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# *Economic Outlook for Representative Cotton Farms Given the August 2013 FAPRI/AFPC Baseline*

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**Briefing Paper 13-2**

**November 2013**



## **Agricultural and Food Policy Center**

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**ECONOMIC OUTLOOK FOR REPRESENTATIVE COTTON FARMS  
GIVEN THE AUGUST 2013 FAPRI/AFPC BASELINE**

AFPC Briefing Paper 13-2

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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 2013 through 2018. 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 2013 Baseline. This analysis assumes continuation of 2008 farm bill provisions throughout the study period.

Under the August 2013 Baseline, thirteen of the representative cotton farms are in good liquidity condition (less than a 25 percent chance of negative ending cash in 2018). None of the representative cotton farms have a 25 percent to 50 percent likelihood of negative ending cash; however, the three remaining farms (TXRP2500, TXMC1800, and TXCB2500) all have a greater than 50 percent chance of negative ending cash.

Farms are also classified based on their respective equity conditions. Fourteen farms are classified in good equity position (less than a 25 percent chance of decreasing real net worth during 2013-2018). None of the representative farms face the most severe classification of likelihood of losing real net worth under the current baseline, but two farms (TXRP2500 and TXMC1800) face between a 25 percent and 50 percent chance of decreasing equity.

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

Higher cotton prices under the most recent projections in the August 2013 Baseline result in a marked improvement in the overall financial outlook for AFPC representative cotton farms. The current baseline results in a good overall financial ranking for five more farms as compared to the January 2013 Baseline. Additionally, the most recent baseline results in the classification of three less farms in poor overall financial condition. Higher projected prices for cotton coupled with relatively gentle increases in rates of change for input prices, especially in the near-term, have resulted in a more optimistic outlook for AFPC representative cotton farms under the current baseline.

## FAPRI AUGUST 2013 BASELINE

Projected crop prices for FAPRI's August 2013 Baseline are summarized in Table 1. In general, corn, grain sorghum, and soybean price projections are lower throughout the study period than those expected in the January 2013 Baseline. Cotton and rice price projections are stronger throughout the study period while wheat price projections are very similar to those reported in January. Projected cotton prices are higher in every year of the projection period in the August 2013 Baseline as compared to the January 2013 Baseline, with the sharpest comparative increase in 2013 where prices are expected to be approximately \$0.12/lb higher. On average, annual cotton prices are expected to be approximately \$0.065/lb higher under the current baseline as compared to January for 2014 to 2018. Individual commodity prices are projected to move as follows:

- Cotton prices are projected to increase from \$0.72/lb in 2012 to \$0.82/lb in 2013. Prices fall from the projection period high in 2013 and remain in a relatively tight range throughout the remaining projection period, never again climbing above \$0.78/lb.
- Corn price is expected to decrease sharply in 2013 from a study period high of \$6.95/bu in 2012; the projected price remains in a relatively tight range between \$4.37 and \$4.64/bu throughout 2013-2018.
- Wheat price declines from the high of the projection period of \$7.77/bu in 2012, remaining between \$5.90 and \$7.11/bu throughout the 2013-2018 period.
- All rice price is expected to hold in a narrow range between \$14.72 and \$14.97/cwt in the 2014 to 2018 period.
- Sorghum prices are expected to decrease from a high of \$6.60/bu in 2012 and hold between \$4.26 and \$4.41/bu in 2013-2018.
- Soybean prices are expected to decrease from 2012 highs and range from \$10.01 to \$11.33/bu throughout the 2013-2018 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 2013 Baseline. The projected rates of change in most cost categories increase at a relatively low but steady rate with the exception of fertilizer and fuel and lube. Fertilizer prices are projected to decline in 2014 and 2015 before experiencing modest annual increases. Fuel and lube prices follow a similar trend in 2014 but actually are expected to begin increasing again in 2015.

Projected rates of change in land values over the 2013-2018 period were also provided in the August 2013 FAPRI Baseline and range between 2.00 and 3.45 percent per year. The largest increases in land prices were experienced in 2012 and 2013 with annual increases at 10.88 and 9.43 percent, respectively.

**Table 1. FAPRI August 2013 Baseline Projections of Crop and Livestock Prices, 2010-2018.**

	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Crop Prices</b>									
Corn (\$/bu.)	5.18	6.22	6.95	4.64	4.37	4.44	4.49	4.52	4.56
Wheat (\$/bu.)	5.70	7.24	7.77	7.11	5.90	5.92	6.10	6.19	6.28
Cotton (\$/lb.)	0.8150	0.8830	0.7200	0.8240	0.7476	0.7710	0.7608	0.7660	0.7657
Sorghum (\$/bu.)	5.02	5.99	6.60	4.41	4.26	4.26	4.33	4.38	4.40
Soybeans (\$/bu.)	11.30	12.50	14.40	11.33	10.01	10.45	10.75	10.89	11.00
Barley (\$/bu.)	3.86	5.35	6.43	5.77	4.61	4.70	4.77	4.79	4.82
Oats (\$/bu.)	2.52	3.49	3.89	3.27	2.98	2.93	2.94	2.96	2.98
Rice (\$/cwt.)	12.70	14.50	14.90	15.16	14.72	14.77	14.72	14.81	14.97
Soybean Meal (\$/ton)	329.56	375.35	433.98	301.86	278.36	287.87	298.95	298.17	299.78
All Hay (\$/ton)	114.00	178.00	191.00	182.20	149.30	146.77	149.92	155.04	159.63
Peanuts (\$/ton)	450.00	636.00	608.00	454.70	551.84	542.13	547.57	549.57	550.36
<b>Cattle Prices</b>									
Feeder Cattle (\$/cwt)	115.40	141.25	158.19	158.73	170.52	172.19	167.05	160.19	154.16
Fed Cattle (\$/cwt)	95.38	114.73	122.86	125.12	129.08	129.46	128.08	125.81	123.74
Culled Cows (\$/cwt)	56.76	69.82	76.68	76.84	77.45	78.46	75.21	70.92	68.17
<b>Milk Price</b>									
U.S. All Milk Price (\$/cwt)	16.35	20.25	18.56	19.73	19.65	19.04	18.79	18.81	18.83

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

**Table 2. FAPRI August 2013 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2011-2018.**

	2011	2012	2013	2014	2015	2016	2017	2018
<b>Annual Rate of Change for Input Prices Paid</b>								
Seed Prices (%)	7.10	8.13	5.34	1.21	0.20	1.04	1.18	2.04
All Fertilizer Prices (%)	36.93	5.76	-0.05	-5.13	-1.17	2.12	0.46	0.52
Herbicide Prices (%)	-1.52	6.15	1.06	0.51	1.65	3.24	1.57	1.54
Insecticide Prices (%)	2.44	4.17	3.39	1.20	1.89	3.10	1.55	1.53
Fuel and Lube Prices (%)	27.46	-0.55	-2.52	-6.22	0.30	2.62	2.22	2.41
Machinery Prices (%)	6.09	5.33	2.32	2.04	2.69	2.96	2.14	2.34
Wages (%)	1.59	3.65	3.47	2.48	2.57	2.82	2.94	2.96
Supplies (%)	4.52	2.47	1.47	0.92	1.64	2.31	1.14	1.18
Repairs (%)	3.70	3.57	0.12	1.88	2.25	2.59	2.26	2.29
Services (%)	1.86	1.83	2.61	1.89	2.44	3.16	2.07	2.21
Taxes (%)	4.23	2.25	2.79	2.34	3.59	3.31	1.81	2.19
PPI Items (%)	14.36	6.05	2.09	-4.70	0.29	1.60	1.12	1.53
PPI Total (%)	12.30	5.71	2.36	-3.70	0.74	2.01	1.47	1.69
<b>Annual Change in Consumer Price Index (%)</b>	2.13	1.78	1.36	1.59	1.54	1.60	1.50	1.50
<b>Annual Rate of Change for U.S. Land Prices (%)</b>	8.64	10.88	9.43	3.45	2.00	2.00	2.00	2.00

