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### Research Report Economic outlook for representative cotton farms given the December 2011 FAPRI/AFPC Baseline

AFPC Briefing Paper, No. 11-2

**Provided in Cooperation with:** The Agricultural & Food Policy Center (AFPC), Texas A&M University

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### Economic Outlook for Representative Cotton Farms Given the December 2011 FAPRI/AFPC Baseline

### **Briefing Paper 11-2**

### December 2011



### **Agricultural and Food Policy Center**

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#### ECONOMIC OUTLOOK FOR REPRESENTATIVE COTTON FARMS GIVEN THE DECEMBER 2011 FAPRI/AFPC BASELINE

AFPC Briefing Paper 11-2

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

# **AFPC**

Agricultural and Food Policy Center 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 the economic viability of those farms from 2011 through 2016. 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 December 2011 Baseline.

Under the December 2011 Baseline, twelve of the representative cotton farms are in good liquidity condition (less than a 25 percent chance of negative ending cash in 2016). Two farms (TXMC1800 and ARNC5000) have a 25 percent to 50 percent likelihood of negative ending cash. The remaining two farms (TXRP2500 and GAC2300) 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 2011-2016). One representative cotton farm (GAC2300) has 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: Twelve of the sixteen farms are classified in good condition, two are in marginal condition, and two are in poor condition.

Higher cotton prices under the most recent projections in the December 2011 Baseline have resulted in an improvement in the overall outlook for cotton farms. Current price projections for cotton throughout the study period are all above the target price. These commodity price improvements along with less dramatic increases in rates of change for input prices have allowed several farms previously classified in marginal and poor financial conditions to improve to a good overall ranking.

#### **FAPRI DECEMBER 2011 BASELINE**

Projected crop prices for FAPRI's December 2011 Baseline are summarized in Table 1. In general, corn, wheat, grain sorghum, and rice price projections are higher than those reported in the January 2011 Baseline. Soybean prices are marginally higher in later projected years. Cotton price for 2011 is approximately \$0.08 higher; however, prices in 2012 to 2016 are very similar to those in the January 2011 Baseline. Peanut price projections are higher for all years under the December 2011 Baseline as compared to the January 2011 Baseline. Individual crop prices are projected to move as follows:

- Cotton prices are projected to fall from a projection period high of \$0.89/lb in 2011. Prices then hold in a relatively tight range of \$0.73 to \$0.77/lb throughout the projection period.
- Corn prices are expected to decrease from a high of \$6.37/bu in 2011 and remain at approximately \$5.00/bu throughout the remaining years of the study period.
- Wheat prices decline from the high of the projection period of \$7.37/bu in 2011, remaining just over \$6.00/bu throughout the 2012-2016 period.
- Rice price experienced a decline in 2010; however, it rebounds to \$14.54/cwt in 2011. The price is projected to decrease through 2014 before rebounding in subsequent years in 2015 and 2016.
- Sorghum prices are expected to decrease from the projection period high in 2011 and hold between \$4.73 and \$4.93/bu in 2012-2016.
- Prices for soybeans are expected to stay in a range of \$11.54/bu to \$12.23/bu during 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 December 2011 Baseline. The projected rates of change in costs decrease for fertilizer and herbicide in 2010. Fertilizer prices and fuel prices experienced the most dramatic cost increases in 2011, displaying 34.6 and 27.1 percent increases, respectively. Projected annual rates of change in land values over the 2011-2016 period were provided by the December 2011 FAPRI Baseline and range between 1.3 percent and 15 percent per year. The most dramatic increases in land prices are projected in 2011 and 2012 at 9.1 and 15 percent, respectively.

Table 1. FAPRI December 2011 Baseline Projections of Crop and Livestock Prices, 2009-2016

