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Representative Farms Economic Outlook for the January 2019 FAPRI/AFPC Baseline

Briefing Paper 19-1

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REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2019 FAPRI/AFPC BASELINE

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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 2019 through 2024. 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) provided projected prices, policy variables, and input inflation rates in their preliminary baseline.

Under the January 2019 Baseline, 22 of the 63 crop farms are in good liquidity condition (less than a 25 percent chance of negative ending cash by 2024). Ten crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash, and the remaining 31 crop farms have greater than a 50 percent chance of negative ending cash. Additionally, 41 of the 63 crop farms are in good equity position (less than a 25 percent chance of decreasing real net worth during the study period). Six crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and 16 crop farms have greater than a 50 percent probability of decreasing real net worth by 2024. The following discussion provides an overall evaluation by commodity considering both liquidity and equity measures.

- FEEDGRAIN FARMS: Eight of the 23 feedgrain farms are in good overall financial condition. Ten farms are classified in marginal condition, and five are in poor condition.

- WHEAT FARMS: Five representative wheat farms are classified in good overall financial condition, three are in marginal condition, and three are in poor condition.

- COTTON FARMS: Eight of the 14 cotton farms are classified in good condition, none are in marginal condition, and six are in poor condition.

- RICE FARMS: One of the 15 rice farms are projected to be in good financial condition. Six rice farms are projected to be in marginal condition; eight are in poor condition.

- DAIRY FARMS: Twelve of the 21 dairies are in good overall financial condition. Four dairies are classified in marginal condition, and five are in poor condition.

- BEEF CATTLE RANCHES: Four of the 10 cattle ranches are classified in good financial condition, and five are projected to be in marginal condition. Only one of the ranches is classified in poor condition.

REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2019 FAPRI/AFPC BASELINE

The farm level economic impacts of the FAPRI January 2019 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 2019-2024 study period. ARC/PLC elections for covered commodities were based on the prevailing elections made by panel members on each of our representative farms. Producers are able to change their ARC/PLC program election beginning with the 2019 crop year; anticipated changes were made based on choices resulting in the highest ending cash reserves in 2024. Market Facilitation Program (MFP) payments were included in this analysis. The first round of MFP payments was assumed to be paid in 2018 and the second round in 2019. 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) January 2019 Baseline.

The simulations incorporate historical risk faced by farmers for prices and production. This report presents the results of the January 2019 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 2024.

DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

- **Overall Financial Position, 2019-2024** -- 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 2024. 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** -- 2019-2024 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** -- 2019-2024 average annual PLC or ARC payments and marketing loan gains/LDPs for crop farms.
- **NCFI** -- 2019-2024 average net cash farm income equals average total receipts minus average total cash expenses.
- **Reserve 2024** -- equals total cash on hand at the end of year 2024. 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 2024** -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2024.
- **CRNW** -- annualized percentage change in the operator's real net worth from January 1, 2018 through December 31, 2024, after adjusting for inflation.

Table 1. FAPRI January 2019 Baseline Projections of Crop and Livestock Prices, 2017-2024.

	2017	2018	2019	2020	2021	2022	2023	2024
Crop Prices								
Corn ($/bu.)	3.36	3.53	3.80	3.76	3.79	3.75	3.73	3.71
Wheat ($/bu.)	4.72	5.16	5.30	5.23	5.24	5.15	5.14	5.12
Cotton ($/lb.)	0.6860	0.7166	0.6451	0.6693	0.6693	0.6779	0.6755	0.6861
Sorghum ($/bu.)	3.22	3.22	3.46	3.43	3.46	3.45	3.44	3.41
Soybeans ($/bu.)	9.33	8.41	8.76	9.08	9.06	9.06	9.02	9.02
Barley ($/bu.)	4.47	4.64	4.78	4.71	4.68	4.66	4.66	4.69
Oats ($/bu.)	2.59	2.60	2.73	2.76	2.77	2.77	2.79	2.80
Rice ($/cwt.)	12.70	11.94	12.69	12.44	12.39	12.45	12.44	12.45
Soybean Meal ($/ton)	329.08	286.72	295.71	302.46	301.76	305.85	306.74	308.38
All Hay ($/ton)	142.00	162.17	162.26	163.41	163.21	162.79	162.32	161.83
Peanuts ($/ton)	458.00	435.76	428.26	436.87	440.58	440.35	439.87	440.01
Cattle Prices								
Feeder Cattle ($/cwt)	155.82	158.98	153.08	144.23	150.28	156.31	164.48	170.07
Fed Cattle ($/cwt)	121.52	117.12	114.06	112.53	114.97	117.91	121.69	124.22
Culled Cows ($/cwt)	66.74	61.19	60.42	58.95	61.01	63.37	66.39	68.41
Milk Price								
U.S. All Milk Price ($/cwt)	17.69	16.23	16.94	17.51	17.68	17.88	18.00	18.10

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

Table 2. FAPRI January 2019 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2018-2024.

	2018	2019	2020	2021	2022	2023	2024
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	-1.25	1.12	1.76	1.95	1.84	1.57	1.39
All Fertilizer Prices (%)	0.73	3.87	-0.33	-0.11	1.78	0.41	2.39
Herbicide Prices (%)	-0.64	-1.19	2.56	2.42	2.26	2.02	1.96
Insecticide Prices (%)	-1.12	-1.24	2.43	2.41	2.30	2.13	2.05
Fuel and Lube Prices (%)	7.98	-2.75	5.36	5.63	2.25	1.38	2.13
Machinery Prices (%)	1.03	2.37	2.29	1.40	1.62	1.62	1.81
Wages (%)	6.07	3.12	3.45	3.69	3.80	3.70	3.61
Supplies (%)	3.64	2.62	2.01	2.11	1.84	1.78	1.87
Repairs (%)	3.28	2.53	2.61	2.55	2.66	2.74	2.83
Services (%)	1.84	1.57	2.87	2.84	2.77	2.57	2.51
Taxes (%)	0.69	2.31	3.78	2.63	2.55	2.20	2.40
PPI Items (%)	1.44	0.89	1.15	1.69	1.70	1.64	1.57
PPI Total (%)	2.13	1.26	1.56	1.95	1.96	1.87	1.81
Annual Change in Consumer Price Index (%)	2.42	1.97	2.53	2.51	2.31	2.22	2.26
Annual Rate of Change for U.S. Land Prices (%)	1.95	-0.61	-0.61	-0.88	-0.33	-0.04	0.03

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

Representative Farm: Feed Grains

- Overall, eight feed grain farms are characterized as good, ten are marginal, and five are in poor condition.

