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Research Report

Economic outlook for representative cotton farms given the August 2012 FAPRI/AFPC Baseline

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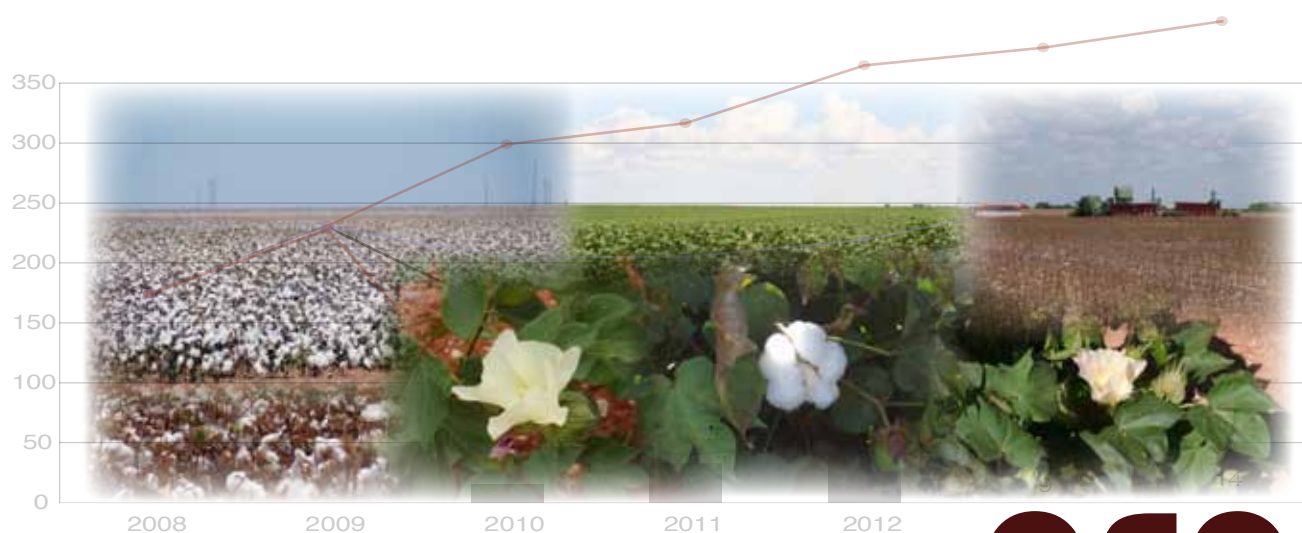
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Economic Outlook for Representative Cotton Farms Given the August 2012 FAPRI/AFPC Baseline

Briefing Paper 12-3

September 2012



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**ECONOMIC OUTLOOK FOR REPRESENTATIVE COTTON FARMS
GIVEN THE AUGUST 2012 FAPRI/AFPC BASELINE**

AFPC Briefing Paper 12-3

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J. Marc Raulston



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EXECUTIVE SUMMARY

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate sixteen representative cotton operations in major production areas of eight states. The chief purpose of this analysis is to project the economic viability of those farms from 2012 through 2017. The data necessary to simulate the economic activity of these operations is developed through ongoing cooperation with panels of agricultural producers in each of these states. The Food and Agricultural Policy Research Institute (FAPRI) provided projected prices, policy variables, and input inflation rates in their August 2012 Baseline. This analysis assumes continuation of 2008 farm bill provisions throughout the study period.

Under the August 2012 Baseline, eleven of the representative cotton farms are in good liquidity condition (less than a 25 percent chance of negative ending cash in 2017). One farm (TXSP2500) has a 25 percent to 50 percent likelihood of negative ending cash. The remaining four farms (TXRP2500, TXMC1800, TXCB2500, and ARNC5000) have a greater than 50 percent chance of negative ending cash.

Farms are also classified based on their respective equity conditions. Eight farms are classified in good equity position (less than a 25 percent chance of decreasing real net worth during 2012-2017). Seven representative cotton farms have between a 25 percent and 50 percent likelihood of losing real net worth, and one farm (TXRP2500) has a greater than 50 percent probability of decreasing real net worth.

Overall rankings based on combined liquidity and equity rankings for the representative cotton farms are projected to be as follows: Eight of the sixteen farms are classified in good condition, four are in marginal condition, and four are in poor condition.

Lower cotton prices under the most recent projections in the August 2012 Baseline have resulted in a slight decline in the overall financial outlook for cotton farms, as the current baseline results in one less farm classified as “good” and one more farm classified as “poor” as compared to the January 2012 Baseline. Current price projections for cotton throughout the study period are all slightly below the target price of \$0.7125/lb as specified in the 2008 farm bill. Lower projected prices for cotton coupled with increases in rates of change for input prices, especially in the near-term, have resulted in a slightly less optimistic outlook for AFPC representative cotton farms under the current baseline.

FAPRI AUGUST 2012 BASELINE

Projected crop prices for FAPRI's August 2012 Baseline are summarized in Table 1. In general, corn, wheat, grain sorghum, soybean, and rice price projections are higher than those reported in the January 2012 Baseline, especially in the near-term. Projected prices for all of the aforementioned commodities are sharply higher in 2012. Projected cotton prices are lower in every year of the projection period in the August 2012 Baseline as compared to the January 2012 Baseline. Cotton prices are \$0.053/lb to \$0.115/lb lower in each year of the projection period under the current baseline. Peanut price projections are higher for five of the six projected years under the August 2012 Baseline as compared to the January 2011 Baseline. Individual crop prices are projected to move as follows:

- Cotton prices are projected to drop from \$0.895/lb in 2011 to \$0.70/lb in 2012. Prices remain in a very tight range throughout the projection period, never climbing above \$0.71/lb.
- Corn price is expected to decrease sharply in 2013 from a study period high of \$8.10/bu in 2012; price stabilizes and remains in a relatively tight range between \$4.74 and \$5.20/bu throughout the remaining years of the projection period
- Wheat price declines from the high of the projection period of \$8.42/bu in 2012, remaining between \$5.98 and \$7.01/bu throughout the 2013-2017 period.
- After experiencing poor prices in recent years, especially 2010, rice is expected to stabilize and hold in a narrow range between \$14.11 and \$14.62/cwt.
- Sorghum prices are expected to decrease from the projection period high of \$7.56/bu in 2012 and hold between \$4.53 and \$4.81/bu in 2013-2017.
- Soybean prices are expected to spike to \$16.27/bu in 2012; however, they are currently projected to decrease and hold in a tight range from \$11.05 to \$11.57/bu throughout the remaining years of the planning horizon.

Projected annual rates of change for variable cash expenses are summarized in Table 2. The rates of change in input prices are from FAPRI's August 2012 Baseline. The projected rates of change in costs increase for every cost category with the exception of fuel and lube. Fertilizer prices experienced the most dramatic cost increases in 2012, displaying a 10.2 percent increase (up from a projected 1.6 percent increase in the January 2012 Baseline). When comparing the current baseline to the January 2012 Baseline, expected fuel price change actually declined from a projected 1.6 percent decrease to a 3.2 percent decrease. Projected annual rates of change in land values over the 2012-2017 period were provided by the August 2012 FAPRI Baseline and range between 0.87 percent and 10.9 percent per year. The largest increases in land prices are projected in the near term, with a 10.9 percent increase in 2012 and a 5.4 percent increase in 2013.

