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#### Economic Outlook for Representative Cotton Farms Given the August 2005 FAPRI/AFPC Baseline





AFPC Briefing Paper 05-5

October 2005

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#### ECONOMIC OUTLOOK FOR REPRESENTATIVE COTTON FARMS GIVEN THE AUGUST 2005 FAPRI/AFPC BASELINE

AFPC Briefing Paper 05-5

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



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#### **Executive Summary**

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate eighteen representative cotton operations in major production areas of seven states. The chief purpose of this analysis is to project those farms' economic viability for 2005 through 2009. 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 2005 Baseline.

Under the August 2005 Baseline, only the moderately sized Tennessee cotton farm (TNC1900) and Louisiana cotton farm (LAC2640) are considered in good liquidity condition (less than a 25 percent chance of negative ending cash during 2005-2009). Five cotton farms (TXSP3745, TXRP2500, TXMC3500, TXCB1850, and TNC4050) have between a 25 percent and a 50 percent likelihood of negative ending cash. The remaining eleven cotton farms have greater than a 50 percent chance of negative ending cash. Additionally, TNC1900 is the only farm in the set considered in good equity position (less than a 25 percent chance of decreasing real net worth during 2005-2009). Three cotton farms (TXRP2500, TXMC3500, and TXCB1850) have between a 25 percent and 50 percent likelihood of losing real net worth, and the remaining fourteen 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: One of the eighteen cotton farms (TNC1900) is classified in good condition, four (TXRP2500, TXMC3500, TXCB1850, and LAC2640) are in moderate condition, and the remaining 13 are in poor condition. Also, seventeen of these farms have a 40 percent or higher chance of losing real net worth by 2009.

More cotton farms are in poor overall financial condition under the August 2005 Baseline than under previous baselines. The major factor contributing to the poor financial performance of the farms is the large increase in energy prices. Fuel costs, previously projected to decrease modestly in 2005 and 2006, are now projected to increase significantly on top of the 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. The steady rise in energy related costs is particularly evident in farms with input-intensive crops like cotton. In addition, eleven of the eighteen farms irrigate a portion of their cotton. Much of the cost of irrigation for farms irrigating from wells rather than surface water is associated with fuel to run the power units for pumping water, thus the irrigated operations are even more negatively impacted by rising fuel costs.

#### **FAPRI August 2005 Baseline**

Projected crop prices for FAPRI's August 2005 Baseline are summarized in Table 1. Cotton prices decreased dramatically in 2004 to \$0.428/lb. from a 2003 high of \$0.618/lb. From 2004 levels, cotton prices are projected to increase gradually to \$0.5224/lb. in 2009. Corn prices start at a high of \$2.42/bu. in 2003, decrease in 2005 to \$2.04/bu, and then increase marginally until they reach \$2.31/bu. by 2009. Wheat prices are expected to range between \$3.09/bu and \$3.47/bu between 2004 and 2009, strengthening after 2005. Rice prices rose to \$8.08/cwt. in 2003, reaching a recent high, and then declined slightly in 2004 to \$7.30/cwt. Rice prices are projected to increase gradually from \$7.31/cwt. in 2005 to \$7.40/cwt. in 2009.

Assumed loan rates and direct payment rates are reported in Table 1. The annual direct payment rates for 2002-2007 reflect the increase in these payment rates authorized in the 2002 Farm Bill. All payment rates are assumed to hold at 2007 levels for 2008 and 2009.

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 2005 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 2005-2009 period are provided by the FAPRI Baseline and are projected to range between a 0.07% and a 3.28% per year increase in nominal land values from 2006 through 2009 (Table 2).

Table 1. FAPRI August 2005 Baseline Projections of Crop Prices, Loan Rates, and Direct Payment Rates, 2002-2009

	2002	2003	2004	2005	2006	2007	2008	2009
Crop Prices								
Corn (\$/bu.)	2.32	2.42	2.07	2.04	2.10	2.18	2.25	2.31
Wheat (\$/bu.)	3.56	3.40	3.40	3.09	3.20	3.32	3.40	3.47
Cotton (\$/lb.)	0.4450	0.6180	0.4280	0.4361	0.4788	0.5038	0.5146	0.5224
Sorghum (\$/bu.)	2.32	2.39	1.75	1.89	1.92	1.98	2.05	2.11
Soybeans (\$/bu.)	5.53	7.34	5.80	5.98	5.44	5.34	5.33	5.37
Barley (\$/bu.)	2.72	2.83	2.48	2.38	2.53	2.59	2.64	2.66
Oats (\$/bu.)	1.81	1.48	1.48	1.47	1.52	1.57	1.61	1.65
Rice (\$/cwt.)	4.49	8.08	7.30	7.31	7.30	7.30	7.29	7.40
Soybean Meal (\$/ton)	173.19	244.22	176.45	179.82	166.33	164.46	162.04	160.06
All Hay (\$/ton)	92.40	85.50	89.70	95.49	94.93	95.04	96.17	97.51
Peanuts (\$/ton)	364.00	386.00	378.00	309.72	334.27	364.62	377.57	386.64
Loan Rates								
Corn (\$/bu.)	1.98	1.98	1.95	1.95	1.95	1.95	1.95	1.95
Wheat (\$/bu.)	2.80	2.80	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.)	1.98	1.98	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.)	1.88	1.88	1.85	1.85	1.85	1.85	1.85	1.85
Oats (\$/bu.)	1.35	1.35	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 2005 Baseline Assumed Rates of Change in Input Prices, Annual Interest Rates, and Annual Changes in Land Values, 2003-2009