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

### Economic Viability of Representative Cotton Farms over the 2013-2018 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)		P(Real Net Worth Declines)	
	2013	2018	2013-2018	2013-2018	2013-2018	2013-2018
13/1/2						
TXSP2500			5-17		1-5	
TXSP4500			1-1		1-1	
TXEC5000			1-1		1-1	
TXRP2500			1-92		1-42	
TXMC1800			17-73		1-26	
TXCB2500			8-67		1-3	
TXCB8000			1-2		1-1	
TXVC4500			1-1		1-1	
CAC4000			1-1		1-1	
ARNC5000			1-3		1-1	
TNC2100			1-1		1-1	
TNC4050			1-1		1-1	
ALC3000			1-1		1-1	
GAC2300			1-1		1-1	
SCC1800			1-1		1-1	
NCC1500			1-1		1-1	

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

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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 2013 and 2018.

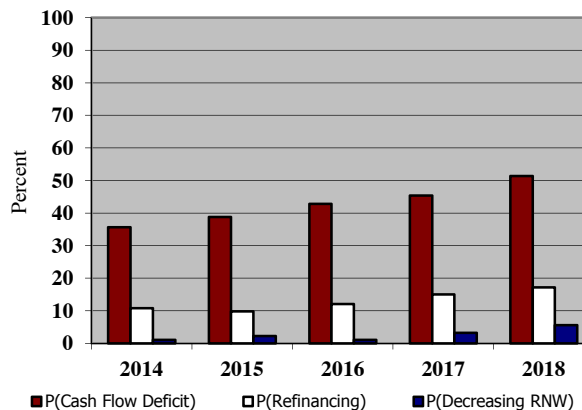
3. P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2009 to 2013 and from 2009 to 2018.

# TXSP2500

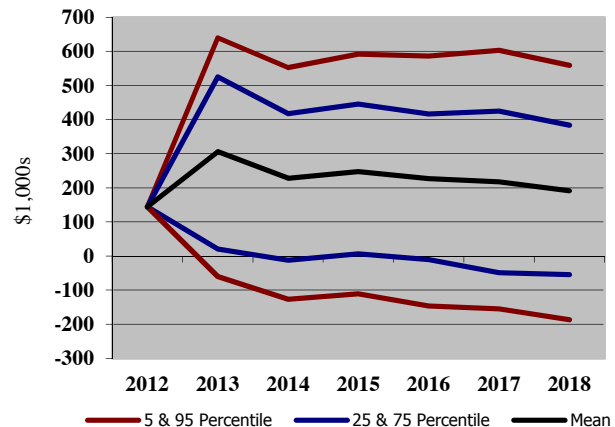
A 2,500-acre Texas South Plains (Dawson County) cotton farm that is moderate-sized for the area. TXSP2500 plants 2,275 acres of cotton (1,800 dryland, 475 irrigated). For 2012, all of the farm's receipts came from cotton.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	927.6	955.1	954.9	975.6	977.4
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	67.3	72.9	73.6	69.5	70.3
Total Receipts (\$1,000)	1,053.8	1,091.7	1,089.6	1,106.3	1,108.3
Total Expenses (\$1,000)	826.2	843.8	863.0	888.6	917.0
Net Cash Farm Income (\$1,000)	227.6	247.8	226.7	217.7	191.2
Ending Cash (\$1,000)	390.1	471.6	516.3	535.9	484.5
Net Worth (\$1,000)	1,732.0	1,840.8	1,923.9	2,002.0	2,054.8
Return on Assets (%)	2.7	5.8	9.1	2.8	-0.7
P(Cash Flow Deficit) (%)	35.6	38.8	42.8	45.4	51.4
P(Refinancing) (%)	10.8	9.8	12.0	15.0	17.2
P(Decreasing RNW) (%)	1.0	2.2	1.0	3.2	5.6

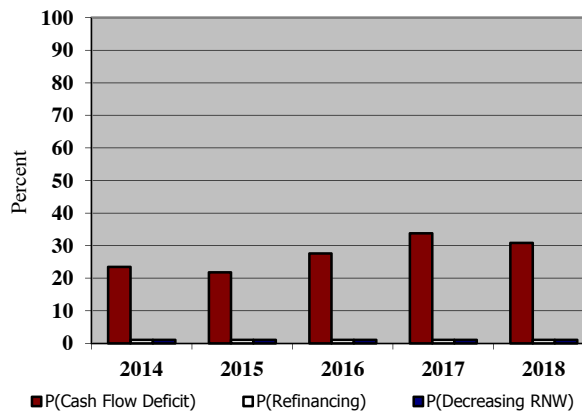
Producers participating in the panel include: Steven Archer, Brad Boyd, Andy Bratcher, Johnny Ray Todd, and Donald Vogler. Jackie Smith and Jeff Wyatt serve as facilitators.

# TXSP4500

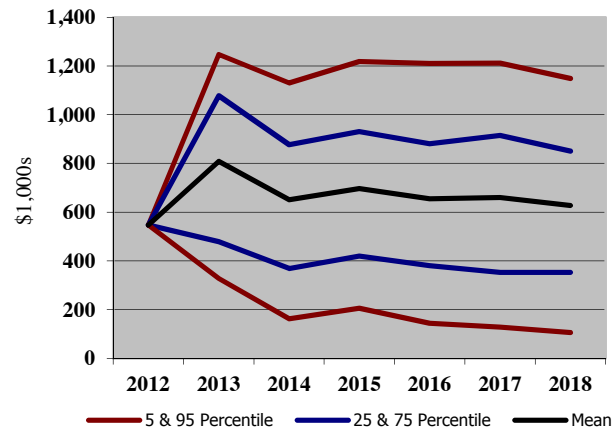
The Texas South Plains (Dawson County) is home to this 4,500-acre, large-sized cotton farm that grows 4,047 acres of cotton (2,667 dryland, 1,380 irrigated) and 120 acres of wheat. Cotton sales comprised 97 percent of 2012 receipts.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	2,063.6	2,134.3	2,131.7	2,172.3	2,184.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	136.7	148.1	150.4	142.4	140.5
Total Receipts (\$1,000)	2,281.6	2,370.1	2,366.7	2,397.3	2,407.7
Total Expenses (\$1,000)	1,630.6	1,673.0	1,711.4	1,737.5	1,779.9
Net Cash Farm Income (\$1,000)	651.0	697.1	655.3	659.8	627.7
Ending Cash (\$1,000)	2,031.4	2,316.2	2,521.1	2,705.4	2,880.5
Net Worth (\$1,000)	4,238.1	4,676.2	4,980.5	5,314.9	5,666.1
Return on Assets (%)	9.6	3.5	9.0	8.2	3.9
P(Cash Flow Deficit) (%)	23.4	21.8	27.6	33.8	30.8
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: Terry Coleman, Will Cozart, Kirk Tidwell, and David Warren. Jackie Smith and Jeff Wyatt serve as facilitators.