Table 1. FAPRI August 2012 Baseline Projections of Crop and Livestock Prices, 2009-2017

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Crop Prices									
Corn (\$/bu.)	3.55	5.18	6.25	8.10	5.20	4.86	4.74	4.74	4.75
Wheat (\$/bu.)	4.87	5.70	7.24	8.42	7.01	6.22	5.98	6.01	6.07
Cotton (\$/lb.)	0.6290	0.8150	0.8950	0.7013	0.7096	0.7076	0.7094	0.7111	0.7092
Sorghum (\$/bu.)	3.22	5.02	6.10	7.56	4.81	4.58	4.53	4.55	4.59
Soybeans (\$/bu.)	9.59	11.30	12.45	16.27	11.28	11.05	11.26	11.41	11.57
Barley (\$/bu.)	4.66	3.86	5.35	6.16	4.89	4.65	4.59	4.59	4.60
Oats (\$/bu.)	2.02	2.52	3.49	3.99	3.33	3.12	3.04	3.03	3.04
Rice (\$/cwt.)	14.40	12.70	14.05	14.62	14.41	14.19	14.11	14.15	14.29
Soybean Meal (\$/ton)	296.89	329.56	371.98	469.19	281.53	280.05	291.80	301.02	308.41
All Hay (\$/ton)	108.00	114.00	175.00	191.87	170.26	144.49	142.31	144.73	147.73
Peanuts (\$/ton)	434.00	450.00	634.00	648.47	517.58	566.67	552.51	552.04	548.37
Cattle Prices									
Feeder Cattle (\$/cwt)	101.89	115.40	141.25	151.64	159.09	167.47	160.68	153.52	149.15
Fed Cattle (\$/cwt)	83.25	95.38	114.73	122.02	130.86	130.99	126.44	124.26	122.73
Culled Cows (\$/cwt)	47.01	56.76	69.92	73.41	82.95	83.99	78.67	74.12	72.38
Milk Price									
U.S. All Milk Price (\$/cwt)	12.93	16.35	20.25	17.50	19.23	19.19	18.97	19.00	19.01

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

Table 2. FAPRI August 2012 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2010-2017

	2010	2011	2012	2013	2014	2015	2016	2017
Annual Rate of Change for Input Prices Paid								
Seed Prices (%)	3.68	7.10	7.73	4.61	2.59	-0.57	0.57	1.21
All Fertilizer Prices (%)	-6.23	36.93	10.17	2.53	2.88	0.62	1.19	0.14
Herbicide Prices (%)	-6.38	-1.52	5.64	1.49	4.67	1.98	0.87	-0.05
Insecticide Prices (%)	1.86	2.44	4.70	1.30	4.19	1.91	0.91	0.08
Fuel and Lube Prices (%)	24.02	27.46	-3.24	-4.70	7.41	-0.16	-1.19	-1.64
Machinery Prices (%)	3.60	6.09	4.78	3.44	4.12	2.63	2.15	1.95
Wages (%)	0.53	1.59	3.16	2.24	2.46	2.75	2.94	3.04
Supplies (%)	1.31	4.52	1.85	1.75	3.65	1.92	1.09	0.46
Repairs (%)	1.89	3.70	2.92	1.60	2.70	2.43	2.17	2.04
Services (%)	3.21	1.86	1.58	2.12	4.52	2.71	2.02	1.52
Taxes (%)	3.43	5.21	4.33	3.41	6.54	3.38	2.93	2.18
PPI Items (%)	3.30	14.36	7.09	0.12	0.50	0.98	0.88	0.48
PPI Total (%)	3.31	11.76	6.79	0.50	1.13	1.52	1.36	0.79
Annual Change in Consumer Price Index (%)	1.64	3.14	1.70	1.27	2.34	2.00	1.75	1.63
Annual Rate of Change for U.S. Land Prices (%)	4.27	8.64	10.88	5.44	2.11	2.88	0.87	1.18

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

Economic Viability of Representative Farms over the 2012-2017 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2012	2017	2012-2017	2012-2017
8/4/4				
TXSP2500			22-34	1-33
TXSP4500			1-1	1-2
TXEC5000			1-5	1-41
TXRP2500			5-98	1-95
TXMC1800			29-69	1-49
TXCB2500			2-64	1-48
TXCB8000			1-5	1-25
TXVC4500			1-1	1-1
CAC4000			1-1	1-1
ARNC5000			1-54	1-32
TNC2100			1-1	1-1
TNC4050			1-1	1-1
ALC3000			1-4	1-26
GAC2300			1-1	1-1
SCC1800			1-1	1-2
NCC1500			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 2012 and 2017.

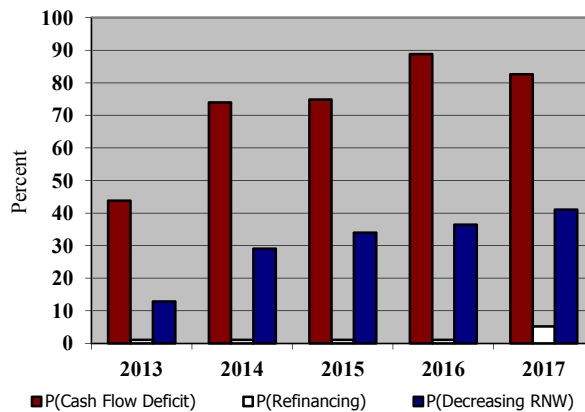
3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2009 to 2012 and from 2009 to 2017.

TXEC5000

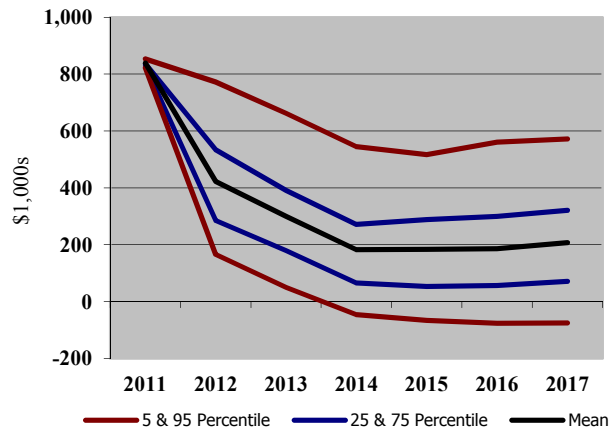
This 5,000-acre cotton farm is located on the Eastern Caprock of the Texas South Plains (Crosby County). Annually, 3,650 acres are planted to cotton (2,650 irrigated and 1,000 dryland), 550 acres of sorghum (250 irrigated and 300 dryland), and 300 acres of dryland wheat. In 2011, cotton sales accounted for 87 percent of gross receipts.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	1,996.5	1,982.7	2,018.6	2,060.1	2,097.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	174.2	172.0	175.6	178.7	185.9
Total Receipts (\$1,000)	2,238.5	2,220.0	2,258.2	2,304.7	2,345.8
Total Expenses (\$1,000)	1,939.5	2,037.2	2,075.3	2,119.0	2,138.7
Net Cash Farm Income (\$1,000)	299.0	182.8	182.9	185.8	207.1
Ending Cash (\$1,000)	1,039.6	987.8	912.0	763.6	625.4
Net Worth (\$1,000)	2,605.7	2,618.2	2,619.4	2,610.3	2,588.0
Return on Assets (%)	7.3	2.2	0.8	0.5	-0.7
P(Cash Flow Deficit) (%)	43.8	74.0	74.8	88.8	82.6
P(Refinancing) (%)	1.0	1.0	1.0	1.0	5.2
P(Decreasing RNW) (%)	12.8	29.0	34.0	36.4	41.0

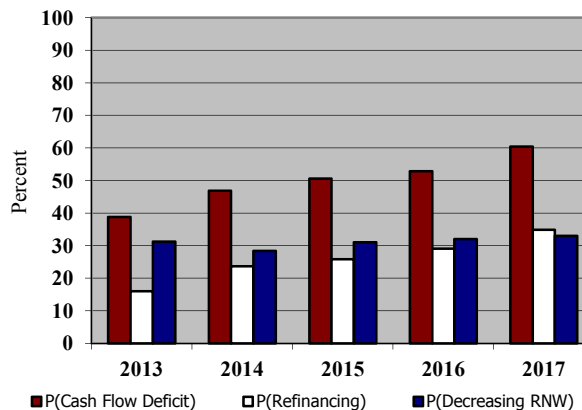
Producers participating in the panel include: Lloyd Arthur, Brooks Ellison, Edwin Moore, and Marvin Schoepf. Clay Miller serves as the facilitator.