	2003	2004	2005	2006	2007	2008	2009
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	8.45	2.44	1.18	1.10	1.39	1.16	1.69
All Fertilizer Prices (%)	25.89	13.83	17.63	11.34	-3.27	-2.69	1.10
Herbicide Prices (%)	0.00	0.89	0.56	-0.29	-1.07	-0.58	0.80
Insecticide Prices (%)	4.29	-1.78	-1.01	-1.71	-0.47	0.22	1.38
Fuel and Lube Prices (%)	32.08	17.26	23.83	7.89	-2.93	-2.58	0.93
Machinery Prices (%)	-1.96	7.87	2.38	1.28	2.49	3.05	3.49
Wages (%)	2.61	1.91	1.93	2.61	2.64	2.70	2.48
Supplies (%)	1.63	1.80	1.63	-1.78	-0.97	-0.33	1.06
Repairs (%)	2.99	3.02	3.48	1.53	1.68	1.90	2.06
Services (%)	2.50	0.61	1.91	1.18	2.16	2.81	3.18
Taxes (%)	1.59	1.56	2.80	-0.17	1.43	1.15	1.85
PPI Items (%)	4.20	5.24	0.59	0.25	1.10	1.35	1.91
PPI Total (%)	3.28	4.43	1.12	0.59	1.32	1.54	1.96
Annual Change in Consumer Price Index (%)	2.27	2.66	2.28	1.63	1.83	1.98	2.29
Annual Interest Rates							
Long-Term (%)	5.03	5.18	5.43	5.55	5.64	5.76	5.86
Intermediate-Term (%)	3.68	4.19	4.40	4.49	4.57	4.67	4.74
Savings Account (%)	1.10	1.44	1.51	1.54	1.57	1.60	1.62
Annual Rate of Change for U.S. Land Prices (%)	4.96	7.09	11.00	3.28	0.07	0.25	1.34

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

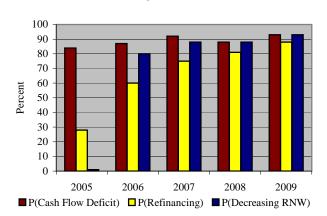
#### Economic Viability of Representative Cotton Farms August 2005 Baseline

Farm Name	P(Negative Ending Cash)	P(Real Net Worth Declines)
1/4/13	2005-2009	2005-2009
TXNP3000	28-88	1-93
TXNP7000	48-78	1-57
TXSP2239	40-75	1-64
TXSP3745	3-49	1-62
TXPC2500	34-99	1-99
TXEC5000	84-99	1-99
TXRP2500	21-47	1-42
TXMC3500	41-47	1-48
TXCB1850	32-43	1-40
TXCB5500	58-99	1-99
TXVC4500	61-92	1-73
LAC2640	1-19	1-62
ARC6000	1-56	1-66
TNC1900	1-1	1-1
TNC4050	9-45	1-69
ALC3000	5-61	1-62
GAC1700	1-81	1-76
NCC1100	73-99	1-95
< 25%	25-50%	>50%

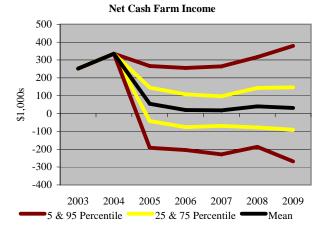
### **TXNP3000**

This 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. Fifty-two percent of total receipts are generated from cotton sales.





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



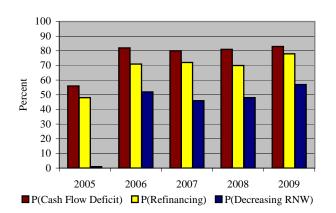
	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	846.2	877.2	899.8	939.9	958.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	242.4	210.1	190.3	177.9	177.0
Total Receipts (\$1,000)	1,129.1	1,139.9	1,136.4	1,169.5	1,187.5
Total Expenses (\$1,000)	1,074.2	1,120.1	1,118.5	1,128.9	1,156.0
Net Cash Farm Income (\$1,000)	54.9	19.8	17.8	40.5	31.4
Ending Cash (\$1,000)	62.9	-54.1	-159.2	-263.8	-414.2
Net Worth (\$1,000)	789.8	684.7	583.2	474.7	348.2
Return on Assets (%)	-1.7	-5.7	-6.1	-2.8	-4.0
P(Cash Flow Deficit) (%)	84.0	87.0	92.0	88.0	93.0
P(Refinancing) (%)	28.0	60.0	75.0	81.0	88.0
P(Decreasing RNW) (%)	1.0	80.0	88.0	88.0	93.0

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

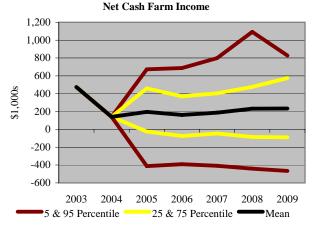
### **TXNP7000**

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). Forty-eight percent of 2004 cash receipts were derived from cotton sales.





