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Research Report

Representative Farms Economic Outlook for the June 2020 FAPRI/AFPC Baseline

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Representative Farms Economic Outlook for the June 2020 FAPRI/AFPC Baseline Update

Briefing Paper 20-5
July 2020



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**REPRESENTATIVE FARMS ECONOMIC
OUTLOOK FOR THE JUNE 2020
FAPRI/AFPC BASELINE UPDATE**

AFPC Briefing Paper 20-5

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REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JUNE 2020 FAPRI/AFPC BASELINE UPDATE

The farm-level economic impacts of the FAPRI June 2020 Baseline Update 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 2020-2025 study period. This iteration of the FAPRI June 2020 Baseline Update includes impacts of the U.S.-China Phase 1 trade deal along with current assumptions associated with the COVID-19 pandemic on agricultural markets. 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 completed, adjustments will be made to program elections as needed. Full Market Facilitation Program (MFP) payments for 2018 and 2019 were included in this analysis along with Coronavirus Food Assistance Program (CFAP) payments for 2020 on eligible inventory and/or production. The analysis was conducted using whole farm simulation models 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) June 2020 Baseline Update.

The simulations incorporate historical risk faced by farmers for prices and production. This report presents the results of the June 2020 Baseline Update 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 2025.

DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

- **Overall Financial Position, 2020-2025** -- As a means of summarizing the representative farms' economic efficiency, liquidity, and solvency position, AFPC classifies each farm as being in either a good (green), marginal (yellow) or poor (red) position. AFPC defines a farm to be in a good financial position when it has less than a 25 percent chance each of a negative ending cash position and less than a 25 percent chance of losing real net worth through 2025. 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** -- 2020-2025 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** -- 2020-2025 average annual PLC or ARC payments and marketing loan gains/LDPs for crop farms.
- **NCFI** -- 2020-2025 average net cash farm income equals average total receipts minus average total cash expenses.
- **Reserve 2025** -- equals total cash on hand at the end of year 2025. 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 2025** -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2025.
- **CRNW** -- annualized percentage change in the operator's real net worth from January 1, 2020 through December 31, 2025, 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 2020 through 2025. 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 June 2020 Baseline Update.

Under the June 2020 Baseline Update, 23 of the 64 crop farms are in good liquidity condition (less than a 25 percent chance of negative ending cash reserves by 2025). Ten crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash reserves, and the remaining 31 crop farms have greater than a 50 percent chance of negative ending cash reserves. Additionally, 40 of the 64 crop farms are in good equity position (less than a 25 percent chance of decreasing real net worth during the study period). Eleven crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and thirteen crop farms have greater than a 50 percent probability of decreasing real net worth by 2025. The following discussion provides an overall evaluation by commodity considering both liquidity and equity measures.

- **FEEDGRAIN FARMS:** Nine of the 25 feedgrain farms are in good overall financial condition. Eight farms are classified in marginal condition, and eight are in poor condition.
- **WHEAT FARMS:** Five representative wheat farms are classified in good overall financial condition, four are in marginal condition, and two are in poor condition.
- **COTTON FARMS:** Seven of the 13 cotton farms are classified in good condition, one is in marginal condition, and five are in poor condition.
- **RICE FARMS:** Two of the 15 rice farms are projected to be in good financial condition. Six rice farms are projected to be in marginal condition; seven are in poor condition.
- **DAIRY FARMS:** Fourteen of the 20 dairies are in good overall financial condition. None of the dairies are classified in marginal condition; six are in poor condition.
- **BEEF CATTLE RANCHES:** Five of the 10 cattle ranches are classified in good financial condition, three are projected to be in marginal condition, and two are in poor condition.

Table 1. FAPRI June 2020 Baseline Update of Crop and Livestock Prices, 2018-2025.

	2018	2019	2020	2021	2022	2023	2024	2025
Crop Prices								
Corn (\$/bu.)	3.61	3.61	3.06	3.19	3.25	3.28	3.31	3.35
Wheat (\$/bu.)	5.16	4.60	4.67	4.65	4.59	4.54	4.61	4.67
Upland Cotton Lint (\$/lb.)	0.7030	0.5898	0.5221	0.5721	0.6081	0.6241	0.6366	0.6442
Sorghum (\$/bu.)	3.26	3.24	2.95	3.02	3.05	3.07	3.08	3.09
Soybeans (\$/bu.)	8.48	8.54	8.21	8.00	8.16	8.34	8.47	8.53
Barley (\$/bu.)	4.62	4.69	4.46	4.43	4.42	4.40	4.41	4.45
Oats (\$/bu.)	2.66	2.91	2.59	2.46	2.39	2.37	2.38	2.40
All Rice (\$/cwt.)	12.60	13.06	12.62	11.99	12.12	12.17	12.12	12.27
Soybean Meal (\$/ton)	294.04	289.10	281.73	282.05	290.78	294.86	296.83	299.25
All Hay (\$/ton)	166.00	163.00	151.64	147.31	146.83	147.32	147.84	148.19
Peanuts (\$/ton)	430.00	410.69	411.04	399.81	408.99	420.16	426.03	428.89
Cattle Prices								
Feeder Cattle (\$/cwt)	159.20	153.65	147.45	146.90	159.23	166.06	169.00	171.52
Fed Cattle (\$/cwt)	117.12	116.78	113.52	111.06	116.71	121.31	123.31	125.26
Culled Cows (\$/cwt)	61.19	58.97	54.70	53.49	56.82	58.65	59.14	59.48
Milk Price								
U.S. All Milk Price (\$/cwt)	16.28	18.63	16.34	16.27	17.31	17.98	18.01	18.19

