

# FAPRI/AFPC Baseline

#### **AFPC Briefing Paper 06-4**

#### September 2006

#### Agricultural and Food Policy Center The Texas A&M University System



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#### ECONOMIC OUTLOOK FOR REPRESENTATIVE COTTON FARMS GIVEN THE AUGUST 2006 FAPRI/AFPC BASELINE

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#### **Executive Summary**

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate twenty representative cotton operations in major production areas of seven states. The chief purpose of this analysis is to project those farms' economic viability for 2007 through 2011. 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 2006 Baseline.

Under the August 2006 Baseline, only the moderately sized Tennessee cotton farm (TNC1900), the Texas Panhandle cotton farm (TXPC2500), and the Texas Eastern Caprock cotton farm (TXEC5000) are considered in good liquidity condition (less than a 25 percent chance of negative ending cash in 2011). The California cotton farm (CAC4000) is the only one having between a 25 percent and a 50 percent likelihood of negative ending cash. The remaining sixteen cotton farms have greater than a 50 percent chance of negative ending cash. Additionally, TNC1900, TXPC2500, and CAC4000 are the only farms in the set considered in good equity position (less than a 25 percent chance of decreasing real net worth during 2006-2011). Two cotton farms (TXEC5000 and TXRP2500) have between a 25 percent and 50 percent likelihood of losing real net worth, and the remaining fifteen cotton farms have greater than a 50 percent probability of decreasing real net worth.

Overall rankings for the representative cotton farms are projected to be as follows: Two of the twenty cotton farms (TXPC2500 and TNC1900) are classified in good condition, two (TXEC5000 and CAC4000) are in marginal condition, and the remaining sixteen are in poor condition.

The majority of the cotton farms are in poor overall financial condition under the August 2006 Baseline. Drought conditions this year will deplete cash built from more favorable yields in 2004 and 2005 in many cases. In addition, the poor financial performance of the farms is attributed in part to the large increase in input prices. Fuel costs, previously projected to decrease modestly in 2005 and 2006, are now more accurately depicted as significant increases, building further on the large increases experienced in 2003 and 2004. The increase in cost is not limited to fuel expense for trucks, equipment, and irrigation motors, but includes the cost of nitrogen fertilizer and ag-related services which are closely linked to energy prices. Many cotton producers have adopted genetically modified seed and more expensive conventional varieties in order to enhance efficiencies and achieve higher yields; however, the tradeoff for these gains is increased cost of seed and technology fees. Steel prices have skyrocketed, thus increasing the cost of machinery along with the cost of repairing existing machinery. To keep quality employees on the farm, producers are faced with rising wage pressure from competing industries. The bottom line is producers are threatened by the rising cost of doing business while modest projected increases in cotton and other commodity prices fail to outpace these inflationary pressures.

#### **FAPRI August 2006 Baseline**

Projected crop prices for FAPRI's August 2006 Baseline are summarized in Table 1. Cotton prices increased in 2005 to \$0.478/lb. from a 2004 low of \$0.416/lb. From 2005 levels, cotton prices are projected to increase gradually to \$0.5554/lb. in 2009. Prices are projected to level off at the \$0.55 to \$0.56 range for the 2009 to 2011 period. Producers experienced low corn prices in 2004 and 2005; however, prices are expected to rise dramatically in 2006. Corn prices are expected to rise each subsequent year before reaching a projected high of \$2.67/bu. in 2011. Wheat prices are expected to spike to \$3.88/bu. in 2006 before falling to \$3.68/bu. in 2007. Moderate increases are projected each year after 2007 throughout the projection period. Rice prices are projected to spike to \$8.79/cwt. in 2006. Projections indicate that rice prices are expected to moderately decline each subsequent year before reaching a projected low of \$7.83/cwt. in 2011.

Assumed loan rates and direct payment rates are reported in Table 1. All payment rates are assumed to hold at 2007 levels for the 2008 to 2011 projection period.

Projected annual rates of change for variable cash expenses are summarized in Table 2. The rate of change in input prices come from FAPRI's August 2006 Baseline. Annual interest rates from Global Insight (formerly DRI) paid for intermediate-term and long-term loans and earned for savings are also reported in Table 2. Assumed annual rates of change in land values over the study period are provided by the FAPRI Baseline. More modest changes in land values are projected under this baseline as they range between a 0.02% decline and a 3.67% per year increase in nominal land values from 2007 through 2011 (Table 2).

Table 1. FAPRI August 2006 Baseline Projections of Crop Prices, Loan Rates, and Direct Payment Rates, 2004-2011

	2004	2005	2006	2007	2008	2009	2010	2011
Crop Prices								
Corn (\$/bu.)	2.06	1.98	2.33	2.54	2.58	2.61	2.64	2.67
Wheat (\$/bu.)	3.40	3.42	3.88	3.68	3.70	3.74	3.76	3.78
Cotton (\$/lb.)	0.4160	0.4780	0.5115	0.5338	0.5474	0.5554	0.5545	0.5570
Sorghum (\$/bu.)	1.79	1.80	2.14	2.32	2.35	2.37	2.39	2.41
Soybeans (\$/bu.)	5.74	5.65	5.29	5.63	5.72	5.80	5.88	5.94
Barley (\$/bu.)	2.48	2.53	2.72	2.84	2.87	2.85	2.85	2.84
Oats (\$/bu.)	1.48	1.63	1.80	1.90	1.92	1.93	1.95	1.96
Rice (\$/cwt.)	7.33	7.63	8.79	7.92	7.91	7.89	7.85	7.83
Soybean Meal (\$/ton)	174.44	166.92	155.91	155.23	149.73	148.87	153.01	157.10
All Hay (\$/ton)	92.00	98.00	97.05	98.52	100.18	101.38	102.07	102.65
Peanuts (\$/ton)	378.00	352.00	383.21	398.73	405.49	407.46	403.79	401.57
Loan Rates								
Corn (\$/bu.)	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Wheat (\$/bu.)	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Cotton (\$/lb.)	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200
Sorghum (\$/bu.)	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Soybeans (\$/bu.)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Barley (\$/bu.)	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85
Oats (\$/bu.)	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
Rice (\$/cwt.)	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Peanuts (\$/ton)	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00
Direct Payment Rates								
Corn (\$/bu.)	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Wheat (\$/bu.)	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Cotton (\$/lb.)	0.0667	0.0667	0.0667	0.0667	0.0667	0.0667	0.0667	0.0667
Sorghum (\$/bu.)	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Soybeans (\$/bu.)	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Barley (\$/bu.)	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Oats (\$/bu.)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Rice (\$/cwt.)	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35
Peanuts (\$/ton)	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00