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



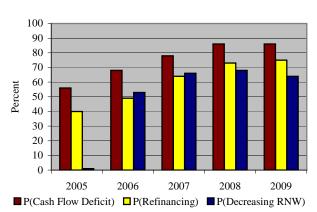
	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	1,883.9	1,986.8	2,060.5	2,140.4	2,188.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	554.8	479.6	432.6	403.7	396.0
Total Receipts (\$1,000)	2,519.9	2,559.5	2,579.6	2,632.9	2,679.9
Total Expenses (\$1,000)	2,323.0	2,397.9	2,392.0	2,400.8	2,446.3
Net Cash Farm Income (\$1,000)	196.9	161.7	187.6	232.1	233.7
Ending Cash (\$1,000)	-35.1	-227.1	-329.9	-444.3	-551.6
Net Worth (\$1,000)	2,045.3	1,982.1	1,980.5	1,918.8	1,908.4
Return on Assets (%)	6.0	2.1	3.0	6.4	5.3
P(Cash Flow Deficit) (%)	56.0	82.0	80.0	81.0	83.0
P(Refinancing) (%)	48.0	71.0	72.0	70.0	78.0
P(Decreasing RNW) (%)	1.0	52.0	46.0	48.0	57.0

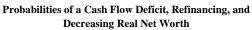
Producers participating in the panel include: Rick May, Tom Moore, Clyde Tims, and David Tims. Steve Amosson and Tim Trimble serve as facilitators.

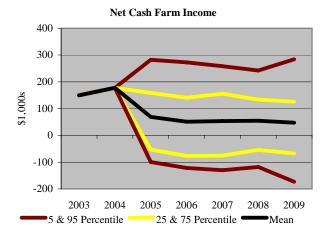
#### **TXSP2239**

A 2,239-acre Texas South Plains (Dawson County) cotton farm that is moderate-sized for the area. TXSP2239 plants 1,800 acres of cotton (1,434 dryland, 366 irrigated), 60 acres of peanuts, and has 183 acres in CRP. For 2004, 91 percent of receipts came from cotton.









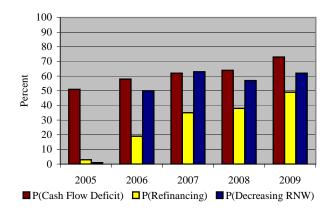
	2005	2006	2007	2008	2009
Market Receipts (\$1,000)	348.3	368.2	387.4	399.5	406.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	181.2	156.0	146.7	134.3	131.7
Total Receipts (\$1,000)	554.1	552.8	561.7	566.5	569.6
Total Expenses (\$1,000)	485.3	502.0	508.4	512.1	522.0
Net Cash Farm Income (\$1,000)	68.8	50.8	53.3	54.4	47.7
Ending Cash (\$1,000)	31.0	-14.8	-75.6	-128.4	-177.6
Net Worth (\$1,000)	740.1	708.8	666.4	629.0	607.8
Return on Assets (%)	5.4	2.2	-1.3	-0.5	0.0
P(Cash Flow Deficit) (%)	56.0	68.0	78.0	86.0	86.0
P(Refinancing) (%)	40.0	49.0	64.0	73.0	75.0
P(Decreasing RNW) (%)	1.0	53.0	66.0	68.0	64.0

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

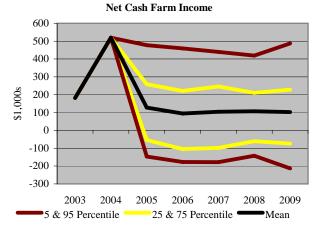
#### **TXSP3745**

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 90 percent of 2004 receipts.





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



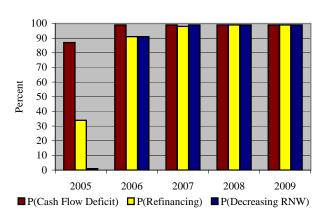
	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	600.4	632.0	668.4	685.6	706.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	313.0	270.1	252.2	229.6	225.4
Total Receipts (\$1,000)	950.9	947.0	963.2	966.1	979.5
Total Expenses (\$1,000)	823.1	853.0	859.1	858.7	877.4
Net Cash Farm Income (\$1,000)	127.8	94.0	104.1	107.4	102.1
Ending Cash (\$1,000)	223.0	169.3	110.1	66.2	-3.0
Net Worth (\$1,000)	1,986.1	1,957.2	1,900.8	1,869.7	1,833.5
Return on Assets (%)	5.0	1.6	0.8	1.3	1.3
P(Cash Flow Deficit) (%)	51.0	58.0	62.0	64.0	73.0
P(Refinancing) (%)	3.0	19.0	35.0	38.0	49.0
P(Decreasing RNW) (%)	1.0	50.0	63.0	57.0	62.0