	2009	2010	2011	2012	2013	2014	2015	2016
Crop Prices								
Corn (\$/bu.)	3.55	5.18	6.37	5.06	4.94	5.08	5.07	5.06
Wheat (\$/bu.)	4.87	5.70	7.37	6.31	6.07	6.14	6.19	6.29
Cotton (\$/lb.)	0.6290	0.8150	0.8910	0.7342	0.7367	0.7495	0.7616	0.7729
Sorghum (\$/bu.)	3.22	5.02	6.35	4.74	4.73	4.85	4.91	4.93
Soybeans (\$/bu.)	9.59	11.30	12.23	11.74	11.64	11.54	11.57	11.64
Barley (\$/bu.)	4.66	3.86	5.31	4.96	4.84	4.94	4.93	4.94
Oats (\$/bu.)	2.02	2.52	3.31	3.07	2.97	2.98	2.98	2.98
Rice (\$/cwt.)	14.40	12.70	14.54	12.51	12.46	12.81	13.16	13.46
Soybean Meal (\$/ton)	296.89	329.56	302.31	261.80	255.79	255.02	259.01	264.75
All Hay (\$/ton)	108.00	114.00	174.57	149.96	140.47	139.44	142.02	145.35
Peanuts (\$/ton)	434.00	450.00	599.79	515.85	525.29	522.96	524.96	522.77
Cattle Prices								
Feeder Cattle (\$/cwt)	101.89	115.11	139.02	152.42	163.3	164.65	156.05	149.9
Fed Cattle (\$/cwt)	83.25	95.38	113.98	123.94	125.88	126.8	123.4	121.18
Culled Cows (\$/cwt)	47.01	56.76	68.98	77.56	79.06	80.62	74.07	70.42
Milk Price								
U.S. All Milk Price (\$/cwt)	12.93	16.35	20.15	18.12	18.59	18.8	18.83	18.92

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

#### Table 2. FAPRI December 2011 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2010-2016

	2010	2011	2012	2013	2014	2015	2016
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	3.68	7.04	4.51	4.82	1.90	1.06	1.08
All Fertilizer Prices (%)	-6.23	34.56	0.98	2.85	2.29	1.16	1.10
Herbicide Prices (%)	-6.38	0.79	1.89	5.91	3.96	2.51	1.31
Insecticide Prices (%)	1.86	2.95	1.33	5.13	3.67	2.46	1.34
Fuel and Lube Prices (%)	24.02	27.06	-6.12	4.61	4.05	1.36	-0.44
Machinery Prices (%)	3.60	5.00	0.86	3.24	3.02	2.67	2.29
Wages (%)	1.07	1.15	2.58	2.30	2.66	2.86	3.11
Supplies (%)	1.31	5.15	-0.66	2.55	2.46	1.89	1.10
Repairs (%)	1.89	4.18	1.13	2.50	2.79	2.63	2.36
Services (%)	3.21	4.15	-0.27	3.27	3.11	2.52	1.94
Taxes (%)	1.47	8.85	-0.37	5.83	5.36	3.68	3.04
PPI Items (%)	3.30	13.09	2.54	1.55	1.60	1.40	0.90
PPI Total (%)	3.31	11.54	2.33	1.91	2.11	2.01	1.29
Annual Change in Consumer Price Index (%)	1.65	3.04	1.30	1.90	2.32	2.12	1.89
Annual Rate of Change for U.S. Land Prices (%)	-0.57	9.08	15.00	1.91	2.11	2.01	1.29

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

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
12/2/2	2011	2016	2011-2016	2011-2016
TXSP2500			20-16	1-16
TXSP4500			1-1	1-1
TXEC5000			1-1	1-3
TXRP2500			66-92	1-78
TXMC1800			8-26	1-15
TXCB2250			19-22	1-7
TXCB8000			1-6	1-8
TXVC4500			1-1	1-1
CAC4000			1-1	1-1
ARNC5000			13-26	1-7
TNC2100			1-1	1-1
TNC4050			1-1	1-1
ALC3000			1-9	1-10
GAC2300			71-96	1-37
SCC1800			1-1	1-1
NCC1500			1-1	1-1

#### Economic Viability of Representative Farms over the 2011-2016 Period

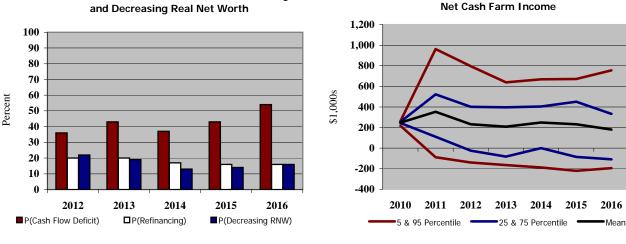
1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:

<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 2011 and 2016

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 2011 and from 2009 to 2016.