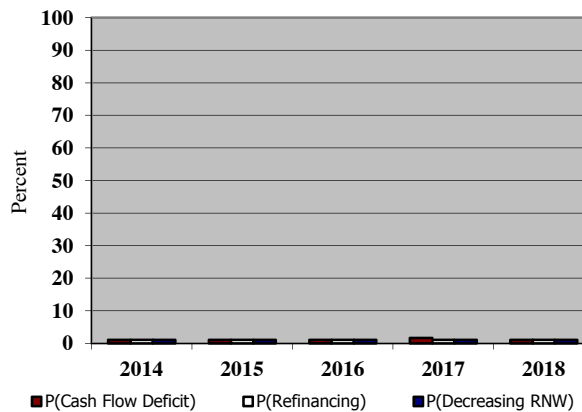


# TXEC5000

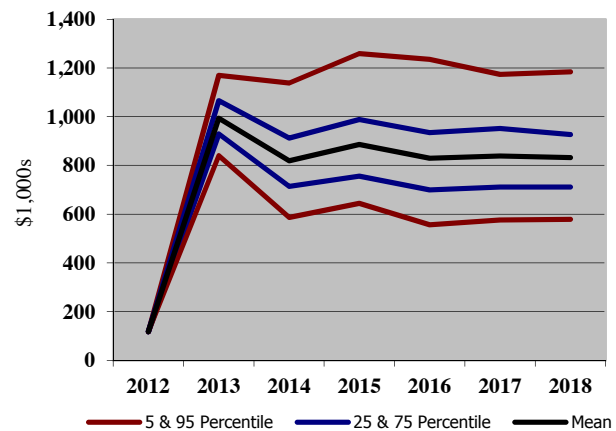
This 5,000-acre farm is located on the Eastern Caprock of the Texas South Plains (Crosby County). Annually, 4,150 acres are planted to cotton (2,100 irrigated and 2,050 dryland), 550 acres to sorghum (250 irrigated and 300 dryland), and 300 acres to dryland wheat. In 2012, cotton sales accounted for 86 percent of gross receipts.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	2,297.7	2,376.1	2,375.5	2,414.2	2,433.6
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	168.4	180.7	181.1	176.7	170.5
Total Receipts (\$1,000)	2,502.5	2,594.9	2,594.2	2,626.9	2,640.8
Total Expenses (\$1,000)	1,683.8	1,709.5	1,765.1	1,787.8	1,808.8
Net Cash Farm Income (\$1,000)	818.8	885.3	829.0	839.1	832.1
Ending Cash (\$1,000)	1,270.9	1,683.8	2,076.4	2,395.0	2,723.4
Net Worth (\$1,000)	4,404.8	4,902.7	5,450.0	5,854.6	6,297.9
Return on Assets (%)	13.1	12.0	6.1	11.7	11.0
P(Cash Flow Deficit) (%)	1.0	1.0	1.0	1.6	1.0
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

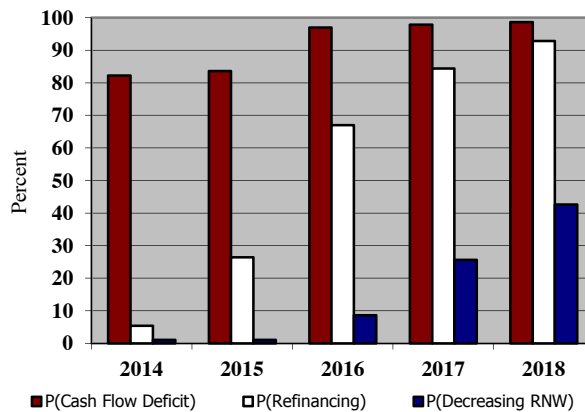
Producers participating in the panel include: Lloyd Arthur, Brooks Ellison, Edwin Moore, and Marvin Schoepf. Clay Miller serves as the facilitator.

# TXRP2500

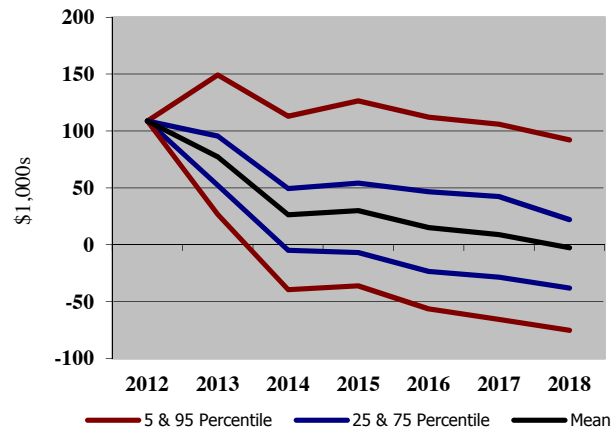
TXRP2500 is a 2,500-acre cotton farm located in the Rolling Plains of Texas (Jones County). This farm plants 1,000 acres of cotton and 1,000 acres of winter wheat each year. The area is limited by rainfall, and the farm uses a conservative level of inputs. Seventy-one percent of 2012 farm receipts came from cotton sales. Twenty-five head of beef cows generated three percent of farm receipts.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	436.2	448.9	452.1	460.6	464.1
Livestock Receipts (\$1,000)	18.8	20.5	18.4	17.6	18.3
Government Payments (\$1,000)	38.4	40.2	41.1	39.8	39.4
Total Receipts (\$1,000)	506.8	522.2	525.1	530.6	535.0
Total Expenses (\$1,000)	480.7	492.4	510.0	521.8	537.6
Net Cash Farm Income (\$1,000)	26.1	29.8	15.1	8.9	-2.7
Ending Cash (\$1,000)	101.2	57.2	-46.5	-129.8	-222.1
Net Worth (\$1,000)	727.3	703.3	650.4	594.1	535.4
Return on Assets (%)	-6.0	-4.4	-15.0	1.3	-1.7
P(Cash Flow Deficit) (%)	82.2	83.6	97.0	97.8	98.6
P(Refinancing) (%)	5.4	26.4	67.0	84.4	92.8
P(Decreasing RNW) (%)	1.0	1.0	8.6	25.6	42.6

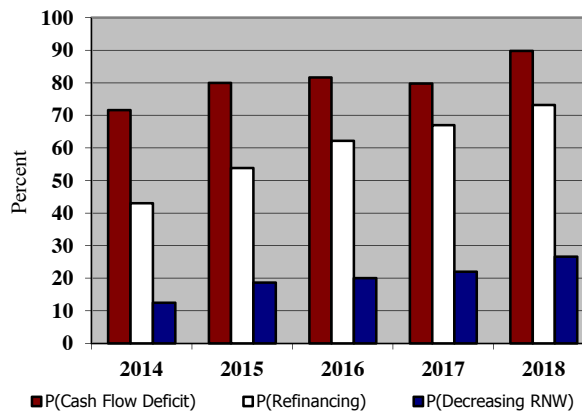
Producers participating in the panel include: Rex Ford, Kelly Head, Michael McLellan, Brian Sandbothe, Mike Sloan, Dale Spurgin, Ferdie Walker, and Terry White. Steven Estes serves as the facilitator.