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

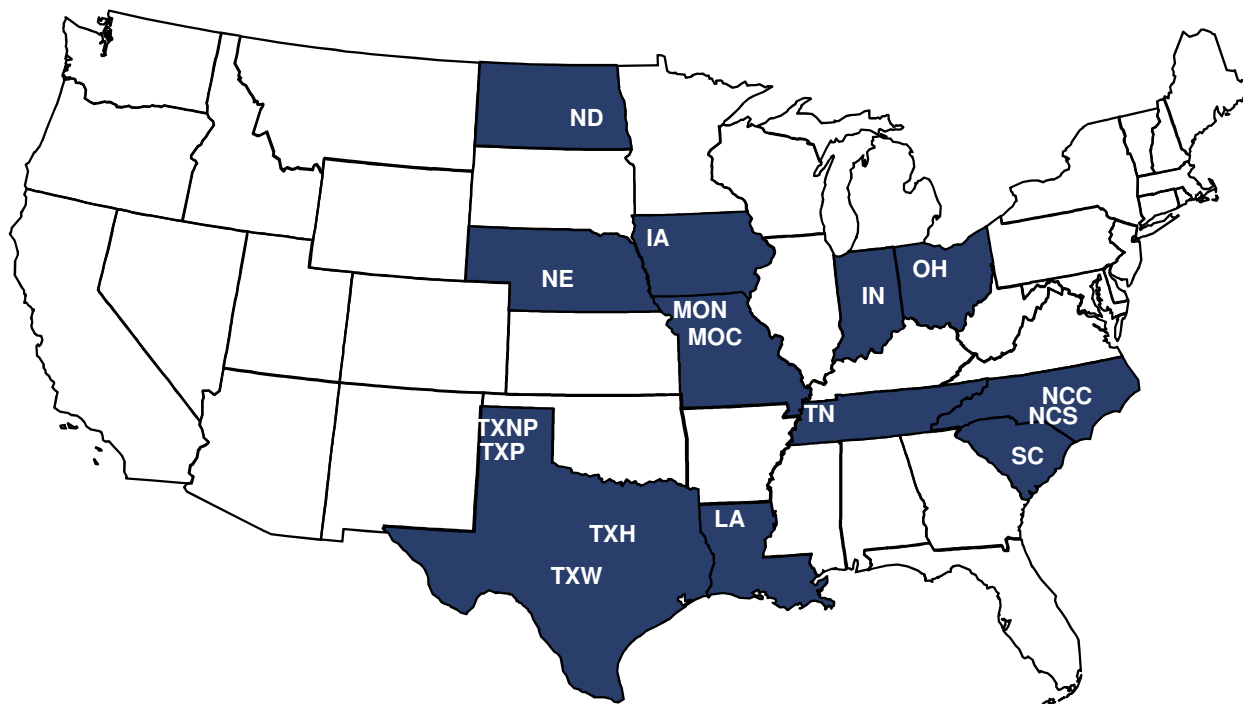
Table 2. FAPRI June 2020 Baseline Update Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2019-2025.

	2019	2020	2021	2022	2023	2024	2025
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	-2.20	-1.99	-1.55	-1.08	-0.08	0.86	1.69
All Fertilizer Prices (%)	5.10	2.64	-4.20	7.76	1.30	1.22	4.68
Herbicide Prices (%)	0.10	-2.56	0.60	0.46	0.99	1.34	1.82
Insecticide Prices (%)	-1.68	-8.43	1.52	0.43	0.79	1.19	1.71
Fuel and Lube Prices (%)	3.52	-15.62	5.90	14.34	2.02	4.33	5.48
Machinery Prices (%)	3.33	-0.39	2.28	1.54	2.40	2.71	2.44
Wages (%)	5.46	1.17	1.25	2.39	2.59	2.59	2.72
Supplies (%)	3.49	1.41	0.92	1.12	1.18	1.49	1.70
Repairs (%)	2.42	0.83	1.82	2.31	2.48	2.62	2.47
Services (%)	1.92	0.11	0.83	1.14	1.57	1.80	2.16
Taxes (%)	0.68	1.40	2.08	1.43	1.93	-0.81	0.71
PPI Items (%)	0.75	-1.74	0.52	1.82	1.27	1.33	1.66
PPI Total (%)	1.20	-1.12	0.63	1.82	1.41	1.37	1.74
Annual Change in Consumer Price Index (%)	1.81	0.96	1.68	1.67	0.76	1.33	1.96
Annual Rate of Change for U.S. Land Prices (%)	1.94	1.24	1.95	-4.33	-2.56	-1.03	-0.28

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

Representative Farm: Feed Grains

- Overall, nine feed grain farms are characterized as good, eight are marginal, and eight are in poor condition.
- Thirteen of the twenty-five farms will be under severe cash flow stress; eight of these farms also have relatively high likelihoods (greater than a 25 percent chance) of losing real net worth.



Characteristics of Panel Farms Producing Feed Grains, 2019.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Feed Grains (acres)
IAG1350	1,350	3,312.00	0.30	982.60	1,350
IAG3400	3,400	10,223.00	0.18	2,291.30	3,400
NEG2400	2,400	6,031.00	0.20	2,108.40	2,400
NEG4500	4,500	19,274.00	0.23	3,702.50	4,000
NDG3000	3,000	4,087.00	0.15	1,319.40	2,500
NDG9000	9,000	20,726.00	0.18	4,095.80	7,000
ING1000	1,000	3,313.00	0.19	662.10	1,000
ING3250	3,250	11,066.00	0.19	2,311.20	3,250
OHG700	700	3,307.00	0.19	360.60	385
OHG1500	1,500	4,204.00	0.17	739.00	506
MOCG2300	2,300	12,203.00	0.17	1,406.10	2,300
MOCG4200	4,200	17,764.00	0.17	2,519.20	4,200
MONG2300	2,300	12,841.00	0.18	1,549.60	2,250
LANG2500	2,500	3,811.00	0.20	1,871.50	1,625
TNG2500	2,500	5,097.00	0.18	1,522.00	2,500
TNG5000	5,000	11,564.00	0.16	3,236.30	5,000
NCSP2000	2,000	5,190.00	0.32	1,267.90	1,600
NCC2030	2,000	2,274.00	0.13	1,101.80	1,400
SCC2000	2,000	3,388.00	0.17	1,353.90	1,200
SCG3500	3,500	7,230.00	0.16	2,655.20	2,150
TXNP3450	3,450	8,217.00	0.16	2,590.50	1,554
TXNP10880	10,880	19,608.00	0.15	8,275.60	5,234
TXPG2500	2,500	5,853.00	0.20	1,806.10	1,183
TXHG3000	3,000	2,275.00	0.28	1,191.30	2,000
TXWG1600	1,600	1,739.00	0.17	586.10	1,100