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

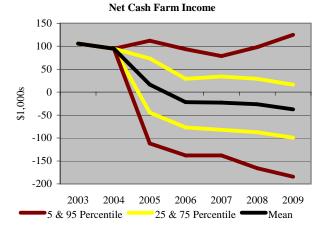
### **TXPC2500**

The Texas Panhandle is home to this 2,500-acre farm (Deaf Smith County). Annually, cotton is planted on 1,184 acres (1,000 irrigated and 184 dryland), 308 acres to sorghum (125 irrigated and 183 dryland), 883 acres planted to wheat (700 irrigated and 183 dryland), and 125 irrigated acres are planted to corn. Sixty-three percent of 2004 cash receipts were generated by cotton sales.





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



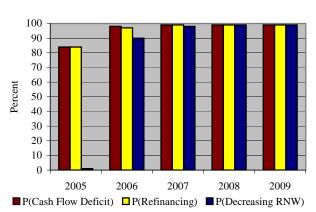
	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	486.7	529.5	553.9	581.7	598.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	303.9	265.4	241.3	221.4	223.1
Total Receipts (\$1,000)	888.6	894.7	895.1	900.7	915.0
Total Expenses (\$1,000)	872.0	916.5	917.9	927.2	952.5
Net Cash Farm Income (\$1,000)	16.5	-21.8	-22.8	-26.5	-37.5
Ending Cash (\$1,000)	14.4	-123.7	-251.5	-411.3	-567.7
Net Worth (\$1,000)	1,341.8	1,243.1	1,142.2	1,015.9	903.0
Return on Assets (%)	-1.7	-5.3	-5.0	-4.5	-4.2
P(Cash Flow Deficit) (%)	87.0	99.0	99.0	99.0	99.0
P(Refinancing) (%)	34.0	91.0	98.0	99.0	99.0
P(Decreasing RNW) (%)	1.0	91.0	99.0	99.0	99.0

Producers participating in the panel include: Michael Carlson, Roy Carlson, Steve Hoffman, and Harold Sides. Sean Smith serves as the facilitator.

### **TXEC5000**

This 5,000-acre farm is located on the Eastern Caprock of the Texas South Plains (Crosby County). Annually, 4,300 acres are planted to cotton (2,800 irrigated and 1,500 dryland), 400 acres of wheat (100 irrigated and 300 dryland), and 300 acres of dryland sorghum. In 2004, cotton sales accounted for 96 percent of gross receipts.





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

Net Cash Farm Income 300 200 100 0 \$1,000s-100 -200 -300 -400 -500 2003 2004 2005 2006 2007 2008 2009 5 & 95 Percentile 25 & 75 Percentile Mean

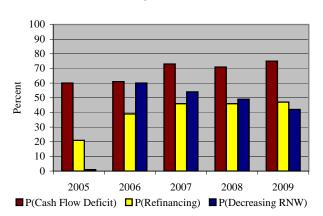
	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Market Receipts (\$1,000)	770.0	814.0	855.5	886.3	887.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	417.7	354.8	328.9	301.1	310.7
Total Receipts (\$1,000)	1,209.7	1,195.7	1,207.0	1,215.1	1,225.5
Total Expenses (\$1,000)	1,241.7	1,300.6	1,313.9	1,324.1	1,362.1
Net Cash Farm Income (\$1,000)	-32.0	-104.9	-106.9	-109.0	-136.7
Ending Cash (\$1,000)	-168.6	-384.1	-614.6	-840.4	-1,111.9
Net Worth (\$1,000)	823.5	628.8	422.8	232.2	-5.1
Return on Assets (%)	-6.9	-12.7	-12.0	-10.6	-11.1
P(Cash Flow Deficit) (%)	84.0	98.0	99.0	99.0	99.0
P(Refinancing) (%)	84.0	97.0	99.0	99.0	99.0
P(Decreasing RNW) (%)	1.0	90.0	98.0	99.0	99.0

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

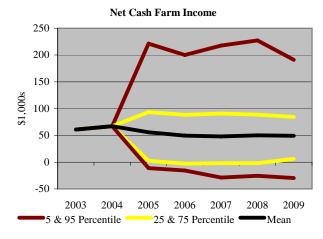
### **TXRP2500**

TXRP2500 is a 2,500-acre cotton farm located in the Rolling Plains of Texas (Jones County). This farm plants 1,122 acres of cotton and 825 acres of winter wheat each year. Eighty-one percent of 2004 farm receipts came from cotton sales. Twelve head of beef cows generated approximately two percent of farm receipts.