- Ten of the twenty-three farms will be under severe cash flow stress; five of these farms also have high likelihoods (greater than a 50 percent chance) of losing real net worth.
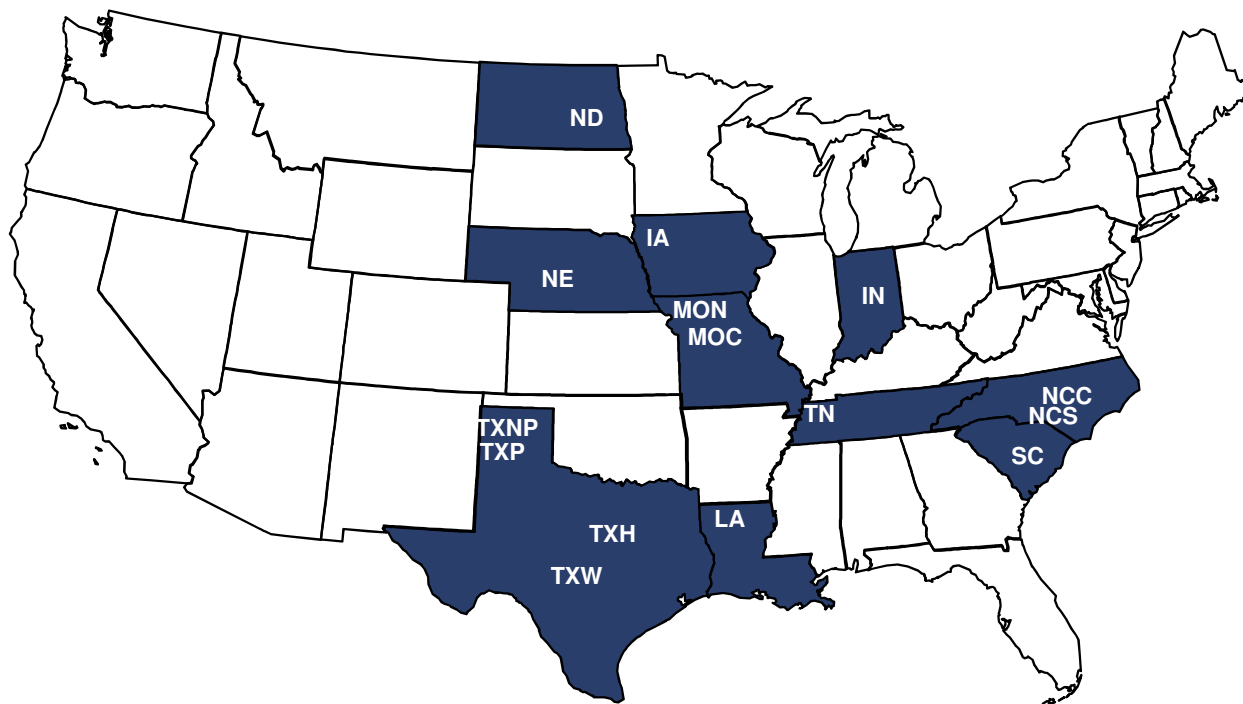
Characteristics of Panel Farms Producing Feed Grains, 2018.

	Cropland	Assets	Debt/Asset	Gross Receipts	Feed Grains
	(acres)	($1,000)	(ratio)	($1,000)	(acres)
IAG1350	1,350	3,511.00	0.28	835.00	1,350
IAG3400	3,400	12,123.00	0.21	1,845.60	3,400
NEG2400	2,400	5,637.00	0.18	2,020.20	2,400
NEG4500	4,500	19,363.00	0.24	3,503.20	4,000
NDG3000	3,000	4,066.00	0.17	1,352.40	2,500
NDG9000	9,000	19,448.00	0.19	3,706.50	7,000
ING1000	1,000	3,275.00	0.19	571.80	1,000
ING3250	3,250	11,058.00	0.20	2,016.60	3,250
MOCG2300	2,300	11,966.00	0.17	1,215.90	2,300
MOCG4200	4,200	17,551.00	0.18	2,125.40	4,200
MONG2300	2,300	12,980.00	0.19	1,390.00	2,250
LANG2500	2,500	3,785.00	0.24	1,610.30	1,625
TNG2500	2,500	4,933.00	0.19	1,282.20	2,500
TNG5000	5,000	11,124.00	0.19	2,790.80	5,000
NCSP2000	2,000	5,299.00	0.28	1,340.40	1,600
NCC2030	2,030	2,440.00	0.14	1,205.30	1,700
SCC2000	2,000	3,708.00	0.16	1,497.30	1,250
SCG3500	3,500	6,637.00	0.16	2,903.80	1,800
TXNP3450	3,450	8,174.00	0.17	2,046.20	1,775
TXNP10640	10,640	14,076.00	0.15	6,657.70	6,105
TXPG2500	2,500	5,656.00	0.21	1,768.60	1,183
TXHG2700	2,700	1,962.00	0.21	760.10	1,700
TXWG1600	1,600	1,722.00	0.19	560.60	1,100

Representative Farm: Feed Grains

Economic Viability of Representative Farms over the 2019-2024 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
8/10/5	2019	2024	2019-2024	2019-2024
IAG1350			98-99	69-88
IAG3400			84-87	1-1
NEG2400			26-36	2-2
NEG4500			97-95	6-21
NDG3000			33-64	2-15
NDG9000			1-2	1-1
ING1000			34-20	1-1
ING3250			33-28	1-1
MOCG2300			34-32	1-1
MOCG4200			6-1	1-1
MONG2300			72-78	1-1
LANG2500			77-88	52-53
TNG2500			56-74	8-12
TNG5000			17-30	1-1
NCSP2000			97-99	72-90
NCC2030			1-1	1-1
SCC2000			2-1	1-1
SCG3500			1-1	1-1
TXNP3450			1-1	1-1
TXNP10640			1-1	1-1
TXPG2500			26-34	6-1
TXHG2700			70-92	41-66
TXWG1600			55-96	30-52

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 2019 and 2024.