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

#### Table 2. FAPRI August 2006 Baseline Assumed Rates of Change in Input Prices, Annual Interest Rates, and Annual Changes in Land Values, 2005-2011

	2005	2006	2007	2008	2009	2010	2011
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	6.57	6.18	1.46	-1.30	0.97	1.44	1.64
All Fertilizer Prices (%)	16.88	3.52	0.57	-1.09	-1.17	1.37	0.89
Herbicide Prices (%)	1.19	3.09	-0.30	-1.19	0.88	0.98	1.01
Insecticide Prices (%)	-0.83	1.52	-1.42	-2.45	1.44	1.74	1.62
Fuel and Lube Prices (%)	37.98	11.65	-1.37	-5.79	-3.26	-2.74	-2.14
Machinery Prices (%)	5.92	4.00	2.24	2.34	3.58	3.19	2.87
Wages (%)	2.34	2.50	3.04	3.24	2.78	2.42	2.63
Supplies (%)	6.36	8.64	2.11	-0.68	1.43	1.42	1.20
Repairs (%)	4.46	3.55	1.28	1.19	1.45	1.53	1.66
Services (%)	3.77	5.81	-0.01	-1.40	1.30	1.95	2.23
Taxes (%)	-0.60	4.54	-0.08	-1.19	2.03	1.15	1.39
PPI Items (%)	5.55	3.51	0.52	-0.41	1.17	1.25	1.15
PPI Total (%)	5.01	3.75	0.25	1.03	1.01	0.49	0.70
Annual Change in Consumer Price Index (%)	3.40	2.64	1.83	1.99	1.96	1.89	2.08
Annual Interest Rates							
Long-Term (%)	5.51	6.22	6.35	6.20	6.34	6.34	6.43
Intermediate-Term (%)	4.46	5.04	5.14	5.02	5.13	5.13	5.21
Savings Account (%)	1.53	1.73	1.76	1.72	1.76	1.76	1.78
Annual Rate of Change for U.S. Land Prices (%)	11.00	8.75	3.67	-0.02	1.15	1.35	1.99

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

Farm Name		Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
2/2/16	2006	2011	2006-2011	2006-2011
TXNP3000			95-97	1-88
TXNP7000			96-85	1-57
TXSP2239			83-87	1-74
TXSP3745			42-81	1-70
TXPC2500			8-23	1-15
TXEC5000			1-2	1-25
TXRP2500			83-70	1-50
TXMC3500			83-75	1-51
TXCB2250			76-81	1-62
TXCB5500			66-82	1-78
TXVC4500			98-99	1-84
CAC4000			12-31	1-14
LAC2640			72-80	1-69
ARC6000			84-99	1-88
ARNC5000			81-93	1-66
TNC1900			1-1	1-1
TNC4050			71-99	1-84
ALC3000			95-93	1-74
GAC1700			94-99	1-78
NCC1100			93-99	1-97

Economic Viability of Representative Cotton Farms over the 2006-2011 Period

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities: 25-50

<25

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2006 and 2011.

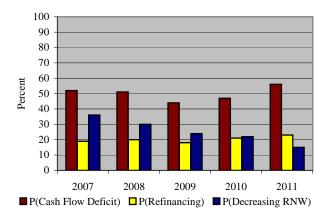
3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2004 to 2006 and from 2004 to 2011.

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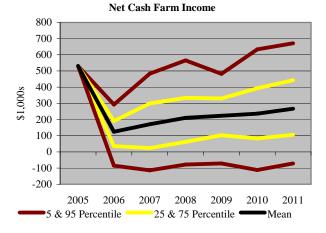
#### **TXPC2500**

The Texas Panhandle (Deaf Smith County) is home to this 2,500acre farm. Annually, cotton is planted on 1,367 acres (1,000 irrigated and 367 dryland), 758 acres are planted to wheat (700 irrigated and 58 dryland), and 250 irrigated acres are planted to corn. Sixty-five percent of 2005 cash receipts were generated by cotton sales.





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



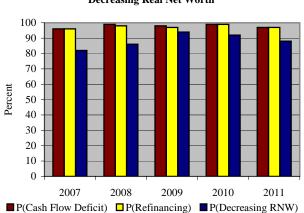
	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	934.0	973.3	997.6	1,029.4	1,059.9
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	233.0	208.8	196.2	191.1	201.4
Total Receipts (\$1,000)	1,242.1	1,258.1	1,267.5	1,287.8	1,325.0
Total Expenses (\$1,000)	1,070.8	1,048.1	1,044.2	1,051.9	1,057.9
Net Cash Farm Income (\$1,000)	171.3	210.0	223.3	235.8	267.1
Ending Cash (\$1,000)	166.1	171.0	189.7	200.2	219.4
Net Worth (\$1,000)	2,062.1	2,093.1	2,172.4	2,237.4	2,312.2
Return on Assets (%)	4.1	3.8	5.4	5.6	7.2
P(Cash Flow Deficit) (%)	52.0	51.0	44.0	47.0	56.0
P(Refinancing) (%)	19.0	20.0	18.0	21.0	23.0
P(Decreasing RNW) (%)	36.0	30.0	24.0	22.0	15.0

Producers participating in the panel include: Michael Carlson, Roy Carlson, Greg Chavez, Steve Hoffman, Bob Meyer, and Harold Sides. Rick Auckerman and Dave Peterson serve as facilitators.