TXSP2500

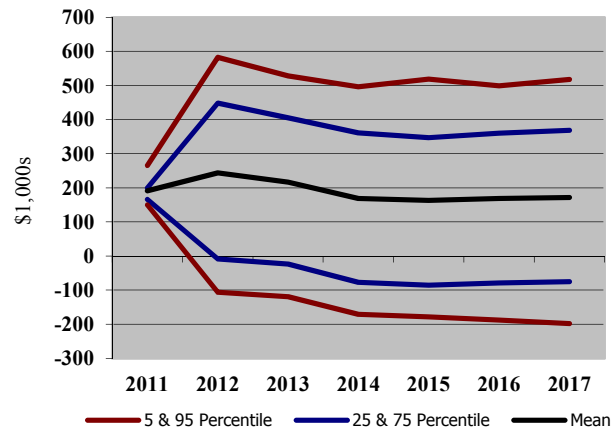
TXSP2500 is a 2,500-acre Texas South Plains (Dawson County) cotton farm that is moderate-sized for the area. This farm plants 2,275 acres of cotton (1,800 dryland, 475 irrigated). For 2011, 60 percent of receipts came from cotton and the remaining 40 percent of receipts came from crop insurance indemnities collected as a result of extreme drought in Texas last year.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	899.7	903.7	919.2	938.2	951.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	73.3	72.2	73.4	73.3	78.9
Total Receipts (\$1,000)	1,029.4	1,031.2	1,049.2	1,066.9	1,087.7
Total Expenses (\$1,000)	813.3	862.2	886.3	898.1	916.0
Net Cash Farm Income (\$1,000)	216.1	168.9	162.9	168.8	171.7
Ending Cash (\$1,000)	247.5	254.0	238.6	228.1	177.2
Net Worth (\$1,000)	1,510.5	1,555.9	1,575.9	1,594.5	1,596.6
Return on Assets (%)	11.6	6.4	5.5	4.7	4.8
P(Cash Flow Deficit) (%)	38.8	46.8	50.6	52.8	60.4
P(Refinancing) (%)	16.0	23.6	25.8	29.0	34.8
P(Decreasing RNW) (%)	31.2	28.4	31.0	32.0	33.0

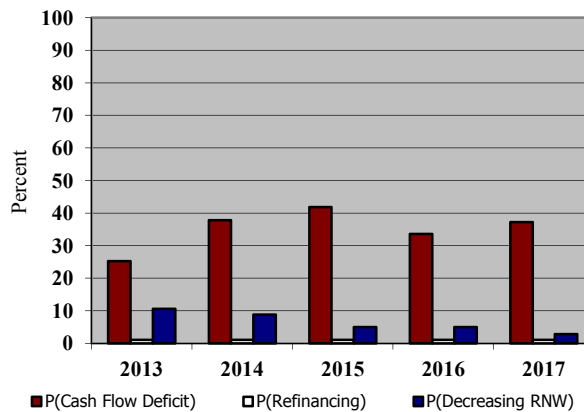
Producers participating in the panel include: Steven Archer, Brad Boyd, Andy Bratcher, Johnny Ray Todd, and Donald Vogler. Jackie Smith and Jeff Wyatt serve as facilitators.

TXSP4500

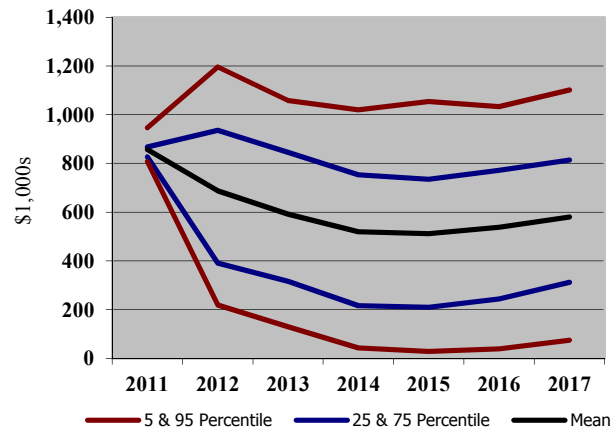
The Texas South Plains (Dawson County) is home to this 4,500-acre, large-sized cotton farm that grows 4,047 acres of cotton (2,667 dryland, 1,380 irrigated) and 120 acres of wheat. Cotton sales comprised 78 percent of 2011 receipts. Due to the extreme drought in Texas in 2011, the farm received 19 percent of its receipts from crop insurance indemnities.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	2,022.0	2,011.9	2,050.1	2,093.4	2,124.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	125.6	139.4	145.2	146.6	159.8
Total Receipts (\$1,000)	2,226.2	2,229.3	2,273.8	2,316.3	2,361.6
Total Expenses (\$1,000)	1,634.5	1,709.9	1,762.4	1,779.0	1,781.2
Net Cash Farm Income (\$1,000)	591.7	519.4	511.4	537.3	580.4
Ending Cash (\$1,000)	1,481.0	1,578.1	1,614.8	1,725.0	1,820.5
Net Worth (\$1,000)	3,541.9	3,732.5	3,932.6	4,129.7	4,368.5
Return on Assets (%)	12.1	7.8	7.3	5.3	6.4
P(Cash Flow Deficit) (%)	25.2	37.8	41.8	33.6	37.2
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	10.6	8.8	5.0	5.0	2.8

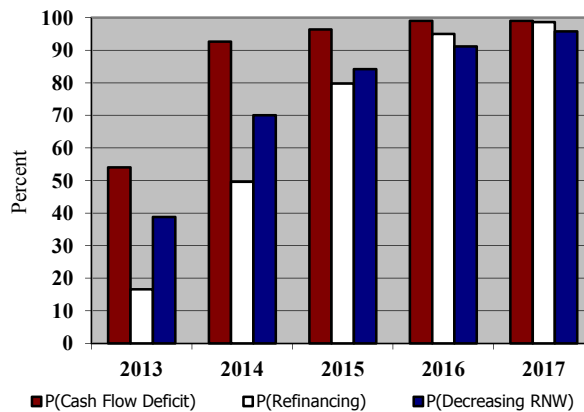
Producers participating in the panel include: Terry Coleman, Will Cozart, Kirk Tidwell, and David Warren. Jackie Smith and Jeff Wyatt serve as facilitators.

TXRP2500

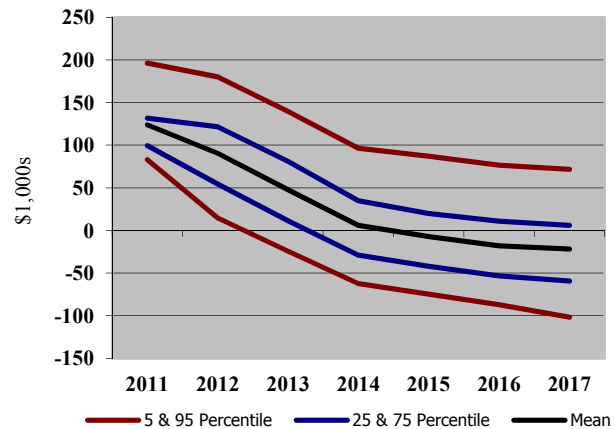
TXRP2500 is a 2,500-acre cotton farm located in the Rolling Plains of Texas (Jones County). This farm plants 1,000 acres of cotton and 1,000 acres of winter wheat each year. The area is limited by rainfall, so the farm uses a conservative level of inputs. Due to the extreme drought in Texas in 2011, the farm only earned 4 percent of receipts from cotton sales with 63 percent of revenue generated from crop insurance indemnities from a failed cotton crop.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	450.1	433.7	436.0	442.8	452.1
Livestock Receipts (\$1,000)	17.8	18.7	19.3	17.1	16.6
Government Payments (\$1,000)	42.9	41.6	42.9	43.5	44.2
Total Receipts (\$1,000)	525.0	507.0	509.3	516.2	524.0
Total Expenses (\$1,000)	477.6	501.1	516.6	534.4	546.0
Net Cash Farm Income (\$1,000)	47.4	5.8	-7.3	-18.1	-22.0
Ending Cash (\$1,000)	60.9	-0.4	-83.8	-224.4	-337.6
Net Worth (\$1,000)	653.8	607.3	545.5	451.3	362.2
Return on Assets (%)	3.4	-4.7	-6.9	-9.2	-5.5
P(Cash Flow Deficit) (%)	54.0	92.6	96.4	99.0	99.0
P(Refinancing) (%)	16.6	49.6	79.8	95.0	98.6
P(Decreasing RNW) (%)	38.8	70.0	84.2	91.2	95.8