Representative Farm: Feed Grains

Economic Viability of Representative Farms over the 2020-2025 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2020	2025	2020-2025	2020-2025
9/8/8				
IAG1350			99-99	92-99
IAG3400			60-82	1-7
NEG2400			37-69	1-5
NEG4500			99-99	8-82
NDG3000			33-82	1-21
NDG9000			1-1	1-1
ING1000			18-18	1-1
ING3250			20-25	1-1
OHG700			44-93	1-54
OHG1500			1-1	1-1
MOCG2300			22-27	1-1
MOCG4200			1-1	1-1
MONG2300			77-94	1-1
LANG2500			49-77	14-26
TNG2500			55-89	1-6
TNG5000			2-12	1-1
NCSP2000			99-99	67-85
NCC2030			1-1	1-1
SCC2000			74-81	17-42
SCG3500			27-17	1-1
TXNP3450			3-1	1-1
TXNP10880			1-2	1-1
TXPG2500			26-30	2-1
TXHG3000			94-94	30-49
TXWG1600			67-97	15-54

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 2020 and 2025.

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 2017 to 2020 and from 2017 to 2025.

Implications of the June 2020 FAPRI Baseline Update on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	Receipts	Payments	NCFI	Reserve 2025	Net Worth 2025	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
IAG1350	918.33	83.93	(0.64)	(1,450.58)	1,338.29	(7.79)
IAG3400	2,106.20	176.91	333.07	(607.65)	8,261.99	0.68
NEG2400	1,986.15	171.61	273.78	(242.19)	4,794.32	0.81
NEG4500	3,453.50	248.88	132.90	(4,235.43)	12,318.33	(2.11)
NDG3000	1,175.75	89.55	172.17	(303.88)	3,146.86	(0.73)
NDG9000	3,726.80	258.82	1,006.11	2,743.22	19,384.57	3.23
ING1000	608.90	50.61	200.48	108.23	2,855.98	1.97
ING3250	2,148.54	154.15	459.42	330.95	9,495.95	1.86
OHG700	402.97	15.67	75.82	(220.89)	2,370.15	(1.13)
OHG1500	900.89	51.70	313.67	833.79	3,978.82	3.15
MOCG2300	1,256.26	91.74	442.17	360.43	10,442.39	1.59
MOCG4200	2,282.14	151.31	893.37	2,119.81	16,400.72	2.73
MONG2300	1,379.99	103.39	433.27	(568.35)	11,075.82	1.78
LANG2500	1,777.45	226.03	191.89	(336.51)	2,915.88	0.35
TNG2500	1,360.65	94.26	197.84	(457.40)	4,110.54	0.63
TNG5000	2,904.11	173.76	582.29	864.23	10,759.79	2.66
NCSP2000	1,474.30	131.73	136.60	(1,512.52)	2,793.92	(2.77)
NCC2030	1,137.87	143.89	398.21	1,024.81	3,035.14	8.51
SCC2000	1,389.48	142.65	164.37	(323.21)	2,564.00	(0.64)
SCG3500	2,974.91	280.25	464.66	496.64	6,521.82	2.23
TXNP3450	2,496.66	244.54	585.19	1,196.58	8,417.55	4.32
TXNP10880	7,728.38	497.90	1,212.43	4,157.52	19,816.17	3.93
TXPG2500	1,847.54	232.54	343.29	243.58	5,235.05	2.93
TXHG3000	1,073.26	140.50	146.71	(615.13)	1,495.16	(0.49)
TXWG1600	569.23	91.88	69.62	(538.76)	1,202.96	(2.01)

1 Receipts are average annual total cash receipts including government payments, 2020-2025 (\$1,000)

2 Payments are average annual total government payments, 2020-2025 (\$1,000)

3 NCFI is average annual net cash farm income, 2020-2025 (\$1,000)

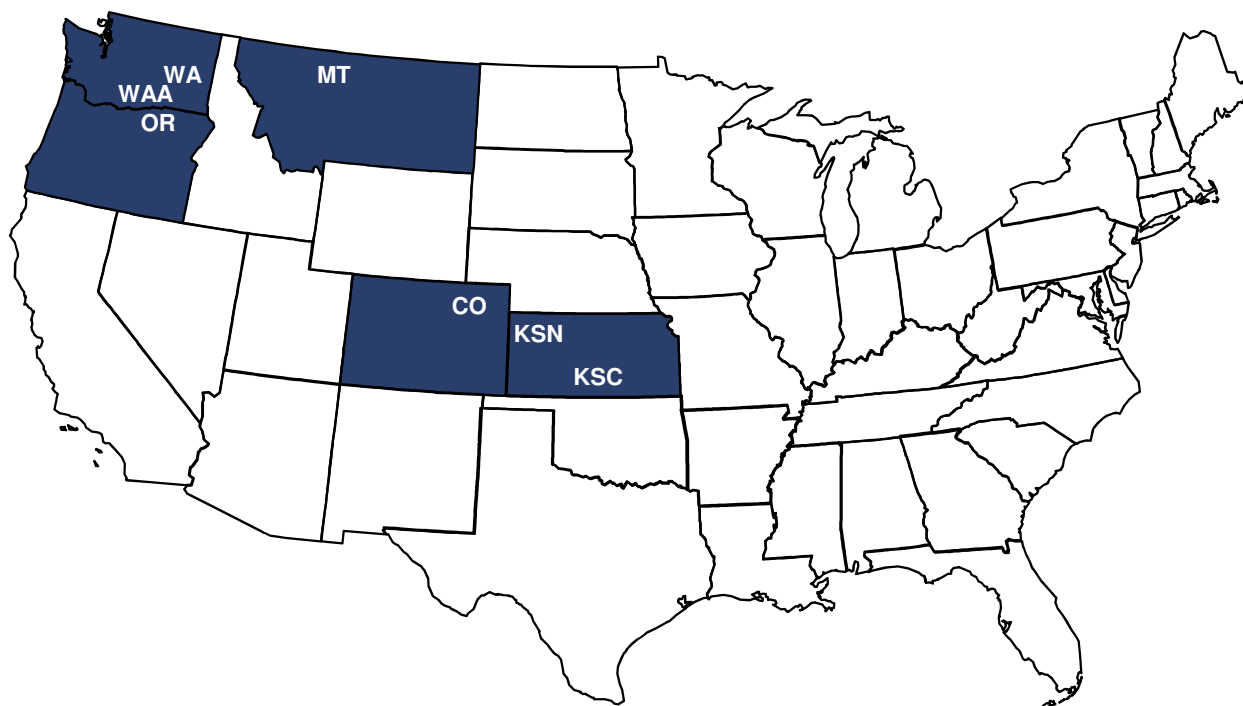
4 Reserve 2025 is average ending cash reserves, 2025 (\$1,000)