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



	<u>2005</u>	<u>2006</u>	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	148.9	156.6	162.3	171.5	168.0
Livestock Receipts (\$1,000)	6.4	5.0	4.8	5.4	4.3
Government Payments (\$1,000)	92.3	81.8	75.6	70.7	71.7
Total Receipts (\$1,000)	260.8	258.8	258.3	263.1	262.4
Total Expenses (\$1,000)	205.0	209.4	210.2	212.9	213.2
Net Cash Farm Income (\$1,000)	55.8	49.4	48.0	50.2	49.3
Ending Cash (\$1,000)	44.0	40.3	24.1	15.9	10.2
Net Worth (\$1,000)	411.7	417.4	413.3	417.0	422.8
Return on Assets (%)	7.5	5.7	0.5	2.0	6.0
P(Cash Flow Deficit) (%)	60.0	61.0	73.0	71.0	75.0
P(Refinancing) (%)	21.0	39.0	46.0	46.0	47.0
P(Decreasing RNW) (%)	1.0	60.0	54.0	49.0	42.0

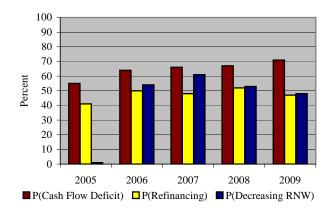
Producers participating in the panel include: Dennis Olson, Ronnie Richmond, Ronnie Riddle, Dale Spurgin, and Ferdie Walker. Stan Bevers, Mike Sloan, and Todd Vineyard serve as facilitators.

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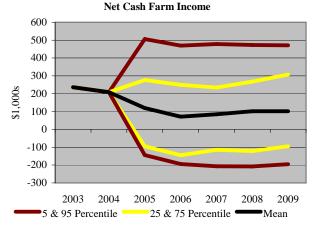
### **TXMC3500**

A 3,500-acre cotton farm located on the middle Texas Gulf Coast (Jackson County) that farms 1,750 acres of cotton and 875 acres each of sorghum and corn. In 2004, cotton sales comprised 71 percent of total cash receipts on this operation.





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



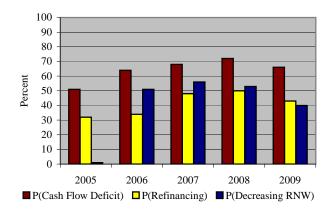
	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	879.9	903.7	938.8	993.3	1,004.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	372.7	324.7	302.9	279.1	274.6
Total Receipts (\$1,000)	1,295.4	1,275.8	1,291.7	1,324.3	1,342.5
Total Expenses (\$1,000)	1,175.7	1,205.1	1,206.9	1,222.8	1,240.8
Net Cash Farm Income (\$1,000)	119.7	70.7	84.8	101.6	101.7
Ending Cash (\$1,000)	105.4	33.1	-13.2	-46.4	-83.9
Net Worth (\$1,000)	882.6	843.0	827.1	819.5	814.0
Return on Assets (%)	8.4	0.1	2.4	2.2	1.9
P(Cash Flow Deficit) (%)	55.0	64.0	66.0	67.0	71.0
P(Refinancing) (%)	41.0	50.0	48.0	52.0	47.0
P(Decreasing RNW) (%)	1.0	54.0	61.0	53.0	48.0

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.

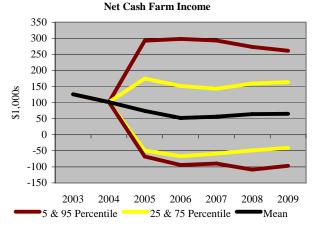
# **TXCB1850**

A 1,850-acre cotton farm located on the Texas Coastal Bend (San Patricio County) that farms 925 acres of cotton, 775 acres of sorghum, and 150 acres of corn annually. Seventy-four percent of 2004 cash receipts were generated by cotton.





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



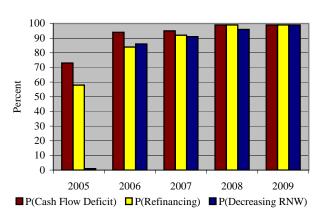
	<u>2005</u>	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	379.4	386.8	400.9	422.8	425.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	156.8	137.2	127.9	117.7	115.9
Total Receipts (\$1,000)	554.9	544.5	549.8	564.4	571.3
Total Expenses (\$1,000)	480.8	492.4	493.4	500.3	506.0
Net Cash Farm Income (\$1,000)	74.1	52.1	56.3	64.2	65.3
Ending Cash (\$1,000)	94.9	52.3	21.8	-11.2	-12.7
Net Worth (\$1,000)	883.8	878.4	873.3	864.7	900.1
Return on Assets (%)	9.8	7.0	6.5	5.6	9.0
P(Cash Flow Deficit) (%)	51.0	64.0	68.0	72.0	66.0
P(Refinancing) (%)	32.0	34.0	48.0	50.0	43.0
P(Decreasing RNW) (%)	1.0	51.0	56.0	53.0	40.0

Producers participating in the panel include: Marvin Beyer, Jr., Brad Bickham, Clarence Chopelas, 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 77 percent of 2004 receipts.





