications of the January 2022 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	Receipts	Payments	NCFI	Reserve 2027	Net Worth 2027	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
IAG1350	1,185.43	15.39	184.70	(202.35)	3,169.23	3.61
IAG3400	2,804.35	31.83	735.96	1,351.96	12,231.10	6.79
NEG2400	2,592.25	31.48	680.02	2,391.71	8,432.67	8.42
NEG4500	4,443.49	45.55	836.21	594.87	20,501.40	4.97
NDG3000	1,556.14	16.91	416.53	1,129.51	5,221.39	6.87
NDG9000	4,895.54	55.93	1,768.47	7,092.44	26,700.30	8.76
ING1000	820.99	10.01	299.37	676.82	4,400.62	6.71
ING3500	3,118.37	32.77	818.67	2,385.14	14,213.72	7.02
OHG700	504.71	3.95	155.50	230.47	3,371.96	4.32
OHG1500	1,076.98	13.39	443.45	1,775.73	5,475.79	7.68
MOCG2300	1,666.12	16.37	745.47	2,060.59	14,314.53	6.78
MOCG4200	3,005.02	26.26	1,416.46	5,088.41	22,538.24	7.92
MONG2300	1,813.14	18.71	781.02	1,643.40	15,645.48	7.60
LANG2500	2,098.73	38.48	321.21	748.81	4,507.89	5.15
TNG2500	1,798.43	16.73	464.87	1,204.32	6,557.08	7.55
TNG5000	3,870.45	29.58	1,153.62	4,235.00	15,998.07	9.09
NCSP2000	1,778.81	61.67	296.29	94.08	5,118.18	4.07
NCC2030	1,287.71	24.76	465.01	1,884.68	4,118.08	11.47
SCC2000	1,662.86	42.64	261.81	483.74	3,925.79	4.81
SCG3500	3,531.09	80.78	637.33	2,311.57	9,372.32	6.53
TXNP3450	3,040.66	42.69	884.11	3,912.52	12,376.10	9.50
TXNP10880	9,553.59	86.06	2,112.29	11,248.89	29,429.18	9.48
TXPG2500	2,128.64	41.52	458.03	1,511.11	7,391.49	6.69
TXHG3000	1,270.15	17.97	214.79	382.48	2,790.56	4.61
TXWG1600	659.39	13.40	94.71	(343.22)	1,734.22	2.35

1 Receipts are average annual total cash receipts including government payments, 2022-2027 (\$1,000)

2 Payments are average annual total government payments, 2022-2027 (\$1,000)

3 NCFI is average annual net cash farm income, 2022-2027 (\$1,000)

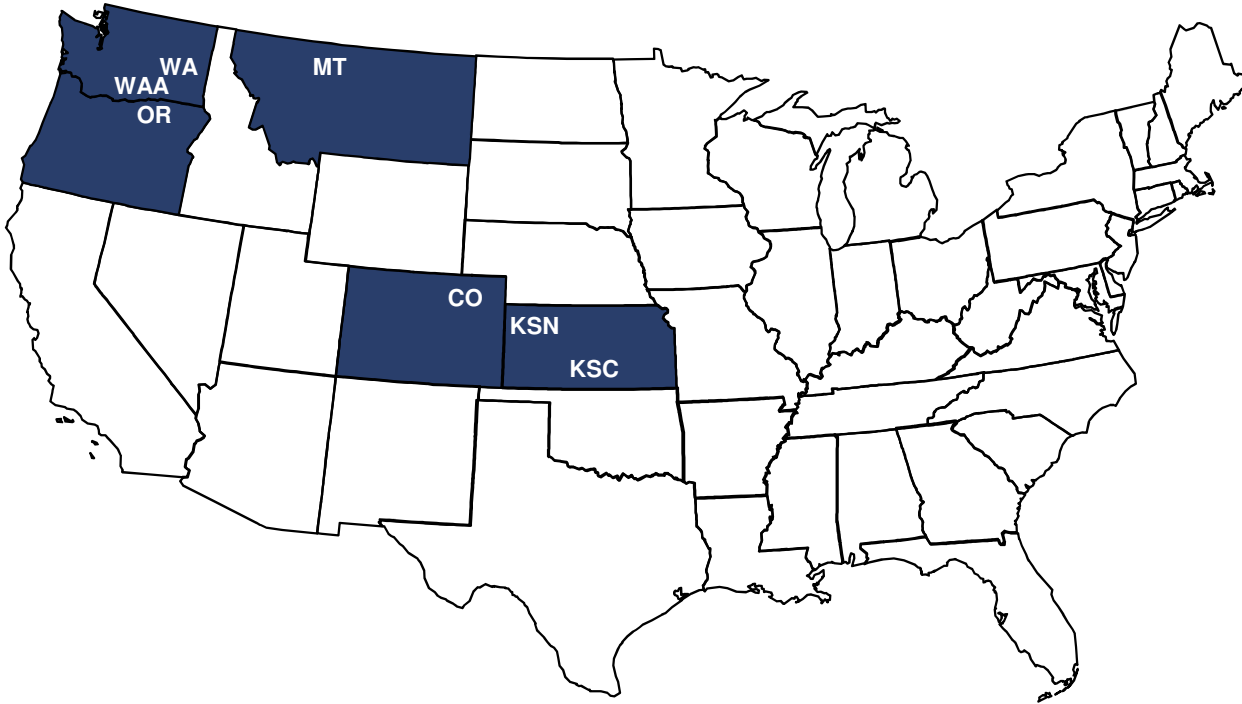
4 Reserve 2027 is average ending cash reserves, 2027 (\$1,000)