# **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 2010, 99 percent of receipts came from cotton.



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

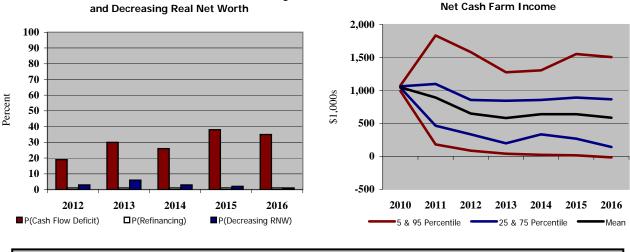
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	869.8	878.6	985.3	973.8	957.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	67.3	66.2	69.9	66.9	53.6
Total Receipts (\$1,000)	1,035.6	1,040.6	1,131.1	1,135.2	1,088.8
Total Expenses (\$1,000)	803.8	833.0	883.3	903.7	909.3
Net Cash Farm Income (\$1,000)	231.7	207.5	247.8	231.5	179.4
Ending Cash (\$1,000)	271.9	340.0	432.9	493.0	513.0
Net Worth (\$1,000)	1,506.7	1,587.2	1,715.1	1,798.4	1,847.3
Return on Assets (%)	17.9	8.8	10.8	8.2	5.0
P(Cash Flow Deficit) (%)	36.0	43.0	37.0	43.0	54.0
P(Refinancing) (%)	20.0	20.0	17.0	16.0	16.0
P(Decreasing RNW) (%)	22.0	19.0	13.0	14.0	16.0

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.

Agricultural and Food Policy Center, Texas A&M University System

### **TXSP4500**

The Texas South Plains (Dawson County) is home to this 4,500acre, 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 98 percent of 2010 receipts.



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

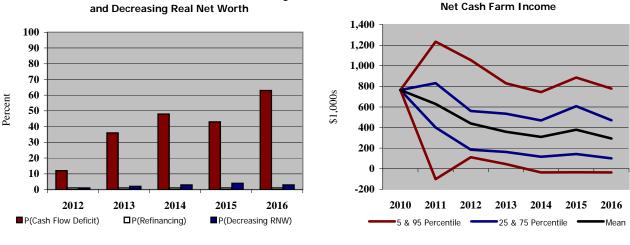
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	1,967.7	2,000.4	2,124.6	2,148.0	2,181.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	129.3	109.5	123.4	125.2	104.9
Total Receipts (\$1,000)	2,257.1	2,258.8	2,382.8	2,432.9	2,397.6
Total Expenses (\$1,000)	1,608.7	1,677.1	1,743.6	1,794.3	1,811.0
Net Cash Farm Income (\$1,000)	648.5	581.7	639.2	638.6	586.6
Ending Cash (\$1,000)	1,276.4	1,486.8	1,699.3	1,860.3	2,036.8
Net Worth (\$1,000)	3,280.5	3,521.2	3,819.7	4,125.5	4,383.4
Return on Assets (%)	18.2	11.3	11.1	10.2	6.8
P(Cash Flow Deficit) (%)	19.0	30.0	26.0	38.0	35.0
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	3.0	6.0	3.0	2.0	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.

Agricultural and Food Policy Center, Texas A&M University System

# **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 2010, cotton sales accounted for 94 percent of gross receipts.



### Probabilities of a Cash Flow Deficit, Refinancing,

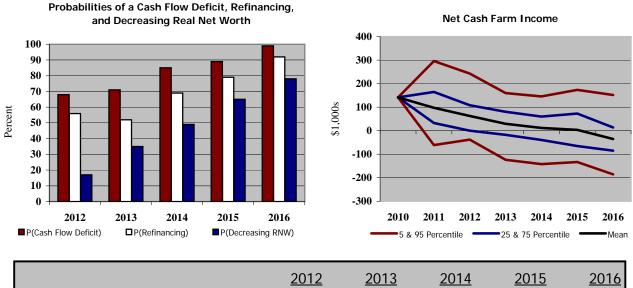
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	2,017.1	2,022.8	2,000.4	2,101.4	2,160.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	164.3	151.9	153.7	166.2	133.2
Total Receipts (\$1,000)	2,303.0	2,299.5	2,309.9	2,431.5	2,391.1
Total Expenses (\$1,000)	1,863.2	1,941.3	2,001.8	2,052.8	2,098.1
Net Cash Farm Income (\$1,000)	439.8	358.3	308.1	378.7	293.0
Ending Cash (\$1,000)	913.8	1,020.6	1,079.3	1,176.6	1,145.3
Net Worth (\$1,000)	2,411.9	2,558.1	2,676.3	2,837.1	2,933.2
Return on Assets (%)	16.6	9.1	6.7	7.1	4.2
P(Cash Flow Deficit) (%)	12.0	36.0	48.0	43.0	63.0
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	1.0	2.0	3.0	4.0	3.0

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

Agricultural and Food Policy Center, Texas A&M University System

# **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-eight percent of 2010 farm receipts came from cotton sales. Twenty-five head of beef cows generated just less than three percent of farm receipts.