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

**Net Cash Farm Income** 400 300 200 100 \$1,000s0 -100 -200 -300 -400 -500 -2008 2003 2004 2005 2006 2007 2009 5 & 95 Percentile 25 & 75 Percentile Mean

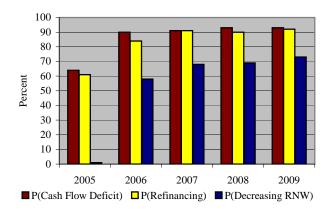
	2005	2006	2007	2008	2009
Market Receipts (\$1,000)	809.2	850.3	881.4	927.3	933.4
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	466.5	412.3	380.2	345.5	350.1
Total Receipts (\$1,000)	1,315.1	1,308.1	1,312.3	1,324.5	1,331.1
Total Expenses (\$1,000)	1,312.2	1,370.9	1,380.2	1,411.0	1,452.0
Net Cash Farm Income (\$1,000)	2.9	-62.8	-67.9	-86.5	-120.9
Ending Cash (\$1,000)	-55.8	-276.4	-482.5	-751.6	-1,047.8
Net Worth (\$1,000)	783.4	599.4	442.9	227.4	1.3
Return on Assets (%)	-12.0	-15.2	-11.6	-10.3	-12.6
P(Cash Flow Deficit) (%)	73.0	94.0	95.0	99.0	99.0
P(Refinancing) (%)	58.0	84.0	92.0	99.0	99.0
P(Decreasing RNW) (%)	1.0	86.0	91.0	96.0	99.0

Producers participating in the panel include: Jimmy Dodson, Joel Hoskinson, Wayne Lambert, Larry McNair, and Mark Morris. Mark Miller serves as the facilitator.

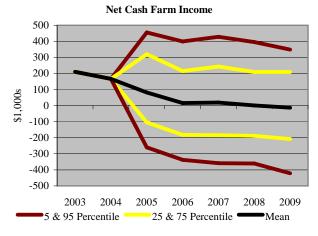
### **TXVC4500**

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 2004, 74 percent of TXVC4500's cash receipts were generated by cotton sales.





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



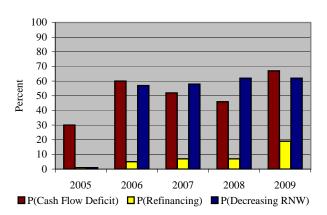
	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	852.2	889.6	929.0	937.1	966.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	432.1	383.0	349.1	327.9	326.9
Total Receipts (\$1,000)	1,356.6	1,351.3	1,360.3	1,347.9	1,372.2
Total Expenses (\$1,000)	1,275.0	1,335.8	1,341.0	1,347.0	1,385.1
Net Cash Farm Income (\$1,000)	81.6	15.5	19.3	0.9	-12.9
Ending Cash (\$1,000)	-79.6	-281.0	-434.4	-607.1	-776.5
Net Worth (\$1,000)	1,813.4	1,749.5	1,671.3	1,573.5	1,478.1
Return on Assets (%)	5.8	-1.6	-3.0	-2.8	-2.0
P(Cash Flow Deficit) (%)	64.0	90.0	91.0	93.0	93.0
P(Refinancing) (%)	61.0	84.0	91.0	90.0	92.0
P(Decreasing RNW) (%)	1.0	58.0	68.0	69.0	73.0

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

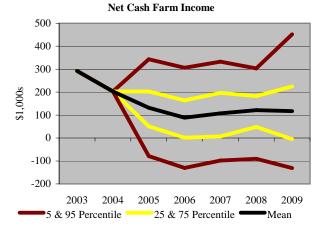
# LAC2640

This is a 2,640 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 2004, 57 percent of farm receipts were generated from cotton sales.





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



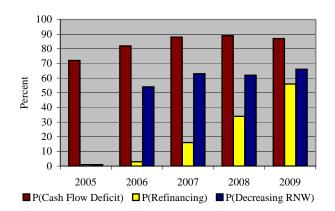
	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	843.0	874.5	909.5	936.6	968.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	359.3	322.6	303.9	286.4	282.0
Total Receipts (\$1,000)	1,226.5	1,221.5	1,239.4	1,253.2	1,276.7
Total Expenses (\$1,000)	1,094.5	1,132.6	1,131.9	1,132.0	1,159.6
Net Cash Farm Income (\$1,000)	132.0	88.9	107.5	121.2	117.2
Ending Cash (\$1,000)	328.1	293.5	296.1	304.0	253.4
Net Worth (\$1,000)	1,020.1	982.7	967.9	969.9	932.3
Return on Assets (%)	-0.9	-4.2	-0.3	2.2	2.0
P(Cash Flow Deficit) (%)	30.0	60.0	52.0	46.0	67.0
P(Refinancing) (%)	1.0	5.0	7.0	7.0	19.0
P(Decreasing RNW) (%)	1.0	57.0	58.0	62.0	62.0

#### 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.

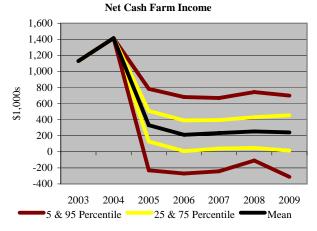
# **ARC6000**

ARC5000 is a 5,000-acre cotton farm in northeast 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 2004, 50 percent of gross receipts came from cotton sales, 32 percent from rice sales, and 14 percent from soybean sales.





