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Research Report

Economic outlook for representative cotton farms given the August 2010 FAPRI/AFPC baseline

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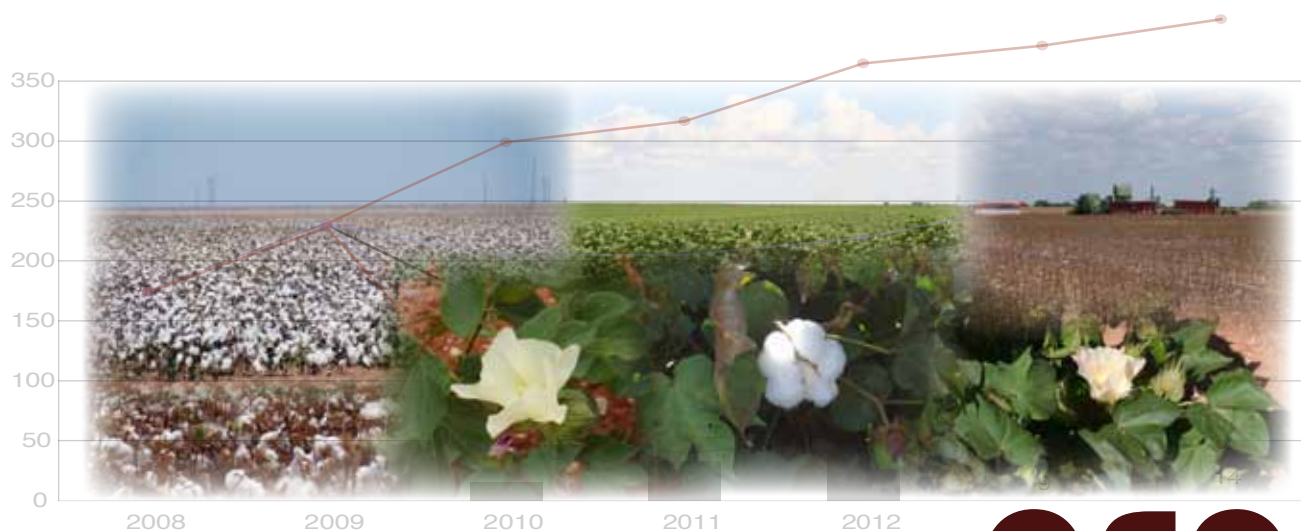
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Economic Outlook for Representative Cotton Farms Given the August 2010 FAPRI/AFPC Baseline

Briefing Paper 10-3

October 2010



Agricultural and Food Policy Center

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**ECONOMIC OUTLOOK FOR REPRESENTATIVE COTTON FARMS
GIVEN THE AUGUST 2010 FAPRI/AFPC BASELINE**

AFPC Briefing Paper 10-3

James W. Richardson
Joe L. Outlaw
George M. Knapek
J. Marc Raulston



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The Texas A&M University System**

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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 those farms' economic viability for 2010 through 2015. 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 2010 Baseline.

Under the August 2010 Baseline, five of the representative cotton farms (TXVC4500, CAC4000, TNC2100, TNC4050, and NCC1500) are in good liquidity condition (less than a 25 percent chance of negative ending cash in 2015). One farm (TXEC5000) has a 25 percent to 50 percent likelihood of negative ending cash. The remaining ten cotton farms have a greater than 50 percent chance of negative ending cash.

Farms are also classified based on their respective equity conditions. Five farms (TXVC4500, CAC4000, TNC2100, TNC4050, and NCC1500) are considered in good equity position (less than a 25 percent chance of decreasing real net worth during 2010-2015). Three representative cotton farms (TXEC5000, TXCB2250, and ARNC5000) have between a 25 percent and 50 percent likelihood of losing real net worth. The remaining eight representative cotton farms have 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: Five of the sixteen farms are classified in good condition, one is in marginal condition, and the remaining ten are in poor condition.

The overall outlook for cotton farms has improved under the August 2010 Baseline, primarily resulting from more favorable cotton prices in this most recent set of projections. Although current price projections for cotton are certainly an improvement over recent baselines, prices are still below the target price in every year of the study period. Relatively flat commodity prices coupled with increasing input costs prohibit more farms from breaking out of the poor and marginal overall financial rankings.

FAPRI AUGUST 2010 BASELINE

Projected crop prices for FAPRI's August 2010 Baseline are summarized in Table 1. In general, corn, wheat, and soybean price projections are very similar to those reported in the January 2010 Baseline. August 2010 projections for cotton, rice, and grain sorghum are higher than January 2010 forecasts throughout the 2010-2015 study period. Conversely, peanut price projections are lower for all years under the August 2010 Baseline as compared to the January 2010 Baseline. Individual crop prices are projected to move as follows:

- Cotton prices are projected to remain in a relatively tight range of \$0.66 to \$0.69/lb throughout the projection period.
- Corn prices are expected to increase from the \$3.68/bu in 2010, reaching \$3.98/bu by 2015.
- Wheat prices decline from the high of the projection period of \$5.10 in 2010, remaining below \$5.00/bu throughout the 2011-2015 period.
- Rice prices are projected to fall from highs experienced in 2008 and 2009, holding between \$11.70 and \$12.07/cwt throughout the planning horizon.
- Sorghum prices are expected to increase throughout the projection period, reaching a high of \$3.71/bu in 2015.
- Prices for soybeans are expected to stay in a range of \$9.26/bu to \$9.59/bu during the planning horizon.

Projected annual rates of change for variable cash expenses are summarized in Table 2. The rate of change in input prices comes from FAPRI's August 2010 Baseline. The projected rates of change in costs decrease substantially in 2009. From 2008 to 2009, projected costs of fertilizer and fuel decreased by 31.1 percent and 33.7 percent, respectively. Fertilizer prices were projected to continue on a decline in 2010, hold relatively steady in 2011, and reverse course and increase by 12.2 percent in 2012. Fuel prices are expected to increase by 18.5 percent in 2010; annual increases ranging from 2.9 percent to 6.9 percent are expected throughout the 2011-2015 period. Projected annual rates of change in land values over the 2010-2015 period were provided by the August 2010 FAPRI Baseline and range between negative 3.23 percent and 2.81 percent per year.

Table 1. FAPRI August 2010 Baseline Projections of Crop and Livestock Prices, 2008-2015

	2008	2009	2010	2011	2012	2013	2014	2015
Crop Prices								
Corn (\$/bu.)	4.06	3.55	3.68	3.80	3.78	3.83	3.96	3.98
Wheat (\$/bu.)	6.78	4.87	5.10	4.92	4.76	4.87	4.94	4.99
Cotton (\$/lb.)	0.4780	0.6250	0.6889	0.6634	0.6700	0.6752	0.6817	0.6870
Sorghum (\$/bu.)	3.20	3.15	3.42	3.50	3.52	3.56	3.68	3.71
Soybeans (\$/bu.)	9.97	9.60	9.35	9.26	9.43	9.45	9.53	9.59
Barley (\$/bu.)	5.37	4.66	3.82	4.10	4.17	4.20	4.29	4.28
Oats (\$/bu.)	3.15	2.02	2.42	2.63	2.67	2.68	2.73	2.74
Rice (\$/cwt.)	16.80	14.00	11.98	11.70	11.73	11.90	12.00	12.07
Soybean Meal (\$/ton)	315.87	295.68	259.12	256.23	262.43	265.09	267.79	269.36
All Hay (\$/ton)	152.00	111.00	112.73	121.26	123.43	124.42	126.04	128.22
Peanuts (\$/ton)	460.00	436.00	449.50	455.24	455.05	458.57	462.49	465.14
Cattle Prices								
Feeder Cattle (\$/cwt)	107.62	101.89	115.78	123.79	132.62	137.46	139.82	137.72
Fed Cattle (\$/cwt)	92.27	82.68	93.50	98.50	103.34	105.85	106.54	105.65
Culled Cows (\$/cwt)	54.92	47.01	58.09	60.45	61.95	63.37	63.74	62.53
Milk Price								
U.S. All Milk Price (\$/cwt)	18.45	12.93	16.05	16.56	17.02	17.31	17.76	18.26