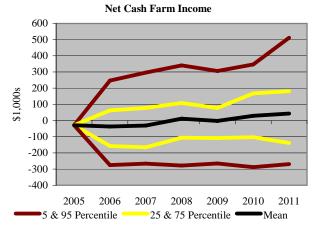
#### **TXNP3000**

TXNP3000 is a 3,000-acre cotton farm located on the northern High Plains of Texas (Moore County). This farm plants 1,500 acres of cotton (1,200 irrigated and 300 dryland), 360 acres of irrigated corn, 240 acres of irrigated sorghum for seed production, and 600 acres of irrigated wheat annually. Fiftyeight percent of total receipts are generated from cotton sales.





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



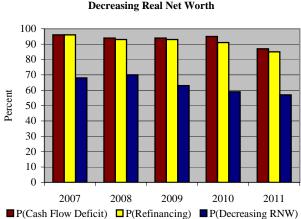
	2007	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Market Receipts (\$1,000)	1,007.7	1,029.6	1,047.6	1,087.9	1,103.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	148.1	140.7	128.9	128.3	136.9
Total Receipts (\$1,000)	1,207.8	1,235.9	1,231.9	1,277.4	1,300.9
Total Expenses (\$1,000)	1,238.6	1,224.2	1,234.5	1,247.7	1,258.3
Net Cash Farm Income (\$1,000)	-30.8	11.7	-2.7	29.7	42.7
Ending Cash (\$1,000)	-431.8	-564.1	-746.5	-889.7	-1,040.2
Net Worth (\$1,000)	323.2	186.6	31.8	-79.0	-190.0
Return on Assets (%)	-8.1	-3.1	-4.4	1.1	5.1
P(Cash Flow Deficit) (%)	96.0	99.0	98.0	99.0	97.0
P(Refinancing) (%)	96.0	98.0	97.0	99.0	97.0
P(Decreasing RNW) (%)	82.0	86.0	94.0	92.0	88.0

Producers participating in the panel include: Kerry Cartrite, Brent Clark, and Kelly Hays. Steve Amosson and Tim Trimble serve as facilitators.

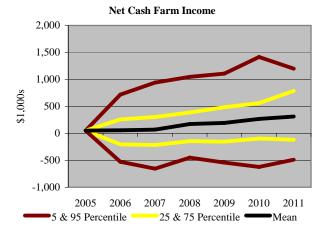
#### **TXNP7000**

TXNP7000 is a large-sized cotton farm located in the northern Texas Panhandle (Moore County). This farm annually plants 2,850 acres of irrigated cotton, 1,100 acres of irrigated corn, 796 acres of sorghum (516 acres of dryland and 280 acres of irrigated production for seed), and 1,237 acres of winter wheat (720 acres irrigated and 517 acres dryland). Fifty-nine percent of 2005 cash receipts were derived from cotton sales.





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



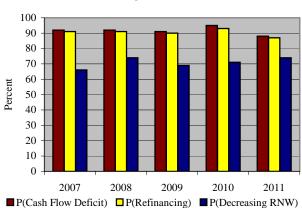
	2007	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Market Receipts (\$1,000)	2,254.2	2,351.2	2,411.8	2,493.3	2,535.9
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	341.9	311.8	287.9	280.4	295.9
Total Receipts (\$1,000)	2,706.2	2,782.4	2,807.8	2,883.0	2,946.1
Total Expenses (\$1,000)	2,637.8	2,609.2	2,613.9	2,614.7	2,633.3
Net Cash Farm Income (\$1,000)	68.4	173.2	193.8	268.3	312.9
Ending Cash (\$1,000)	-909.9	-1,066.3	-1,201.8	-1,248.1	-1,287.9
Net Worth (\$1,000)	1,444.6	1,344.6	1,317.3	1,362.4	1,398.1
Return on Assets (%)	0.8	6.0	5.8	9.2	12.6
P(Cash Flow Deficit) (%)	96.0	94.0	94.0	95.0	87.0
P(Refinancing) (%)	96.0	93.0	93.0	91.0	85.0
P(Decreasing RNW) (%)	68.0	70.0	63.0	59.0	57.0

Producers participating in the panel include: Rick May, Tom Moore, Clyde Tims, and David Tims. Steve Amosson and Tim Trimble serve as facilitators.

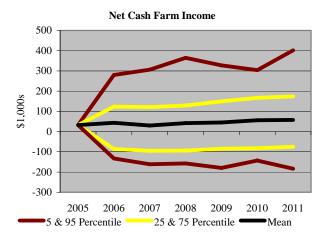
#### **TXSP2239**

TXSP2239 is a 2,239-acre Texas South Plains (Dawson County) cotton farm. This moderate-sized farm plants 1,800 acres of cotton (1,434 dryland, 366 irrigated), 60 acres of peanuts, and has 183 acres in CRP. For 2005, 90 percent of receipts came from cotton.





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



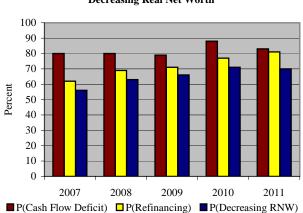
	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	424.1	435.5	450.1	465.5	473.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	123.8	118.7	117.7	115.4	118.6
Total Receipts (\$1,000)	579.6	588.8	599.6	618.0	626.4
Total Expenses (\$1,000)	550.0	547.1	554.6	562.1	568.4
Net Cash Farm Income (\$1,000)	29.6	41.7	44.9	56.0	58.0
Ending Cash (\$1,000)	-203.2	-272.4	-325.9	-373.8	-429.0
Net Worth (\$1,000)	559.1	504.5	479.4	445.2	404.6
Return on Assets (%)	-0.9	-0.6	1.4	3.6	6.4
P(Cash Flow Deficit) (%)	92.0	92.0	91.0	95.0	88.0
P(Refinancing) (%)	91.0	91.0	90.0	93.0	87.0
P(Decreasing RNW) (%)	66.0	74.0	69.0	71.0	74.0

Producers participating in the panel include: Steven Archer, Mark Furlow, Johnny Ray Todd, and Donald Vogler. Casey Barrett serves as the facilitator.

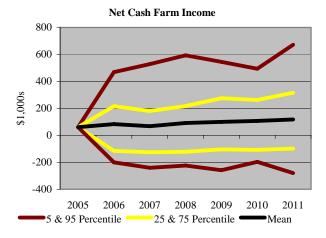
#### **TXSP3745**

The Texas South Plains (Dawson County) is home to this 3,745acre, large-sized cotton farm that grows 3,036 acres of cotton (2,406 dryland, 630 irrigated), 120 acres of peanuts, and has 288 acres in CRP. Cotton sales comprised 86 percent of 2005 receipts.