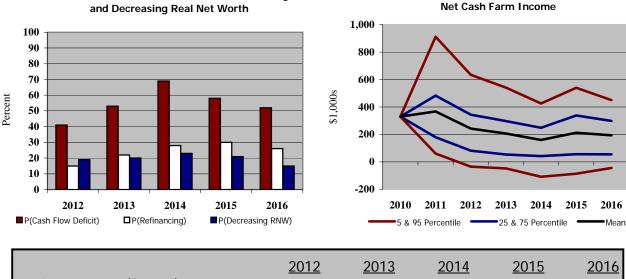
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	446.6	431.9	435.9	466.5	448.3
Livestock Receipts (\$1,000)	18.2	18.1	18.0	19.1	16.6
Government Payments (\$1,000)	41.0	40.4	39.2	30.6	28.3
Total Receipts (\$1,000)	516.0	500.5	502.6	516.3	493.2
Total Expenses (\$1,000)	453.8	471.1	490.9	512.7	528.5
Net Cash Farm Income (\$1,000)	62.3	29.4	11.7	3.5	-35.3
Ending Cash (\$1,000)	-2.0	-22.2	-77.1	-149.2	-301.3
Net Worth (\$1,000)	578.6	555.3	511.8	456.3	347.7
Return on Assets (%)	14.8	-0.6	-3.6	-4.6	-10.3
P(Cash Flow Deficit) (%)	68.0	71.0	85.0	89.0	99.0
P(Refinancing) (%)	56.0	52.0	69.0	79.0	92.0
P(Decreasing RNW) (%)	17.0	35.0	49.0	65.0	78.0

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.

Agricultural and Food Policy Center, Texas A&M University System

# **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 2010, cotton sales comprised 43 percent of total cash receipts on this operation.



### Probabilities of a Cash Flow Deficit, Refinancing,

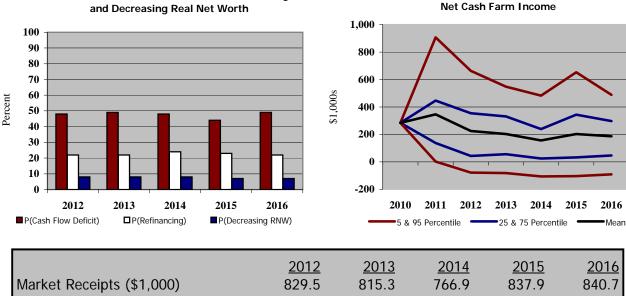
	2012	2013	2014	2015	<u>2016</u>
Market Receipts (\$1,000)	769.1	757.0	721.3	788.2	778.4
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	61.5	60.2	58.1	61.6	52.8
Total Receipts (\$1,000)	858.3	849.4	814.5	880.4	867.7
Total Expenses (\$1,000)	616.8	644.0	655.6	669.0	674.8
Net Cash Farm Income (\$1,000)	241.6	205.4	158.9	211.3	192.9
Ending Cash (\$1,000)	233.3	236.9	190.3	204.0	223.7
Net Worth (\$1,000)	1,245.4	1,285.5	1,305.1	1,397.2	1,480.5
Return on Assets (%)	10.9	3.2	0.1	5.8	4.8
P(Cash Flow Deficit) (%)	41.0	53.0	69.0	58.0	52.0
P(Refinancing) (%)	15.0	22.0	28.0	30.0	26.0
P(Decreasing RNW) (%)	19.0	20.0	23.0	21.0	15.0

#### 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.

Agricultural and Food Policy Center, Texas A&M University System

# **TXCB2250**

TXCB2250 is 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. Fifty-eight percent of 2010 cash receipts were generated by cotton.