# TXMC1800

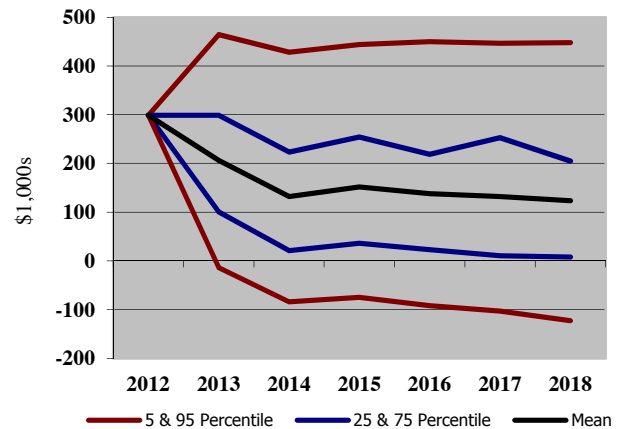
This 1,800-acre cotton farm is located on the Coastal Plain of southeast Texas (Wharton County). TXMC1800 farms 300 acres of sorghum, 900 acres of cotton, and 600 acres of corn. In 2012, cotton sales comprised 49 percent of total cash receipts on this operation.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	876.8	899.4	903.1	920.8	926.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	68.5	72.0	73.1	70.9	70.2
Total Receipts (\$1,000)	963.4	989.8	993.9	1,008.7	1,014.4
Total Expenses (\$1,000)	831.3	838.1	855.8	876.7	891.2
Net Cash Farm Income (\$1,000)	132.1	151.8	138.1	132.0	123.2
Ending Cash (\$1,000)	46.6	-24.3	-87.7	-162.4	-241.6
Net Worth (\$1,000)	1,114.4	1,108.6	1,130.1	1,147.8	1,119.1
Return on Assets (%)	-17.4	8.9	6.3	-0.4	6.6
P(Cash Flow Deficit) (%)	71.6	80.0	81.6	79.8	89.8
P(Refinancing) (%)	43.0	53.8	62.2	67.0	73.2
P(Decreasing RNW) (%)	12.4	18.6	20.0	22.0	26.6

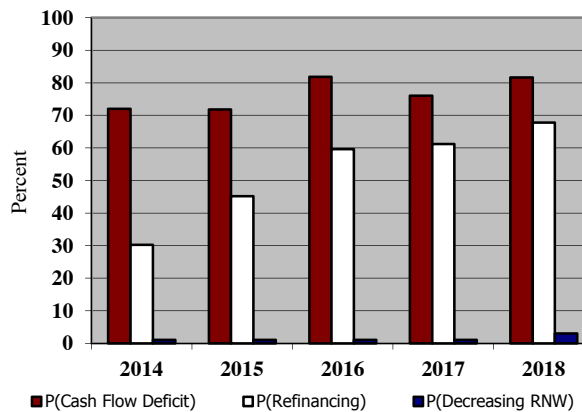
Producers participating in the panel include: Jimmy Barosh, Keith Bram, Brent Cerny, Glenn Emshosf, Daniel Gavranovic, Rob Kainer, Cedric Popp, and Michael Popp. Jeff Nunley, Jimmy Roppolo, and Jimmy Schulz serve as facilitators.

# TXCB2500

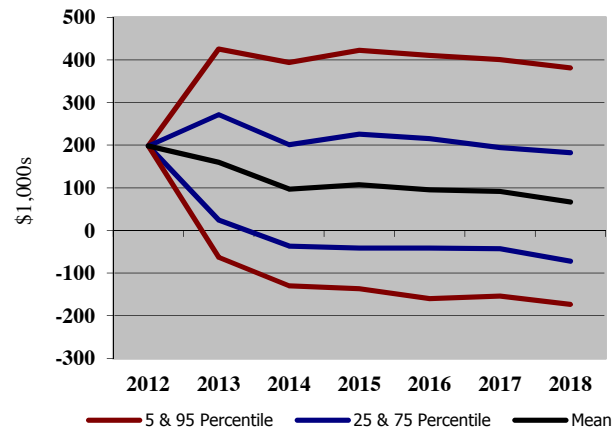
A 2,500-acre cotton farm located on the Texas Coastal Bend (San Patricio County) that farms 1,250 acres of cotton, 1,125 acres of sorghum, and 125 acres of corn annually. Fifty-six percent of 2012 cash receipts were generated by cotton.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	884.2	907.6	911.9	919.9	932.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	71.3	74.2	76.5	74.9	71.5
Total Receipts (\$1,000)	1,005.3	1,029.7	1,037.5	1,046.2	1,053.5
Total Expenses (\$1,000)	908.6	922.8	942.4	954.7	986.7
Net Cash Farm Income (\$1,000)	96.8	107.0	95.2	91.4	66.8
Ending Cash (\$1,000)	95.9	26.6	-66.2	-102.2	-189.9
Net Worth (\$1,000)	1,770.1	1,776.8	1,759.8	1,804.4	1,748.6
Return on Assets (%)	3.4	-0.5	4.1	4.5	-6.7
P(Cash Flow Deficit) (%)	72.0	71.8	81.8	76.0	81.6
P(Refinancing) (%)	30.2	45.2	59.6	61.2	67.8
P(Decreasing RNW) (%)	1.0	1.0	1.0	1.0	3.0

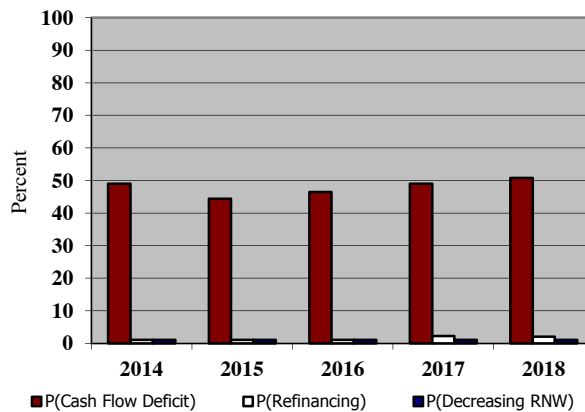
Producers participating in the panel include: Travis Adams, Marvin Beyer, Jr., Brad Bickham, Andrew Miller, Darby Salge, and Jon Whatley. Duane Campion, Jeff Nunley, and Mac Young serve as facilitators.