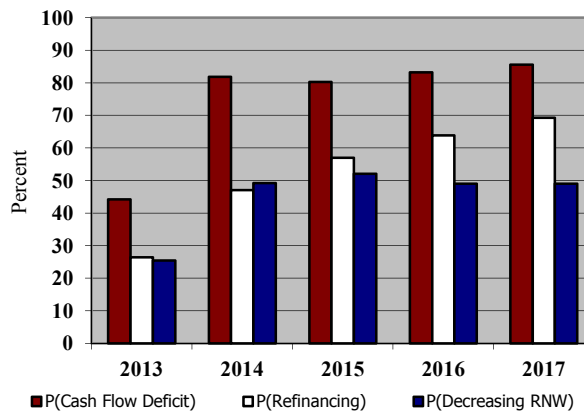
Producers participating in the panel include: Rex Ford, Kelly Head, Michael McLellan, Brian Sandbothe, Mike Sloan, Dale Spurgin, Ferdie Walker, and Terry White. Steven Estes serves as the facilitator.

TXMC1800

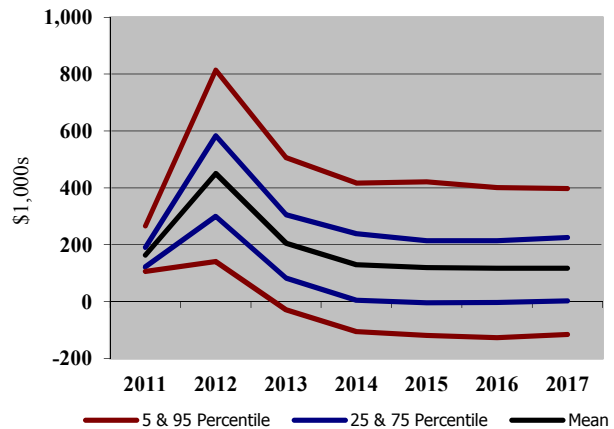
This 1,800-acre cotton farm is located on the Coastal Plain of southeast Texas (Wharton County). TXMC1800 annually plants 900 acres of cotton, 300 acres of grain sorghum, and 600 acres of corn. In 2011, cotton sales comprised 57 percent of total cash receipts on this operation.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	925.5	899.3	900.7	908.2	921.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	73.7	72.7	73.1	74.1	76.7
Total Receipts (\$1,000)	1,017.3	989.4	990.6	999.0	1,013.7
Total Expenses (\$1,000)	812.9	860.5	871.5	882.2	897.2
Net Cash Farm Income (\$1,000)	204.4	128.9	119.1	116.8	116.4
Ending Cash (\$1,000)	137.0	32.5	-50.9	-128.1	-229.1
Net Worth (\$1,000)	1,132.7	1,079.9	1,065.1	1,067.2	1,056.1
Return on Assets (%)	10.6	2.7	-0.3	-0.1	0.5
P(Cash Flow Deficit) (%)	44.2	81.8	80.2	83.2	85.6
P(Refinancing) (%)	26.4	47.0	57.0	63.8	69.2
P(Decreasing RNW) (%)	25.4	49.2	52.0	49.0	49.0

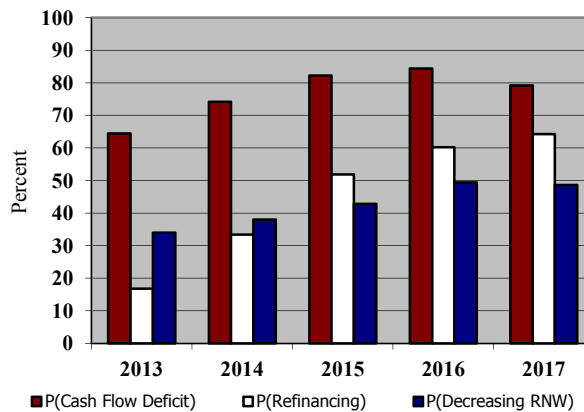
Producers participating in the panel include: Jimmy Barosh, Keith Bram, Brent Cerny, Glenn Emshosf, Daniel Gavranovic, Rob Kainer, Cedric Popp, and Michael Popp. Jeff Nunley, Jimmy Roppolo, and Jimmy Schulz serve as facilitators.

TXCB2500

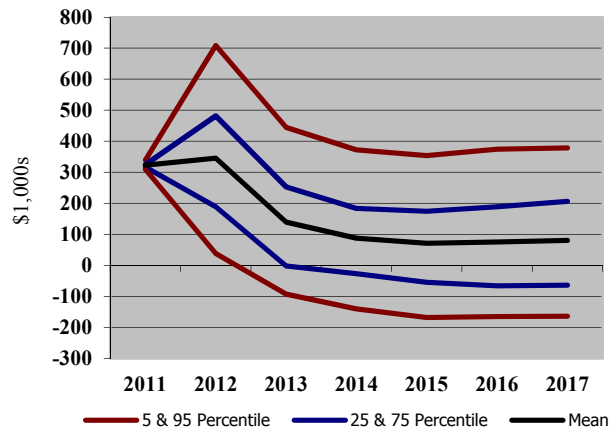
TXCB2500 is a 2,500-acre cotton farm located on the Texas Coastal Bend (San Patricio County) that farms 1,250 acres of cotton, 1,125 acres of sorghum, and 125 acres of corn annually. Sixty-four percent of 2011 cash receipts were generated by cotton.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	911.3	892.1	896.4	913.5	926.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	78.4	76.5	78.2	80.4	81.0
Total Receipts (\$1,000)	1,040.0	1,015.3	1,018.8	1,038.4	1,051.7
Total Expenses (\$1,000)	900.9	927.9	947.6	963.0	971.1
Net Cash Farm Income (\$1,000)	139.1	87.4	71.2	75.4	80.6
Ending Cash (\$1,000)	191.6	112.6	4.9	-100.9	-150.2
Net Worth (\$1,000)	1,710.4	1,726.2	1,704.0	1,659.8	1,681.1
Return on Assets (%)	2.8	-0.5	-0.4	-0.7	1.7
P(Cash Flow Deficit) (%)	64.4	74.2	82.2	84.4	79.2
P(Refinancing) (%)	16.8	33.4	51.8	60.2	64.2
P(Decreasing RNW) (%)	34.0	38.0	42.8	49.4	48.6

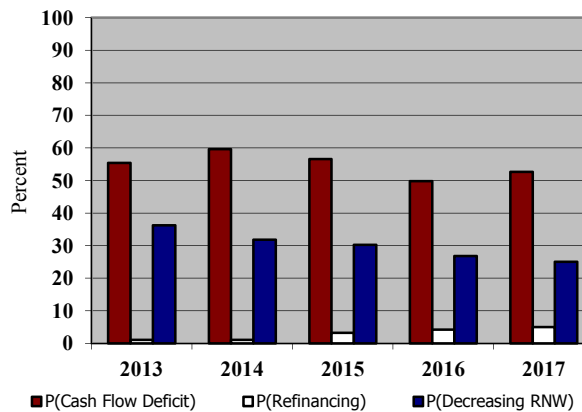
Producers participating in the panel include: Travis Adams, Marvin Beyer, Jr., Brad Bickham, Andrew Miller, Darby Salge, and Jon Whatley. Duane Campion serves as the facilitator.