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

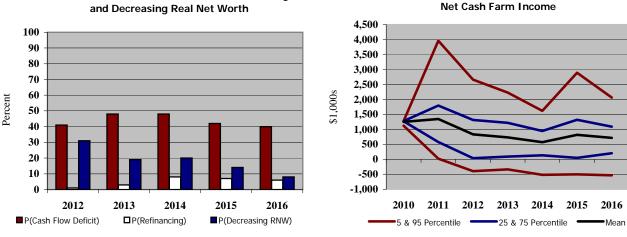
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	2016
Market Receipts (\$1,000)	829.5	815.3	766.9	837.9	840.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	71.1	69.4	66.9	71.9	59.2
Total Receipts (\$1,000)	936.1	927.3	878.0	951.1	951.0
Total Expenses (\$1,000)	711.3	724.5	722.8	748.6	765.0
Net Cash Farm Income (\$1,000)	224.7	202.8	155.2	202.4	185.9
Ending Cash (\$1,000)	200.1	224.9	231.3	291.8	329.7
Net Worth (\$1,000)	1,453.9	1,549.5	1,638.0	1,763.9	1,831.2
Return on Assets (%)	15.1	7.2	4.0	7.2	5.7
P(Cash Flow Deficit) (%)	48.0	49.0	48.0	44.0	49.0
P(Refinancing) (%)	22.0	22.0	24.0	23.0	22.0
P(Decreasing RNW) (%)	8.0	8.0	8.0	7.0	7.0

#### 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.

Agricultural and Food Policy Center, Texas A&M University System

# **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 48 percent of 2010 receipts.



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

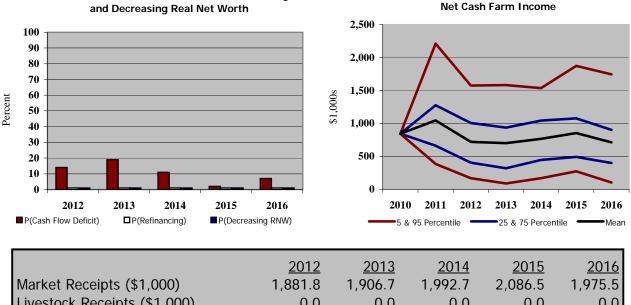
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	3,260.9	3,186.0	3,015.2	3,316.6	3,272.6
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	142.0	146.5	163.3	205.7	168.6
Total Receipts (\$1,000)	3,523.3	3,492.4	3,330.1	3,671.2	3,596.6
Total Expenses (\$1,000)	2,690.2	2,760.3	2,760.8	2,851.5	2,878.3
Net Cash Farm Income (\$1,000)	833.1	732.1	569.3	819.6	718.2
Ending Cash (\$1,000)	1,756.8	1,867.4	1,928.3	2,147.6	2,383.8
Net Worth (\$1,000)	3,534.2	3,795.6	4,032.3	4,419.3	4,772.1
Return on Assets (%)	14.5	9.6	4.0	11.3	8.1
P(Cash Flow Deficit) (%)	41.0	48.0	48.0	42.0	40.0
P(Refinancing) (%)	1.0	3.0	8.0	7.0	6.0
P(Decreasing RNW) (%)	31.0	19.0	20.0	14.0	8.0

#### 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.

Agricultural and Food Policy Center, Texas A&M University System

# **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 2010, 41 percent of TXVC4500's cash receipts were generated by cotton sales.



### Probabilities of a Cash Flow Deficit, Refinancing,

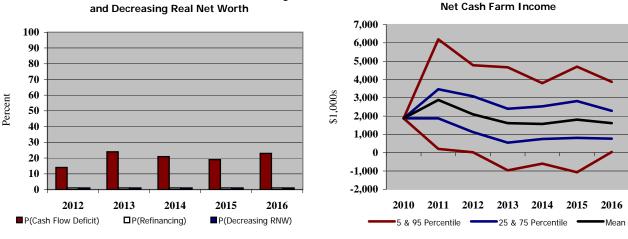
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	1,881.8	1,906.7	1,992.7	2,086.5	1,975.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	129.5	107.9	115.8	130.1	104.1
Total Receipts (\$1,000)	2,092.2	2,098.7	2,184.0	2,285.8	2,164.6
Total Expenses (\$1,000)	1,372.8	1,399.3	1,418.0	1,431.9	1,452.1
Net Cash Farm Income (\$1,000)	719.4	699.4	766.1	853.9	712.5
Ending Cash (\$1,000)	1,344.5	1,637.0	1,985.0	2,461.6	2,841.2
Net Worth (\$1,000)	4,235.0	4,641.0	5,125.7	5,732.0	6,150.8
Return on Assets (%)	17.8	11.1	12.2	13.8	10.6
P(Cash Flow Deficit) (%)	14.0	19.0	11.0	2.0	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: Gary Busse, Derrick Swanberg, Marshall Swanberg, and Mark Willis. Reagan Florence, Luis Ribera, and Terry Wolfe serve as facilitators.