5 Net Worth 2027 is average nominal ending net worth, 2027 (\$1,000)

6 CRNW is average percentage change in real net worth over 2022-2027 period, (%)

# Representative Farm: Wheat

- Seven wheat farms are projected to be in good overall financial condition, three are in marginal condition, and one is in poor condition.
- Four of the eleven wheat farms are expected to feel significant liquidity pressure over the period; one of these four farms also has a greater than 50 percent chance of losing wealth.



## Characteristics of Panel Farms Producing Wheat, 2021.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Wheat (acres)
WAW2800	2,800	3,834.00	0.14	1,683.20	1,840
WAW10000	10,000	12,447.00	0.14	5,762.40	5,800
WAAW5500	5,500	2,586.00	0.15	863.50	2,600
ORW4500	4,500	2,222.00	0.17	644.10	2,250
MTW9500	9,500	9,432.00	0.18	2,485.50	3,534
KSCW2000	2,000	3,205.00	0.11	1,140.80	800
KSCW5300	5,300	7,433.00	0.15	2,790.10	2,385
KSNW4000	4,000	4,671.00	0.18	1,149.80	1,200
KSNW8000	8,000	10,050.00	0.14	3,893.90	1,200
COW3000	3,000	4,677.00	0.15	556.40	1,013
COW6000	6,000	6,994.00	0.16	1,183.40	2,000

# Representative Farm: Wheat

## Economic Viability of Representative Farms over the 2022-2027 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2022	2027	2022-2027	2022-2027
7/3/1				
WAW2800			4-4	1-1
WAW10000			10-11	1-1
WAAW5500			60-97	1-62
ORW4500			42-63	1-2
MTW9500			1-1	1-1
KSCW2000			1-1	1-1
KSCW5300			1-1	1-1
KSNW4000			19-20	1-1
KSNW8000			1-1	1-1
COW3000			9-33	1-1
COW6000			98-99	1-7

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

<25

25-50

>50

2 P(Negative Ending Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2022 and 2027.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2020 to 2022 and from 2020 to 2027.

## Implications of the January 2022 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat

	Receipts	Payments	NCFI	Reserve 2027	Net Worth 2027	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
WAW2800	1,448.17	45.04	319.56	1,098.28	4,316.63	7.45
WAW10000	4,937.13	137.04	928.67	2,860.99	14,257.60	7.77
WAAW5500	734.41	24.03	14.19	(1,176.86)	1,431.05	(4.22)
ORW4500	546.85	17.20	154.46	(94.45)	1,981.26	3.98
MTW9500	2,097.44	80.04	791.53	1,892.87	10,405.47	7.89
KSCW2000	1,051.28	10.01	398.31	1,287.86	4,179.99	9.58
KSCW5300	2,585.94	26.69	948.29	4,114.78	9,914.68	10.72
KSNW4000	1,038.75	11.00	285.02	417.22	4,436.74	5.30
KSNW8000	3,410.69	26.29	1,263.83	5,106.88	13,412.47	10.58
COW3000	499.78	9.16	218.97	103.29	4,725.32	5.80
COW6000	1,067.02	19.20	105.02	(2,328.02)	5,371.49	1.30