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



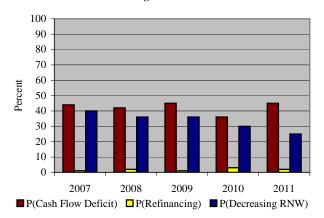
	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	732.7	749.3	776.7	796.6	819.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	212.2	202.8	200.8	196.7	202.6
Total Receipts (\$1,000)	992.7	1,005.9	1,026.1	1,051.0	1,073.5
Total Expenses (\$1,000)	925.2	914.4	926.6	944.2	956.4
Net Cash Farm Income (\$1,000)	67.5	91.5	99.5	106.8	117.2
Ending Cash (\$1,000)	-86.4	-156.0	-235.6	-343.3	-452.9
Net Worth (\$1,000)	1,761.5	1,694.1	1,651.3	1,592.5	1,554.8
Return on Assets (%)	1.2	0.8	1.9	1.6	2.5
P(Cash Flow Deficit) (%)	80.0	80.0	79.0	88.0	83.0
P(Refinancing) (%)	62.0	69.0	71.0	77.0	81.0
P(Decreasing RNW) (%)	56.0	63.0	66.0	71.0	70.0

Producers participating in the panel include: Brad Boyd, Jerry Chapman, Terry Coleman, and Kent Nix. Casey Barrett and Jackie Smith serve as facilitators.

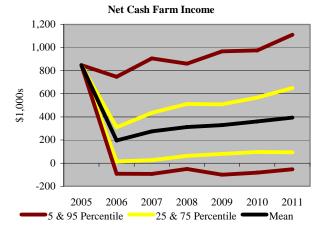
#### **TXEC5000**

This 5,000-acre farm is located on the Eastern Caprock of the Texas South Plains (Crosby County). Annually, 3,800 acres are planted to cotton (2,800 irrigated and 1,000 dryland), 400 acres to wheat (100 irrigated and 300 dryland), and 300 acres to dryland sorghum. In 2005, cotton sales accounted for 97 percent of gross receipts.





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



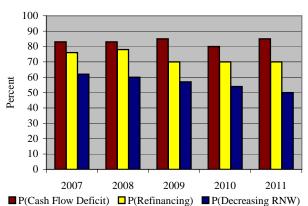
	2007	2008	2009	<u>2010</u>	<u>2011</u>
Market Receipts (\$1,000)	1,172.4	1,208.3	1,247.5	1,281.1	1,305.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	322.3	300.6	290.7	289.0	307.0
Total Receipts (\$1,000)	1,557.2	1,575.6	1,598.4	1,635.0	1,677.4
Total Expenses (\$1,000)	1,282.6	1,262.7	1,269.4	1,274.2	1,283.5
Net Cash Farm Income (\$1,000)	274.5	312.9	329.0	360.7	393.9
Ending Cash (\$1,000)	530.7	596.2	632.4	722.6	807.7
Net Worth (\$1,000)	1,692.5	1,741.1	1,789.9	1,891.8	1,966.5
Return on Assets (%)	5.5	7.5	8.7	10.6	12.6
P(Cash Flow Deficit) (%)	44.0	42.0	45.0	36.0	45.0
P(Refinancing) (%)	1.0	2.0	1.0	3.0	2.0
P(Decreasing RNW) (%)	40.0	36.0	36.0	30.0	25.0

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

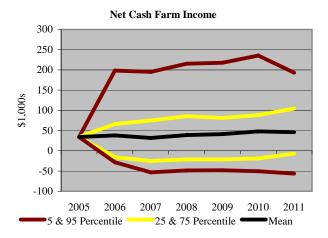
#### **TXRP2500**

TXRP2500 is a 2,500-acre cotton farm located in the Rolling Plains of Texas (Jones County). This farm plants 1,117 acres of cotton and 825 acres of winter wheat each year. Eighty-one percent of 2005 farm receipts came from cotton sales.





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



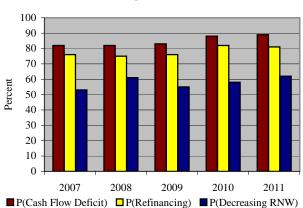
	2007	2008	<u>2009</u>	2010	<u>2011</u>
Market Receipts (\$1,000)	179.0	185.0	188.7	198.0	196.2
Livestock Receipts (\$1,000)	6.0	4.6	4.2	4.8	3.8
Government Payments (\$1,000)	67.4	64.0	62.4	62.0	63.8
Total Receipts (\$1,000)	267.2	269.8	271.5	279.9	281.5
Total Expenses (\$1,000)	235.3	230.8	230.4	232.1	235.6
Net Cash Farm Income (\$1,000)	31.9	39.0	41.1	47.8	45.9
Ending Cash (\$1,000)	-76.9	-97.2	-113.2	-114.8	-144.4
Net Worth (\$1,000)	331.2	318.0	314.0	324.5	317.1
Return on Assets (%)	0.4	0.5	5.8	7.6	6.5
P(Cash Flow Deficit) (%)	83.0	83.0	85.0	80.0	85.0
P(Refinancing) (%)	76.0	78.0	70.0	70.0	70.0
P(Decreasing RNW) (%)	62.0	60.0	57.0	54.0	50.0

Producers participating in the panel include: Rex Ford, Dennis Olson, Ronnie Richmond, Ronnie Riddle, Mike Sloan, Dale Spurgin, and Ferdie Walker. Stan Bevers and Todd Vineyard serve as facilitators.

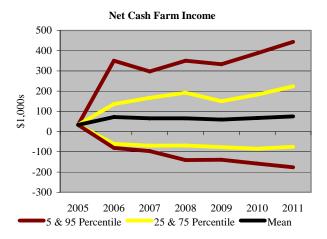
#### **TXCB2250**

TXCB2250 is a 2,250-acre cotton farm located on the Texas Coastal Bend (San Patricio County). This farm produces 1,350 acres of cotton, 675 acres of sorghum, and 225 acres of corn annually. Seventy-eight percent of 2005 cash receipts were generated by cotton.