5 Net Worth 2025 is average nominal ending net worth, 2025 (\$1,000)

6 CRNW is average percentage change in real net worth over 2020-2025 period, (%)

Representative Farm: Wheat

- Five wheat farms are projected to be in good overall financial condition, four are in marginal condition, and two are in poor condition.
- Five of the eleven wheat farms are expected to feel significant liquidity pressure over the period; two of these five farms also have a greater than 50 percent chance of losing wealth.



Characteristics of Panel Farms Producing Wheat, 2019.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Wheat (acres)
WAW2800	2,800	3,272.00	0.15	1,231.90	1,840
WAW10000	10,000	11,192.00	0.15	4,218.20	5,800
WAAW5500	5,500	2,417.00	0.24	615.70	2,600
ORW4500	4,500	1,962.00	0.20	456.40	2,250
MTW8000	8,000	7,550.00	0.15	1,449.30	3,840
KSCW2000	2,000	2,794.00	0.13	857.50	800
KSCW5300	5,300	6,313.00	0.16	2,169.00	2,385
KSNW4000	4,000	4,419.00	0.19	886.50	1,200
KSNW7000	7,000	8,448.00	0.19	1,932.50	1,700
COW3000	3,000	4,366.00	0.18	389.00	1,013
COW6000	6,000	6,771.00	0.22	844.70	2,000

Representative Farm: Wheat

Economic Viability of Representative Farms over the 2020-2025 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2020	2025	2020-2025	2020-2025
5/4/2				
WAW2800			4-2	1-1
WAW10000			4-11	1-1
WAAW5500			95-99	65-96
ORW4500			72-87	11-22
MTW8000			1-1	1-1
KSCW2000			1-1	1-1
KSCW5300			1-1	1-1
KSNW4000			43-56	1-1
KSNW7000			28-41	1-1
COW3000			88-99	1-1
COW6000			99-99	35-99

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 2020 and 2025.

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 2017 to 2020 and from 2017 to 2025.

Implications of the June 2020 FAPRI Baseline Update on the Economic Viability of Representative Farms Primarily Producing Wheat

	Receipts	Payments	NCFI	Reserve 2025	Net Worth 2025	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
WAW2800	1,328.89	195.27	327.11	699.76	3,432.58	4.60
WAW10000	4,328.75	462.91	748.71	1,471.52	11,209.34	3.81
WAAW5500	659.46	90.56	37.22	(1,008.73)	1,107.06	(7.24)
ORW4500	497.98	69.05	154.99	(236.08)	1,542.90	0.62
MTW8000	1,558.45	217.90	814.18	2,586.03	8,648.69	6.16
KSCW2000	814.96	57.20	252.20	515.44	2,820.22	3.53
KSCW5300	1,996.08	143.60	582.54	1,820.95	6,666.80	4.88
KSNW4000	863.38	97.50	230.49	(55.46)	3,665.58	1.40
KSNW7000	1,791.37	145.73	369.69	139.50	6,990.90	1.44
COW3000	400.38	40.11	143.64	(256.84)	3,621.98	1.11
COW6000	882.09	84.73	42.74	(2,632.47)	3,887.31	(3.95)