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

Table 2. FAPRI August 2010 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	15.44	3.30	0.51	3.06	2.76	2.70	2.25
All Fertilizer Prices (%)	-31.10	-6.22	0.73	12.17	6.23	1.79	-1.59
Herbicide Prices (%)	8.46	2.35	-0.18	2.66	2.34	1.83	1.44
Insecticide Prices (%)	3.21	3.46	0.72	3.07	2.73	2.00	1.63
Fuel and Lube Prices (%)	-33.72	18.50	5.20	6.83	4.06	2.92	3.03
Machinery Prices (%)	6.22	5.86	1.14	3.03	2.81	2.65	2.44
Wages (%)	2.19	1.45	2.23	2.06	2.38	2.75	2.98
Supplies (%)	2.68	5.08	0.76	3.11	2.60	1.81	1.24
Repairs (%)	1.92	2.71	1.76	2.36	2.62	2.72	2.53
Services (%)	8.90	6.17	1.56	3.53	2.99	2.42	2.05
Taxes (%)	13.88	4.74	-0.43	3.49	2.67	2.17	1.81
PPI Items (%)	-4.21	2.24	1.57	3.77	2.60	2.01	1.45
PPI Total (%)	-2.66	1.99	1.55	3.91	2.85	2.30	1.80
Annual Change in Consumer Price Index (%)	-0.32	1.53	1.44	2.00	2.15	2.11	2.07
Annual Rate of Change for U.S. Land Prices (%)	-3.23	-1.63	1.01	1.94	1.45	2.81	1.22

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

Economic Viability of Representative Cotton Farms over the 2010-2015 Period

Farm Name	Overall Ranking		P(Negative Ending Cash)	P(Real Net Worth Declines)
	2010	2015	2010-2015	2010-2015
5/1/10				
TXSP2500	Yellow	Red	92-98	1-95
TXSP3745	Yellow	Red	86-99	1-96
TXEC5000	Green	Yellow	7-25	1-29
TXRP2500	Yellow	Red	73-58	1-53
TXMC1800	Yellow	Red	81-93	1-80
TXCB2250	Yellow	Red	64-74	1-40
TXCB8000	Yellow	Red	54-69	1-51
TXVC4500	Green	Green	21-10	1-4
CAC4000	Green	Green	1-2	1-3
ARNC5000	Yellow	Red	67-84	1-45
TNC2100	Green	Green	1-1	1-1
TNC4050	Green	Green	1-6	1-9
ALC3000	Yellow	Red	71-88	1-71
GAC2300	Yellow	Red	99-99	1-99
SCC1500	Yellow	Red	81-85	1-71
NCC1500	Green	Green	1-1	1-1

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

<25

25-50

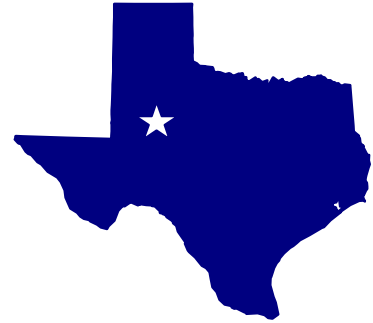
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2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2010 and 2015

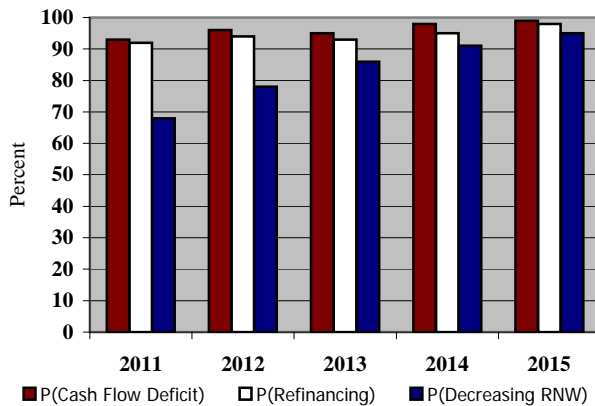
3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2008 to 2010 and from 2008 to 2015.

TXSP2500

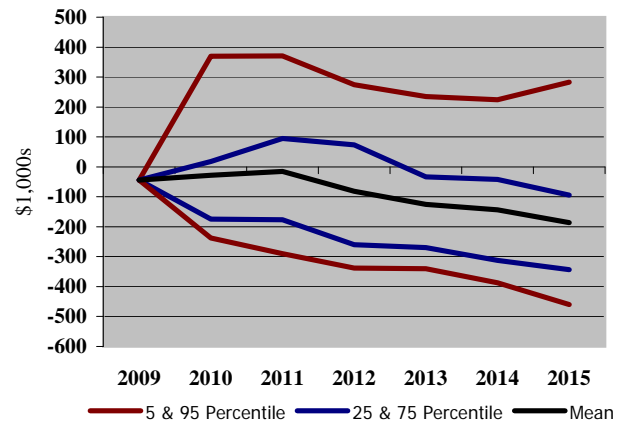
A 2,500-acre Texas South Plains (Dawson County) cotton farm that is moderate-sized for the area. TXSP2500 plants 1,958 acres of cotton (1,658 dryland, 300 irrigated), 190 acres of sorghum (160 dryland, 30 irrigated), 95 acres of wheat, and 50 acres of peanuts. For 2009, 85 percent of receipts came from cotton.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	681.4	644.6	635.2	667.6	694.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	62.5	61.7	60.9	59.6	52.7
Total Receipts (\$1,000)	750.4	715.4	708.0	739.6	758.2
Total Expenses (\$1,000)	765.8	797.4	833.0	883.1	944.7
Net Cash Farm Income (\$1,000)	-15.3	-82.0	-125.1	-143.5	-186.5
Ending Cash (\$1,000)	-422.5	-568.6	-756.7	-980.8	-1,270.4
Net Worth (\$1,000)	321.5	174.3	-12.9	-222.6	-501.0
Return on Assets (%)	-1.6	-5.3	-11.3	-11.0	-13.5
P(Cash Flow Deficit) (%)	93.0	96.0	95.0	98.0	99.0
P(Refinancing) (%)	92.0	94.0	93.0	95.0	98.0
P(Decreasing RNW) (%)	68.0	78.0	86.0	91.0	95.0

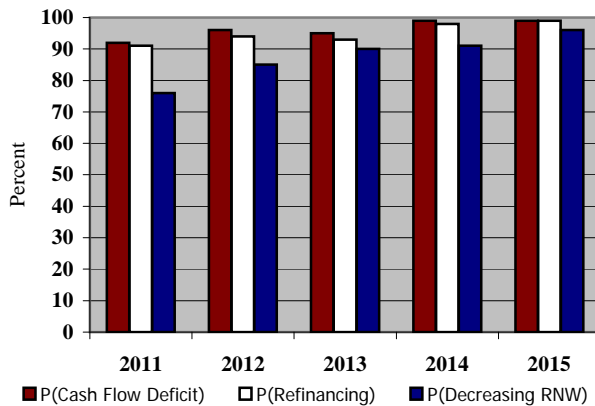
Producers participating in the panel include: Steven Archer, Johnny Ray Todd, and Donald Vogler. Jackie Smith and Jeff Wyatt serve as facilitators.