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



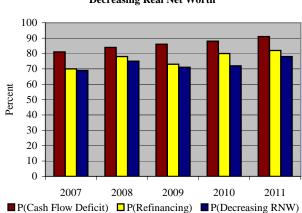
	2007	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Market Receipts (\$1,000)	531.2	531.0	544.1	574.2	584.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	146.8	141.3	138.7	135.9	138.5
Total Receipts (\$1,000)	715.0	710.5	719.3	748.3	768.5
Total Expenses (\$1,000)	649.8	644.9	659.7	680.8	693.4
Net Cash Farm Income (\$1,000)	65.2	65.6	59.5	67.5	75.1
Ending Cash (\$1,000)	-118.7	-168.5	-207.8	-271.4	-351.6
Net Worth (\$1,000)	821.4	781.2	766.4	718.0	682.3
Return on Assets (%)	2.0	-0.7	1.0	1.5	2.9
P(Cash Flow Deficit) (%)	82.0	82.0	83.0	88.0	89.0
P(Refinancing) (%)	76.0	75.0	76.0	82.0	81.0
P(Decreasing RNW) (%)	53.0	61.0	55.0	58.0	62.0

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

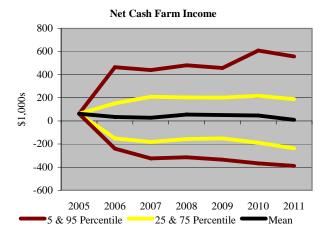
### **TXCB5500**

Nueces County, Texas is home to this 5,500-acre farm. Annually, 2,750 acres are planted to cotton and 2,750 acres to sorghum. Cotton sales accounted for 76 percent of 2005 receipts.





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



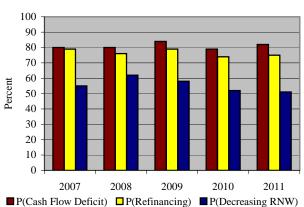
	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	1,216.1	1,253.3	1,276.3	1,325.8	1,340.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	329.0	312.8	305.6	298.3	310.9
Total Receipts (\$1,000)	1,604.1	1,628.9	1,650.5	1,690.3	1,712.3
Total Expenses (\$1,000)	1,576.8	1,573.3	1,600.0	1,643.5	1,703.2
Net Cash Farm Income (\$1,000)	27.2	55.5	50.5	46.8	9.1
Ending Cash (\$1,000)	-194.6	-317.9	-433.4	-593.4	-865.6
Net Worth (\$1,000)	762.6	666.8	584.2	464.9	261.7
Return on Assets (%)	-8.1	-4.8	-2.2	-0.6	-5.1
P(Cash Flow Deficit) (%)	81.0	84.0	86.0	88.0	91.0
P(Refinancing) (%)	70.0	78.0	73.0	80.0	82.0
P(Decreasing RNW) (%)	69.0	75.0	71.0	72.0	78.0

Producers participating in the panel include: Jimmy Dodson, Joel Hoskinson, Wayne Lambert, Larry McNair, and Mark Morris. Mark Miller, Jeff Nunley, and John Parker serve as facilitators.

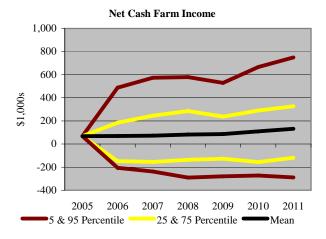
#### **TXMC3500**

TXMC3500 is a 3,500-acre cotton farm located on the middle Texas Gulf Coast (Jackson County). This farm annually grows 1,750 acres of cotton and 875 acres each of sorghum and corn. In 2005, cotton sales comprised 70 percent of total cash receipts on this operation.





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



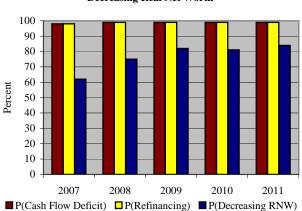
	<u>2007</u>	2008	<u>2009</u>	<u>2010</u>	<u>2011</u>
Market Receipts (\$1,000)	1,065.2	1,064.3	1,085.0	1,142.7	1,159.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	252.4	240.4	235.5	230.3	234.0
Total Receipts (\$1,000)	1,371.8	1,360.1	1,376.4	1,428.3	1,461.6
Total Expenses (\$1,000)	1,299.8	1,278.7	1,290.0	1,319.0	1,330.6
Net Cash Farm Income (\$1,000)	72.0	81.4	86.3	109.3	131.1
Ending Cash (\$1,000)	-236.9	-301.7	-359.0	-398.2	-408.3
Net Worth (\$1,000)	639.4	587.4	564.3	588.8	584.6
Return on Assets (%)	2.7	1.5	2.0	5.4	8.3
P(Cash Flow Deficit) (%)	80.0	80.0	84.0	79.0	82.0
P(Refinancing) (%)	79.0	76.0	79.0	74.0	75.0
P(Decreasing RNW) (%)	55.0	62.0	58.0	52.0	51.0

Producers participating in the panel include: Daniel Gavaronic, Joe Jenkins, Keith Johnson, Rob Kainer, Mark Malaer, and Dwain Nunley. Jeff Nunley serves as the facilitator.

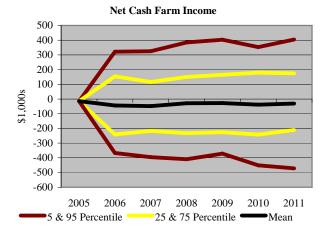
#### **TXVC4500**

This 4,500-acre farm is located in the Lower Rio Grande Valley of Texas (Willacy County) and plants 2,388 acres to cotton (500 irrigated and 1,888 acres dryland), 1,887 acres to sorghum, and 225 acres of sugarcane. In 2005, 73 percent of cash receipts were generated by cotton sales.