1 Receipts are average annual total cash receipts including government payments, 2020-2025 (\$1,000)

2 Payments are average annual total government payments, 2020-2025 (\$1,000)

3 NCFI is average annual net cash farm income, 2020-2025 (\$1,000)

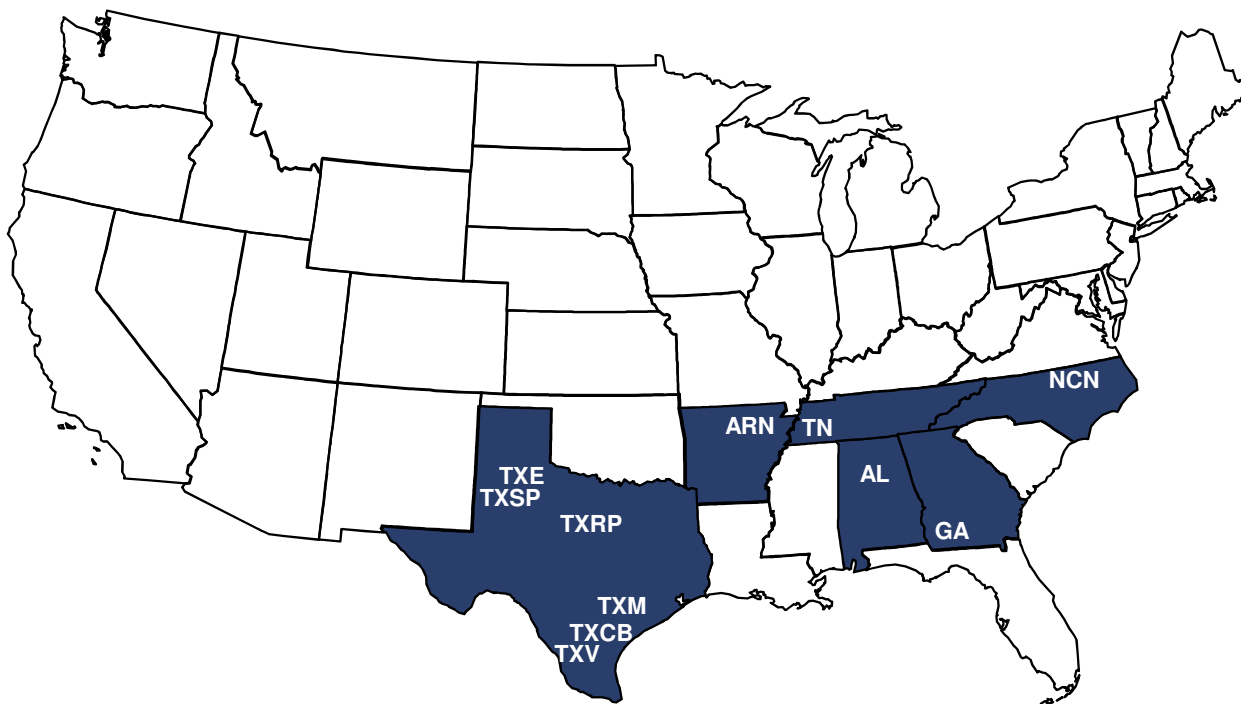
4 Reserve 2025 is average ending cash reserves, 2025 (\$1,000)

5 Net Worth 2025 is average nominal ending net worth, 2025 (\$1,000)

6 CRNW is average percentage change in real net worth over 2020-2025 period, (%)

Representative Farm: Cotton

- Seven of the thirteen cotton farms are characterized in good overall financial condition over the 2020-2025 projection period, one is in marginal condition, and five are in poor condition.
- Five representative cotton farms are projected to experience severe cash flow problems (having a greater than 50 percent chance of a cash flow deficit); these five farms also are expected to have a greater than 25 percent chance of losing real equity over the period.



Characteristics of Panel Farms Producing Cotton, 2019.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cotton (acres)
TXSP4500	4,500	2,695.00	0.16	2,307.70	4,380
TXEC5000	5,000	4,269.00	0.13	2,594.20	4,700
TXRP3000	3,000	1,763.00	0.44	719.00	1,800
TXMC2500	2,500	2,451.00	0.24	1,540.30	1,455
TXCB3750	3,750	3,023.00	0.20	1,873.10	1,688
TXCB10000	10,000	8,931.00	0.18	4,677.90	4,500
TXVC5500	5,500	7,531.00	0.17	3,611.40	2,550
ARNC5000	5,000	12,093.00	0.16	4,449.40	2,500
TNC3000	3,000	2,682.00	0.12	2,053.40	825
TNC4050	4,050	7,320.00	0.18	2,909.80	1,500
ALC3500	3,500	5,600.00	0.16	2,726.50	1,050
GAC2500	1,250	10,569.00	0.18	3,270.20	1,250
NCNP1600	1,600	3,917.00	0.25	1,286.50	640

Representative Farm: Cotton

Economic Viability of Representative Farms over the 2020-2025 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2020	2025	2020-2025	2020-2025
7/1/5				
TXSP4500			23-47	9-15
TXEC5000			2-5	1-2
TXRP3000			96-99	79-90
TXMC2500			35-73	27-49
TXCB3750			48-95	33-88
TXCB10000			2-57	1-38
TXVC5500			1-1	1-1
ARNC5000			1-1	1-1
TNC3000			1-1	1-1
TNC4050			3-2	1-1
ALC3500			1-1	1-1
GAC2500			1-1	1-1
NCNP1600			99-99	5-52

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 2020 and 2025.

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 2017 to 2020 and from 2017 to 2025.

Implications of the June 2020 FAPRI Baseline Update on the Economic Viability of Representative Farms Primarily Producing Cotton

	Receipts	Payments	NCFI	Reserve 2025	Net Worth 2025	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
TXSP4500	2,121.28	273.57	333.45	13.68	2,508.46	2.81
TXEC5000	2,348.19	392.55	522.98	1,434.44	4,680.20	5.02
TXRP3000	689.64	91.65	36.16	(851.81)	573.36	(7.60)
TXMC2500	1,408.39	149.74	153.96	(440.76)	1,510.67	(2.51)
TXCB3750	1,495.37	218.55	(7.37)	(1,200.46)	1,205.31	(9.93)
TXCB10000	4,172.77	546.60	246.83	(268.92)	6,341.42	(1.44)
TXVC5500	3,468.52	389.18	559.93	1,647.33	7,446.09	4.04
ARNC5000	4,311.31	480.04	1,316.61	3,784.38	13,715.63	6.14
TNC3000	1,948.84	274.44	565.10	2,061.63	3,979.60	10.14
TNC4050	2,712.30	377.56	611.10	1,521.27	7,273.24	4.23
ALC3500	2,674.09	306.90	856.89	3,321.09	7,157.94	8.32
GAC2500	3,121.56	411.65	684.09	1,627.88	10,214.25	3.74
NCNP1600	1,163.12	181.28	116.56	(909.93)	2,505.77	(1.68)