TXSP3745

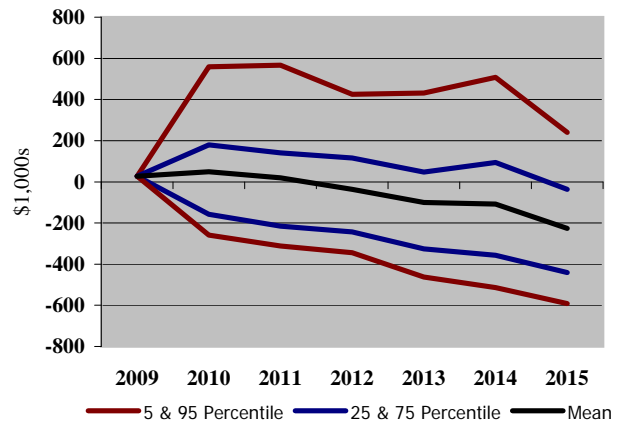
The Texas South Plains (Dawson County) is home to this 3,745-acre, large-sized cotton farm that grows 2,916 acres of cotton (2,406 dryland, 510 irrigated), 120 acres of wheat, 120 acres of peanuts, and has 288 acres in CRP. Cotton sales comprised 83 percent of 2009 receipts.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	1,065.9	1,085.9	1,076.9	1,168.2	1,180.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	106.2	104.9	102.1	102.3	89.3
Total Receipts (\$1,000)	1,180.7	1,195.7	1,192.1	1,282.5	1,275.5
Total Expenses (\$1,000)	1,160.8	1,232.9	1,292.8	1,390.3	1,501.1
Net Cash Farm Income (\$1,000)	19.9	-37.2	-100.7	-107.8	-225.6
Ending Cash (\$1,000)	-475.7	-705.6	-1,041.1	-1,520.4	-2,126.8
Net Worth (\$1,000)	897.8	691.8	406.0	85.4	-353.1
Return on Assets (%)	-4.5	-6.6	-7.9	-6.7	-11.0
P(Cash Flow Deficit) (%)	92.0	96.0	95.0	99.0	99.0
P(Refinancing) (%)	91.0	94.0	93.0	98.0	99.0
P(Decreasing RNW) (%)	76.0	85.0	90.0	91.0	96.0

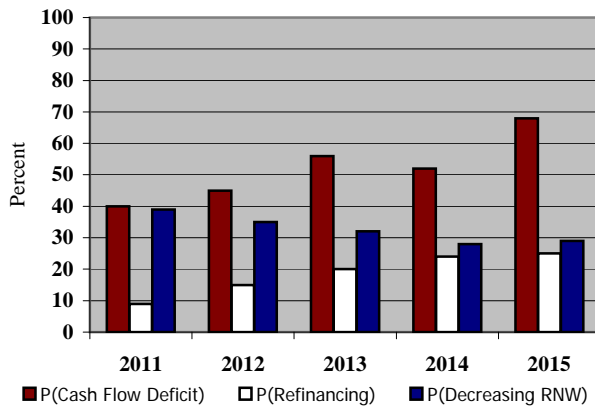
Producers participating in the panel include: Brad Boyd, Terry Coleman, Will Cozart, and David Warren . Jackie Smith and Jeff Wyatt serve as facilitators.

TXEC5000

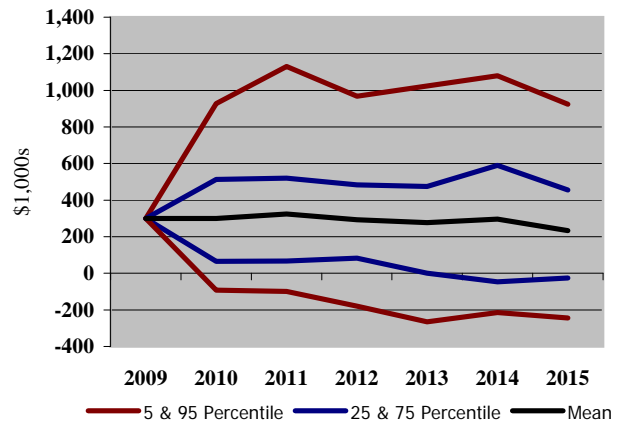
This 5,000-acre farm is located on the Eastern Caprock of the Texas South Plains (Crosby County). Annually, 3,650 acres are planted to cotton (2,650 irrigated and 1,000 dryland), 550 acres of sorghum (250 irrigated and 300 dryland), and 300 acres of dryland wheat. In 2009, cotton sales accounted for 95 percent of gross receipts.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	1,917.9	1,967.6	1,985.7	2,060.8	2,115.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	150.9	146.1	143.8	147.0	120.2
Total Receipts (\$1,000)	2,095.4	2,136.5	2,176.7	2,260.4	2,261.8
Total Expenses (\$1,000)	1,770.7	1,843.0	1,900.1	1,963.5	2,027.9
Net Cash Farm Income (\$1,000)	324.7	293.5	276.6	296.9	233.9
Ending Cash (\$1,000)	392.5	479.1	509.9	545.5	516.0
Net Worth (\$1,000)	1,759.4	1,859.5	1,937.6	2,033.6	2,061.1
Return on Assets (%)	10.8	9.6	7.9	9.0	3.9
P(Cash Flow Deficit) (%)	40.0	45.0	56.0	52.0	68.0
P(Refinancing) (%)	9.0	15.0	20.0	24.0	25.0
P(Decreasing RNW) (%)	39.0	35.0	32.0	28.0	29.0

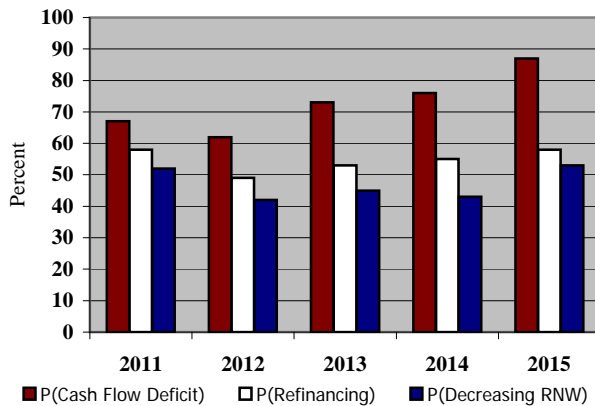
Producers participating in the panel include: Lloyd Arthur, Brooks Ellison, Edwin Moore, and Marvin Schoepf. Clay Miller serves as the facilitator.

TXRP2500

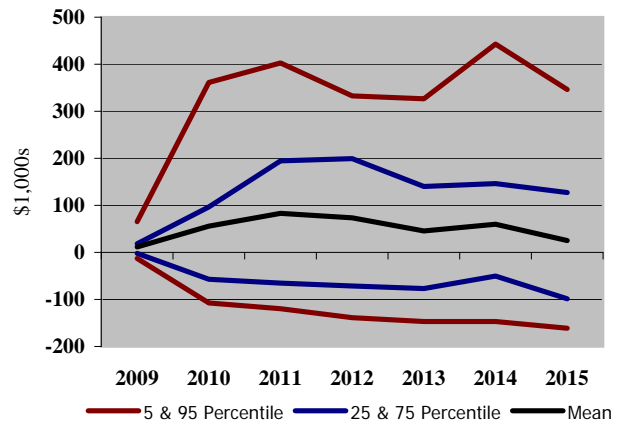
TXRP2500 is a 2,500-acre cotton farm located in the Rolling Plains of Texas (Jones County). This farm plants 1,000 acres of cotton and 1,000 acres of winter wheat each year. The area is limited by rainfall, so the farm uses a conservative level of inputs. Seventy-six percent of 2009 farm receipts came 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>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	459.4	452.3	443.2	482.0	461.2
Livestock Receipts (\$1,000)	15.0	14.7	15.1	17.0	15.3
Government Payments (\$1,000)	41.3	39.9	38.0	40.7	33.2
Total Receipts (\$1,000)	531.9	536.5	524.5	563.3	539.1
Total Expenses (\$1,000)	448.7	463.2	479.0	503.4	514.0
Net Cash Farm Income (\$1,000)	83.2	73.4	45.5	60.0	25.2
Ending Cash (\$1,000)	-20.3	-1.6	-8.4	-21.4	-73.2
Net Worth (\$1,000)	498.4	511.0	497.8	497.7	458.7
Return on Assets (%)	11.7	10.7	1.8	5.2	-1.0
P(Cash Flow Deficit) (%)	67.0	62.0	73.0	76.0	87.0
P(Refinancing) (%)	58.0	49.0	53.0	55.0	58.0
P(Decreasing RNW) (%)	52.0	42.0	45.0	43.0	53.0