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



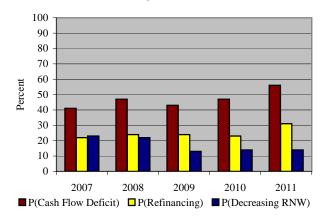
	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	1,002.8	1,016.2	1,045.7	1,058.6	1,089.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	308.7	301.1	285.5	284.4	294.4
Total Receipts (\$1,000)	1,410.1	1,414.2	1,430.3	1,441.2	1,476.2
Total Expenses (\$1,000)	1,458.6	1,442.5	1,457.6	1,480.0	1,506.8
Net Cash Farm Income (\$1,000)	-48.5	-28.3	-27.4	-38.8	-30.6
Ending Cash (\$1,000)	-649.7	-847.8	-1,031.8	-1,254.0	-1,443.1
Net Worth (\$1,000)	1,574.4	1,426.7	1,318.5	1,186.1	1,090.2
Return on Assets (%)	-3.0	-3.1	-1.7	-1.6	0.4
P(Cash Flow Deficit) (%)	98.0	99.0	99.0	99.0	99.0
P(Refinancing) (%)	98.0	99.0	99.0	99.0	99.0
P(Decreasing RNW) (%)	62.0	75.0	82.0	81.0	84.0

Producers participating in the panel include: Derrick Swanberg, Marshall Swanberg, Mitzi Swanberg-Anzaldua, and Mark Willis. Reagan Florence serves as the facilitator.

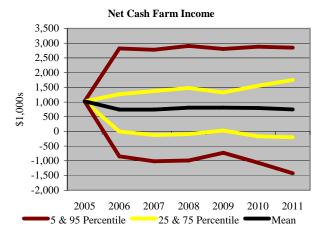
# **CAC4000**

CAC4000 is a 4,000-acre cotton farm located in Kings County, California. Each year this farm plants 2,000 acres to cotton, 1,000 acres to vegetables, 700 acres to hay and silage, and harvests 300 acres of almonds. Forty-six percent of 2005 receipts came from cotton sales.





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



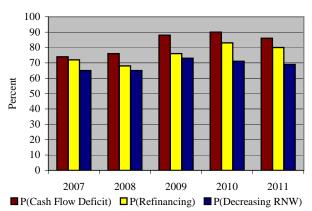
	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	6,034.6	6,034.8	6,047.9	6,054.2	6,030.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	225.0	210.1	203.2	202.0	210.4
Total Receipts (\$1,000)	6,301.8	6,286.7	6,291.2	6,296.9	6,281.1
Total Expenses (\$1,000)	5,559.9	5,479.8	5,484.7	5,498.0	5,533.7
Net Cash Farm Income (\$1,000)	742.0	806.9	806.5	798.9	747.3
Ending Cash (\$1,000)	705.3	739.7	875.1	916.6	833.6
Net Worth (\$1,000)	11,461.3	11,652.5	12,112.2	12,424.6	12,756.2
Return on Assets (%)	9.1	6.3	7.3	7.6	7.3
P(Cash Flow Deficit) (%)	41.0	47.0	43.0	47.0	56.0
P(Refinancing) (%)	22.0	24.0	24.0	23.0	31.0
P(Decreasing RNW) (%)	23.0	22.0	13.0	14.0	14.0

Producers participating in the panel include: Bo Champlin, Bob Prys, Bill Stone, and Bill Tos. Steve Wright serves as the facilitator.

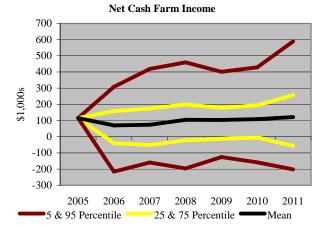
# LAC2640

This is a 2,640-acre cotton farm located in North Louisiana (Morehouse Parish). LAC2640 plants 924 acres of cotton, 1,056 acres of corn, and 660 acres of soybeans each year. During 2005, 57 percent of farm receipts were generated from cotton sales.





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



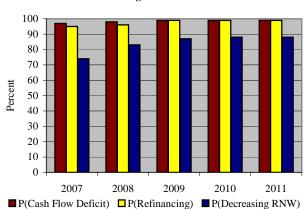
	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	995.8	1,023.9	1,047.3	1,068.3	1,094.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	256.5	243.8	235.3	234.6	239.6
Total Receipts (\$1,000)	1,279.0	1,294.9	1,312.3	1,336.3	1,362.3
Total Expenses (\$1,000)	1,205.5	1,190.5	1,208.8	1,227.8	1,240.5
Net Cash Farm Income (\$1,000)	73.6	104.3	103.5	108.5	121.8
Ending Cash (\$1,000)	-110.5	-122.9	-185.6	-283.7	-344.3
Net Worth (\$1,000)	572.6	553.4	508.1	457.3	447.2
Return on Assets (%)	-2.7	2.8	3.2	2.8	5.2
P(Cash Flow Deficit) (%)	74.0	76.0	88.0	90.0	86.0
P(Refinancing) (%)	72.0	68.0	76.0	83.0	80.0
P(Decreasing RNW) (%)	65.0	65.0	73.0	71.0	69.0

Producers participating in the panel include: Jess Barr, Buddy Davis, J. Macon LaFoe, Sr., Randy Miller, Buddy Page, and Jerry Stutts. John Barnett and Gene Johnson serve as facilitators.

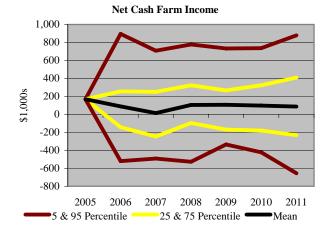
### **ARC6000**

ARC6000 is a 6,000-acre cotton farm in Southeast Arkansas (Desha County) that plants 2,000 acres of cotton, 2,000 acres of rice, 1,500 acres of soybeans, and 500 acres of sorghum. For 2005, 50 percent of gross receipts came from cotton sales, 37 percent from rice sales, and 10 percent from soybean sales.