TXCB8000

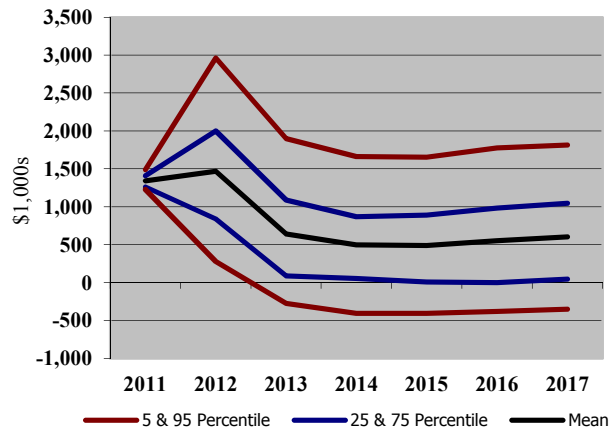
Nueces County, Texas is home to this 8,000-acre farm. Annually, 4,000 acres are planted to cotton and 4,000 acres to sorghum. Cotton sales accounted for 66 percent of 2011 receipts.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	3,391.7	3,309.5	3,323.9	3,387.6	3,437.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	120.6	169.6	218.1	255.7	262.8
Total Receipts (\$1,000)	3,686.1	3,636.8	3,688.8	3,786.9	3,845.3
Total Expenses (\$1,000)	3,046.0	3,141.2	3,199.5	3,233.6	3,244.6
Net Cash Farm Income (\$1,000)	640.1	495.6	489.3	553.3	600.7
Ending Cash (\$1,000)	2,059.9	1,981.3	1,912.8	1,944.5	1,963.7
Net Worth (\$1,000)	4,301.3	4,448.0	4,563.6	4,707.9	4,800.8
Return on Assets (%)	5.1	2.0	2.7	3.6	5.2
P(Cash Flow Deficit) (%)	55.4	59.6	56.6	49.8	52.6
P(Refinancing) (%)	1.0	1.0	3.2	4.2	5.0
P(Decreasing RNW) (%)	36.2	31.8	30.2	26.8	25.0

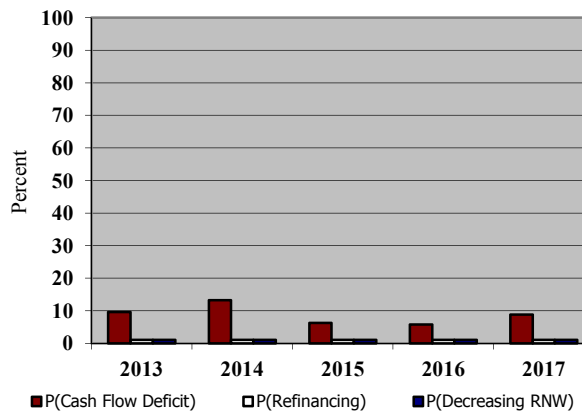
Producers participating in the panel include: Jimmy Dodson, Jon Gwynn, Darrell Lawhon, Larry McNair, Toby Robertson, and David Weaver. Mark Miller, Jeff Nunley, John Parker, and Jeff Stapper serve as facilitators.

TXVC4500

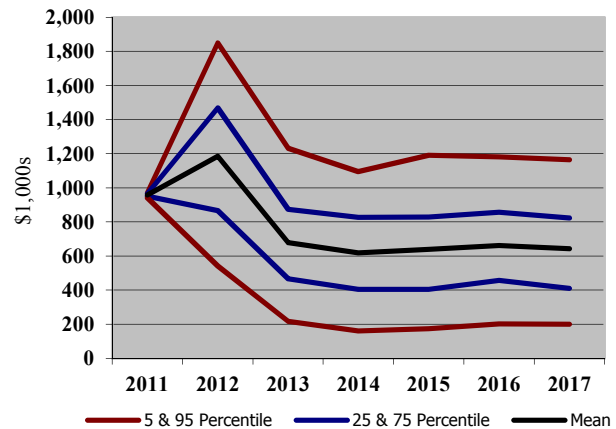
This 4,500-acre farm is located in the lower Rio Grande Valley of Texas (Willacy County) and plants 1,495 acres to cotton (500 irrigated and 995 acres dryland), 2,780 acres to sorghum, and 225 acres of sugarcane. In 2011, 43 percent of the farm's cash receipts were generated from cotton sales.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	1,925.0	1,897.7	1,908.3	1,930.1	1,960.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	95.0	94.7	115.2	140.7	138.5
Total Receipts (\$1,000)	2,066.6	2,035.5	2,065.9	2,114.0	2,137.0
Total Expenses (\$1,000)	1,387.4	1,417.8	1,427.5	1,452.3	1,495.1
Net Cash Farm Income (\$1,000)	679.2	617.7	638.4	661.7	641.9
Ending Cash (\$1,000)	1,805.3	2,040.8	2,358.6	2,691.4	2,985.4
Net Worth (\$1,000)	4,896.4	5,273.8	5,745.8	6,114.3	6,459.1
Return on Assets (%)	11.3	8.9	9.8	9.3	8.5
P(Cash Flow Deficit) (%)	9.6	13.2	6.2	5.8	8.8
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	1.0	1.0	1.0	1.0	1.0

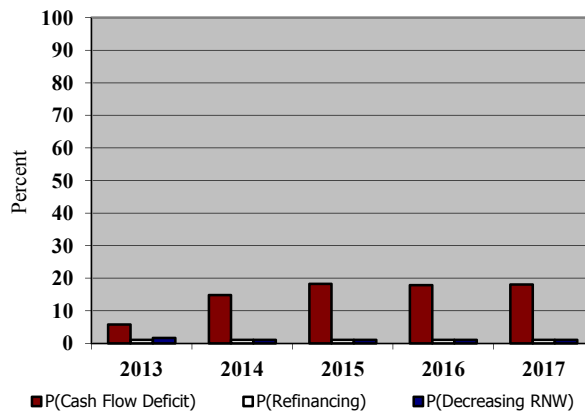
Producers participating in the panel include: Gary Busse, Derrick Swanberg, Marshall Swanberg, and Mark Willis. Reagan Florence, Luis Ribera, and Terry Wolfe serve as facilitators.