1 Receipts are average annual total cash receipts including government payments, 2022-2027 (\$1,000)

2 Payments are average annual total government payments, 2022-2027 (\$1,000)

3 NCFI is average annual net cash farm income, 2022-2027 (\$1,000)

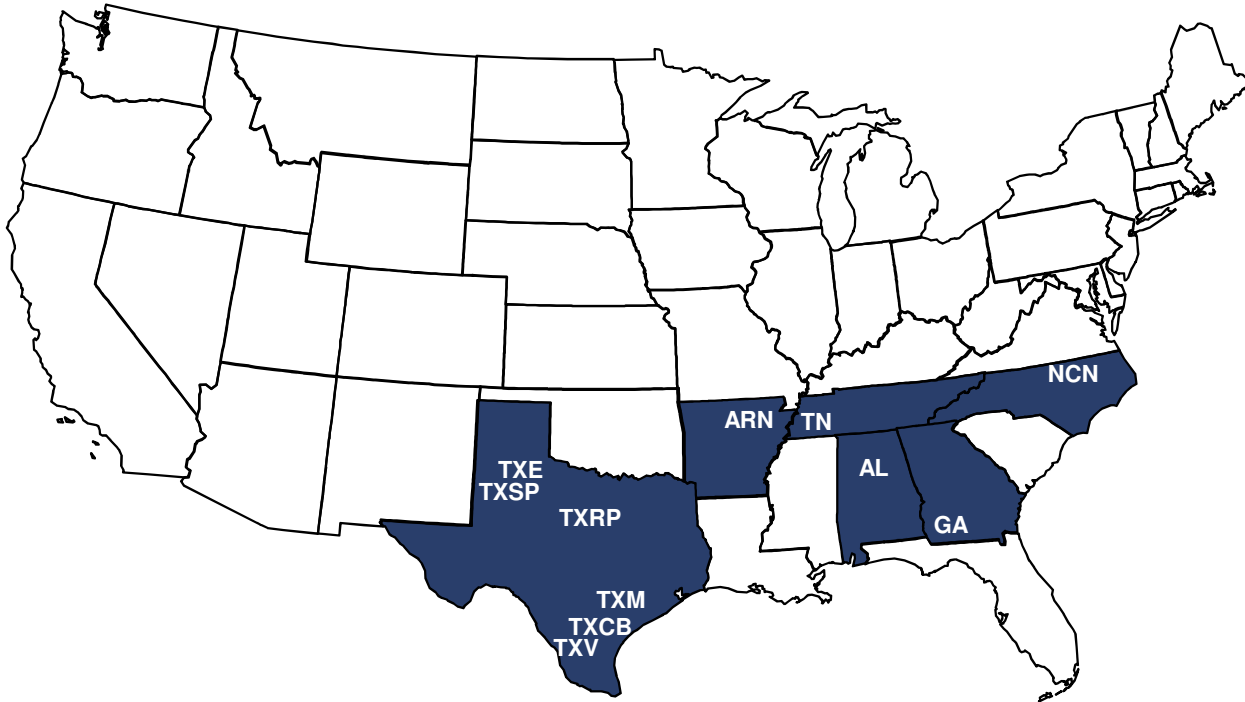
4 Reserve 2027 is average ending cash reserves, 2027 (\$1,000)

5 Net Worth 2027 is average nominal ending net worth, 2027 (\$1,000)

6 CRNW is average percentage change in real net worth over 2022-2027 period, (%)

# Representative Farm: Cotton

- Nine of the thirteen cotton farms are characterized in good overall financial condition over the 2022-2027 projection period, three are in marginal condition, and one is in poor condition.
- Four representative cotton farms are projected to experience significant cash flow problems (having a greater than 25 percent chance of a cash flow deficit); one of these farms is expected to have a greater than 25 percent chance of losing real equity over the period.