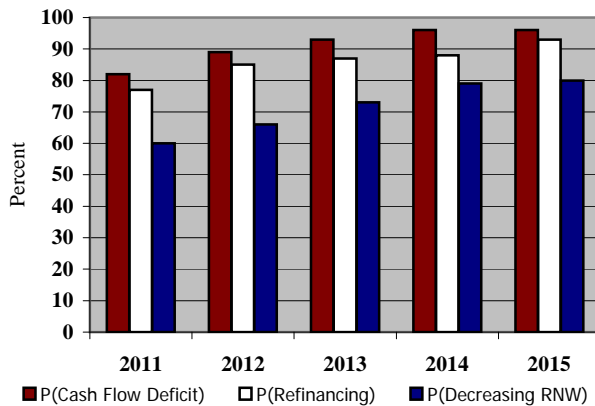
Producers participating in the panel include: Rex Ford, Kelly Head, Michael McLellan, Brian Sandbothe, Mike Sloan, Dale Spurgin, Ferdie Walker, and Terry White. Steven Estes serves as the facilitator.

TXMC1800

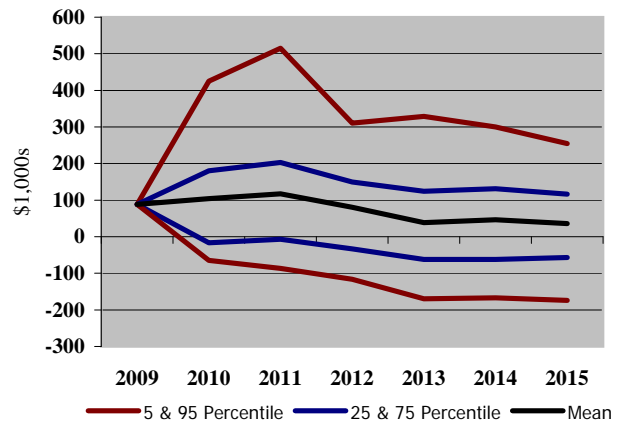
This 1,800-acre cotton farm is located on the Coastal Plain of southeast Texas (Wharton County). TXMC1800 farms 620 acres of sorghum, 600 acres of cotton, 480 acres of corn, and 100 acres of soybeans. In 2009, cotton sales comprised 47 percent of total cash receipts on this operation.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	631.8	624.4	611.0	650.0	661.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	59.7	58.3	57.0	58.3	51.6
Total Receipts (\$1,000)	701.4	697.2	686.3	720.5	731.4
Total Expenses (\$1,000)	584.6	616.8	647.6	674.1	695.2
Net Cash Farm Income (\$1,000)	116.8	80.4	38.7	46.4	36.2
Ending Cash (\$1,000)	-139.4	-226.9	-365.4	-511.8	-645.8
Net Worth (\$1,000)	762.5	706.2	600.3	520.0	460.2
Return on Assets (%)	0.3	-2.4	-5.8	-4.0	-1.3
P(Cash Flow Deficit) (%)	82.0	89.0	93.0	96.0	96.0
P(Refinancing) (%)	77.0	85.0	87.0	88.0	93.0
P(Decreasing RNW) (%)	60.0	66.0	73.0	79.0	80.0

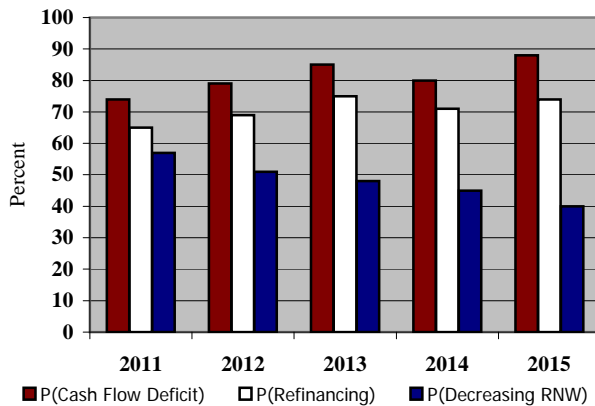
Producers participating in the panel include: Jimmy Barosh, Keith Bram, Glenn Emshosf, Daniel Gavranovic, Rob Kainer, Cedric Popp, and Michael Popp. Larry Falconer, Jeff Nunley, and Jimmy Roppolo serve as facilitators.

TXCB2250

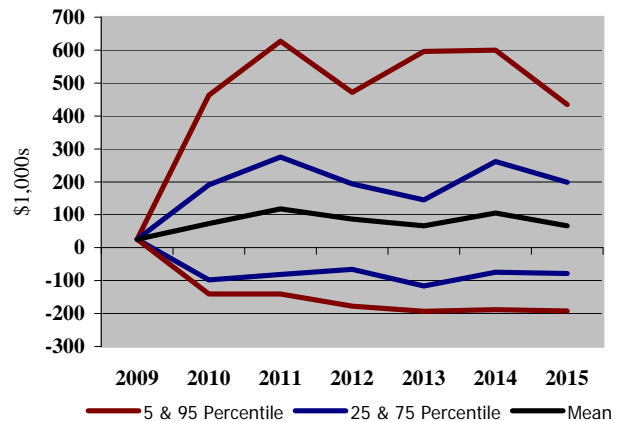
A 2,250-acre cotton farm located on the Texas Coastal Bend (San Patricio County) that farms 1,000 acres of cotton, 1,125 acres of sorghum, and 125 acres of corn annually. Sixty-four percent of 2009 cash receipts were generated by cotton.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	730.6	717.7	702.0	783.2	728.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	67.7	66.7	64.2	67.8	56.8
Total Receipts (\$1,000)	822.6	809.4	794.6	871.8	830.3
Total Expenses (\$1,000)	705.1	722.6	728.7	767.0	763.7
Net Cash Farm Income (\$1,000)	117.5	86.8	65.9	104.8	66.6
Ending Cash (\$1,000)	-96.7	-166.5	-252.7	-285.5	-330.1
Net Worth (\$1,000)	908.3	900.8	887.7	939.9	952.3
Return on Assets (%)	2.1	1.1	0.7	3.9	1.6
P(Cash Flow Deficit) (%)	74.0	79.0	85.0	80.0	88.0
P(Refinancing) (%)	65.0	69.0	75.0	71.0	74.0
P(Decreasing RNW) (%)	57.0	51.0	48.0	45.0	40.0

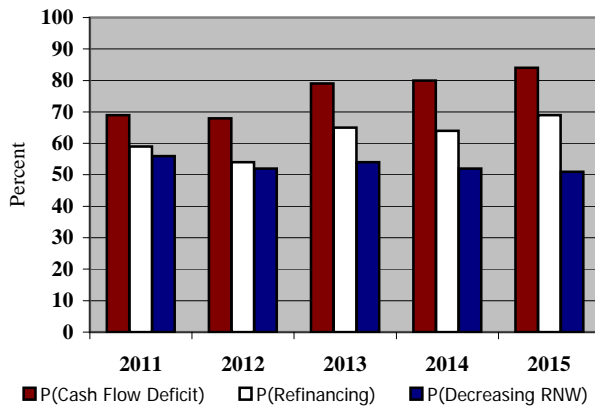
Producers participating in the panel include: Travis Adams, Marvin Beyer, Jr., Brad Bickham, Clarence Chopelas, Andrew Miller, and Darby Salge. Duane Campion and Larry Falconer serve as facilitators.