Agricultural and Food Policy Center, Texas A&M University System

### **CAC4000**

This 4,000-acre cotton farm is 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-six percent of 2010 receipts came from cotton sales.



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

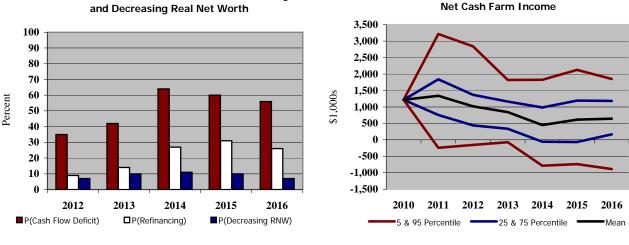
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	7,646.1	7,313.2	7,426.7	7,750.4	7,553.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	0.6	1.8	5.3	9.0	16.1
Total Receipts (\$1,000)	7,714.8	7,383.2	7,509.4	7,819.0	7,660.4
Total Expenses (\$1,000)	5,620.4	5,772.6	5,940.3	6,013.9	6,048.4
Net Cash Farm Income (\$1,000)	2,094.5	1,610.6	1,569.1	1,805.1	1,611.9
Ending Cash (\$1,000)	3,342.1	4,007.2	4,661.1	5,418.0	6,049.2
Net Worth (\$1,000)	23,345.1	24,590.8	25,898.2	27,349.9	28,545.4
Return on Assets (%)	22.4	7.9	7.5	8.0	6.3
P(Cash Flow Deficit) (%)	14.0	24.0	21.0	19.0	23.0
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: Bo Champlin, Kirk Gilkey, Matt Gilkey, Ted Sheely, Bill Stone, Bill Tos, and Mark Watte. Steve Wright serves as the facilitator.

Agricultural and Food Policy Center, Texas A&M University System

# **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,

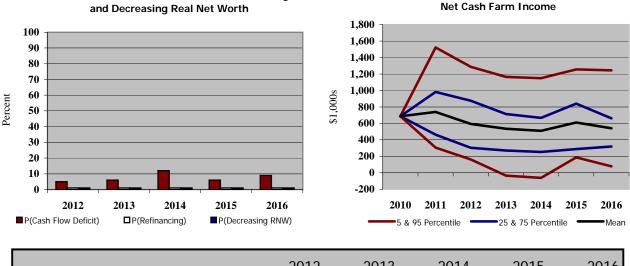
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	4,268.9	4,218.4	4,191.7	4,472.0	4,512.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	260.3	224.9	88.8	113.0	108.6
Total Receipts (\$1,000)	4,680.3	4,637.5	4,337.0	4,627.6	4,722.0
Total Expenses (\$1,000)	3,661.3	3,796.0	3,889.0	4,012.5	4,080.3
Net Cash Farm Income (\$1,000)	1,018.9	841.5	448.0	615.1	641.6
Ending Cash (\$1,000)	907.0	975.8	734.5	656.6	658.0
Net Worth (\$1,000)	6,882.3	7,187.3	7,237.3	7,443.8	7,630.0
Return on Assets (%)	14.7	7.1	2.6	4.8	5.0
P(Cash Flow Deficit) (%)	35.0	42.0	64.0	60.0	56.0
P(Refinancing) (%)	9.0	14.0	27.0	31.0	26.0
P(Decreasing RNW) (%)	7.0	10.0	11.0	10.0	7.0