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



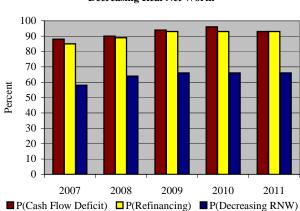
	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	2,472.4	2,519.5	2,574.0	2,611.8	2,618.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	602.3	603.8	579.8	581.4	614.7
Total Receipts (\$1,000)	3,109.7	3,158.7	3,188.2	3,224.8	3,265.4
Total Expenses (\$1,000)	3,096.8	3,054.7	3,082.8	3,127.8	3,178.3
Net Cash Farm Income (\$1,000)	12.9	103.9	105.4	97.0	87.1
Ending Cash (\$1,000)	-854.4	-1,271.7	-1,724.9	-2,232.3	-2,754.0
Net Worth (\$1,000)	4,142.2	3,909.0	3,739.2	3,520.5	3,334.1
Return on Assets (%)	-1.9	-1.1	-0.1	0.3	0.8
P(Cash Flow Deficit) (%)	97.0	98.0	99.0	99.0	99.0
P(Refinancing) (%)	95.0	96.0	99.0	99.0	99.0
P(Decreasing RNW) (%)	74.0	83.0	87.0	88.0	88.0

Producers participating in the panel include: Phillip Baugh, Jeff Keeter, Joe Mencer, Jim Whitaker, and Sam Whitaker. Brad Watkins serves as the facilitator.

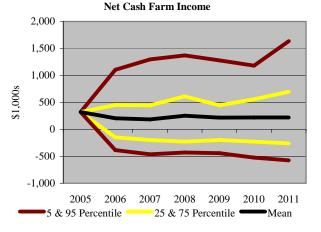
### **ARNC5000**

Northeast Arkansas (Mississippi County) is home to this 5,000acre cotton farm. One-hundred percent of acreage is planted to cotton, generating the farm's sole source of revenue.





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



	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	2,328.7	2,419.8	2,438.8	2,488.7	2,518.9
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	520.8	487.2	473.3	467.8	492.3
Total Receipts (\$1,000)	2,874.7	2,934.7	2,939.3	2,985.7	3,039.4
Total Expenses (\$1,000)	2,689.6	2,682.7	2,722.0	2,766.3	2,820.8
Net Cash Farm Income (\$1,000)	185.1	252.0	217.3	219.4	218.5
Ending Cash (\$1,000)	-633.4	-880.7	-1,211.7	-1,506.9	-1,854.9
Net Worth (\$1,000)	3,568.0	3,409.5	3,284.6	3,192.2	3,041.5
Return on Assets (%)	0.3	1.6	2.8	3.1	3.6
P(Cash Flow Deficit) (%)	88.0	90.0	94.0	96.0	93.0
P(Refinancing) (%)	85.0	89.0	93.0	93.0	93.0
P(Decreasing RNW) (%)	58.0	64.0	66.0	66.0	66.0

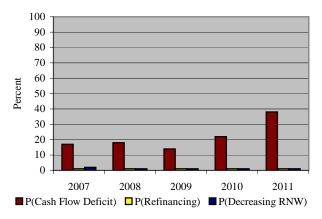
Producers participating in the panel include: Chad Costner, Heath Donner, Todd Edwards, Cole Hawkins, Randy Jackson, and David Wildy. Rob Hogan and Ronnie Kennett serve as

the facilitators.

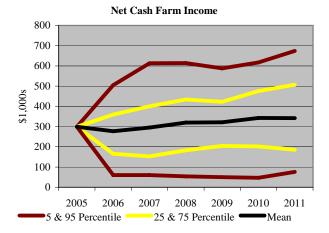
## **TNC1900**

TNC 1900 is a 1,900-acre, moderate-sized West Tennessee (Fayette County) cotton farm. The crop mix consists of 990 acres of cotton, 440 acres each of soybeans and corn, and 30 acres enrolled in CRP. Cotton accounted for 76 percent of 2005 gross receipts, with corn and soybeans contributing 14 percent and ten percent, respectively.

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



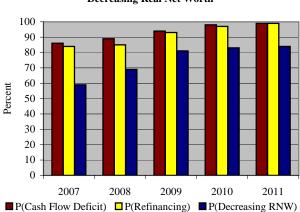
	<u>2007</u>	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	768.5	790.9	803.8	827.3	836.6
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	142.3	132.7	128.1	127.4	133.5
Total Receipts (\$1,000)	920.1	933.2	942.4	964.4	980.7
Total Expenses (\$1,000)	625.1	613.2	621.4	622.0	639.2
Net Cash Farm Income (\$1,000)	295.0	320.0	320.9	342.3	341.6
Ending Cash (\$1,000)	519.5	635.1	730.4	841.1	898.6
Net Worth (\$1,000)	2,220.7	2,352.5	2,485.4	2,653.3	2,807.3
Return on Assets (%)	7.6	8.5	8.3	8.5	8.2
P(Cash Flow Deficit) (%)	17.0	18.0	14.0	22.0	38.0
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	2.0	1.0	1.0	1.0	1.0

Producers participating in the panel include: Harris Armour, III, Tom Karcher, and William E. Powers. Jennifer Brown, Jim Castellaw, Kelly Tiller, and Jeff Via serve as facilitators.

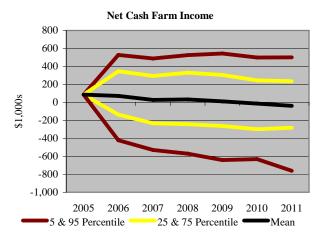
### **TNC4050**

TNC4050 is a 4,050-acre, large-sized West Tennessee (Haywood County) cotton farm. This farm plants 2,670 acres of cotton, 820 acres of soybeans, 560 acres of corn, and 328 acres of wheat each year. During 2005, cotton sales generated 81 percent of gross receipts.