## Characteristics of Panel Farms Producing Cotton, 2021.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cotton (acres)
TXSP4500	4,500	3,892.00	0.17	2,695.00	4,380
TXEC5000	5,000	5,269.00	0.10	2,976.40	4,700
TXRP3000	3,000	2,035.00	0.28	874.10	1,800
TXMC2500	2,500	3,059.00	0.20	1,906.70	1,455
TXCB4000	4,000	4,055.00	0.17	2,712.30	2,000
TXCB10000	10,000	11,916.00	0.18	6,947.40	5,000
TXVC5500	5,500	9,485.00	0.15	4,556.00	2,550
ARNC5000	5,000	13,653.00	0.15	5,437.70	2,500
TNC3000	3,000	3,941.00	0.13	2,475.90	825
TNC4000	4,000	6,083.00	0.16	3,268.90	1,000
ALC3500	3,500	6,688.00	0.15	3,485.10	1,050
GAC2500	1,250	11,944.00	0.16	3,729.40	1,250
NCNP1600	1,600	4,122.00	0.16	1,401.70	640

# Representative Farm: Cotton

## Economic Viability of Representative Farms over the 2022-2027 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2022	2027	2022-2027	2022-2027
9/3/1				
TXSP4500			3-25	1-6
TXEC5000			2-8	1-1
TXRP3000			38-87	2-34
TXMC2500			14-37	4-15
TXCB4000			5-23	1-7
TXCB10000			1-1	1-1
TXVC5500			1-1	1-1
ARNC5000			1-1	1-1
TNC3000			1-1	1-1
TNC4000			1-12	1-1
ALC3500			1-1	1-1
GAC2500			1-1	1-1
NCNP1600			48-92	1-8

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

<25

25-50

>50

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2022 and 2027.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2020 to 2022 and from 2020 to 2027.

## Implications of the January 2022 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton

	Receipts	Payments	NCFI	Reserve 2027	Net Worth 2027	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
TXSP4500	2,348.63	37.97	325.59	621.52	3,509.03	4.09
TXEC5000	2,556.91	60.41	475.40	1,976.49	5,842.83	6.37
TXRP3000	773.47	13.84	47.30	(594.58)	1,219.95	(0.27)
TXMC2500	1,668.78	19.12	240.91	331.88	2,559.32	3.51
TXCB4000	2,353.06	26.59	275.50	798.13	3,762.48	4.58
TXCB10000	6,085.16	81.70	1,125.73	5,745.08	13,733.07	8.67
TXVC5500	4,014.58	52.32	776.71	4,180.84	10,932.08	8.16
ARNC5000	4,929.14	92.43	1,508.24	5,443.11	17,100.87	9.67
TNC3000	2,277.72	43.09	608.39	2,987.07	5,650.48	11.59
TNC4000	2,947.73	63.49	429.49	1,226.94	5,815.53	4.84
ALC3500	3,217.40	48.46	1,150.43	5,563.32	10,084.53	12.95
GAC2500	3,458.32	152.40	707.95	2,414.25	12,715.32	6.94
NCNP1600	1,288.86	50.58	101.12	(790.13)	3,218.15	1.47

1 Receipts are average annual total cash receipts including government payments, 2022-2027 (\$1,000)

2 Payments are average annual total government payments, 2022-2027 (\$1,000)

3 NCFI is average annual net cash farm income, 2022-2027 (\$1,000)

4 Reserve 2027 is average ending cash reserves, 2027 (\$1,000)

5 Net Worth 2027 is average nominal ending net worth, 2027 (\$1,000)

6 CRNW is average percentage change in real net worth over 2022-2027 period, (%)

# Representative Farm: Rice

- Six of the fifteen representative rice farms are projected to be in good overall financial condition, six are in marginal condition, and three are in poor condition.
- Nine of the rice farms are expected to face moderate to severe cash flow problems; three of those farms also have a greater than 25 percent chance of declining real net worth.



**Characteristics of Panel Farms Producing Rice, 2021.**

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Rice (acres)
CAR1200	1,200	4,154.00	0.12	2,219.40	1,200
CAR3000	3,000	15,677.00	0.18	5,816.80	3,000
CABR800	800	5,838.00	0.16	1,598.30	800
CACR800	800	4,706.00	0.18	1,436.30	800
TXR1500	1,500	2,722.00	0.20	930.10	600
TXR3000	3,000	2,042.00	0.22	2,092.80	1,500
TXBR1800	1,800	1,203.00	0.19	1,162.80	600
TXER2500	2,500	2,071.00	0.11	2,760.20	1,250
LASR2000	2,000	2,982.00	0.19	1,539.10	1,000
ARMR6500	6,500	11,717.00	0.15	6,169.50	650
ARSR3240	3,240	6,465.00	0.16	2,899.40	1,458
ARWR2500	2,500	8,580.00	0.15	2,011.60	1,250
ARHR4000	4,000	10,226.00	0.18	3,609.40	2,640
MSDR5000	5,000	20,437.00	0.17	4,206.80	1,667
MOBR4000	4,000	11,456.00	0.20	2,894.80	1,320