CAC4000

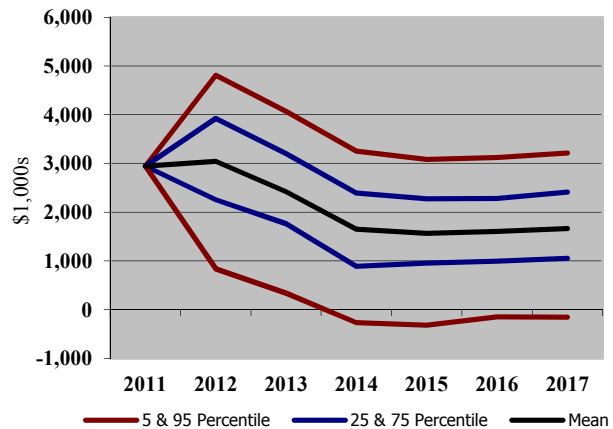
This 4,000-acre cotton farm is located in Kings County, California. CAC4000 plants 1,333 acres to cotton, 267 acres to hay, 2,666 acres of silage, and harvests 400 acres of almonds. Thirty-three percent of 2011 receipts came from cotton sales.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	7,913.5	7,352.0	7,295.0	7,354.9	7,392.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	80.7	77.4	78.7	80.7	92.0
Total Receipts (\$1,000)	8,006.0	7,439.9	7,385.3	7,447.8	7,495.8
Total Expenses (\$1,000)	5,587.1	5,787.5	5,822.3	5,840.7	5,832.9
Net Cash Farm Income (\$1,000)	2,418.9	1,652.4	1,562.9	1,607.1	1,662.9
Ending Cash (\$1,000)	5,241.1	5,922.0	6,515.0	7,108.1	7,790.6
Net Worth (\$1,000)	23,438.8	24,737.8	26,167.0	27,227.2	28,437.0
Return on Assets (%)	14.4	7.8	7.6	6.0	6.1
P(Cash Flow Deficit) (%)	5.8	14.8	18.2	17.8	18.0
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	1.6	1.0	1.0	1.0	1.0

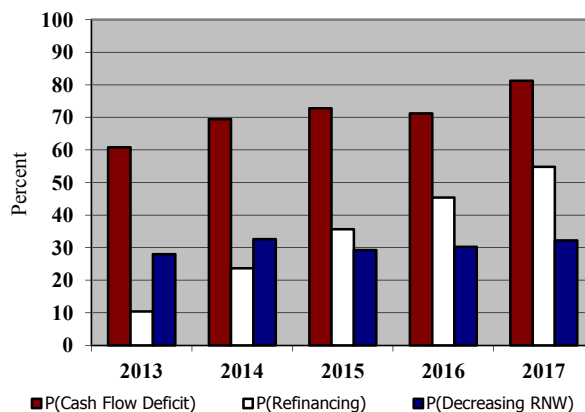
Producers participating in the panel include: Bo Champlin, Kirk Gilkey, Matt Gilkey, Ted Sheely, Bill Stone, Bill Tos, and Mark Watte. Steve Wright serves as the facilitator.

ARNC5000

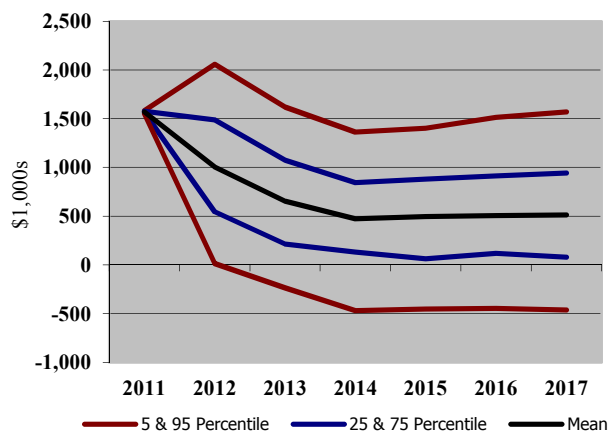
Far northeast Arkansas (Mississippi County) is home to this 5,000-acre cotton farm. ARNC5000 plants all its acres to cotton annually, generating 100 percent of its receipts from cotton.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income

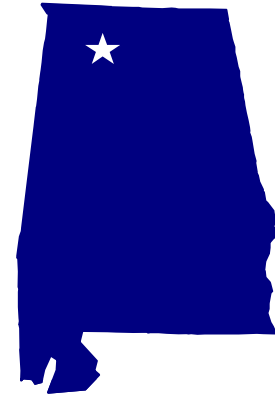


	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	4,112.4	4,078.7	4,148.2	4,219.7	4,290.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	233.7	234.6	286.6	301.3	306.0
Total Receipts (\$1,000)	4,407.7	4,378.0	4,484.5	4,571.4	4,648.8
Total Expenses (\$1,000)	3,755.4	3,906.3	3,988.9	4,067.0	4,135.5
Net Cash Farm Income (\$1,000)	652.3	471.7	495.6	504.4	513.4
Ending Cash (\$1,000)	735.6	516.4	299.6	115.9	-182.6
Net Worth (\$1,000)	7,397.2	7,491.2	7,624.4	7,640.2	7,625.3
Return on Assets (%)	6.2	2.9	3.5	2.9	3.3
P(Cash Flow Deficit) (%)	60.8	69.4	72.8	71.2	81.2
P(Refinancing) (%)	10.4	23.6	35.6	45.4	54.8
P(Decreasing RNW) (%)	28.0	32.6	29.2	30.2	32.2

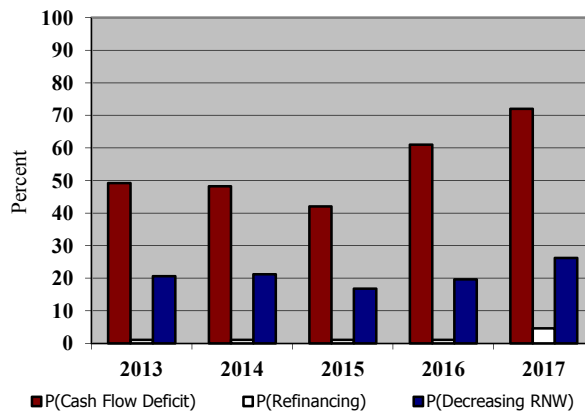
Producers participating in the panel include: Chad Costner, Heath Donner, Todd Edwards, Cole Hawkins, Justin Hawkins, Randy Jackson, and David Wildy. Dave Freeze, Ronnie Kennett, Blake McClelland, Jenny Stacks, and Brad Watkins serve as the facilitators.

ALC3000

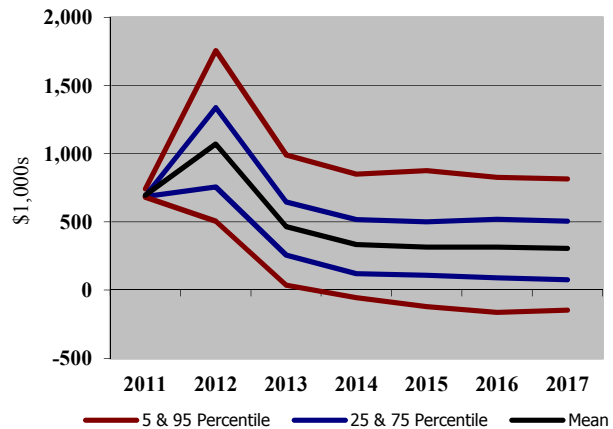
This 3,000-acre cotton farm is located in northern Alabama (Lawrence County) and plants 1,050 acres to cotton, 1,350 acres to corn, and 600 acres to soybeans. Cotton sales accounted for 43 percent of total farm receipts during 2011.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	1,760.3	1,688.6	1,684.0	1,711.0	1,735.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	141.7	136.2	142.9	151.0	152.8
Total Receipts (\$1,000)	1,972.9	1,887.5	1,882.8	1,919.1	1,940.7
Total Expenses (\$1,000)	1,508.0	1,553.7	1,568.3	1,603.8	1,634.3
Net Cash Farm Income (\$1,000)	464.9	333.8	314.5	315.3	306.4
Ending Cash (\$1,000)	1,103.1	1,120.6	1,174.0	1,134.6	1,029.2
Net Worth (\$1,000)	2,637.9	2,748.0	2,882.3	2,886.7	2,844.2
Return on Assets (%)	8.1	2.0	1.9	3.7	2.8
P(Cash Flow Deficit) (%)	49.2	48.2	42.0	61.0	72.0
P(Refinancing) (%)	1.0	1.0	1.0	1.0	4.6
P(Decreasing RNW) (%)	20.6	21.2	16.8	19.6	26.2

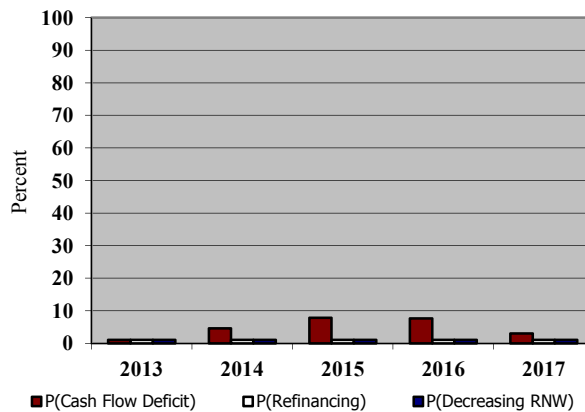
Producers participating in the panel include: James Blythe, Paul Clark, Steve Ford, William Lee, Larkin Martin, and Ron Terry.