TXCB8000

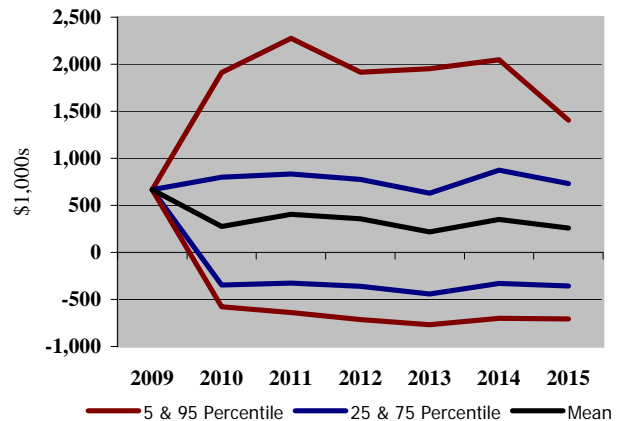
Nueces County, Texas is home to this 8,000-acre farm. Annually, 2,800 acres are planted to cotton and 5,200 acres to sorghum. Cotton sales accounted for 53 percent of 2009 receipts.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	2,701.3	2,738.0	2,642.1	2,899.1	2,811.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	233.1	213.3	207.0	218.0	190.4
Total Receipts (\$1,000)	2,974.1	3,023.6	2,929.6	3,180.8	3,117.0
Total Expenses (\$1,000)	2,569.9	2,667.0	2,713.0	2,831.6	2,858.5
Net Cash Farm Income (\$1,000)	404.2	356.6	216.6	349.1	258.5
Ending Cash (\$1,000)	-95.3	-222.7	-557.1	-685.1	-911.4
Net Worth (\$1,000)	1,456.5	1,425.9	1,252.7	1,300.2	1,235.4
Return on Assets (%)	4.3	3.0	-2.0	3.0	2.3
P(Cash Flow Deficit) (%)	69.0	68.0	79.0	80.0	84.0
P(Refinancing) (%)	59.0	54.0	65.0	64.0	69.0
P(Decreasing RNW) (%)	56.0	52.0	54.0	52.0	51.0

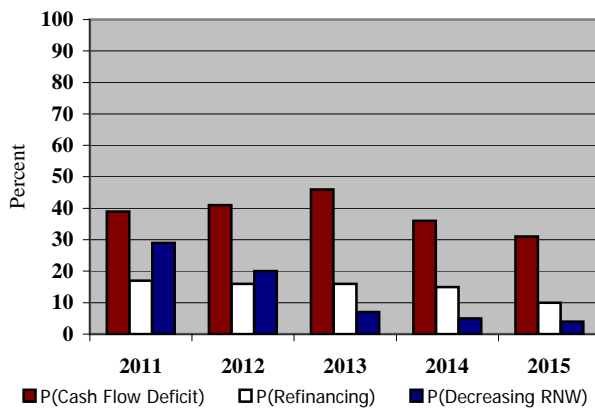
Producers participating in the panel include: Jimmy Dodson, Jon Gwynn, Wayne Lambert, Larry McNair, Toby Robertson, and David Weaver. Larry Falconer, Mark Miller, Jeff Nunley, and John Parker serve as facilitators.

TXVC4500

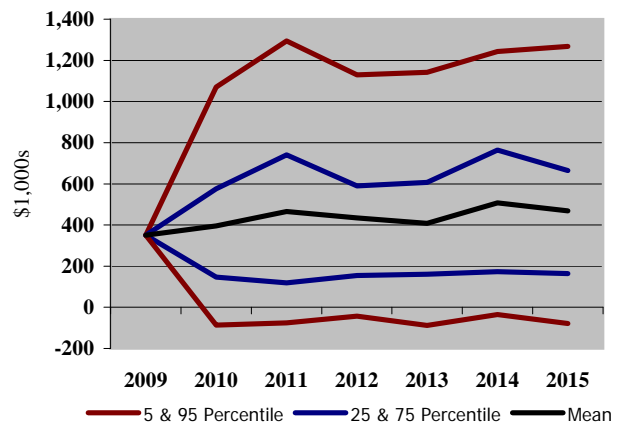
This 4,500-acre farm is located in the lower Rio Grande Valley of Texas (Willacy County) and plants 1,495 acres to cotton (500 irrigated and 995 acres dryland), 2,780 acres to sorghum, and 225 acres of sugarcane. In 2009, 44 percent of TXVC4500's cash receipts were generated by cotton sales.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	1,637.3	1,640.2	1,622.9	1,771.4	1,726.6
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	142.4	142.0	138.3	138.9	124.2
Total Receipts (\$1,000)	1,794.2	1,806.7	1,787.4	1,925.9	1,882.2
Total Expenses (\$1,000)	1,328.4	1,372.3	1,380.0	1,418.9	1,413.1
Net Cash Farm Income (\$1,000)	465.8	434.5	407.4	506.9	469.1
Ending Cash (\$1,000)	391.9	493.7	586.9	760.2	975.4
Net Worth (\$1,000)	2,797.3	2,997.4	3,215.5	3,531.5	3,860.1
Return on Assets (%)	8.6	8.4	7.3	10.8	9.7
P(Cash Flow Deficit) (%)	39.0	41.0	46.0	36.0	31.0
P(Refinancing) (%)	17.0	16.0	16.0	15.0	10.0
P(Decreasing RNW) (%)	29.0	20.0	7.0	5.0	4.0

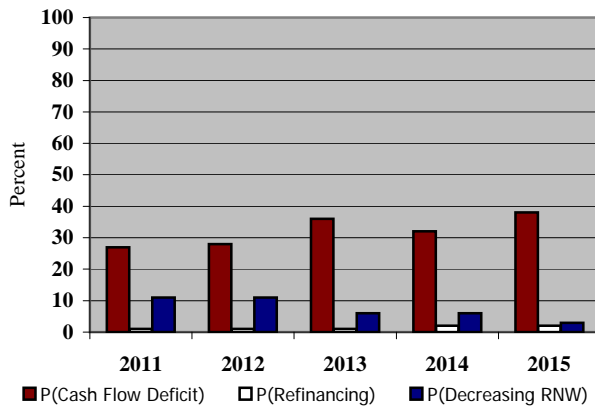
Producers participating in the panel include: Gary Busse, Derrick Swanberg, Marshall Swanberg, and Mark Willis. Reagan Florence, Luis Ribera, and Terry Wolfe serve as facilitators.

CAC4000

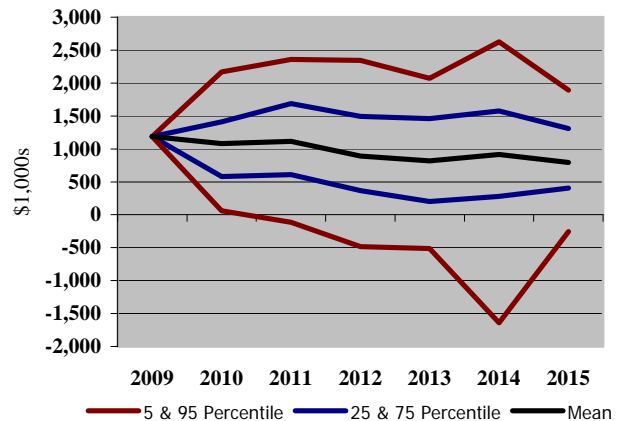
A 4,000-acre cotton farm located in Kings County, California, CAC4000 plants 1,333 acres to cotton, 267 acres to hay, 2666 acres of silage, and harvests 400 acres of almonds. Thirty-five percent of 2009 receipts came from cotton sales.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	6,235.8	6,203.6	6,260.8	6,480.0	6,445.9
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	0.0	28.6	31.7	37.4	35.7
Total Receipts (\$1,000)	6,304.6	6,285.2	6,361.1	6,568.2	6,545.6
Total Expenses (\$1,000)	5,191.4	5,394.9	5,540.5	5,653.2	5,750.9
Net Cash Farm Income (\$1,000)	1,113.2	890.3	820.6	915.0	794.8
Ending Cash (\$1,000)	2,613.7	2,866.3	3,072.5	3,297.5	3,450.1
Net Worth (\$1,000)	15,750.8	16,418.3	17,022.7	17,878.0	18,482.2
Return on Assets (%)	7.5	6.9	5.9	7.2	5.0
P(Cash Flow Deficit) (%)	27.0	28.0	36.0	32.0	38.0
P(Refinancing) (%)	1.0	1.0	1.0	2.0	2.0
P(Decreasing RNW) (%)	11.0	11.0	6.0	6.0	3.0