# Representative Farm: Rice

## Economic Viability of Representative Farms over the 2022-2027 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2022	2027	2022-2027	2022-2027
6/6/3				
CAR1200			4-22	1-1
CAR3000			62-99	4-25
CABR800			31-96	1-1
CACR800			99-99	2-99
TXR1500			73-96	1-29
TXR3000			24-18	9-7
TXBR1800			33-32	10-11
TXER2500			1-1	2-1
LASR2000			34-73	5-23
ARMR6500			2-1	1-1
ARSR3240			8-10	1-1
ARWR2500			67-33	1-1
ARHR4000			28-77	1-1
MSDR5000			2-1	1-1
MOBR4000			9-39	1-1

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

<25

25-50

>50

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2022 and 2027.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2020 to 2022 and from 2020 to 2027.

## Implications of the January 2022 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice

	Receipts	Payments	NCFI	Reserve 2027	Net Worth 2027	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAR1200	2,155.67	112.18	279.54	278.51	4,028.56	4.38
CAR3000	5,578.98	268.40	(52.38)	(4,286.06)	10,363.26	(0.88)
CABR800	1,547.94	94.60	179.27	(551.11)	4,875.70	2.59
CACR800	1,392.46	73.34	(176.25)	(2,471.65)	2,121.09	(6.97)
TXR1500	940.00	19.28	86.49	(658.80)	1,827.84	(0.23)
TXR3000	2,103.79	34.87	275.66	564.53	1,936.54	6.04
TXBR1800	1,174.32	21.93	192.92	124.52	1,123.00	5.18
TXER2500	2,681.22	32.43	378.11	1,638.63	2,764.36	9.80
LASR2000	1,553.37	23.20	119.48	(301.09)	2,118.20	0.50
ARMR6500	5,869.98	88.00	1,275.55	5,275.15	14,604.85	9.59
ARSR3240	2,864.84	42.71	517.95	1,390.51	6,975.56	7.20
ARWR2500	2,020.13	31.45	440.55	222.42	8,890.50	6.27
ARHR4000	3,604.37	55.09	418.75	(795.05)	8,576.82	3.06
MSDR5000	4,217.41	42.26	1,461.62	4,034.92	22,176.09	7.50
MOBR4000	2,772.58	30.93	420.89	207.86	10,219.57	4.51