1 Receipts are average annual total cash receipts including government payments, 2020-2025 (\$1,000)

2 Payments are average annual total government payments, 2020-2025 (\$1,000)

3 NCFI is average annual net cash farm income, 2020-2025 (\$1,000)

4 Reserve 2025 is average ending cash reserves, 2025 (\$1,000)

5 Net Worth 2025 is average nominal ending net worth, 2025 (\$1,000)

6 CRNW is average percentage change in real net worth over 2020-2025 period, (%)

Representative Farm: Rice

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



Characteristics of Panel Farms Producing Rice, 2019.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Rice (acres)
CAR1200	1,200	3,993.00	0.14	1,814.00	1,200
CAR3000	3,000	14,564.00	0.20	4,989.30	3,000
CABR1000	1,000	6,088.00	0.18	1,614.10	1,000
CACR800	800	4,530.00	0.19	1,280.20	800
TXR1500	1,500	2,613.00	0.25	893.80	600
TXR3000	3,000	1,589.00	0.21	1,973.70	1,500
TXBR1800	1,800	1,088.00	0.12	1,131.60	600
TXER2500	2,500	1,113.00	0.05	2,264.70	1,250
LASR2000	2,000	2,855.00	0.19	1,422.50	1,000
ARMR6500	6,500	9,443.00	0.17	5,133.90	650
ARSR3240	3,240	5,852.00	0.16	2,626.20	1,458
ARWR2500	2,500	7,900.00	0.16	1,867.60	1,250
ARHR4000	4,000	9,208.00	0.16	3,247.50	2,640
MSDR5000	5,000	18,579.00	0.17	3,807.00	1,667
MOBR4000	4,000	9,971.00	0.20	2,622.10	1,320

Representative Farm: Rice

Economic Viability of Representative Farms over the 2020-2025 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2020	2025	2020-2025	2020-2025
2/6/7				
CAR1200			1-1	1-1
CAR3000			27-85	7-29
CABR1000			8-27	1-1
CACR800			92-99	10-98
TXR1500			79-99	38-87
TXR3000			27-59	13-25
TXBR1800			14-46	18-26
TXER2500			20-43	48-46
LASR2000			16-52	14-34
ARMR6500			15-35	5-9
ARSR3240			13-34	5-12
ARWR2500			66-94	2-5
ARHR4000			33-97	16-71
MSDR5000			8-20	1-1
MOBR4000			50-96	1-30

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 2020 and 2025.

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 2017 to 2020 and from 2017 to 2025.

Implications of the June 2020 FAPRI Baseline Update on the Economic Viability of Representative Farms Primarily Producing Rice

	Receipts	Payments	NCFI	Reserve 2025	Net Worth 2025	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAR1200	1,733.58	241.50	413.08	690.50	3,953.39	3.29
CAR3000	4,604.52	475.65	302.54	(1,713.30)	10,450.00	(0.85)
CABR1000	1,535.47	202.32	286.21	155.93	5,145.69	1.44
CACR800	1,221.00	167.08	19.19	(965.13)	2,808.73	(3.44)
TXR1500	857.30	83.03	79.31	(726.57)	1,453.72	(3.89)
TXR3000	1,872.28	150.37	218.49	(124.15)	1,262.36	1.03
TXBR1800	1,066.99	95.69	164.29	28.17	942.96	0.68
TXER2500	2,297.70	152.67	233.99	71.85	1,114.27	2.03
LASR2000	1,435.54	100.99	152.90	(80.24)	2,140.76	(0.42)
ARMR6500	4,633.14	442.89	575.49	363.51	8,334.67	2.12
ARSR3240	2,390.50	194.95	289.70	229.86	4,936.01	0.96
ARWR2500	1,683.28	144.08	264.38	(743.71)	6,718.45	1.13
ARHR4000	3,071.58	235.82	233.22	(1,366.24)	6,442.93	(2.05)
MSDR5000	3,337.22	208.10	815.43	769.40	15,952.21	1.65
MOBR4000	2,254.28	156.86	170.79	(1,237.61)	7,214.01	(0.79)

1 Receipts are average annual total cash receipts including government payments, 2020-2025 (\$1,000)

2 Payments are average annual total government payments, 2020-2025 (\$1,000)

3 NCFI is average annual net cash farm income, 2020-2025 (\$1,000)

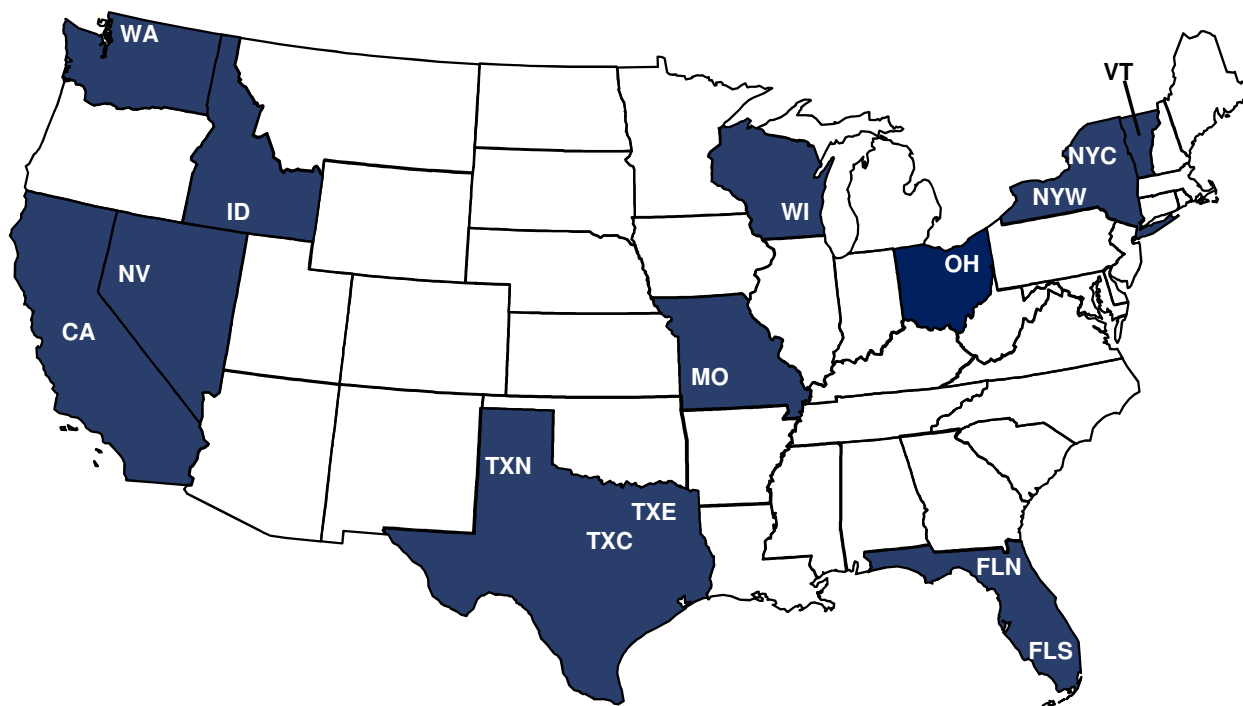
4 Reserve 2025 is average ending cash reserves, 2025 (\$1,000)