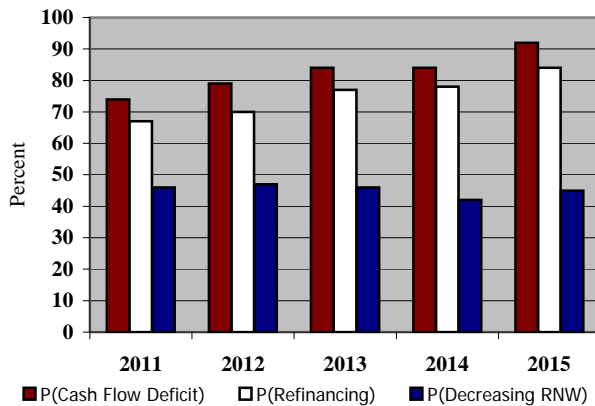
Producers participating in the panel include: Bo Champlin, Kirk Gilkey, Matt Gilkey, Ted Sheely, Bill Stone, Bill Tos, and Mark Watte. Steve Wright serves as the facilitator.

ARNC5000

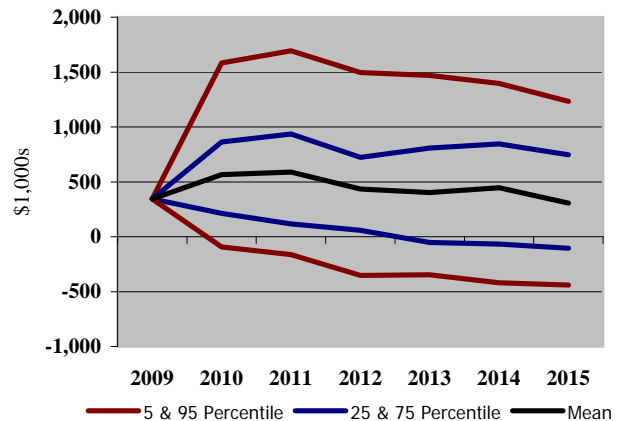
Far northeast Arkansas (Mississippi County) is home to this 5,000-acre cotton farm. ARNC5000 plants all its acres to cotton annually, generating 100 percent of its receipts from cotton.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	3,802.9	3,785.6	3,892.5	4,054.2	3,992.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	225.4	218.1	205.0	221.4	165.7
Total Receipts (\$1,000)	4,049.4	4,043.9	4,142.5	4,298.9	4,241.2
Total Expenses (\$1,000)	3,460.3	3,609.4	3,740.3	3,853.0	3,934.2
Net Cash Farm Income (\$1,000)	589.1	434.5	402.2	445.9	307.0
Ending Cash (\$1,000)	-233.2	-444.0	-733.7	-925.4	-1,234.5
Net Worth (\$1,000)	5,106.6	5,085.8	5,078.6	5,201.8	5,157.4
Return on Assets (%)	4.5	3.4	3.2	4.7	2.3
P(Cash Flow Deficit) (%)	74.0	79.0	84.0	84.0	92.0
P(Refinancing) (%)	67.0	70.0	77.0	78.0	84.0
P(Decreasing RNW) (%)	46.0	47.0	46.0	42.0	45.0

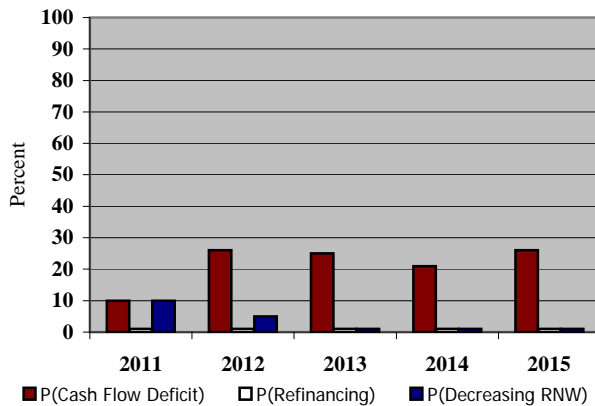
Producers participating in the panel include: Chad Costner, Heath Donner, Todd Edwards, Cole Hawkins, Justin Hawkins, Randy Jackson, and David Wildy. Dave Freeze, Ronnie Kennett, Blake McClelland, Jenny Stacks, and Brad Watkins serve as the facilitators.

TNC2100

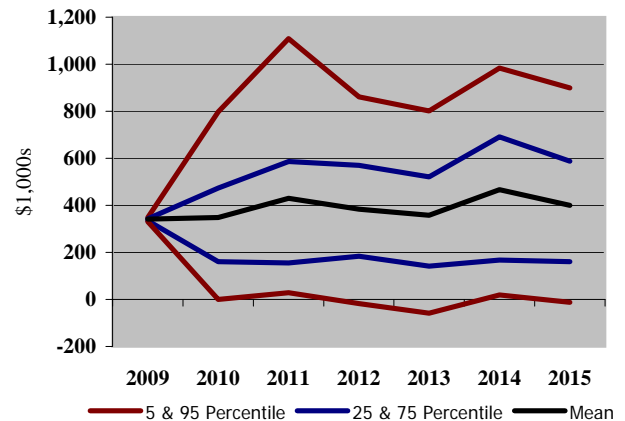
A 2,100-acre, moderate-sized West Tennessee (Fayette County) cotton farm. TNC2100 consists of 525 acres each of cotton and corn, 1,020 acres of soybeans, and 30 acres enrolled in CRP. Cotton accounted for 34 percent of 2009 gross receipts.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	1,169.2	1,148.2	1,144.2	1,279.5	1,222.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	68.6	67.7	66.3	66.4	57.9
Total Receipts (\$1,000)	1,257.1	1,248.9	1,241.5	1,367.5	1,314.7
Total Expenses (\$1,000)	827.5	865.5	883.5	900.6	914.8
Net Cash Farm Income (\$1,000)	429.6	383.4	358.0	467.0	399.9
Ending Cash (\$1,000)	827.0	972.0	1,134.4	1,367.2	1,538.9
Net Worth (\$1,000)	2,871.9	3,084.6	3,304.5	3,614.6	3,842.7
Return on Assets (%)	12.6	10.2	8.4	11.7	8.3
P(Cash Flow Deficit) (%)	10.0	26.0	25.0	21.0	26.0
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	10.0	5.0	1.0	1.0	1.0

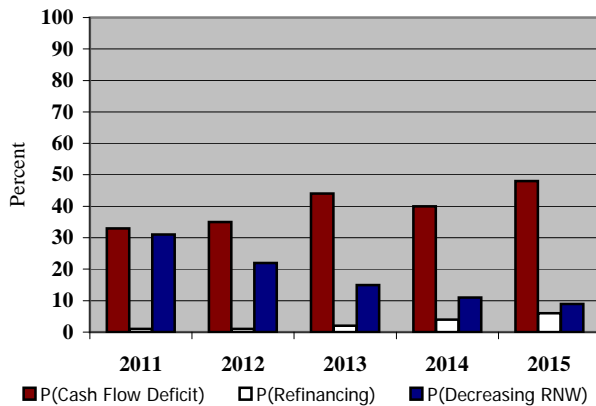
Producers participating in the panel include: Harris Armour, III, Chuck Dacus, Lee Graves, Tom Karcher, and William E. Powers. Jim Castellaw, Chris Main, and Jeff Via serve as facilitators.