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



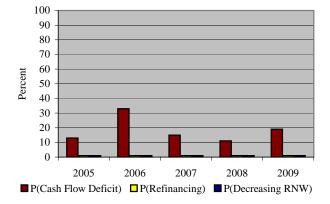
	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	2,185.4	2,230.9	2,289.6	2,330.3	2,358.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	783.9	739.6	706.6	686.5	703.3
Total Receipts (\$1,000)	3,004.4	3,004.3	3,028.6	3,046.9	3,092.1
Total Expenses (\$1,000)	2,673.1	2,793.4	2,794.6	2,793.0	2,850.8
Net Cash Farm Income (\$1,000)	331.4	210.9	234.1	253.9	241.4
Ending Cash (\$1,000)	916.9	660.1	393.1	124.9	-178.0
Net Worth (\$1,000)	5,414.0	5,333.3	5,271.4	5,214.6	5,181.6
Return on Assets (%)	0.5	-0.5	-0.5	0.0	0.5
P(Cash Flow Deficit) (%)	72.0	82.0	88.0	89.0	87.0
P(Refinancing) (%)	1.0	3.0	16.0	34.0	56.0
P(Decreasing RNW) (%)	1.0	54.0	63.0	62.0	66.0

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

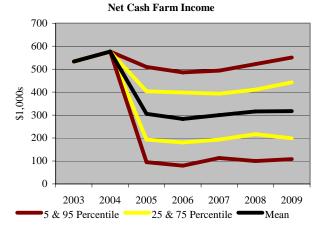
# **TNC1900**

A 1,900-acre, moderate-sized West Tennessee (Fayette County) cotton farm. TNC1900 consists of 990 acres of cotton, 440 acres each of soybeans and corn, and 30 acres enrolled in CRP. Cotton accounted for 73 percent of 2004 gross receipts, with corn and soybeans contributing 16 percent and 11 percent, respectively.

\*



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



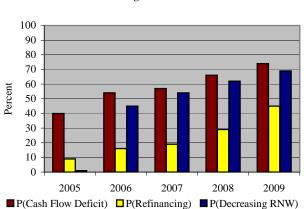
	<u>2005</u>	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	664.3	689.7	711.6	736.6	748.9
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	209.4	180.9	170.1	159.6	160.7
Total Receipts (\$1,000)	882.3	879.8	892.1	906.4	920.6
Total Expenses (\$1,000)	577.1	596.4	592.5	590.2	603.6
Net Cash Farm Income (\$1,000)	305.2	283.4	299.6	316.1	317.1
Ending Cash (\$1,000)	706.6	759.8	844.1	956.2	1,054.6
Net Worth (\$1,000)	2,165.0	2,307.0	2,435.9	2,599.6	2,735.2
Return on Assets (%)	10.8	7.1	6.6	8.0	7.5
P(Cash Flow Deficit) (%)	13.0	33.0	15.0	11.0	19.0
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, Tom Karcher, and William E. Powers. Jennifer Brown, Jim Castellaw, Kelly Tiller, and Jeff Via serve as facilitators.

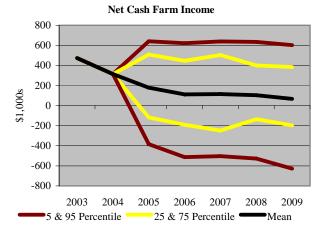
# **TNC4050**

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 2004, cotton sales generated 79 percent of gross receipts.

\*



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



	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	1,051.9	1,108.2	1,153.9	1,200.3	1,205.0
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	542.4	464.7	430.3	406.1	407.2
Total Receipts (\$1,000)	1,680.2	1,660.9	1,683.0	1,683.6	1,693.0
Total Expenses (\$1,000)	1,501.9	1,549.6	1,568.2	1,579.9	1,626.5
Net Cash Farm Income (\$1,000)	178.3	111.4	114.8	103.7	66.5
Ending Cash (\$1,000)	479.3	463.5	382.1	270.0	26.2
Net Worth (\$1,000)	3,972.0	3,978.8	3,863.7	3,769.0	3,609.5
Return on Assets (%)	3.0	0.7	0.2	-0.8	-0.5
P(Cash Flow Deficit) (%)	40.0	54.0	57.0	66.0	74.0
P(Refinancing) (%)	9.0	16.0	19.0	29.0	45.0
P(Decreasing RNW) (%)	1.0	45.0	54.0	62.0	69.0

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.

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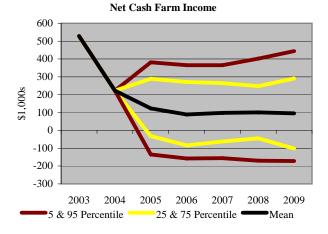
# ALC3000

A 3,000-acre cotton farm located in north central Alabama (Lawrence County) that plants 2,100 acres to cotton, 750 acres to corn, and 150 acres to soybeans annually. ALC3000 has been under a no-till regime for several years. Additionally, cotton produced on this farm is marketed through a cooperative gin. This gin has implemented ginning and marketing innovations that return a higher lint price than would be realized through conventional marketing channels. Cotton sales accounted for 84 percent of total farm receipts during 2004.