# TXCB8000

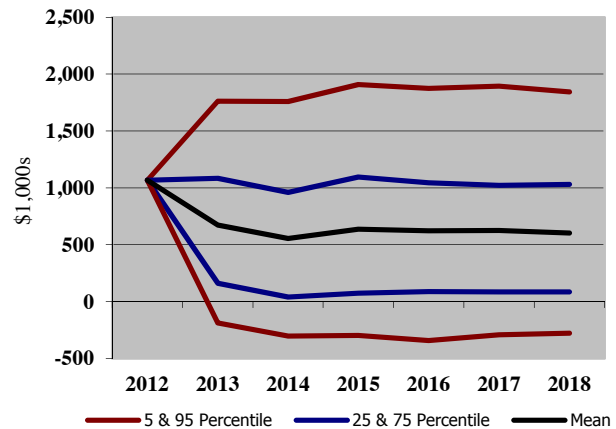
Nueces County, Texas is home to this 8,000-acre farm. Annually, 3,600 acres are planted to cotton and 4,400 acres to sorghum. Cotton sales accounted for 52 percent of 2012 receipts.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	3,259.7	3,339.9	3,357.2	3,392.5	3,434.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	191.6	239.1	257.5	245.7	227.0
Total Receipts (\$1,000)	3,607.3	3,728.2	3,768.6	3,799.1	3,815.4
Total Expenses (\$1,000)	3,052.5	3,091.6	3,146.3	3,175.9	3,214.2
Net Cash Farm Income (\$1,000)	554.8	636.6	622.3	623.2	601.2
Ending Cash (\$1,000)	2,241.8	2,360.9	2,462.5	2,525.0	2,579.9
Net Worth (\$1,000)	4,744.7	5,040.4	5,259.4	5,395.3	5,547.5
Return on Assets (%)	-0.3	-0.4	5.9	6.8	6.0
P(Cash Flow Deficit) (%)	49.0	44.4	46.4	49.0	50.8
P(Refinancing) (%)	1.0	1.0	1.0	2.2	2.0
P(Decreasing RNW) (%)	1.0	1.0	1.0	1.0	1.0

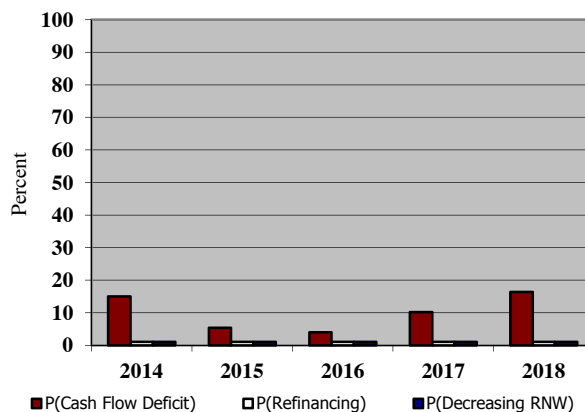
Producers participating in the panel include: Jimmy Dodson, Jon Gwynn, Darrell Lawhon, Larry McNair, Toby Robertson, and David Weaver. Mark Miller, Jeff Nunley, and John Parker serve as facilitators.

# TXVC4500

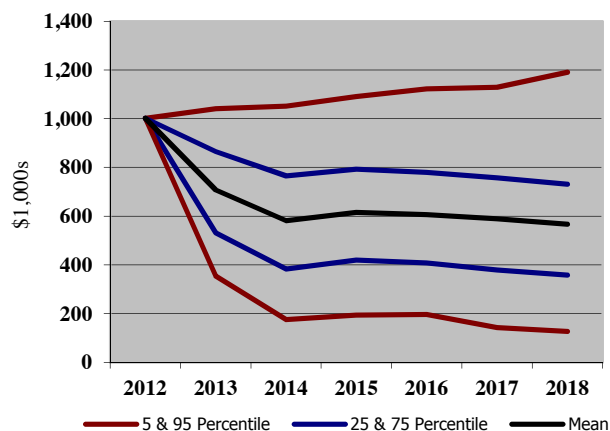
This 4,500-acre farm is located in the lower Rio Grande Valley of Texas (Willacy County) and plants 1,495 acres to cotton (500 irrigated and 995 acres dryland), 2,780 acres to sorghum, and 225 acres to sugarcane. In 2012, 35 percent of TXVC4500's cash receipts were generated by cotton sales.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	1,802.5	1,835.7	1,855.7	1,889.4	1,908.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	128.3	134.0	134.2	133.9	133.5
Total Receipts (\$1,000)	1,970.6	2,011.6	2,034.7	2,063.6	2,089.5
Total Expenses (\$1,000)	1,389.8	1,395.8	1,428.3	1,474.1	1,522.8
Net Cash Farm Income (\$1,000)	580.7	615.8	606.4	589.5	566.7
Ending Cash (\$1,000)	2,250.0	2,565.4	2,916.7	3,296.4	3,585.2
Net Worth (\$1,000)	5,595.3	6,047.6	6,460.9	6,911.2	7,270.1
Return on Assets (%)	9.9	9.7	7.3	2.8	3.0
P(Cash Flow Deficit) (%)	15.0	5.4	4.0	10.2	16.4
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. Omar Gonzales and Luis Ribera serve as facilitators.

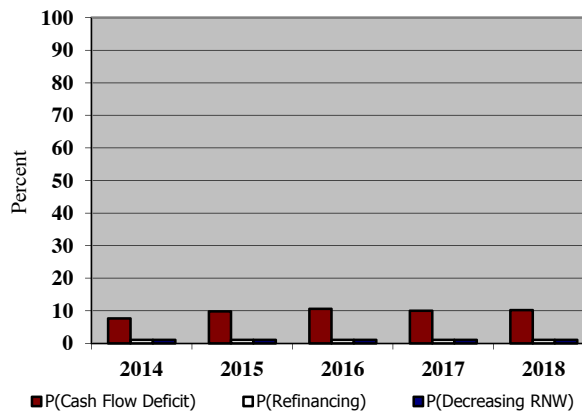


# CAC4000

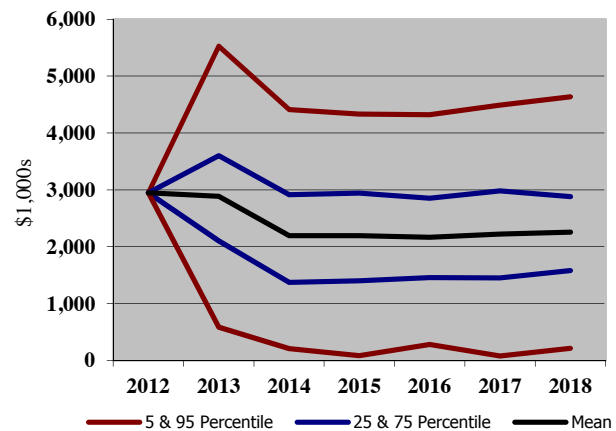
A 4,000-acre cotton farm located in Kings County, California, CAC4000 plants 1,333 acres to cotton, 267 acres to hay, 2,666 acres of silage, and harvests 400 acres of almonds. Twenty-nine percent of 2012 receipts came from cotton sales.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	7,643.8	7,672.6	7,761.9	7,908.7	8,035.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	80.0	92.7	95.4	90.0	89.1
Total Receipts (\$1,000)	7,723.8	7,765.3	7,857.3	7,998.7	8,124.4
Total Expenses (\$1,000)	5,531.8	5,571.2	5,690.9	5,775.4	5,868.9
Net Cash Farm Income (\$1,000)	2,192.0	2,194.1	2,166.4	2,223.3	2,255.5
Ending Cash (\$1,000)	7,239.4	8,338.8	9,425.7	10,594.8	11,755.5
Net Worth (\$1,000)	27,084.6	28,855.7	30,649.4	32,532.5	34,378.7
Return on Assets (%)	10.2	8.5	7.8	7.7	7.6
P(Cash Flow Deficit) (%)	7.6	9.8	10.6	10.0	10.2
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

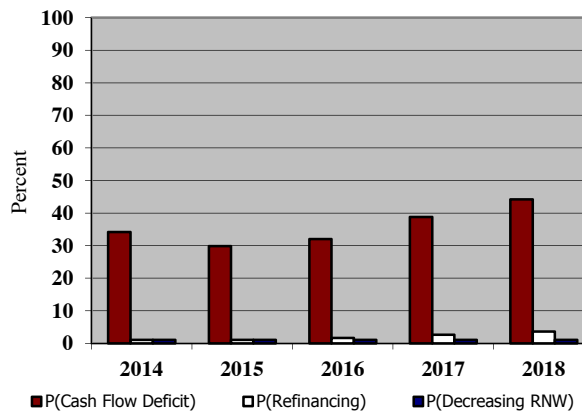
Producers participating in the panel include: Bo Champlin, Kirk Gilkey, Matt Gilkey, Ted Sheely, Bill Stone, Bill Tos, and Mark Watte. Steve Wright serves as the facilitator.