TNC4050

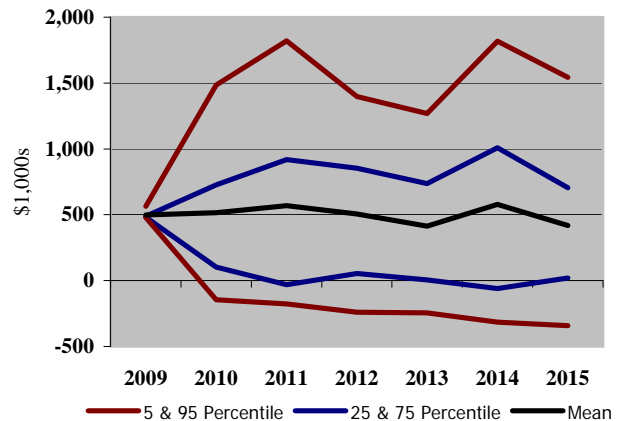
TNC4050 is a 4,050-acre, large-sized West Tennessee (Haywood County) cotton farm. This farm plants 2,025 acres of cotton, 1,425 acres of soybeans, 600 acres of corn, and 475 acres of wheat each year. During 2009, cotton sales generated 59 percent of gross receipts.



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



Net Cash Farm Income

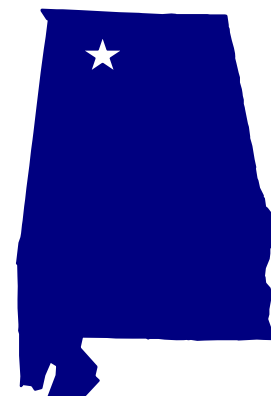


	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	2,310.1	2,295.7	2,275.3	2,534.8	2,393.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	154.7	147.9	133.9	137.5	113.9
Total Receipts (\$1,000)	2,515.9	2,517.1	2,488.5	2,726.6	2,588.0
Total Expenses (\$1,000)	1,947.9	2,011.5	2,075.1	2,147.5	2,170.3
Net Cash Farm Income (\$1,000)	568.0	505.6	413.4	579.0	417.7
Ending Cash (\$1,000)	1,113.6	1,352.3	1,484.6	1,678.6	1,791.8
Net Worth (\$1,000)	4,980.7	5,293.4	5,504.8	5,870.8	6,103.0
Return on Assets (%)	9.2	9.0	6.6	9.2	4.6
P(Cash Flow Deficit) (%)	33.0	35.0	44.0	40.0	48.0
P(Refinancing) (%)	1.0	1.0	2.0	4.0	6.0
P(Decreasing RNW) (%)	31.0	22.0	15.0	11.0	9.0

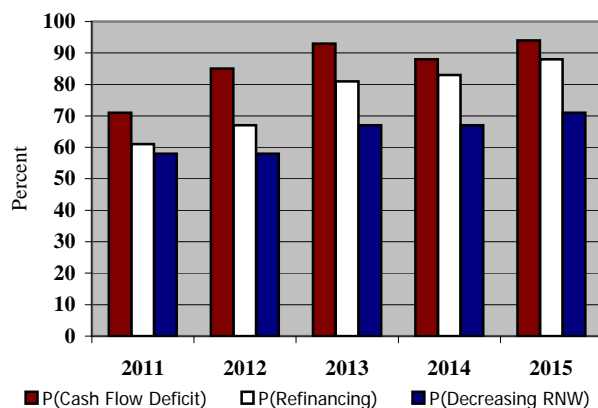
Producers participating in the panel include: R. Morris English, Jr., Dewayne Hendrix, Allen King, John King, Travis Lonon, and Ronald Woods. Chism Craig, Chuck Danehower, and Tracey Sullivan serve as facilitators.

ALC3000

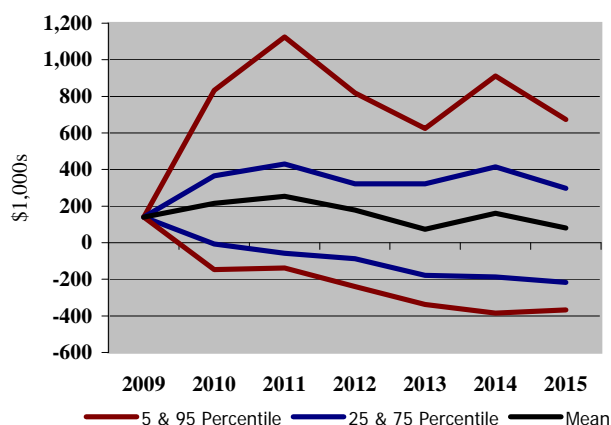
A 3,000-acre cotton farm located in northern Alabama (Lawrence County) that plants 1,500 acres to cotton, 1,350 acres to corn, and 150 acres to soybeans annually. Cotton sales accounted for 61 percent of total farm receipts during 2009.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	1,228.2	1,219.6	1,184.2	1,351.6	1,318.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	127.7	127.1	124.7	125.5	108.6
Total Receipts (\$1,000)	1,372.2	1,366.0	1,342.4	1,491.8	1,455.8
Total Expenses (\$1,000)	1,119.4	1,187.3	1,268.5	1,330.3	1,375.1
Net Cash Farm Income (\$1,000)	252.8	178.7	73.9	161.5	80.7
Ending Cash (\$1,000)	-109.9	-243.3	-608.9	-762.4	-1,042.7
Net Worth (\$1,000)	1,226.3	1,140.7	974.6	903.2	742.2
Return on Assets (%)	6.3	5.0	-2.5	0.8	0.8
P(Cash Flow Deficit) (%)	71.0	85.0	93.0	88.0	94.0
P(Refinancing) (%)	61.0	67.0	81.0	83.0	88.0
P(Decreasing RNW) (%)	58.0	58.0	67.0	67.0	71.0

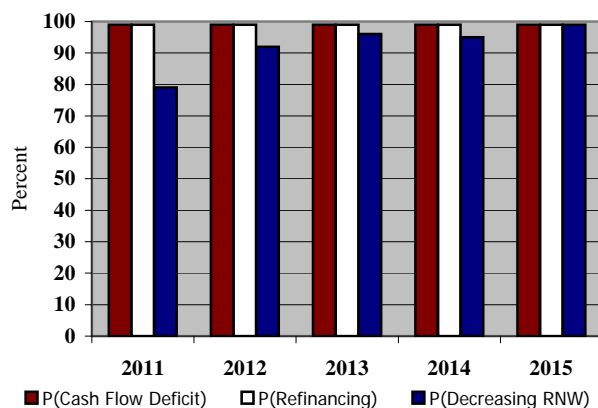
Producers participating in the panel include: James Blythe, Paul Clark, Steve Ford, William Lee, Larkin Martin, and Ron Terry.

GAC2300

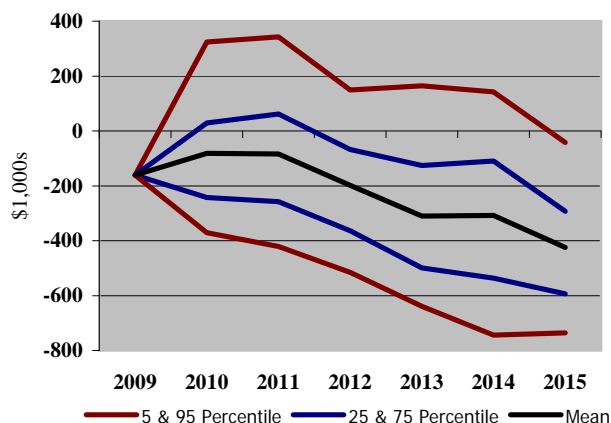
Southwest Georgia (Decatur County) is home to a 2,300-acre cotton farm that plants 1,495 acres to cotton, 575 acres to peanuts, and 230 acres to corn. This farm utilizes the availability of water in the region, irrigating 73 percent of its cropland. In 2009, farm receipts were comprised largely of cotton sales (58 percent) and peanut sales (33 percent).