10 9 8 7 6 5 5 4 3 2 1					
	2005	2006	2007	2008	2009
P(C)	Cash Flow Defic	it) DP(Ref	inancing)	P(Decrea	sing RNW)

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



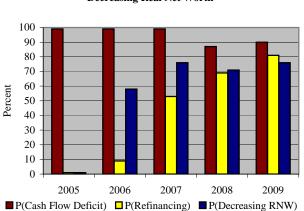
	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	754.4	797.5	831.1	860.8	876.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	367.1	316.4	291.9	269.9	273.5
Total Receipts (\$1,000)	1,139.2	1,132.1	1,144.6	1,149.8	1,171.2
Total Expenses (\$1,000)	1,016.2	1,042.7	1,046.4	1,049.6	1,076.1
Net Cash Farm Income (\$1,000)	123.1	89.4	98.2	100.3	95.1
Ending Cash (\$1,000)	236.9	147.8	57.1	-33.0	-85.8
Net Worth (\$1,000)	1,295.5	1,237.7	1,199.4	1,154.1	1,160.3
Return on Assets (%)	-6.5	-4.3	-3.8	-2.3	-4.0
P(Cash Flow Deficit) (%)	60.0	62.0	72.0	71.0	73.0
P(Refinancing) (%)	5.0	28.0	41.0	53.0	61.0
P(Decreasing RNW) (%)	1.0	55.0	64.0	68.0	62.0

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

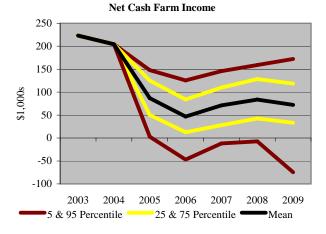
# GAC1700

Southwest Georgia (Decatur County) is home to a 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 2004, 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



	2005	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	838.2	910.9	975.7	1,011.0	1,027.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	441.2	373.4	328.8	301.9	300.4
Total Receipts (\$1,000)	1,289.3	1,295.0	1,316.0	1,324.6	1,339.6
Total Expenses (\$1,000)	1,202.6	1,248.1	1,245.0	1,240.8	1,267.4
Net Cash Farm Income (\$1,000)	86.8	46.9	71.0	83.8	72.3
Ending Cash (\$1,000)	218.0	96.3	-7.1	-48.5	-124.1
Net Worth (\$1,000)	2,124.5	2,099.8	2,055.2	2,062.2	2,031.4
Return on Assets (%)	6.4	0.7	-0.4	1.7	1.8
P(Cash Flow Deficit) (%)	99.0	99.0	99.0	87.0	90.0
P(Refinancing) (%)	1.0	9.0	53.0	69.0	81.0
P(Decreasing RNW) (%)	1.0	58.0	76.0	71.0	76.0

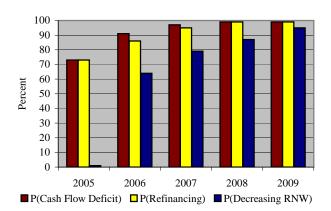
Producers participating in the panel include: John Bridges, Jr., Bryant Collins, Charles A. Collins, Keith Griffin, and Scott E. Vann. Eddie McGriff, Brad Mitchell, and Don Shurley serve as facilitators.

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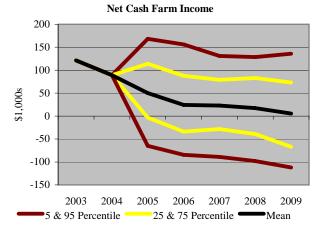
# NCC1100

This is a 1,100-acre cotton farm located on the upper coastal plain of North Carolina (Wayne County). NCC1100 plants 700 acres of cotton, 110 acres of wheat, and 400 acres of soybeans (110 acres of which are double-cropped) annually. This farm was added during 2001 to reflect the return of large-scale cotton production to North Carolina. Cotton accounted for 75 percent of this farm's 2004 receipts with 13 percent coming from soybean sales.





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



	<u>2005</u>	2006	2007	2008	<u>2009</u>
Market Receipts (\$1,000)	350.6	363.0	379.0	390.5	394.8
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	145.2	126.0	115.7	108.9	111.4
Total Receipts (\$1,000)	550.8	543.8	550.1	554.7	561.8
Total Expenses (\$1,000)	500.8	519.5	527.3	537.2	556.3
Net Cash Farm Income (\$1,000)	50.0	24.3	22.8	17.5	5.5
Ending Cash (\$1,000)	-51.8	-110.3	-171.5	-249.7	-368.5
Net Worth (\$1,000)	1,307.9	1,281.0	1,224.6	1,166.8	1,090.3
Return on Assets (%)	4.5	-1.2	-1.9	-1.5	-1.8
P(Cash Flow Deficit) (%)	73.0	91.0	97.0	99.0	99.0
P(Refinancing) (%)	73.0	86.0	95.0	99.0	99.0
P(Decreasing RNW) (%)	1.0	64.0	79.0	87.0	95.0

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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