# ARNC5000

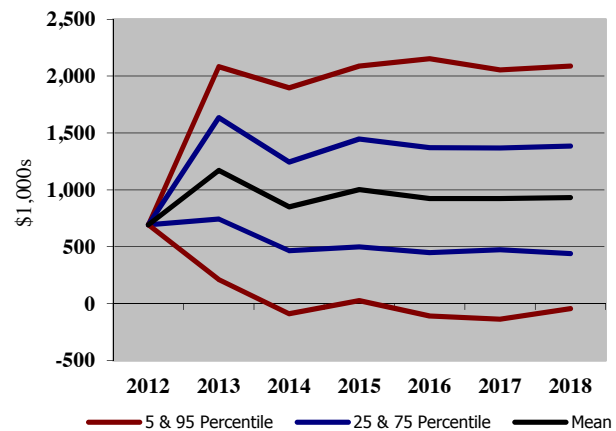
Far northeast Arkansas (Mississippi County) is home to this 5,000-acre cotton farm. ARNC5000 plants all its acres to cotton annually, thus generating all of its receipts from cotton.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	4,316.9	4,503.5	4,530.1	4,625.3	4,699.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	266.9	290.9	294.5	280.1	272.4
Total Receipts (\$1,000)	4,643.2	4,848.0	4,871.8	4,957.9	5,024.3
Total Expenses (\$1,000)	3,792.7	3,846.6	3,948.4	4,035.1	4,094.3
Net Cash Farm Income (\$1,000)	850.5	1,001.4	923.4	922.7	930.0
Ending Cash (\$1,000)	1,606.6	1,877.7	2,111.8	2,248.7	2,387.3
Net Worth (\$1,000)	8,783.0	9,368.9	9,848.0	10,297.2	10,710.7
Return on Assets (%)	4.3	4.7	4.5	4.1	6.2
P(Cash Flow Deficit) (%)	34.2	29.8	32.0	38.8	44.2
P(Refinancing) (%)	1.0	1.0	1.6	2.6	3.6
P(Decreasing RNW) (%)	1.0	1.0	1.0	1.0	1.0

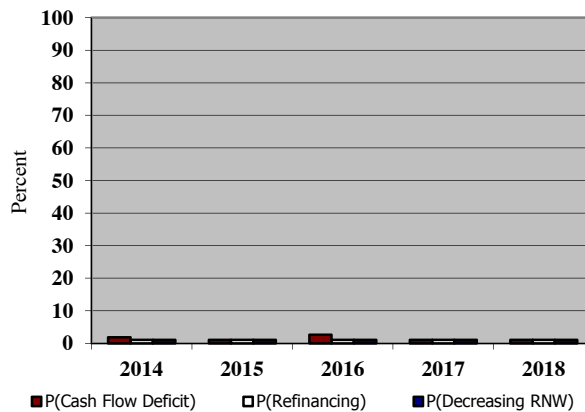
Producers participating in the panel include: Chad Costner, Heath Donner, Todd Edwards, Cole Hawkins, Justin Hawkins, Randy Jackson, and David Wildy. Dave Freeze, Ronnie Kennett, Blake McClelland, Jenny Stacks, and Brad Watkins serve as the facilitators.

# TNC2100

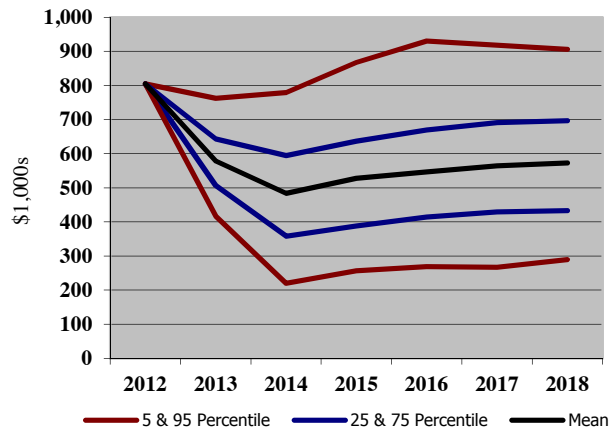
A 2,100-acre, moderate-sized West Tennessee (Fayette County) cotton farm. TNC2100 consists of 525 acres of cotton, 1,020 acres of soybeans, 525 acres of corn, and 30 acres enrolled in CRP. Cotton accounted for 32 percent of 2012 gross receipts, with corn and soybeans contributing 30 percent and 38 percent, respectively.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	1,297.9	1,350.0	1,378.8	1,408.0	1,430.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	66.4	69.5	70.4	68.3	67.0
Total Receipts (\$1,000)	1,383.7	1,438.5	1,468.3	1,494.2	1,515.8
Total Expenses (\$1,000)	900.1	910.8	921.5	929.6	942.7
Net Cash Farm Income (\$1,000)	483.5	527.7	546.8	564.6	573.2
Ending Cash (\$1,000)	2,083.1	2,372.8	2,643.0	2,975.8	3,307.5
Net Worth (\$1,000)	4,942.5	5,315.6	5,691.7	6,140.8	6,555.2
Return on Assets (%)	9.9	7.5	9.5	8.5	8.0
P(Cash Flow Deficit) (%)	1.8	1.0	2.6	1.0	1.0
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

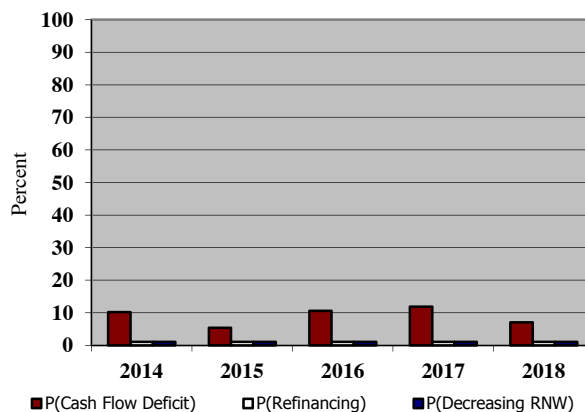
Producers participating in the panel include: Harris Armour, III, Chuck Dacus, Lee Graves, Tom Karcher, and William E. Powers. Jim Castellaw, Chris Main, and Jeff Via serve as facilitators.