\*



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



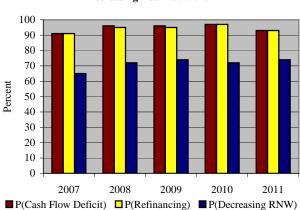
	2007	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Market Receipts (\$1,000)	1,251.4	1,271.3	1,305.9	1,351.8	1,342.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	370.4	354.3	332.8	331.6	347.5
Total Receipts (\$1,000)	1,722.9	1,721.8	1,743.9	1,763.0	1,771.8
Total Expenses (\$1,000)	1,695.3	1,689.4	1,732.9	1,777.2	1,811.2
Net Cash Farm Income (\$1,000)	27.6	32.3	11.0	-14.2	-39.4
Ending Cash (\$1,000)	-388.2	-566.1	-872.9	-1,247.1	-1,651.4
Net Worth (\$1,000)	3,247.2	3,086.2	2,873.0	2,656.7	2,458.4
Return on Assets (%)	0.9	-1.5	-0.6	-2.0	-1.6
P(Cash Flow Deficit) (%)	86.0	89.0	94.0	98.0	99.0
P(Refinancing) (%)	84.0	85.0	93.0	97.0	99.0
P(Decreasing RNW) (%)	59.0	69.0	81.0	83.0	84.0

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

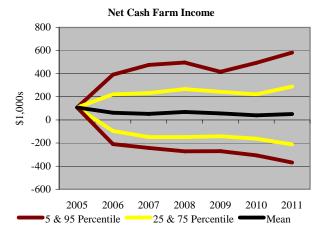
# ALC3000

ALC3000 is a 3,000-acre cotton farm located in North Alabama (Lawrence County), annually planting 2,100 acres to cotton, 750 acres to corn, and 150 acres to soybeans. This farm was early to adopt no-till cropping practices. Cotton sales accounted for 84 percent of total farm receipts during 2005.





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



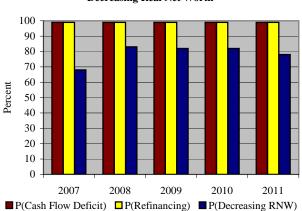
	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	900.6	924.7	937.9	961.2	986.6
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	261.0	245.6	238.6	235.8	240.5
Total Receipts (\$1,000)	1,181.3	1,189.5	1,198.6	1,215.2	1,247.0
Total Expenses (\$1,000)	1,129.3	1,121.2	1,141.9	1,174.9	1,196.7
Net Cash Farm Income (\$1,000)	52.0	68.3	56.7	40.3	50.3
Ending Cash (\$1,000)	-472.5	-593.3	-691.9	-835.9	-994.6
Net Worth (\$1,000)	675.6	600.4	565.0	435.8	297.6
Return on Assets (%)	-6.1	-2.7	-2.4	-2.0	-0.2
P(Cash Flow Deficit) (%)	91.0	96.0	96.0	97.0	93.0
P(Refinancing) (%)	91.0	95.0	95.0	97.0	93.0
P(Decreasing RNW) (%)	65.0	72.0	74.0	72.0	74.0

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

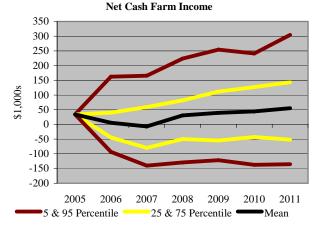
# GAC1700

Southwest Georgia (Decatur County) is home to this 1,700-acre cotton farm that plants 1,020 acres to cotton, 510 acres to peanuts, and 170 acres to soybeans. This farm was added during 2001 to represent resurgent cotton production in the Deep South. In 2005, farm receipts were comprised largely of cotton sales (57 percent) and peanut sales (36 percent).





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



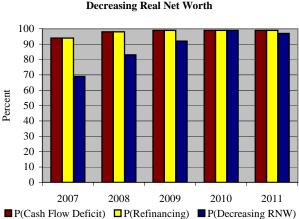
	2007	<u>2008</u>	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	1,052.8	1,092.7	1,127.4	1,148.1	1,166.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	275.5	257.2	248.1	252.0	263.7
Total Receipts (\$1,000)	1,340.7	1,362.3	1,388.5	1,412.8	1,443.4
Total Expenses (\$1,000)	1,347.7	1,331.4	1,348.9	1,368.7	1,388.2
Net Cash Farm Income (\$1,000)	-7.0	30.9	39.6	44.1	55.1
Ending Cash (\$1,000)	-297.5	-420.3	-563.3	-687.6	-803.0
Net Worth (\$1,000)	1,836.4	1,758.0	1,693.7	1,632.4	1,605.0
Return on Assets (%)	-0.3	0.5	1.6	2.5	4.2
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) (%)	68.0	83.0	82.0	82.0	78.0

Producers participating in the panel include: John Bridges, Jr., Bryant Collins, Charles A. Collins, Keith Griffin, and Scott E. Vann. Eddie McGriff, Brad Mitchell, and Don Shurley serve as facilitators.

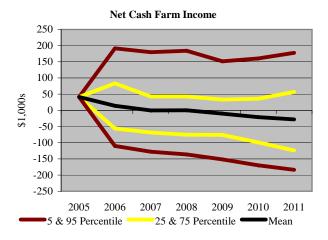
# NCC1100

NCC1100 is a 1,100-acre cotton farm located on the upper coastal plain of North Carolina (Wayne County). This farm plants 700 acres of cotton, 110 acres of wheat, and 400 acres of soybeans (110 acres of which are double-cropped) annually. Cotton accounted for 75 percent of this farm's 2005 receipts with 12 percent coming from soybean sales.





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



	2007	2008	2009	2010	<u>2011</u>
Market Receipts (\$1,000)	397.4	406.8	418.6	429.8	437.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	104.3	99.9	94.5	93.9	97.3
Total Receipts (\$1,000)	557.9	562.4	569.4	579.5	590.9
Total Expenses (\$1,000)	558.1	562.3	579.7	600.7	618.6
Net Cash Farm Income (\$1,000)	-0.2	0.1	-10.3	-21.2	-27.7
Ending Cash (\$1,000)	-227.5	-326.5	-469.0	-650.8	-833.0
Net Worth (\$1,000)	1,237.7	1,149.2	1,054.0	935.0	853.4
Return on Assets (%)	-1.2	-2.6	-2.6	-2.7	-1.1
P(Cash Flow Deficit) (%)	94.0	98.0	99.0	99.0	99.0
P(Refinancing) (%)	94.0	98.0	99.0	99.0	99.0
P(Decreasing RNW) (%)	69.0	83.0	92.0	99.0	97.0

Producers participating in the panel include: Daryl Anderson, Landis Brantham, Jr., Willie Howell, David B. Mitchell, Sr., Danny C. Pierce, Craig West, and Bryant Worley. R. H. "Bob" Pleasants serves as the facilitator.

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