5 Net Worth 2025 is average nominal ending net worth, 2025 (\$1,000)

6 CRNW is average percentage change in real net worth over 2020-2025 period, (%)

Representative Farm: Dairy

- Fourteen of the twenty dairy operations are in good overall financial condition, none are classified in marginal condition, and six dairies are in poor condition.
- Six of the dairies are projected to experience moderate to severe cash flow stress; these six operations are also projected to face a 50 percent or greater chance of losing real net worth by 2025.



Characteristics of Panel Farms Producing Milk, 2019.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cows (number)
CAD2000	700	23,988.00	0.20	10,908.00	2,000
WAD300	250	4,380.00	0.29	1,405.90	300
WAD1200	850	16,061.00	0.20	6,727.20	1,200
IDD1500	850	12,490.00	0.19	8,437.80	1,500
NVD1000	500	7,596.00	0.17	5,099.80	1,000
TXND3800	1,920	25,556.00	0.10	18,368.20	3,800
TXCD1500	616	10,090.00	0.43	6,646.10	1,500
TXED400	950	2,635.00	0.27	1,307.80	400
WID180	800	4,258.00	0.22	1,285.00	180
WID1700	3,200	19,007.00	0.21	9,882.00	1,700
OHD350	700	7,422.00	0.26	1,940.80	350
NYWD400	800	5,438.00	0.22	2,155.80	400
NYWD1200	2,100	18,395.00	0.23	6,584.60	1,200
NYCD180	400	2,810.00	0.21	1,112.50	180
NYCD800	1,800	12,909.00	0.21	4,425.70	800
VTD160	220	1,813.00	0.33	785.90	160
VTD400	1,000	5,998.00	0.35	2,420.50	400
MOGD550	460	3,119.00	0.23	1,574.20	550
FLND550	600	4,044.00	0.17	3,083.80	550
FLSD1750	400	12,113.00	0.17	8,958.80	1,750

Representative Farm: Dairy

Economic Viability of Representative Farms over the 2020-2025 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2020	2025	2020-2025	2020-2025
14/0/6				
CAD2000			3-14	1-2
WAD300			99-99	36-81
WAD1200			1-6	1-1
IDD1500			1-2	1-1
NVD1000			1-3	1-1
TXND3800			1-1	1-1
TXCD1500			99-99	99-99
TXED400			98-99	59-87
WID180			1-1	1-1
WID1700			1-5	1-1
OHD350			99-99	49-69
NYWD400			1-1	1-1
NYWD1200			1-1	1-1
NYCD180			1-1	1-1
NYCD800			1-6	1-1
VTD160			99-99	98-99
VTD400			99-99	96-99
MOGD550			11-18	10-13
FLND550			4-13	5-2
FLSD1750			1-5	1-2

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 2020 and 2025.

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 2017 to 2020 and from 2017 to 2025.

Implications of the June 2020 FAPRI Baseline Update on the Economic Viability of Representative Farms Primarily Producing Milk

	Receipts	Payments	NCFI	Reserve 2025	Net Worth 2025	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAD2000	10,264.25	236.84	1,332.23	2,305.59	21,383.22	2.77
WAD300	1,375.45	79.13	44.95	(1,525.06)	2,593.39	(2.04)
WAD1200	6,419.71	144.97	865.99	2,084.17	14,651.28	3.30
IDD1500	8,133.72	186.20	1,241.31	3,506.25	12,851.97	5.05
NVD1000	4,827.06	114.44	684.69	2,160.20	8,021.71	5.05
TXND3800	17,334.52	262.49	3,012.70	12,581.00	33,605.51	7.66
TXCD1500	6,323.77	129.46	(811.73)	(9,569.06)	(944.64)	(88.29)
TXED400	1,272.97	73.01	15.13	(994.82)	1,445.30	(3.69)
WID180	1,325.47	86.49	327.30	549.32	3,893.14	3.75
WID1700	9,536.13	210.62	1,317.05	3,974.19	17,902.05	4.07
OHD350	1,885.17	103.19	111.47	(1,706.78)	4,870.23	(1.04)
NYWD400	2,113.13	100.52	393.14	952.43	4,978.29	3.80
NYWD1200	6,313.14	174.34	1,175.94	2,948.11	16,454.87	3.49
NYCD180	1,103.64	68.23	272.46	686.50	2,808.86	4.95
NYCD800	4,230.37	136.75	813.96	1,413.64	12,038.38	3.86
VTD160	785.31	49.51	(10.47)	(938.24)	675.45	(8.45)
VTD400	2,371.17	104.78	(64.57)	(2,662.64)	2,310.15	(7.56)
MOGD550	1,517.91	66.31	311.83	658.25	2,876.33	4.04
FLND550	2,995.38	87.01	303.51	584.42	3,907.44	3.47
FLSD1750	8,632.96	140.08	872.99	2,711.84	11,979.78	3.92