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	1,820.1	1,843.7	1,861.3	2,018.7	2,010.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	199.5	194.9	190.5	189.9	168.6
Total Receipts (\$1,000)	2,035.8	2,059.7	2,075.8	2,222.9	2,215.9
Total Expenses (\$1,000)	2,120.0	2,258.5	2,386.1	2,530.5	2,640.7
Net Cash Farm Income (\$1,000)	-84.2	-198.8	-310.3	-307.5	-424.8
Ending Cash (\$1,000)	-1,323.6	-1,818.0	-2,436.5	-3,055.6	-3,768.1
Net Worth (\$1,000)	2,326.0	1,994.4	1,564.2	1,160.7	612.6
Return on Assets (%)	0.2	-0.4	-1.7	1.0	-0.3
P(Cash Flow Deficit) (%)	99.0	99.0	99.0	99.0	99.0
P(Refinancing) (%)	99.0	99.0	99.0	99.0	99.0
P(Decreasing RNW) (%)	79.0	92.0	96.0	95.0	99.0

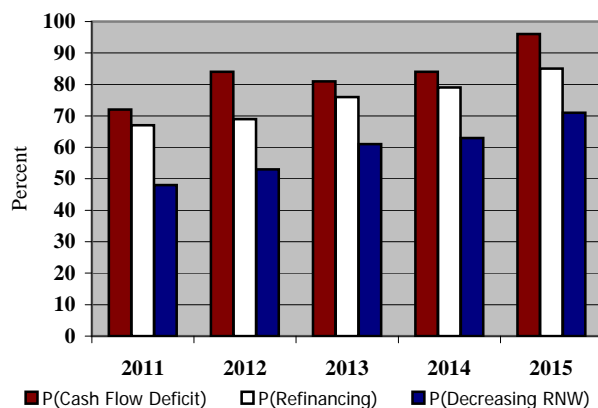
Producers participating in the panel include: Andy Bell, John Bridges, Jr., David Holton, and Donald Shirah. Joel Hudgins, Brad Mitchell, Don Shurley, Nathan Smith, and Amanda Ziehl serve as facilitators.

SCC1500

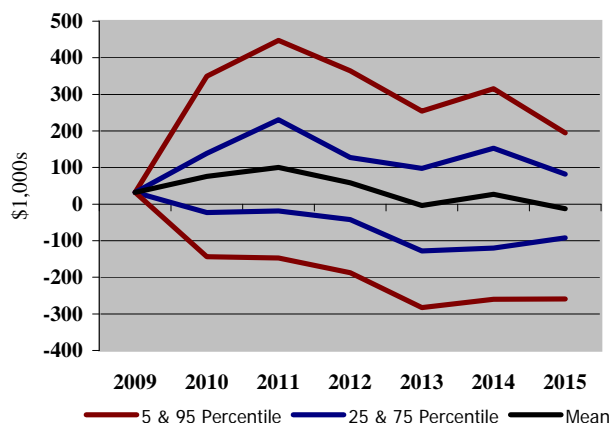
SCC1500 is a moderate-sized, 1,500-acre grain farm in South Carolina (Barnwell County) consisting of 525 acres of corn, 525 acres of cotton, 375 acres of peanuts, 75 acres of soybeans (double cropped behind wheat), and 75 acres of wheat. Forty-six percent of the farm's receipts were from cotton sales during 2009.



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



Net Cash Farm Income

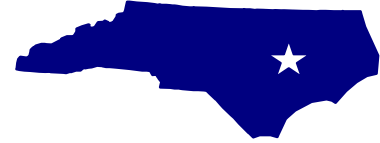


	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	855.9	855.5	830.4	901.2	909.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	85.2	84.8	82.2	84.2	72.0
Total Receipts (\$1,000)	957.3	959.3	936.2	1,001.2	1,003.5
Total Expenses (\$1,000)	856.9	901.1	939.7	974.2	1,016.0
Net Cash Farm Income (\$1,000)	100.4	58.2	-3.5	27.0	-12.5
Ending Cash (\$1,000)	-87.2	-135.6	-245.9	-327.0	-486.5
Net Worth (\$1,000)	842.0	818.8	735.1	692.3	600.2
Return on Assets (%)	8.1	4.4	-0.9	3.7	0.2
P(Cash Flow Deficit) (%)	72.0	84.0	81.0	84.0	96.0
P(Refinancing) (%)	67.0	69.0	76.0	79.0	85.0
P(Decreasing RNW) (%)	48.0	53.0	61.0	63.0	71.0

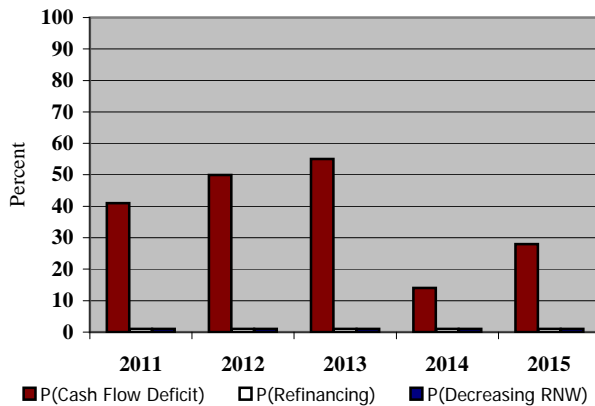
Producers participating in the panel include: Corrin F. "Bud" Bowers, Johnny and Debbie Crider, Jimmie Griner, Henry Herndol, Charles Horger, Bates Houck, Doug Jarrell, J.O. Patterson, Jeff Sandifer, and Stephen Still. Toby Boring, Todd Davis, Tripp Kemp, and Corey Risch serve as facilitators.

NCC1500

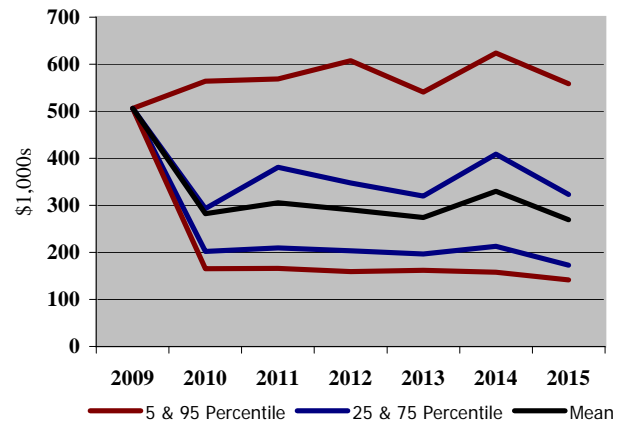
This is a 1,500-acre cotton farm located on the upper coastal plain of North Carolina (Wayne County). NCC1500 plants 225 acres of cotton, 275 acres of corn, 255 acres of wheat, and 850 acres of soybeans annually. Cotton accounted for 21 percent of this farm's 2009 receipts.



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



Net Cash Farm Income



	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Market Receipts (\$1,000)	646.0	652.0	645.0	715.3	677.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	62.0	61.9	60.4	60.1	52.0
Total Receipts (\$1,000)	962.0	966.6	966.0	1,028.4	988.7
Total Expenses (\$1,000)	656.6	676.1	691.7	698.8	719.3
Net Cash Farm Income (\$1,000)	305.5	290.5	274.2	329.6	269.4
Ending Cash (\$1,000)	384.3	416.5	445.1	541.5	608.5
Net Worth (\$1,000)	1,980.9	2,100.0	2,223.8	2,420.5	2,539.5
Return on Assets (%)	5.3	5.8	5.0	7.8	5.7
P(Cash Flow Deficit) (%)	41.0	50.0	55.0	14.0	28.0
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: Landis Brantham, Jr., Willie Howell, David B. Mitchell, Sr., Danny C. Pierce, Craig West, and Bryant Worley. Kevin Johnson serves as the facilitator.