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 2019 and from 2017 to 2024.

Implications of the January 2019 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	Receipts ($1,000)	Payments ($1,000)	NCFI ($1,000)	Reserve 2024 ($1,000)	Net Worth 2024 ($1,000)	CRNW (%)
IAG1350	953.69	40.54	22.70	(1,249.80)	1,755.79	(4.23)
IAG3400	2,094.70	90.45	493.11	(946.00)	10,489.10	3.23
NEG2400	2,141.44	76.35	396.28	237.05	5,249.63	3.89
NEG4500	3,744.35	110.23	374.03	(2,792.66)	13,854.07	0.61
NDG3000	1,258.18	53.16	228.13	(147.92)	3,300.63	1.39
NDG9000	3,971.96	151.93	1,167.76	2,871.52	19,403.68	5.23
ING1000	643.68	27.08	224.25	153.46	2,974.06	3.70
ING3250	2,250.42	82.75	526.38	425.74	9,835.54	3.48
MOCG2300	1,315.29	50.11	474.69	325.78	10,626.29	2.98
MOCG4200	2,389.62	77.49	962.52	2,000.68	16,552.91	4.23
MONG2300	1,473.16	59.02	493.84	(344.60)	11,531.69	3.31
LANG2500	1,799.47	161.36	159.82	(695.49)	2,522.93	(0.37)
TNG2500	1,429.83	48.62	242.02	(331.34)	4,170.33	2.55
TNG5000	2,964.07	89.27	597.99	528.60	10,243.81	3.95
NCSP2000	1,497.35	88.65	26.46	(1,940.99)	2,616.01	(4.41)
NCC2030	1,349.89	99.43	539.92	1,502.61	3,693.27	11.85
SCC2000	1,646.20	116.42	458.65	1,114.01	4,173.72	6.90
SCG3500	3,105.28	156.49	753.17	2,337.00	7,542.71	7.05
TXNP3450	2,211.64	108.63	765.39	1,907.42	9,138.31	6.92
TXNP10640	6,723.33	261.67	1,349.63	4,565.66	16,525.40	7.43
TXPG2500	1,896.73	132.26	356.76	217.84	5,183.43	4.34
TXHG2700	799.55	78.62	76.16	(538.64)	1,215.95	(2.24)
TXWG1600	583.17	60.04	68.72	(496.27)	1,187.82	(0.87)

1 Receipts are average annual total cash receipts including government payments, 2019-2024 ($1,000)

2 Payments are average annual total government payments, 2019-2024 ($1,000)

3 NCFI is average annual net cash farm income, 2019-2024 ($1,000)

4 Reserve 2024 is average ending cash reserves, 2024 ($1,000)

5 Net Worth 2024 is average nominal ending net worth, 2024 ($1,000)

6 CRNW is average percentage change in real net worth over 2019-2024 period, (%)

Representative Farm: Wheat

- Five wheat farms are projected to be in good overall financial condition, three are in marginal condition, and three are in poor condition.

- Five of the eleven wheat farms are expected to feel significant liquidity pressure over the period; three of these five farms also have a greater than 25 percent chance of losing wealth.
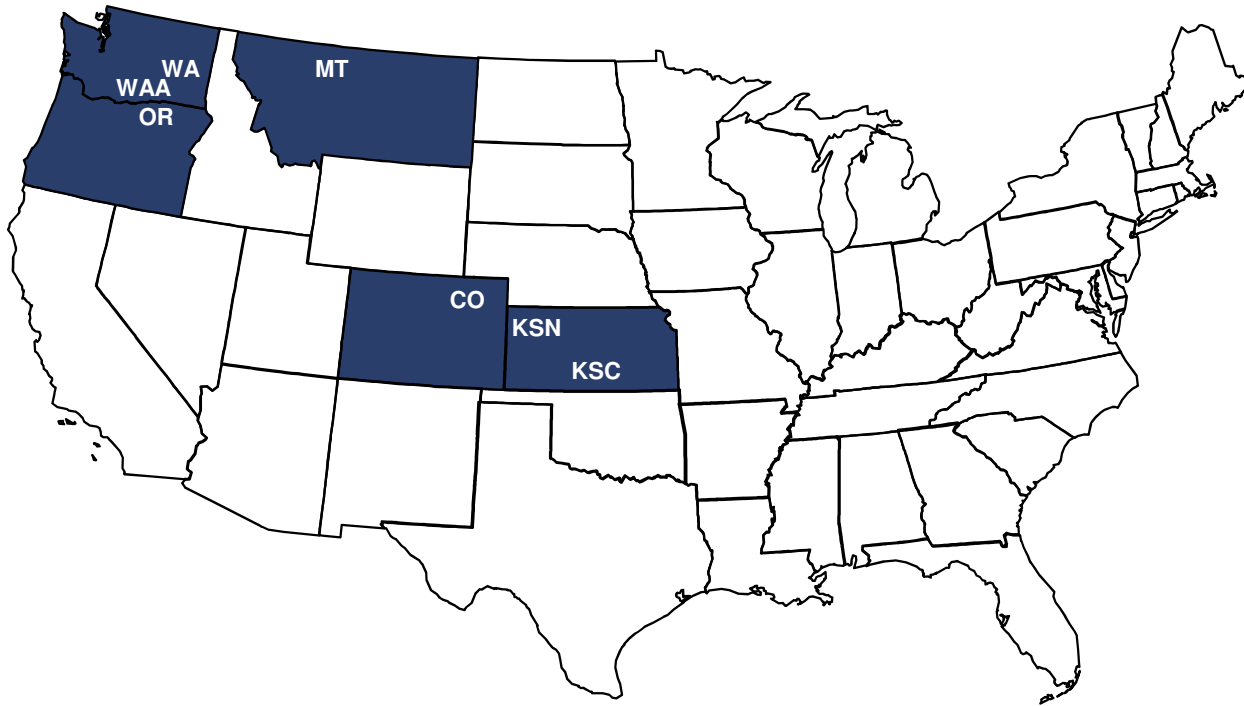
Characteristics of Panel Farms Producing Wheat, 2018.