1 Receipts are average annual total cash receipts including government payments, 2022-2027 (\$1,000)

2 Payments are average annual total government payments, 2022-2027 (\$1,000)

3 NCFI is average annual net cash farm income, 2022-2027 (\$1,000)

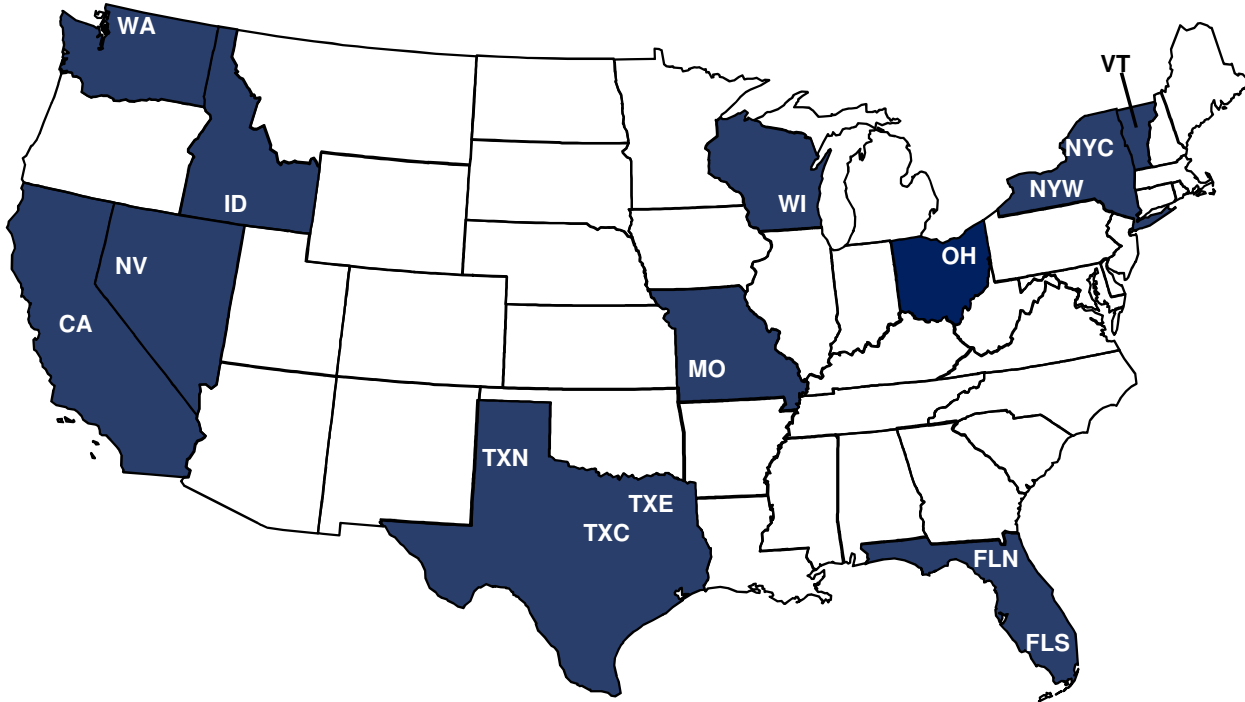
4 Reserve 2027 is average ending cash reserves, 2027 (\$1,000)

5 Net Worth 2027 is average nominal ending net worth, 2027 (\$1,000)

6 CRNW is average percentage change in real net worth over 2022-2027 period, (%)

# Representative Farm: Dairy

- Fourteen of the twenty dairy operations are in good overall financial condition, three of the dairies are classified in marginal condition, and three dairies are in poor condition.
- Six of the dairies are projected to experience moderate to severe cash flow stress; three of these operations are also projected to face a 25 percent or greater chance of losing real net worth by 2027.



## Characteristics of Panel Farms Producing Milk, 2021.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cows (number)
CAD2000	700	25,372.00	0.20	11,399.20	2,000
WAD300	250	4,681.00	0.29	1,485.80	300
WAD1200	850	16,442.00	0.20	6,777.80	1,200
IDD1500	850	12,704.00	0.19	8,943.60	1,500
NVD1000	500	8,343.00	0.17	5,400.70	1,000
TXND3800	1,920	23,078.00	0.06	17,395.60	3,800
TXCD1500	616	10,479.00	0.18	6,674.30	1,500
TXED400	950	2,832.00	0.27	1,327.90	400
WID180	800	4,774.00	0.22	1,513.80	180
WID1700	3,200	21,033.00	0.21	10,265.30	1,700
OHD400	800	7,809.00	0.22	2,451.30	400
NYWD400	800	5,670.00	0.22	2,240.60	400
NYWD1200	2,100	18,888.00	0.23	6,618.10	1,200
NYCD180	400	3,033.00	0.21	1,207.20	180
NYCD800	1,800	13,595.00	0.20	4,526.60	800
VTD160	220	2,018.00	0.29	852.50	160
VTD400	1,000	6,309.00	0.25	2,641.30	400
MOGD550	460	3,269.00	0.21	1,707.00	550
FLND550	600	4,247.00	0.16	3,195.50	550
FLSD1750	400	11,851.00	0.18	8,986.70	1,750



# Representative Farm: Dairy

## Economic Viability of Representative Farms over the 2022-2027 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2022	2027	2022-2027	2022-2027
14/3/3				
CAD2000			2-8	1-1
WAD300			99-99	1-1
WAD1200			1-9	1-1
IDD1500			1-1	1-1
NVD1000			1-1	1-1
TXND3800			12-5	1-1
TXCD1500			15-51	1-9
TXED400			94-99	1-35
WID180			1-1	1-1
WID1700			1-1	1-1
OHD400			12-27	1-1
NYWD400			1-1	1-1
NYWD1200			1-3	1-1
NYCD180			1-1	1-1
NYCD800			1-8	1-1
VTD160			96-99	1-60
VTD400			71-99	1-27
MOGD550			8-14	4-4
FLND550			4-15	1-1
FLSD1750			4-11	1-1

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

<25

25-50

>50

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2022 and 2027.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2020 to 2022 and from 2020 to 2027.