TNC2100

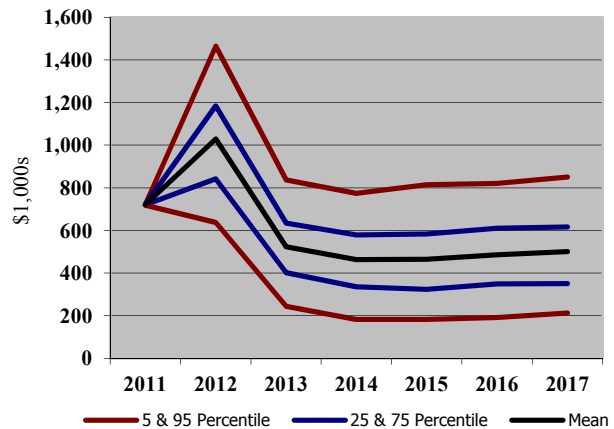
TNC2100 is a 2,100-acre, moderate-sized West Tennessee (Fayette County) cotton farm. TNC2100 consists of 525 acres each of cotton and corn, 1,020 acres of soybeans, and 30 acres enrolled in CRP. Cotton accounted for 40 percent of 2011 gross receipts.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	1,356.1	1,320.1	1,326.6	1,340.0	1,353.9
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	58.5	58.9	67.3	73.6	74.8
Total Receipts (\$1,000)	1,435.4	1,398.8	1,412.4	1,433.4	1,448.4
Total Expenses (\$1,000)	912.5	936.4	948.4	947.7	947.8
Net Cash Farm Income (\$1,000)	522.9	462.5	464.0	485.7	500.6
Ending Cash (\$1,000)	1,726.5	1,943.2	2,145.5	2,367.4	2,628.6
Net Worth (\$1,000)	4,378.2	4,671.3	4,976.9	5,276.1	5,632.5
Return on Assets (%)	11.6	8.7	8.1	7.4	7.5
P(Cash Flow Deficit) (%)	1.0	4.6	7.8	7.6	3.0
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	1.0	1.0	1.0	1.0	1.0

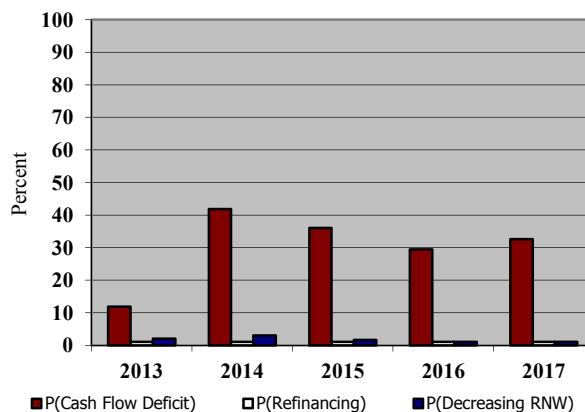
Producers participating in the panel include: Harris Armour, III, Chuck Dacus, Lee Graves, Tom Karcher, and William E. Powers. Jim Castellaw, Chris Main, and Jeff Via serve as facilitators.

TNC4050

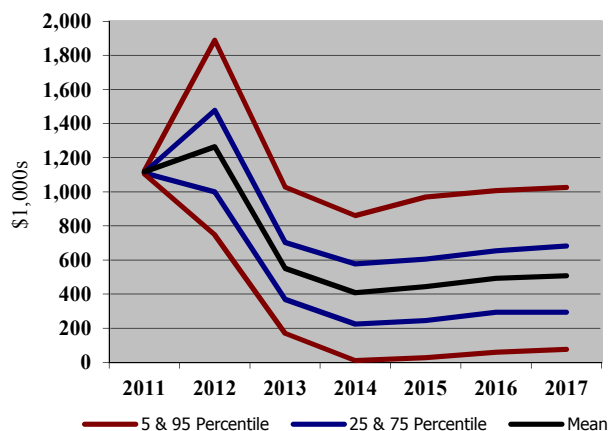
TNC4050 is a 4,050-acre, large-sized West Tennessee (Haywood County) cotton farm. This farm plants 2,025 acres of cotton, 1,425 acres of soybeans, 600 acres of corn, and 475 acres of wheat each year. During 2011, cotton sales generated 63 percent of gross receipts.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	2,571.8	2,500.5	2,505.1	2,525.7	2,544.4
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	69.1	82.0	146.6	183.2	185.5
Total Receipts (\$1,000)	2,713.6	2,650.2	2,705.6	2,762.9	2,779.3
Total Expenses (\$1,000)	2,162.0	2,242.7	2,262.1	2,269.7	2,272.5
Net Cash Farm Income (\$1,000)	551.6	407.5	443.5	493.1	506.8
Ending Cash (\$1,000)	2,208.7	2,282.8	2,404.5	2,555.2	2,698.6
Net Worth (\$1,000)	7,258.4	7,505.3	7,846.8	8,123.6	8,424.6
Return on Assets (%)	9.1	4.6	4.6	4.4	4.3
P(Cash Flow Deficit) (%)	11.8	41.8	36.0	29.4	32.6
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	2.0	3.0	1.6	1.0	1.0

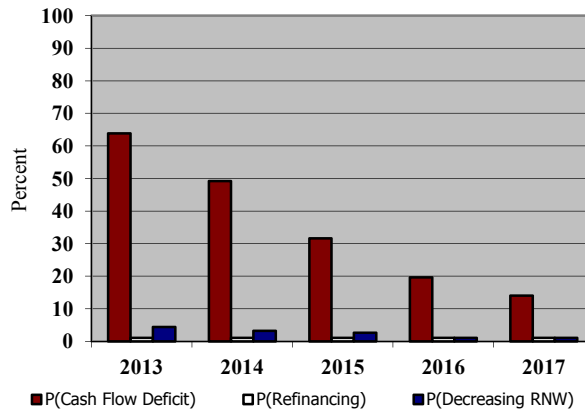
Producers participating in the panel include: R. Morris English, Jr., Dewayne Hendrix, Allen King, John King, Travis Lonon, and Ronald Woods. Chism Craig, Chuck Danehower, and Tracey Sullivan serve as facilitators.