	Cropland	Assets	Debt/Asset	Gross Receipts	Wheat
	(acres)	($1,000)	(ratio)	($1,000)	(acres)
WAW2800	2,800	3,184.00	0.17	1,333.80	1,840
WAW10000	10,000	10,870.00	0.17	4,761.60	5,800
WAAW5000	5,000	2,305.00	0.19	566.20	2,300
ORW4100	4,100	1,783.00	0.25	458.80	2,150
MTW8000	8,000	6,916.00	0.17	1,492.30	3,840
KSCW2000	2,000	2,690.00	0.15	787.70	800
KSCW5300	5,300	5,683.00	0.16	1,887.40	2,385
KSNW4000	4,000	4,302.00	0.20	836.00	1,200
KSNW7000	7,000	8,072.00	0.21	1,787.00	1,700
COW3000	3,000	4,231.00	0.20	376.20	1,013
COW6000	6,000	6,572.00	0.22	849.90	2,000

Representative Farm: Wheat

Economic Viability of Representative Farms over the 2019-2024 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
5/3/3	2019	2024	2019-2024	2019-2024
WAW2800			8-3	1-1
WAW10000			6-12	1-1
WAAW5000			74-92	42-58
ORW4100			87-92	44-43
MTW8000			1-1	1-1
KSCW2000			1-1	1-1
KSCW5300			5-1	1-1
KSNW4000			54-50	2-1
KSNW7000			37-29	2-1
COW3000			90-89	1-1
COW6000			99-99	59-88

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 2019 and 2024.

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 2019 and from 2017 to 2024.

Implications of the January 2019 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat

	Receipts	Payments	NCFI	Reserve 2024	Net Worth 2024	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
WAW2800	1,340.30	94.94	320.89	626.57	3,327.15	5.75
WAW10000	4,520.59	257.04	874.85	1,806.05	11,267.25	5.57
WAAW5000	628.41	46.83	107.99	(550.10)	1,594.03	(0.92)
ORW4100	508.28	34.17	133.32	(366.61)	1,243.77	0.48
MTW8000	1,571.68	120.49	812.31	2,353.87	8,188.59	7.85
KSCW2000	848.93	35.09	270.11	530.38	2,753.30	4.97
KSCW5300	2,095.76	88.71	630.52	1,647.23	6,418.37	6.88
KSNW4000	903.28	56.76	251.42	(16.46)	3,691.66	2.99
KSNW7000	1,932.75	75.21	475.41	404.95	7,218.22	3.78
COW3000	415.40	21.89	151.64	(203.10)	3,548.53	2.47
COW6000	908.81	45.70	60.68	(2,156.97)	4,041.37	(2.23)

1 Receipts are average annual total cash receipts including government payments, 2019-2024 ($1,000)

2 Payments are average annual total government payments, 2019-2024 ($1,000)

3 NCFI is average annual net cash farm income, 2019-2024 ($1,000)

4 Reserve 2024 is average ending cash reserves, 2024 ($1,000)

5 Net Worth 2024 is average nominal ending net worth, 2024 ($1,000)

6 CRNW is average percentage change in real net worth over 2019-2024 period, (%)

Representative Farm: Cotton

- Eight of the fourteen cotton farms are characterized in good overall financial condition over the 2019-2024 projection period, none are in marginal condition, and six are in poor condition.