#### 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.

Agricultural and Food Policy Center, Texas A&M University System

# **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 38 percent of 2010 gross receipts.



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

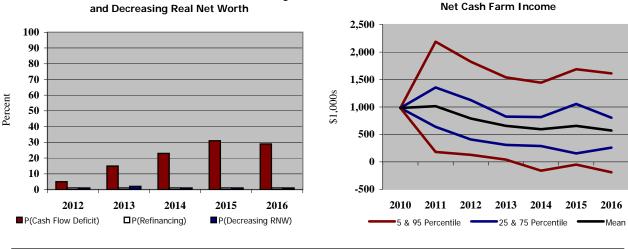
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	1,416.3	1,392.5	1,385.0	1,501.7	1,438.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	53.1	44.6	43.8	48.0	42.7
Total Receipts (\$1,000)	1,469.4	1,438.4	1,430.8	1,552.0	1,481.5
Total Expenses (\$1,000)	876.4	903.9	921.2	941.1	941.7
Net Cash Farm Income (\$1,000)	593.0	534.5	509.5	611.0	539.7
Ending Cash (\$1,000)	1,223.8	1,493.0	1,739.4	2,045.7	2,303.6
Net Worth (\$1,000)	3,732.8	4,060.4	4,379.0	4,761.9	5,102.4
Return on Assets (%)	20.4	11.4	10.5	11.8	9.2
P(Cash Flow Deficit) (%)	5.0	6.0	12.0	6.0	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: Harris Armour, III, Chuck Dacus, Lee Graves, Tom Karcher, and William E. Powers. Jim Castellaw, Chris Main, and Jeff Via serve as facilitators.

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# **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 2010, cotton sales generated 62 percent of gross receipts.



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

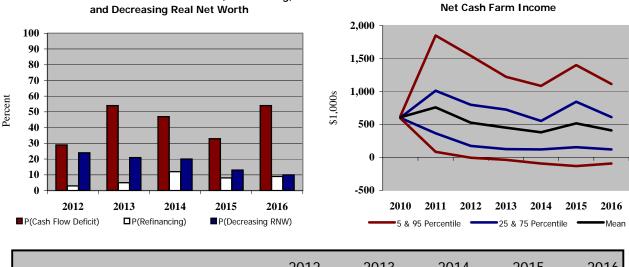
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	2,647.0	2,619.6	2,624.9	2,805.8	2,737.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	142.1	122.0	116.2	90.0	83.8
Total Receipts (\$1,000)	2,851.2	2,802.9	2,807.9	2,907.5	2,831.4
Total Expenses (\$1,000)	2,063.7	2,148.9	2,214.5	2,253.5	2,262.4
Net Cash Farm Income (\$1,000)	787.6	654.0	593.4	654.0	569.0
Ending Cash (\$1,000)	1,686.9	1,986.9	2,206.0	2,483.3	2,696.3
Net Worth (\$1,000)	6,445.8	6,854.9	7,236.4	7,678.3	8,027.5
Return on Assets (%)	20.6	9.1	7.4	7.2	5.8
P(Cash Flow Deficit) (%)	5.0	15.0	23.0	31.0	29.0
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	1.0	2.0	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.

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# **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 (450 acres doublecropped with wheat). Cotton sales accounted for 45 percent of total farm receipts during 2010.



### Probabilities of a Cash Flow Deficit, Refinancing,

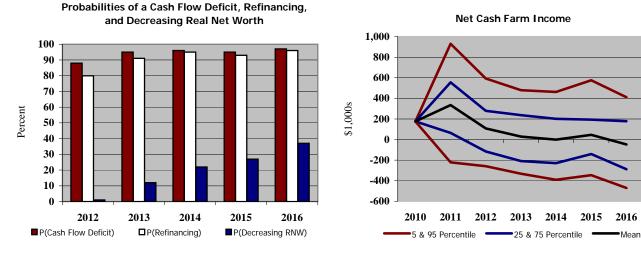
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	1,765.7	1,747.7	1,683.9	1,861.8	1,817.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	147.2	135.5	130.9	143.3	124.7
Total Receipts (\$1,000)	1,992.0	1,969.5	1,931.3	2,095.9	2,018.2
Total Expenses (\$1,000)	1,467.7	1,519.0	1,550.8	1,581.5	1,610.5
Net Cash Farm Income (\$1,000)	524.2	450.4	380.5	514.4	407.7
Ending Cash (\$1,000)	761.1	796.8	858.4	1,073.3	1,136.5
Net Worth (\$1,000)	2,195.5	2,326.4	2,476.8	2,766.0	2,865.2
Return on Assets (%)	11.8	8.8	4.2	9.4	7.2
P(Cash Flow Deficit) (%)	29.0	54.0	47.0	33.0	54.0
P(Refinancing) (%)	3.0	5.0	12.0	8.0	9.0
P(Decreasing RNW) (%)	24.0	21.0	20.0	13.0	10.0

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

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### 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 2010, farm receipts were comprised largely of cotton sales (61 percent) and peanut sales (28 percent).