## Implications of the January 2022 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk

	Receipts	Payments	NCFI	Reserve 2027	Net Worth 2027	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAD2000	12,003.47	71.71	1,696.11	4,407.57	27,396.85	8.02
WAD300	1,515.09	42.94	71.33	(1,336.82)	3,526.62	3.79
WAD1200	7,138.03	51.89	1,004.47	2,488.45	17,582.79	7.94
IDD1500	9,497.83	63.25	1,762.27	6,832.68	17,747.08	12.59
NVD1000	5,639.92	44.14	969.98	4,243.11	11,101.81	11.41
TXND3800	18,855.40	79.12	2,444.34	8,763.32	32,513.76	10.11
TXCD1500	7,161.94	48.98	407.55	(154.83)	9,544.32	4.71
TXED400	1,369.69	42.13	(12.80)	(1,194.24)	1,788.65	0.44
WID180	1,513.72	42.41	393.91	1,031.86	5,028.75	7.95
WID1700	10,847.63	72.45	1,867.80	7,618.18	24,780.09	9.90
OHD400	2,555.12	47.72	506.73	387.61	8,274.20	8.19
NYWD400	2,352.16	48.89	445.76	1,174.95	6,010.03	8.34
NYWD1200	7,067.53	59.55	1,302.72	3,317.87	19,219.90	7.84
NYCD180	1,223.50	36.54	299.64	857.45	3,434.49	9.08
NYCD800	4,782.99	53.16	996.00	1,931.39	14,985.89	8.57
VTD160	873.27	25.78	(4.93)	(887.52)	1,043.02	(2.23)
VTD400	2,709.17	47.81	44.26	(1,714.28)	4,097.76	0.48
MOGD550	1,707.70	38.57	341.19	987.78	3,645.32	8.99
FLND550	3,337.62	43.69	347.57	781.93	4,818.98	8.24
FLSD1750	9,561.71	52.23	1,008.16	2,822.48	13,789.92	9.15

1 Receipts are average annual total cash receipts including government payments, 2022-2027 (\$1,000)

2 Payments are average annual total government payments, 2022-2027 (\$1,000)

3 NCFI is average annual net cash farm income, 2022-2027 (\$1,000)

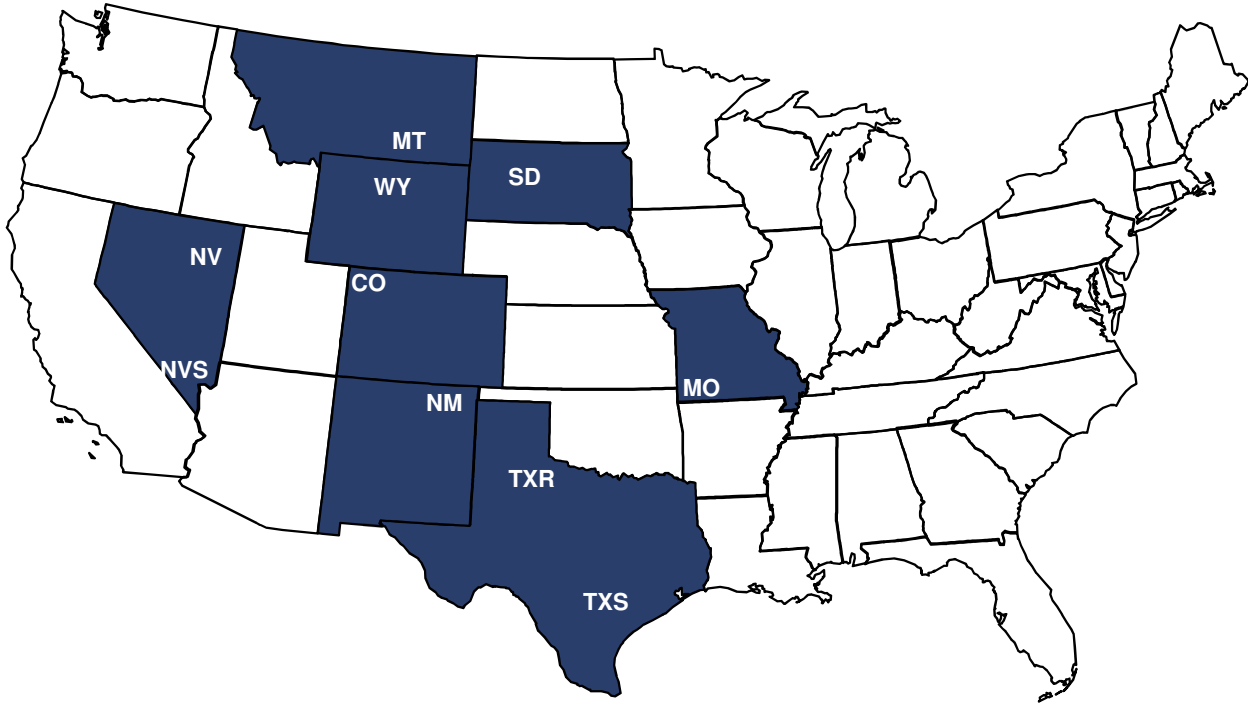
4 Reserve 2027 is average ending cash reserves, 2027 (\$1,000)