- Six representative cotton farms are projected to experience severe cash flow problems (having a greater than 50 percent chance of a cash flow deficit); these six farms also are expected to have a greater than 25 percent chance of losing real equity over the period.
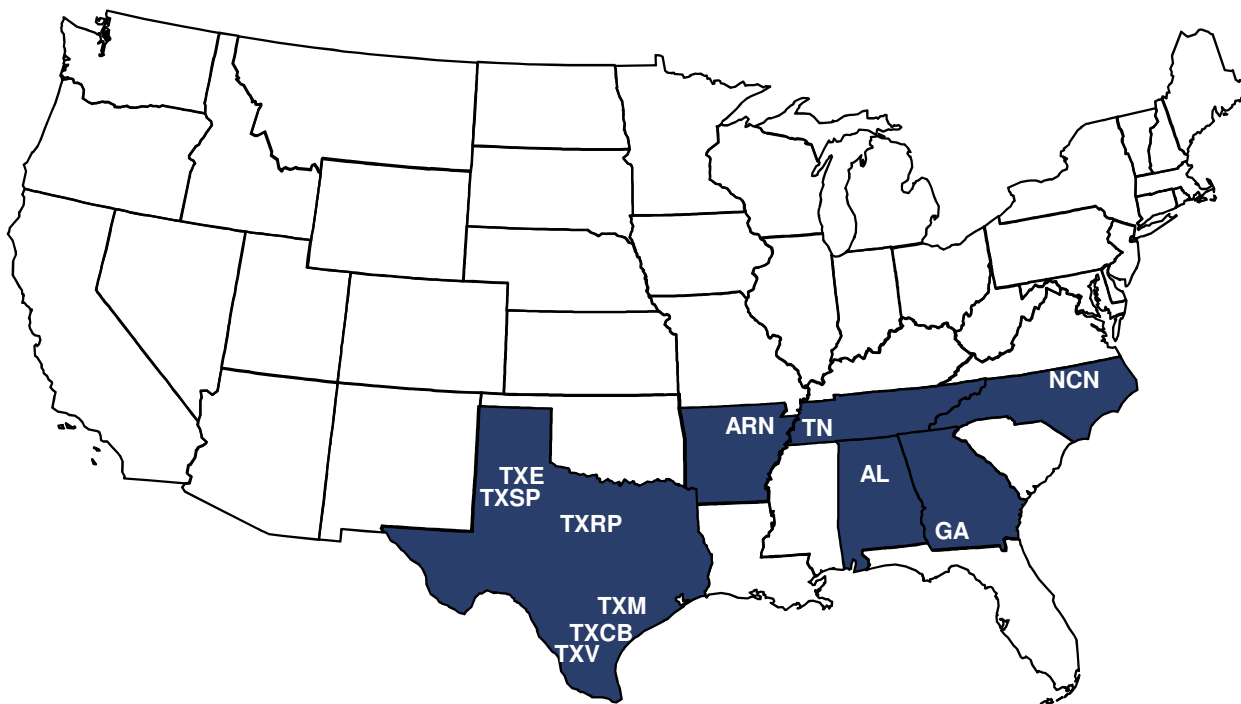
Characteristics of Panel Farms Producing Cotton, 2018.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cotton
	(acres)	($1,000)	(ratio)	($1,000)	(acres)
TXSP2500	2,500	1,383.00	0.19	832.40	1,298
TXSP4500	4,500	3,340.00	0.22	1,950.60	3,717
TXEC5000	5,000	3,765.00	0.15	2,253.50	4,400
TXRP2500	2,500	1,401.00	0.27	546.30	1,500
TXMC2500	2,500	2,313.00	0.26	1,492.90	1,455
TXCB3750	3,750	2,881.00	0.24	1,542.20	1,688
TXCB10000	10,000	8,189.00	0.18	4,411.80	4,500
TXVC5500	5,500	7,330.00	0.18	3,236.30	1,890
ARNC5000	5,000	10,528.00	0.17	4,143.50	2,500
TNC3000	3,000	2,344.00	0.16	1,724.70	825
TNC4050	4,050	6,535.00	0.15	2,569.20	1,500
ALC3500	3,500	5,118.00	0.19	2,439.30	1,050
GAC2500	2,500	10,862.00	0.18	2,933.40	1,250
NCNP1600	1,600	3,856.00	0.24	1,081.50	560

Representative Farm: Cotton

Economic Viability of Representative Farms over the 2019-2024 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
8/0/6	2019	2024	2019-2024	2019-2024
TXSP2500			39-98	23-55
TXSP4500			20-24	10-4
TXEC5000			21-13	16-6
TXRP2500			80-96	59-85
TXMC2500			42-77	34-51
TXCB3750			70-97	64-93
TXCB10000			14-68	21-49
TXVC5500			2-1	1-1
ARNC5000			3-1	2-1
TNC3000			2-1	2-1
TNC4050			20-11	5-1
ALC3500			1-1	1-1
GAC2500			1-1	1-1
NCNP1600			99-99	50-69

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 2019 and 2024.

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 2019 and from 2017 to 2024.

Implications of the January 2019 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton

	Receipts	Payments	NCFI	Reserve 2024	Net Worth 2024	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
TXSP2500	790.01	77.29	93.74	(630.55)	853.75	(2.69)
TXSP4500	1,986.61	167.10	438.02	445.39	3,361.27	6.05
TXEC5000	2,268.42	232.72	502.04	1,160.53	4,139.19	6.29
TXRP2500	546.00	48.14	(0.89)	(657.83)	552.94	(8.12)
TXMC2500	1,453.95	94.81	156.75	(533.09)	1,416.72	(1.30)
TXCB3750	1,515.37	138.37	(50.73)	(1,603.59)	750.32	(14.45)
TXCB10000	4,289.80	354.98	230.03	(837.46)	5,718.21	(1.03)
TXVC5500	3,210.95	246.88	614.47	1,776.79	7,609.25	5.84
ARNC5000	4,307.33	299.72	1,224.92	3,092.29	12,175.88	7.47
TNC3000	1,955.74	172.69	529.82	1,606.01	3,467.47	11.77
TNC4050	2,723.76	236.68	554.03	869.06	6,603.78	4.80
ALC3500	2,717.53	194.82	847.07	2,792.91	6,594.42	10.02
GAC2500	3,013.87	289.64	663.57	1,577.03	10,522.98	4.64
NCNP1600	1,162.03	127.03	83.43	(1,267.58)	2,367.70	(1.71)

1 Receipts are average annual total cash receipts including government payments, 2019-2024 ($1,000)

2 Payments are average annual total government payments, 2019-2024 ($1,000)

3 NCFI is average annual net cash farm income, 2019-2024 ($1,000)

4 Reserve 2024 is average ending cash reserves, 2024 ($1,000)

5 Net Worth 2024 is average nominal ending net worth, 2024 ($1,000)

6 CRNW is average percentage change in real net worth over 2019-2024 period, (%)

Representative Farm: Rice

- One of the fifteen representative rice farms is projected to be in good overall financial condition, six are in marginal condition, and eight are in poor condition.

- Fourteen of the rice farms are expected to face moderate to severe cash flow problems; eight of those farms also have a greater than 25 percent chance of declining real net worth.

Characteristics of Panel Farms Producing Rice, 2018.