	<u>2012</u>	<u>2013</u>	2014	2015	<u>2016</u>
Market Receipts (\$1,000)	2,080.9	2,102.1	2,173.0	2,298.2	2,267.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	182.9	179.4	180.3	186.4	156.4
Total Receipts (\$1,000)	2,329.4	2,358.1	2,431.4	2,555.7	2,500.5
Total Expenses (\$1,000)	2,221.7	2,329.9	2,433.2	2,511.2	2,549.0
Net Cash Farm Income (\$1,000)	107.7	28.1	-1.8	44.6	-48.5
Ending Cash (\$1,000)	-340.8	-624.8	-977.8	-1,221.4	-1,532.4
Net Worth (\$1,000)	4,989.2	4,898.5	4,805.0	4,783.0	4,647.6
Return on Assets (%)	11.3	1.5	1.9	3.4	2.3
P(Cash Flow Deficit) (%)	88.0	95.0	96.0	95.0	97.0
P(Refinancing) (%)	80.0	91.0	95.0	93.0	96.0
P(Decreasing RNW) (%)	1.0	12.0	22.0	27.0	37.0

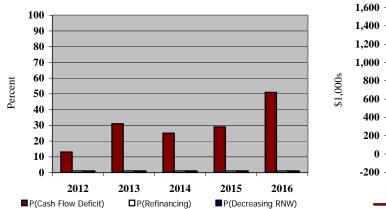
Producers participating in the panel include: Andy Bell, John Bridges, Jr., David Holton, and Donald Shirah. Joel Hudgins, Brad Mitchell, Don Shurley, Nathan Smith, and Amanda Ziehl serve as facilitators.

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# SCC1800

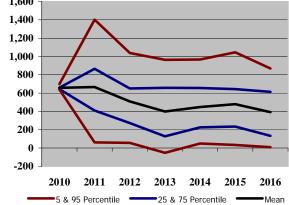
SCC1800 is a moderate-sized, 1,800-acre cotton and grain farm in South Carolina (Calhoun County) consisting of 720 acres of cotton, 540 acres of corn 360 acres of peanuts, and 180 acres ofdouble-cropped wheat and soybeans. Fifty-one percent of the farm's receipts were from cotton sales during 2010.





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

Net Cash Farm Income



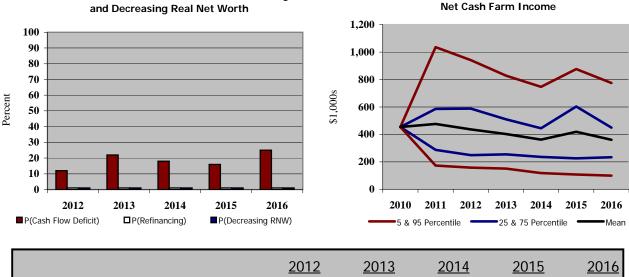
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	1,481.5	1,416.2	1,502.6	1,558.3	1,495.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	113.3	107.6	107.9	112.9	98.0
Total Receipts (\$1,000)	1,659.1	1,593.2	1,680.3	1,739.4	1,664.4
Total Expenses (\$1,000)	1,150.9	1,194.9	1,233.4	1,261.3	1,273.0
Net Cash Farm Income (\$1,000)	508.2	398.2	446.9	478.1	391.5
Ending Cash (\$1,000)	1,075.5	1,214.2	1,370.4	1,508.5	1,567.2
Net Worth (\$1,000)	3,870.5	4,074.1	4,340.9	4,624.5	4,812.3
Return on Assets (%)	19.1	7.5	7.9	7.9	4.8
P(Cash Flow Deficit) (%)	13.0	31.0	25.0	29.0	51.0
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: 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.

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# 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 19 percent of this farm's 2010 receipts.



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

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Receipts (\$1,000)	819.7	812.0	777.8	857.6	820.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	57.6	56.7	54.6	58.3	49.5
Total Receipts (\$1,000)	1,141.8	1,131.6	1,102.3	1,181.1	1,137.6
Total Expenses (\$1,000)	706.0	729.8	740.6	762.8	777.8
Net Cash Farm Income (\$1,000)	435.8	401.8	361.8	418.2	359.8
Ending Cash (\$1,000)	616.2	721.5	833.5	987.4	1,083.6
Net Worth (\$1,000)	2,556.1	2,735.8	2,944.0	3,160.4	3,292.6
Return on Assets (%)	15.0	8.4	7.0	9.5	5.7
P(Cash Flow Deficit) (%)	12.0	22.0	18.0	16.0	25.0
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.

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