# TNC4050

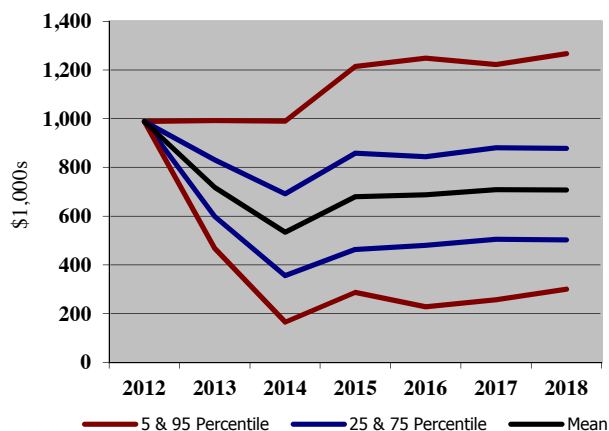
TNC4050 is a 4,050-acre, large-sized West Tennessee (Haywood County) cotton farm. This farm plants 2,025 acres of cotton, 1,425 acres of soybeans, 600 acres of corn, and 475 acres of wheat each year. During 2012, cotton sales generated 55 percent of gross receipts.



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



**Net Cash Farm Income**

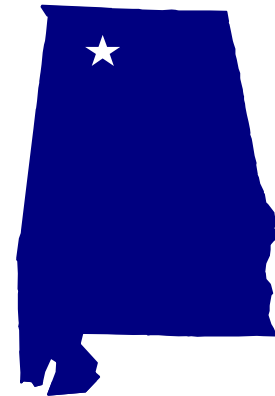


	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	2,541.8	2,639.8	2,678.7	2,733.6	2,772.9
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	104.7	174.5	177.6	167.9	148.6
Total Receipts (\$1,000)	2,699.2	2,864.0	2,906.3	2,949.2	2,971.8
Total Expenses (\$1,000)	2,164.7	2,183.8	2,218.5	2,240.8	2,264.4
Net Cash Farm Income (\$1,000)	534.5	680.2	687.9	708.4	707.4
Ending Cash (\$1,000)	2,698.0	3,010.2	3,302.5	3,607.2	3,949.9
Net Worth (\$1,000)	8,178.4	8,669.3	9,146.4	9,652.6	10,214.7
Return on Assets (%)	4.0	6.8	7.8	7.3	7.3
P(Cash Flow Deficit) (%)	10.2	5.4	10.6	11.8	7.0
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

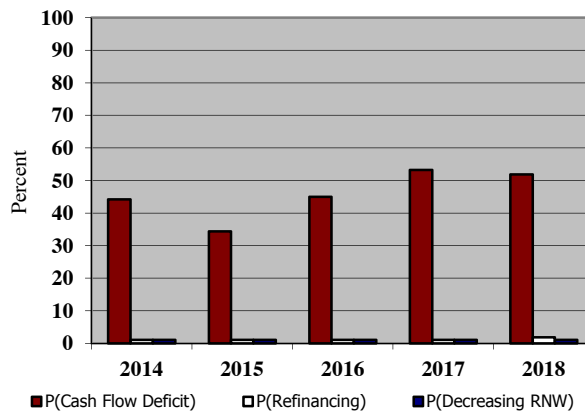
Producers participating in the panel include: R. Morris English, Jr., Dewayne Hendrix, Allen King, John King, Travis Lonon, and Ronald Woods. Chism Craig, Chuck Danehower, and Tracey Sullivan serve as facilitators.

# ALC3000

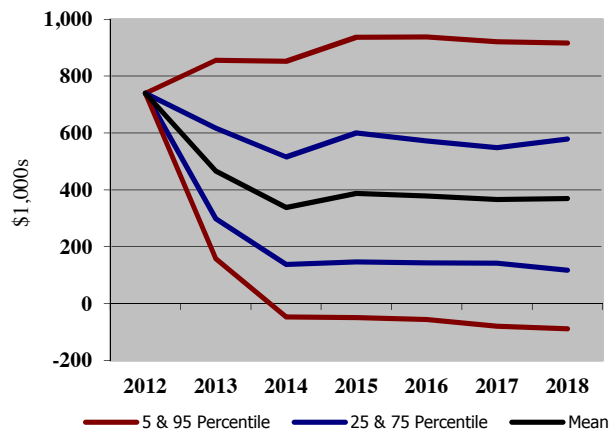
A 3,000-acre cotton farm located in northern Alabama (Lawrence County) that plants 1,050 acres to cotton, 1,350 acres to corn, 150 acres to soybeans, and 450 acres to wheat annually. Cotton sales accounted for 36 percent of total farm receipts during 2012.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	1,650.3	1,708.9	1,741.6	1,771.8	1,809.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	130.6	134.8	137.8	135.5	132.4
Total Receipts (\$1,000)	1,837.7	1,896.2	1,932.4	1,958.1	1,993.0
Total Expenses (\$1,000)	1,499.6	1,509.3	1,554.0	1,592.8	1,623.8
Net Cash Farm Income (\$1,000)	338.0	386.9	378.4	365.3	369.2
Ending Cash (\$1,000)	1,191.4	1,310.5	1,385.2	1,391.8	1,393.2
Net Worth (\$1,000)	2,814.9	3,013.6	3,131.8	3,199.4	3,314.6
Return on Assets (%)	1.3	4.8	-1.9	-2.1	0.7
P(Cash Flow Deficit) (%)	44.2	34.4	45.0	53.2	51.8
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.8
P(Decreasing RNW) (%)	1.0	1.0	1.0	1.0	1.0

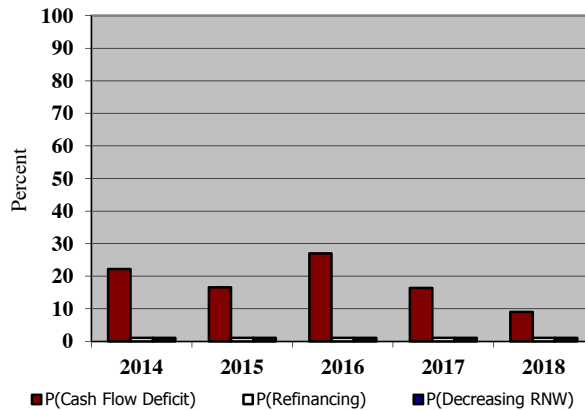
Producers participating in the panel include: James Blythe, Paul Clark, Steve Ford, William Lee, Larkin Martin, and Ron Terry.