	Cropland	Assets	Debt/Asset	Gross Receipts	Rice
	(acres)	($1,000)	(ratio)	($1,000)	(acres)
CAR1200	1,200	3,807.00	0.16	1,655.50	1,200
CAR3000	3,000	13,925.00	0.20	4,490.60	3,000
CABR1000	1,000	5,973.00	0.20	1,470.90	1,000
CACR800	800	4,501.00	0.20	1,169.90	800
TXR1500	1,500	2,401.00	0.21	788.90	600
TXR3000	3,000	1,377.00	0.23	1,724.90	1,500
TXBR1800	1,800	999.00	0.15	981.20	600
TXER3200	3,200	2,331.00	0.24	1,393.30	1,067
LASR2000	2,000	2,739.00	0.18	1,341.10	1,000
ARMR6500	6,500	8,913.00	0.20	4,331.70	650
ARSR3240	3,240	5,511.00	0.18	2,240.20	1,458
ARWR2500	2,500	7,848.00	0.19	1,565.50	1,250
ARHR4000	4,000	7,372.00	0.18	2,645.90	2,400
MSDR5000	5,000	18,063.00	0.20	3,170.90	1,667
MOBR4000	4,000	10,115.00	0.22	2,170.40	1,320

Representative Farm: Rice

Economic Viability of Representative Farms over the 2019-2024 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
1/6/8	2019	2024	2019-2024	2019-2024
CAR1200			2-3	1-1
CAR3000			46-93	13-42
CABR1000			19-56	3-2
CACR800			91-99	29-97
TXR1500			77-99	46-86
TXR3000			28-72	26-48
TXBR1800			18-60	29-46
TXER3200			93-99	88-99
LASR2000			11-44	13-20
ARMR6500			29-46	14-17
ARSR3240			17-48	10-18
ARWR2500			85-96	9-7
ARHR4000			28-87	20-51
MSDR5000			18-41	3-1
MOBR4000			76-94	10-31

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 2019 and 2024.

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 2019 and from 2017 to 2024.

Implications of the January 2019 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice

	Receipts	Payments	NCFI	Reserve 2024	Net Worth 2024	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
CAR1200	1,733.63	244.12	395.97	560.35	3,678.96	4.06
CAR3000	4,576.14	448.66	202.46	(2,504.26)	9,645.27	(0.63)
CABR1000	1,538.15	205.52	270.04	(91.93)	4,884.51	2.16
CACR800	1,223.46	170.22	4.05	(1,025.22)	2,755.71	(2.79)
TXR1500	858.33	90.62	76.31	(746.95)	1,417.07	(3.12)
TXR3000	1,868.30	160.88	194.33	(382.71)	928.52	(0.32)
TXBR1800	1,065.69	103.09	157.99	(94.81)	786.34	0.48
TXER3200	1,509.68	145.98	(108.47)	(2,046.76)	156.93	(27.99)
LASR2000	1,442.34	115.84	189.42	42.43	2,220.14	1.52
ARMR6500	4,808.93	341.90	629.94	33.31	7,900.45	3.57
ARSR3240	2,431.10	188.01	291.12	(28.38)	4,607.79	2.05
ARWR2500	1,708.01	149.06	240.37	(1,072.17)	6,417.56	1.91
ARHR4000	2,853.96	234.24	170.06	(952.42)	5,254.50	(0.61)
MSDR5000	3,408.62	200.32	803.03	250.74	15,301.06	2.67
MOBR4000	2,338.69	144.61	189.55	(1,423.27)	7,244.82	0.33

1 Receipts are average annual total cash receipts including government payments, 2019-2024 ($1,000)

2 Payments are average annual total government payments, 2019-2024 ($1,000)

3 NCFI is average annual net cash farm income, 2019-2024 ($1,000)

4 Reserve 2024 is average ending cash reserves, 2024 ($1,000)

5 Net Worth 2024 is average nominal ending net worth, 2024 ($1,000)

6 CRNW is average percentage change in real net worth over 2019-2024 period, (%)

Representative Farm: Dairy

- Twelve of the twenty-one dairy operations are in good overall financial condition, four dairies are classified in marginal condition, and five dairies are in poor condition.

- Nine of the dairies are projected to experience moderate to severe cash flow stress; five of these operations are projected to face a 25 percent or greater chance of losing real net worth by 2024.
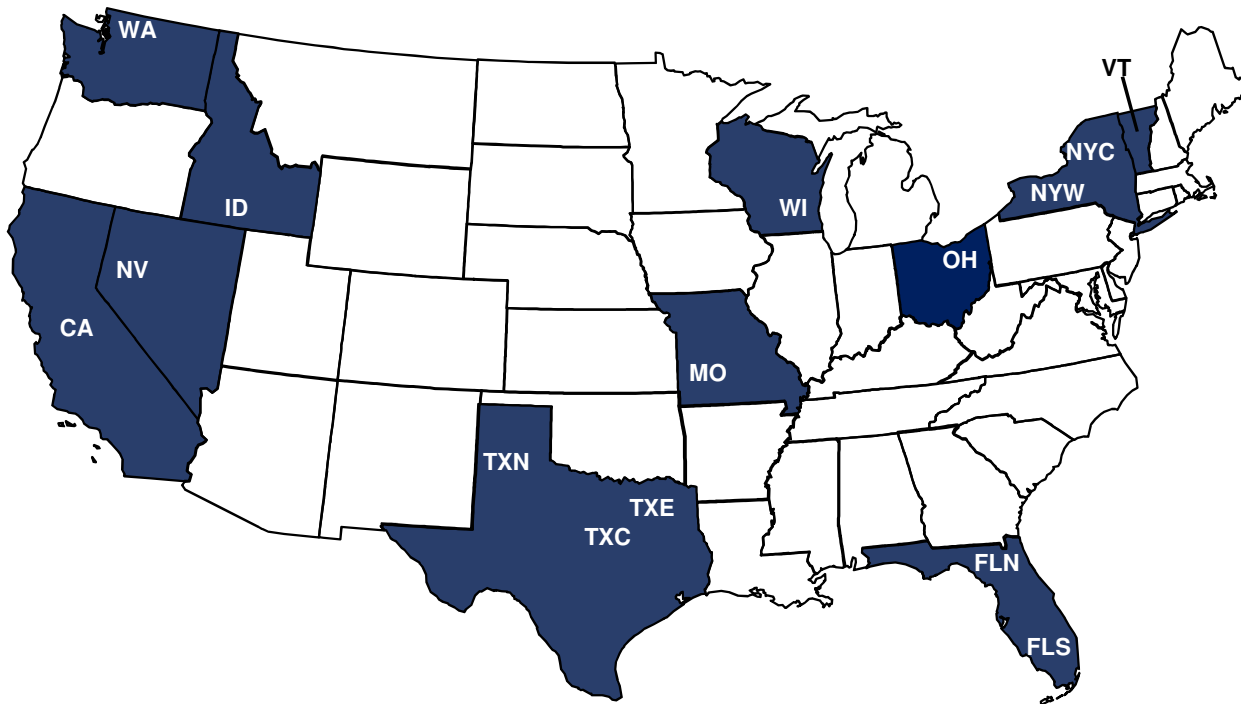
Characteristics of Panel Farms Producing Milk, 2018.