5 Net Worth 2027 is average nominal ending net worth, 2027 (\$1,000)

6 CRNW is average percentage change in real net worth over 2022-2027 period, (%)

# Representative Farm: Cow/Calf

- Five of the ten cow-calf operations are projected to be in good overall financial condition, five are in marginal condition, and none are in poor condition.
- Five ranches face the threat of severe cash flow stress; however, none of these ranches face a significant (25 percent or greater) chance of losing real wealth.



**Characteristics of Panel Farms Producing Beef Cattle, 2021.**

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cows (number)
NVB650	1,300	11,422.00	0.01	558.40	650
NVSB550	125	3,285.00	0.05	463.90	550
MTB600	900	8,374.00	0.02	552.00	600
WYB475	330	2,489.00	0.04	463.50	475
COB250	650	14,167.00	0.01	319.60	250
NMB210	0	5,708.00	0.02	208.70	210
SDB600	1,000	8,394.00	0.04	587.00	600
MOB250	450	3,594.00	0.03	526.90	250
TXRB400	0	8,572.00	0.01	437.70	400
TXSB300	100	6,037.00	0.02	322.80	300

# Representative Farm: Cow/Calf

## Economic Viability of Representative Farms over the 2022-2027 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2022	2027	2022-2027	2022-2027
5/5/0				
NVB650			18-57	1-1
NVSB550			60-17	1-1
MTB600			1-1	1-1
WYB475			85-99	1-1
COB250			31-56	1-1
NMB210			99-65	1-1
SDB600			99-99	1-1
MOB250			1-1	1-1
TXRB400			9-1	1-1
TXSB300			1-1	1-1

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

<25

25-50

>50

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2022 and 2027.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2020 to 2022 and from 2020 to 2027.

## Implications of the January 2022 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle

	Receipts	Payments	NCFI	Reserve 2027	Net Worth 2027	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
NVB650	662.76	0.00	125.25	(49.15)	12,050.42	3.93
NVSB550	600.95	0.00	129.42	128.73	3,608.81	5.17
MTB600	654.22	0.00	197.62	463.14	9,317.88	4.86
WYB475	524.65	0.00	61.77	(308.34)	2,409.99	2.96
COB250	355.85	0.00	93.80	(41.24)	14,576.93	3.47
NMB210	250.36	0.00	84.05	(16.57)	5,917.76	3.74
SDB600	724.53	0.00	77.03	(715.08)	8,195.77	3.09
MOB250	555.13	1.97	211.69	525.26	4,123.81	5.65
TXRB400	532.94	0.00	146.23	354.75	9,309.57	4.40
TXSB300	395.86	0.00	163.56	411.28	6,571.43	4.48

1 Receipts are average annual total cash receipts including government payments, 2022-2027 (\$1,000)

2 Payments are average annual total government payments, 2022-2027 (\$1,000)

3 NCFI is average annual net cash farm income, 2022-2027 (\$1,000)

4 Reserve 2027 is average ending cash reserves, 2027 (\$1,000)

5 Net Worth 2027 is average nominal ending net worth, 2027 (\$1,000)

6 CRNW is average percentage change in real net worth over 2022-2027 period, (%)

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