GAC2300

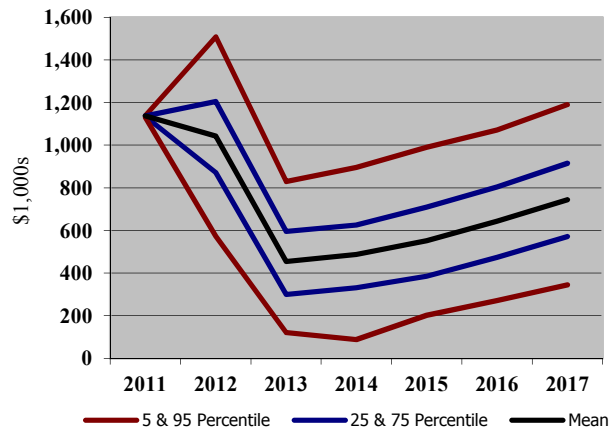
Southwest Georgia (Decatur County) is home to this 2,300-acre cotton farm that plants 1,200 acres to cotton, 550 acres to peanuts, and 550 acres to corn. In 2011, cotton sales accounted for 45 percent of receipts.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	2,423.0	2,520.7	2,589.6	2,690.3	2,797.3
Livestock Receipts (\$1,000)	99.6	105.1	100.0	94.9	91.8
Government Payments (\$1,000)	120.5	152.9	188.9	197.7	206.4
Total Receipts (\$1,000)	2,678.8	2,804.9	2,898.5	3,004.6	3,114.3
Total Expenses (\$1,000)	2,225.0	2,318.3	2,346.2	2,361.3	2,371.1
Net Cash Farm Income (\$1,000)	453.9	486.6	552.3	643.3	743.2
Ending Cash (\$1,000)	1,187.6	1,197.2	1,288.6	1,426.0	1,612.2
Net Worth (\$1,000)	8,180.9	8,538.2	8,967.9	9,304.3	9,748.5
Return on Assets (%)	6.9	4.4	5.2	4.9	6.0
P(Cash Flow Deficit) (%)	63.8	49.2	31.6	19.6	14.0
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	4.4	3.2	2.6	1.0	1.0

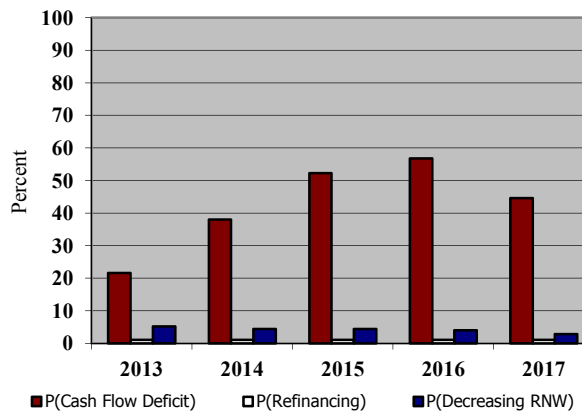
Producers participating in the panel include: Andy Bell, Jerry Jones, Willard Mims, and Raymond Thompson. Rome Ethredge, Mitchell May, Don Shurley, and Nathan Smith serve as facilitators.

SCC1800

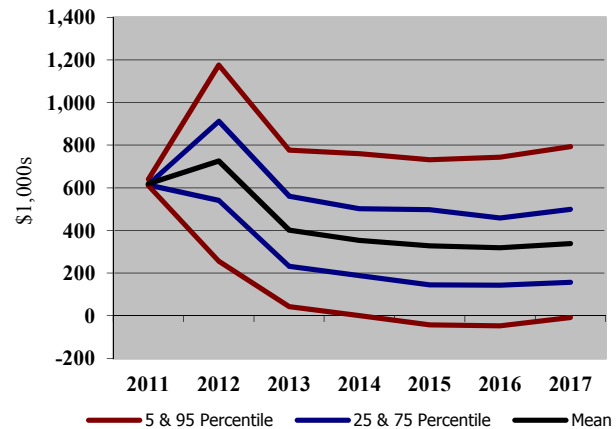
SCC1800 is a moderate-sized, 1,800-acre cotton farm in South Carolina (Barnwell County) consisting of 900 acres of cotton, 360 acres of corn, 360 acres of peanuts, and 180 acres of double-cropped wheat and soybeans. Fifty-two percent of the farm's receipts were from cotton sales during 2011.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	1,440.6	1,441.1	1,429.1	1,433.8	1,440.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	116.7	115.0	116.5	118.0	121.4
Total Receipts (\$1,000)	1,588.9	1,585.0	1,577.5	1,582.0	1,593.0
Total Expenses (\$1,000)	1,188.0	1,231.8	1,250.5	1,263.8	1,254.4
Net Cash Farm Income (\$1,000)	400.9	353.2	327.0	318.2	338.6
Ending Cash (\$1,000)	1,298.4	1,373.0	1,384.8	1,372.7	1,419.4
Net Worth (\$1,000)	4,215.3	4,407.7	4,598.4	4,716.1	4,909.9
Return on Assets (%)	9.1	5.6	5.0	3.0	3.9
P(Cash Flow Deficit) (%)	21.6	38.0	52.2	56.8	44.6
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	5.2	4.4	4.4	4.0	2.8

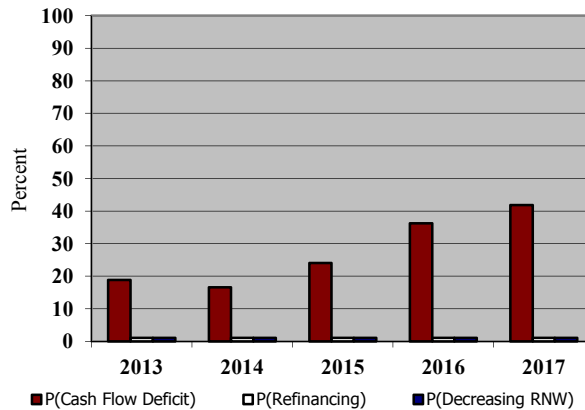
Producers participating in the panel include: James Bookhart, Corrin F. "Bud" Bowers, Johnny and Debbie Crider, Jimmie Griner, Henry Herndon, Bates Houck, Dean and Richard Hutto, Doug Jarrell, J.O. Patterson, Jeff Sandifer, and Stephen Still. Todd Davis and Scott Mickey serve as facilitators.

NCC1500

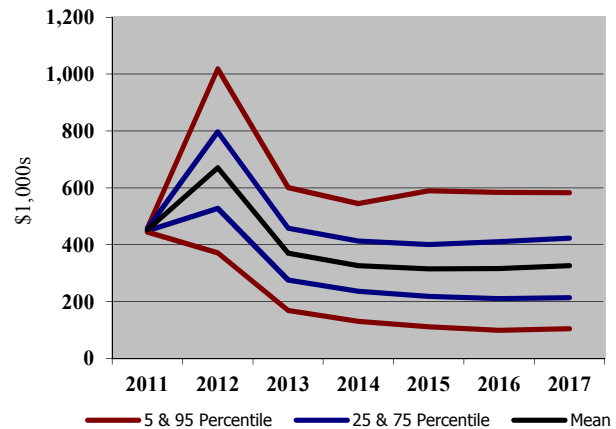
This is a 1,500-acre cotton farm located on the upper coastal plain of North Carolina (Wayne County). NCC1500 plants 225 acres of cotton, 275 acres of corn, 255 acres of wheat, and 850 acres of soybeans annually. Cotton accounted for 20 percent of this farm's 2011 receipts.



Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



Net Cash Farm Income



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Market Receipts (\$1,000)	786.6	762.0	767.3	782.2	796.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	56.6	55.1	56.3	56.9	57.3
Total Receipts (\$1,000)	1,102.3	1,077.0	1,083.3	1,098.9	1,112.3
Total Expenses (\$1,000)	732.4	750.8	768.1	783.4	786.8
Net Cash Farm Income (\$1,000)	370.0	326.2	315.2	315.5	325.5
Ending Cash (\$1,000)	812.5	900.5	980.8	1,038.7	1,082.4
Net Worth (\$1,000)	2,879.4	3,066.2	3,224.8	3,320.9	3,421.7
Return on Assets (%)	8.3	5.6	6.3	4.1	4.3
P(Cash Flow Deficit) (%)	18.8	16.6	24.0	36.2	41.8
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	1.0	1.0	1.0	1.0	1.0

Producers participating in the panel include: Landis Brantham, Jr., Willie Howell, David B. Mitchell, Sr., Danny C. Pierce, Craig West, and Bryant Worley. Kevin Johnson serves as the facilitator.

AFPC Briefing Series

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