	Cropland (acres)	Assets ($1,000)	Debt/Asset (ratio)	Gross Receipts ($1,000)	Cows (number)
CAD2000	700	23,557.00	0.22	9,576.00	2,000
WAD300	250	4,387.00	0.27	1,250.80	300
WAD1200	850	15,984.00	0.22	6,071.10	1,200
IDD3000	1,500	30,548.00	0.22	13,957.20	3,000
NVD1000	500	7,182.00	0.19	4,358.50	1,000
TXND3800	1,920	24,490.00	0.14	16,186.10	3,800
TXCD1500	616	10,232.00	0.36	5,884.70	1,500
TXED400	950	2,609.00	0.24	1,144.30	400
WID145	600	3,414.00	0.23	820.10	145
WID1000	2,000	10,906.00	0.22	5,540.40	1,000
OHD350	700	7,537.00	0.25	1,680.60	350
NYWD400	800	5,194.00	0.23	2,079.60	400
NYWD1200	2,100	17,563.00	0.23	5,930.00	1,200
NYCD180	400	3,974.00	0.23	896.20	180
NYCD675	1,500	11,811.00	0.22	3,381.60	675
VTD160	220	1,819.00	0.28	708.10	160
VTD400	1,000	6,112.00	0.25	2,192.90	400
MOGD550	460	3,559.00	0.20	1,387.70	550
MOGD400	320	2,671.00	0.15	1,519.70	400
FLND550	600	4,206.00	0.17	2,809.00	550
FLSD1750	400	11,524.00	0.18	8,167.30	1,750

Representative Farm: Dairy

Economic Viability of Representative Farms over the 2019-2024 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
12/4/5	2019	2024	2019-2024	2019-2024
CAD2000			45-72	32-24
WAD300			97-99	30-33
WAD1200			1-1	1-1
IDD3000			34-53	21-7
NVD1000			18-25	25-12
TXND3800			8-1	7-1
TXCD1500			99-99	99-99
TXED400			89-99	59-73
WID145			7-14	1-1
WID1000			8-18	9-4
OHD350			96-99	38-48
NYWD400			7-14	2-1
NYWD1200			2-11	3-1
NYCD180			1-1	1-1
NYCD675			2-1	1-1
VTD160			99-99	77-97
VTD400			38-48	10-4
MOGD550			6-1	4-1
MOGD400			1-1	1-1
FLND550			1-1	3-1
FLSD1750			5-7	9-2

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 2019 and 2024.

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 2019 and from 2017 to 2024.

Implications of the January 2019 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk

	Receipts	Payments	NCFI	Reserve 2024	Net Worth 2024	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
CAD2000	8,542.19	37.80	605.36	(1,747.76)	18,092.25	1.40
WAD300	1,353.63	2.90	90.29	(1,077.38)	2,988.72	0.53
WAD1200	6,540.31	11.67	1,147.97	3,248.40	15,912.70	5.97
IDD3000	15,136.97	23.47	1,601.43	(360.17)	27,404.13	4.03
NVD1000	3,974.81	2.61	474.84	769.89	6,686.00	4.21
TXND3800	16,927.68	50.79	2,768.48	9,394.24	31,352.74	8.80
TXCD1500	6,088.18	3.27	(1,023.99)	(10,009.84)	(1,162.29)	(109.41)
TXED400	1,233.28	0.61	1.46	(986.69)	1,471.70	(3.11)
WID145	884.40	3.09	222.36	230.15	3,021.86	4.20
WID1000	5,998.63	16.46	719.40	1,412.06	10,116.19	4.64
OHD350	1,840.09	11.83	91.77	(1,626.85)	5,003.53	(0.21)
NYWD400	2,049.80	8.98	325.20	502.83	4,564.00	3.96
NYWD1200	5,790.05	22.66	985.51	1,757.14	15,326.88	3.90
NYCD180	973.82	4.41	280.32	492.48	3,702.35	5.03
NYCD675	3,674.73	14.82	940.71	1,684.48	11,972.14	6.27
VTD160	765.36	3.92	(8.17)	(779.98)	821.51	(5.89)
VTD400	2,380.66	12.98	323.11	(46.77)	4,954.93	3.07
MOGD550	1,475.88	0.50	621.68	2,028.58	4,553.26	9.94
MOGD400	1,615.25	0.51	818.19	3,163.18	4,796.65	15.37
FLND550	3,015.50	1.23	527.70	1,642.53	5,023.46	8.06
FLSD1750	8,742.40	3.79	1,045.05	3,028.07	12,199.57	6.26

1 Receipts are average annual total cash receipts including government payments, 2019-2024 ($1,000)

2 Payments are average annual total government payments, 2019-2024 ($1,000)

3 NCFI is average annual net cash farm income, 2019-2024 ($1,000)

4 Reserve 2024 is average ending cash reserves, 2024 ($1,000)

5 Net Worth 2024 is average nominal ending net worth, 2024 ($1,000)

6 CRNW is average percentage change in real net worth over 2019-2024 period, (%)

Representative Farm: Cow/Calf

- Four of the ten cow-calf operations are projected to be in good overall financial condition, five are in marginal condition, and one is in poor condition.