1 Receipts are average annual total cash receipts including government payments, 2020-2025 (\$1,000)

2 Payments are average annual total government payments, 2020-2025 (\$1,000)

3 NCFI is average annual net cash farm income, 2020-2025 (\$1,000)

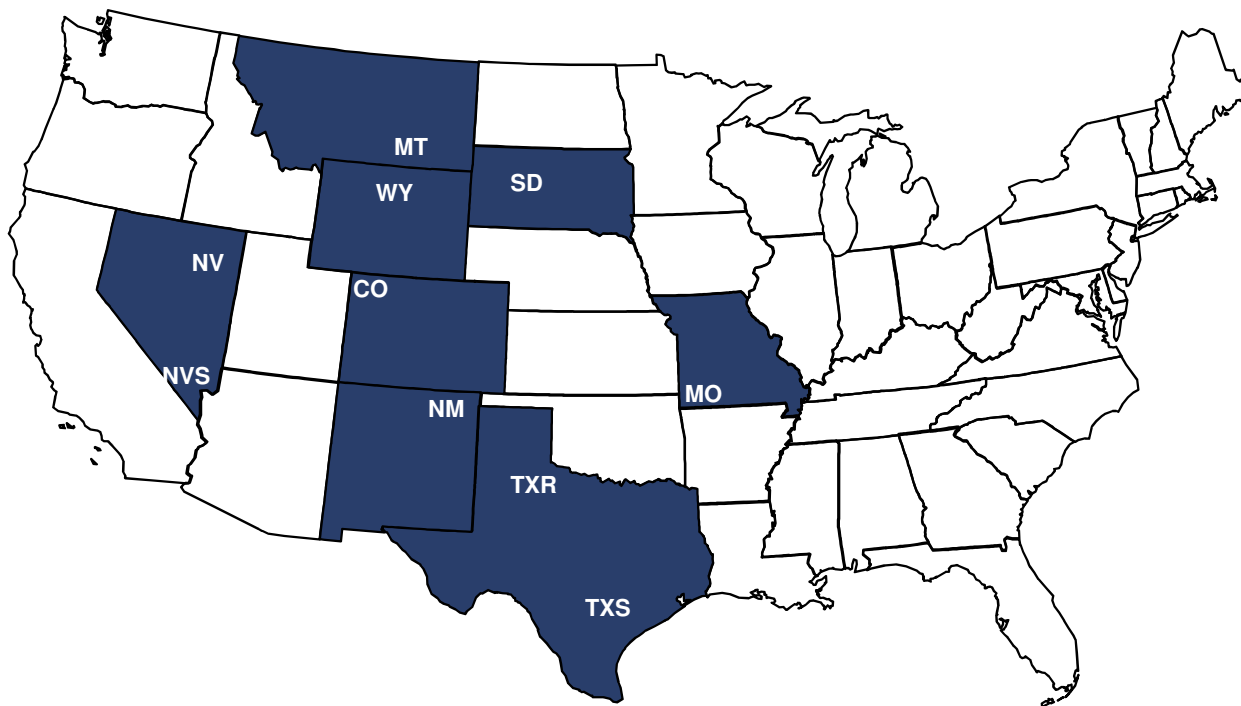
4 Reserve 2025 is average ending cash reserves, 2025 (\$1,000)

5 Net Worth 2025 is average nominal ending net worth, 2025 (\$1,000)

6 CRNW is average percentage change in real net worth over 2020-2025 period, (%)

Representative Farm: Cow/Calf

- Five of the ten cow-calf operations are projected to be in good overall financial condition, three are in marginal condition, and two are in poor condition.
- Five ranches face the threat of severe cash flow stress; however, only two of these five ranches face a significant (50 percent or greater) chance of losing real wealth.



Characteristics of Panel Farms Producing Beef Cattle, 2019.

	Cropland (acres)	Assets (\$1,000)	Debt/Asset (ratio)	Gross Receipts (\$1,000)	Cows (number)
NVB650	1,300	10,963.00	0.01	549.10	650
NVSB550	125	3,235.00	0.03	448.50	550
MTB600	900	7,943.00	0.01	528.80	600
WYB475	330	2,352.00	0.06	445.80	475
COB275	650	14,600.00	0.01	359.10	275
NMB210	0	5,764.00	0.02	183.00	210
SDB600	1,000	7,890.00	0.05	583.20	600
MOB250	360	3,337.00	0.02	461.20	250
TXRB400	0	8,327.00	0.01	416.30	400
TXSB300	100	5,719.00	0.01	327.20	300

Representative Farm: Cow/Calf

Economic Viability of Representative Farms over the 2020-2025 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2020	2025	2020-2025	2020-2025
5/3/2				
NVB650			7-67	1-1
NVSB550			25-69	8-14
MTB600			7-20	1-1
WYB475			99-99	62-98
COB275			6-1	1-1
NMB210			99-99	1-1
SDB600			99-99	21-98
MOB250			1-1	1-1
TXRB400			1-1	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(Negative Ending Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2020 and 2025.

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 2017 to 2020 and from 2017 to 2025.

Implications of the June 2020 FAPRI Baseline Update on the Economic Viability of Representative Farms Primarily Producing Beef Cattle

	Receipts	Payments	NCFI	Reserve 2025	Net Worth 2025	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
NVB650	556.38	7.38	82.81	(85.99)	10,285.67	0.15
NVSB550	462.77	5.48	69.40	(81.66)	2,985.08	0.16
MTB600	528.90	6.96	113.76	88.72	7,689.42	0.64
WYB475	448.75	6.36	26.44	(515.10)	1,784.95	(2.61)
COB275	353.46	3.29	138.26	465.11	14,009.77	0.50
NMB210	189.93	2.31	38.02	(121.60)	5,316.82	(0.04)
SDB600	590.91	7.60	(15.54)	(1,216.79)	6,313.48	(1.82)
MOB250	420.15	15.76	186.79	503.15	3,513.67	2.27
TXRB400	435.25	5.01	98.85	271.61	8,030.77	0.59
TXSB300	328.36	4.56	114.94	203.90	5,538.25	0.65

1 Receipts are average annual total cash receipts including government payments, 2020-2025 (\$1,000)

2 Payments are average annual total government payments, 2020-2025 (\$1,000)

3 NCFI is average annual net cash farm income, 2020-2025 (\$1,000)

4 Reserve 2025 is average ending cash reserves, 2025 (\$1,000)

5 Net Worth 2025 is average nominal ending net worth, 2025 (\$1,000)

6 CRNW is average percentage change in real net worth over 2020-2025 period, (%)

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