# GAC2300

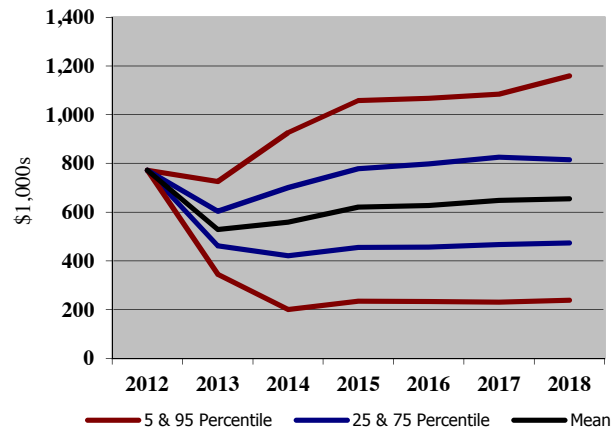
Southwest Georgia (Decatur County) is home to a 2,300-acre cotton farm that plants 1,200 acres to cotton, 550 acres to peanuts, and 550 acres to corn. In 2012, farm receipts were comprised of cotton sales (41 percent), corn (27 percent), and peanut sales (29 percent). Additionally, a 125-head cow-calf herd generated three percent of this farm's revenue.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	2,452.1	2,517.0	2,557.1	2,613.7	2,659.3
Livestock Receipts (\$1,000)	106.1	107.3	103.6	98.5	94.3
Government Payments (\$1,000)	166.4	176.2	181.3	175.0	175.4
Total Receipts (\$1,000)	2,749.5	2,823.7	2,864.4	2,909.2	2,950.0
Total Expenses (\$1,000)	2,191.0	2,202.9	2,236.7	2,261.4	2,294.8
Net Cash Farm Income (\$1,000)	558.5	620.9	627.8	647.8	655.2
Ending Cash (\$1,000)	1,504.6	1,659.6	1,779.7	1,951.0	2,200.8
Net Worth (\$1,000)	9,245.8	9,695.1	10,098.8	10,586.1	11,129.5
Return on Assets (%)	5.1	5.4	6.1	4.9	4.2
P(Cash Flow Deficit) (%)	22.2	16.6	27.0	16.4	9.0
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: Andy Bell, Jerry Jones, Willard Mims, and Raymond Thompson. Rome Ethredge, Mitchell May, Don Shurley, and Nathan Smith serve as facilitators.

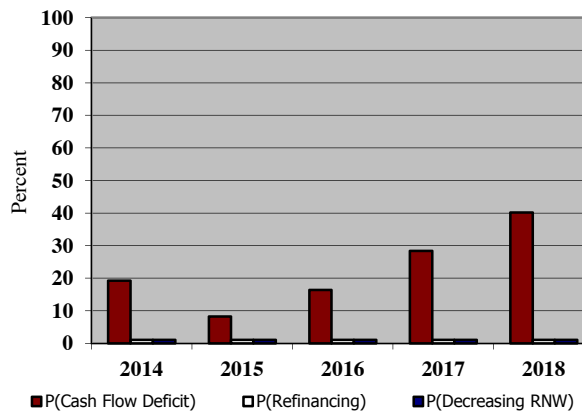


# NCC1500

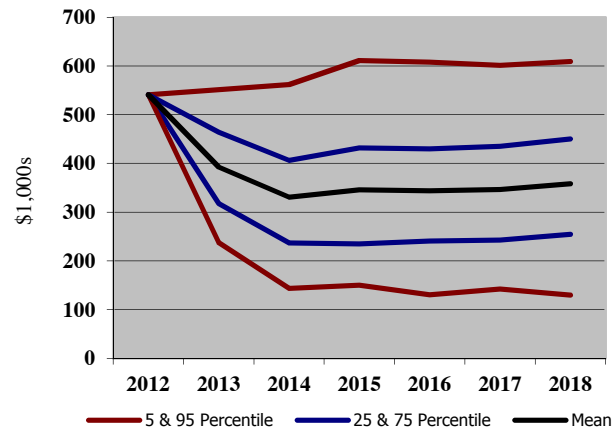
This is a 1,500-acre cotton farm located on the upper coastal plain of North Carolina (Wayne County). NCC1500 plants 225 acres of cotton, 255 acres of wheat, 850 acres of soybeans, and 275 acres of corn annually. Cotton accounted for 16 percent of this farm's 2012 receipts.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	735.9	765.5	786.3	801.8	818.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	47.9	49.1	49.7	49.0	48.6
Total Receipts (\$1,000)	1,042.7	1,073.2	1,094.4	1,108.8	1,124.2
Total Expenses (\$1,000)	712.2	727.4	750.3	762.3	766.1
Net Cash Farm Income (\$1,000)	330.6	345.9	344.1	346.6	358.1
Ending Cash (\$1,000)	1,054.3	1,231.0	1,359.7	1,443.9	1,501.3
Net Worth (\$1,000)	3,291.6	3,535.1	3,717.7	3,870.8	4,021.0
Return on Assets (%)	7.7	1.0	2.5	4.8	7.1
P(Cash Flow Deficit) (%)	19.2	8.2	16.4	28.4	40.2
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

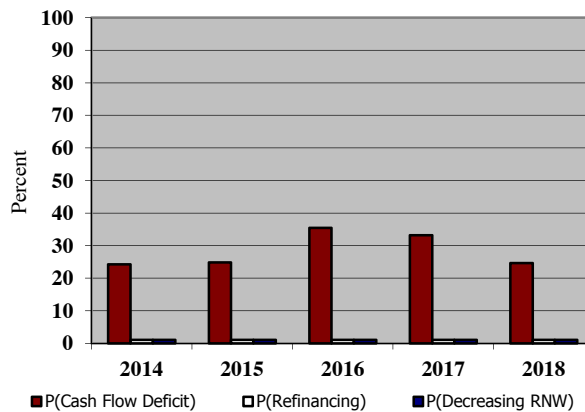
Producers participating in the panel include: Landis Brantham, Jr., Willie Howell, David B. Mitchell, Sr., Danny C. Pierce, Craig West, and Bryant Worley. Kevin Johnson serves as the facilitator.

# SCC1800

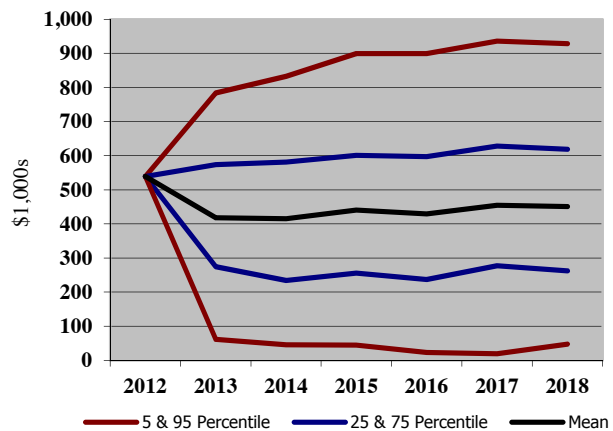
SCC1800 is a moderate-sized, 1,800-acre cotton farm in South Carolina (Calhoun County) consisting of 360 acres of corn, 900 acres of cotton, 360 acres of peanuts, and 180 acres of double-cropped wheat and soybeans. Forty-five percent of the farm's receipts were from cotton sales in 2012.



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



**Net Cash Farm Income**



	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Market Receipts (\$1,000)	1,463.9	1,496.4	1,518.0	1,552.6	1,569.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	104.5	111.0	112.6	109.6	110.8
Total Receipts (\$1,000)	1,593.7	1,636.2	1,655.0	1,687.8	1,704.1
Total Expenses (\$1,000)	1,178.9	1,196.1	1,226.0	1,233.3	1,253.1
Net Cash Farm Income (\$1,000)	414.9	440.2	429.0	454.5	450.9
Ending Cash (\$1,000)	1,595.8	1,736.8	1,834.1	1,941.3	2,098.4
Net Worth (\$1,000)	4,765.2	5,062.2	5,319.8	5,597.7	5,915.8
Return on Assets (%)	7.3	4.6	4.8	8.1	5.5
P(Cash Flow Deficit) (%)	24.2	24.8	35.4	33.2	24.6
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: 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.