- Six ranches face the threat of severe cash flow stress; however, only one of these seven ranches faces a significant (50 percent or greater) chance of losing real wealth.
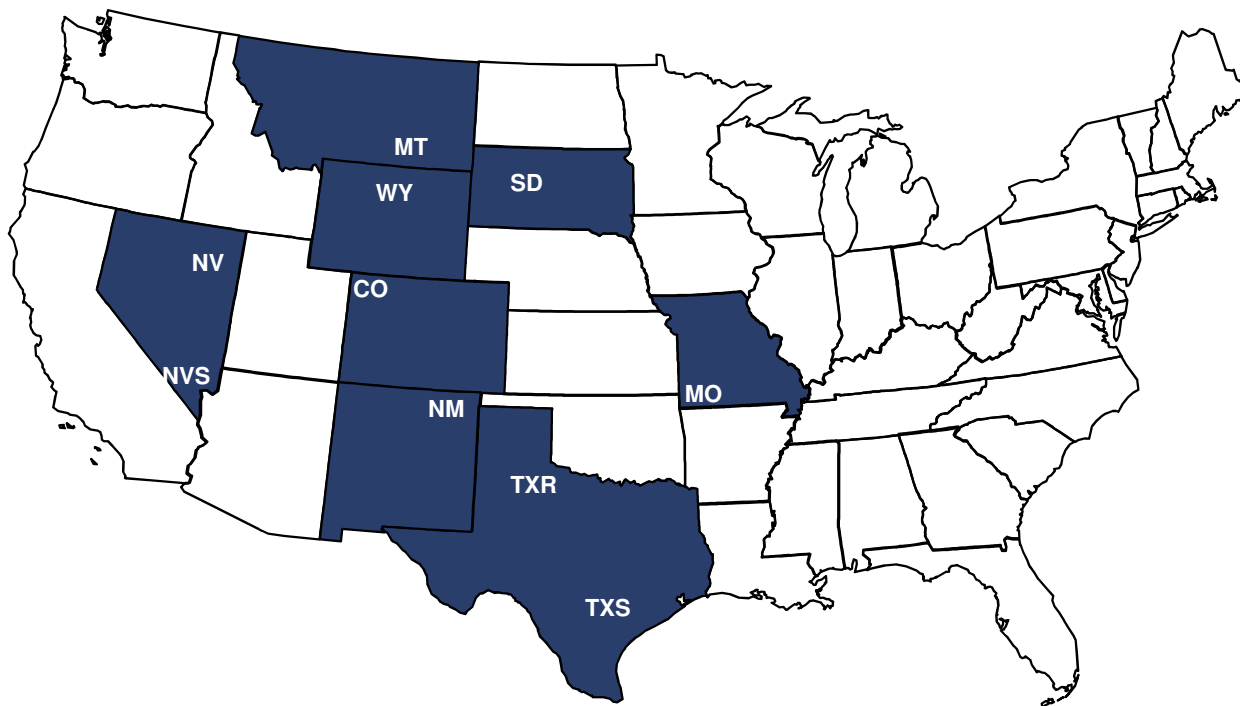
Characteristics of Panel Farms Producing Beef Cattle, 2018.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	($1,000)	(ratio)	($1,000)	(number)
NVB650	1,300	8,240.00	0.02	605.90	650
NVSB550	125	3,199.00	0.03	457.70	550
MTB600	800	7,977.00	0.01	455.70	600
WYB475	330	2,425.00	0.06	458.80	475
COB275	650	14,373.00	0.01	341.40	275
NMB210	0	5,596.00	0.02	188.60	210
SDB500	1,500	7,675.00	0.02	462.40	500
MOB250	360	3,306.00	0.03	416.30	250
TXRB400	0	8,159.00	0.01	429.80	400
TXSB300	100	5,725.00	0.02	250.70	300

Representative Farm: Cow/Calf

Economic Viability of Representative Farms over the 2019-2024 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
4/5/1	2019	2024	2019-2024	2019-2024
NVB650			1-1	1-1
NVSB550			17-82	14-9
MTB600			14-63	1-1
WYB475			99-99	72-95
COB275			7-1	1-1
NMB210			99-99	1-1
SDB500			66-98	3-2
MOB250			1-1	1-1
TXRB400			1-2	1-1
TXSB300			93-99	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 2019 and 2024.

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 2019 and from 2017 to 2024.

Implications of the January 2019 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle

	Receipts	Payments	NCFI	Reserve 2024	Net Worth 2024	CRNW
	($1,000)	($1,000)	($1,000)	($1,000)	($1,000)	(%)
NVB650	601.01	0.00	155.97	327.82	8,279.93	2.10
NVSB550	452.41	0.00	55.60	(133.70)	2,963.80	1.05
MTB600	450.21	0.00	80.24	(48.05)	7,797.05	1.56
WYB475	452.27	0.00	(16.13)	(695.18)	1,701.21	(3.14)
COB275	352.73	0.00	137.20	411.04	14,128.14	1.69
NMB210	186.62	0.00	30.97	(144.71)	5,290.20	1.06
SDB500	459.36	0.00	57.95	(439.12)	7,095.65	0.76
MOB250	426.08	6.56	189.55	435.26	3,543.90	3.50
TXRB400	423.37	0.00	82.08	175.48	8,003.48	1.66
TXSB300	247.38	0.00	52.63	(177.76)	5,358.38	0.92

1 Receipts are average annual total cash receipts including government payments, 2019-2024 ($1,000)

2 Payments are average annual total government payments, 2019-2024 ($1,000)

3 NCFI is average annual net cash farm income, 2019-2024 ($1,000)

4 Reserve 2024 is average ending cash reserves, 2024 ($1,000)

5 Net Worth 2024 is average nominal ending net worth, 2024 ($1,000)

6 CRNW is average percentage change in real net worth over 2019-2024 period, (%)

AFPC Briefing Series

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