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Research Report

Economic outlook for representative cotton farms given the August 2009 FAPRI/AFPC baseline

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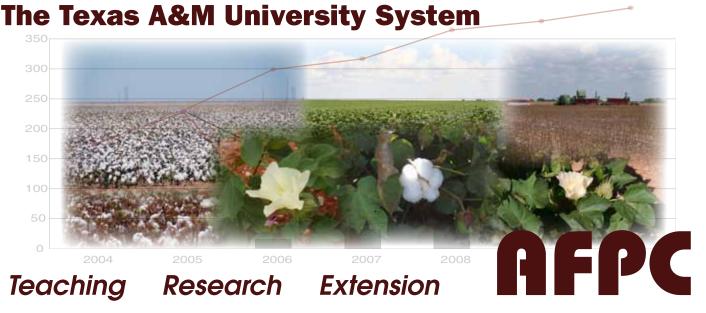


Economic Outlook for Representative Cotton Farms Given the August 2009 FAPRI/AFPC Baseline

AFPC Briefing Paper 09-03

September 2009

Agricultural and Food Policy Center



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ECONOMIC OUTLOOK FOR REPRESENTATIVE COTTON FARMS GIVEN THE AUGUST 2009 FAPRI/AFPC BASELINE

AFPC Briefing Paper 09-3

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EXECUTIVE SUMMARY

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate sixteen representative cotton operations in major production areas of eight states. The chief purpose of this analysis is to project those farms' economic viability for 2009 through 2014. 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 2009 Baseline.

Under the August 2009 Baseline, the Texas Eastern Caprock cotton farm (TXEC5000), the Texas Lower Rio Grande Valley cotton farm (TXVC4500), the California cotton farm (CAC4000), and the moderately sized Tennessee cotton farm (TNC1900) are classified in good liquidity condition (less than a 25 percent chance of negative ending cash in 2014). None of the farms have a 25 percent to 50 percent likelihood of negative ending cash. The remaining twelve cotton farms (TXSP2500, TXSP3745, TXRP2500, TXMC1800, TXCB2250, TXCB8000, ARNC5000, TNC4050, ALC3000, GAC2300, SCC1500, and NCC1500) have a greater than 50 percent chance of negative ending cash.

Farms are also classified based on their respective equity conditions. Three farms (TXVC4500, CAC4000, and TNC1900) are considered in good equity position (less than a 25 percent chance of decreasing real net worth during 2009-2014). One representative cotton farm (TXEC5000) has between a 25 percent and 50 percent likelihood of losing real net worth, and the remaining twelve representative cotton farms (TXSP2500, TXSP3745, TXRP2500, TXMC1800, TXCB2250, TXCB8000, ARNC5000, TNC4050, ALC3000, GAC2300, SCC1500, and NCC1500) have a greater than 50 percent probability of decreasing real net worth.

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

The majority of the representative cotton farms are classified in poor overall financial conditions under the August 2009 Baseline. The overall financial condition of the representative cotton farms is primarily a result of unfavorable cotton price projections under the August 2009 Baseline throughout the 2009-2014 study period.

FAPRI AUGUST 2009 BASELINE

Projected crop prices for FAPRI's August 2009 Baseline are summarized in Table 1. In general, corn, wheat, and sorghum price projections are lower than those reported in the January 2009 Baseline. Conversely, cotton, rice, and soybeans saw slight increases in their price projections. Individual crop prices are projected to move as follows:

- Corn prices are expected to increase from the low in 2009 of \$3.47/bu, reaching \$3.98/bu by 2014.
- Wheat prices range from \$5.04 in 2009 to \$5.44/bu in the last year of the planning horizon.
- Cotton prices are projected to trend slightly higher from \$0.5476/lb in 2009, increasing to \$0.6118/lb by 2014.
- Rice prices are projected to fall from \$14.53/cwt in 2009 to \$13.24/cwt in 2010, before beginning a modest increase ending 2014 at \$13.65/cwt.
- Sorghum prices are expected to increase throughout the projection period, reaching a high of \$3.55/bu in 2014.
- Prices for soybeans are now expected to stay in a range of \$9.12/bu to \$9.74/bu during the planning horizon.

Projected annual rates of change for variable cash expenses are summarized in Table 2. The rate of change in input prices comes from FAPRI's August 2009 Baseline. The projected rates of change in costs decrease substantially in 2009. Projected costs of fertilizer and fuel are projected to see decreases of over 28% in 2009. However, fuel and fertilizer prices are expected to increase significantly from 2010 to 2014. Other inflation rates follow a similar pattern of decreasing or seeing smaller increases in 2009 and increasing in the latter years, but do so at a more moderate rate of change. Projected annual rates of change in land values over the 2009-2014 period were provided by the FAPRI Baseline and range between negative 4.20% and 3.20% per year.

Table 1. FAPRI August 2009 Baseline Projections of Crop Prices, Loan Rates, and Direct Payment Rates, 2007-2014

Table 1. FAFRI August 2009 baseline Projecti	2007	2008	2009	2010	2011	2012	2013	2014
Crop Prices								
Corn (\$/bu.)	4.20	4.05	3.47	3.69	3.74	3.81	3.90	3.98
Wheat (\$/bu.)	6.48	6.78	5.04	4.96	5.17	5.25	5.35	5.44
Cotton (\$/lb.)	0.5930	0.4900	0.5476	0.5512	0.5746	0.5893	0.6006	0.6118
Sorghum (\$/bu.)	4.08	3.30	3.25	3.25	3.32	3.39	3.47	3.55
Soybeans (\$/bu.)	10.10	10.00	9.44	9.12	9.34	9.47	9.61	9.74
Barley (\$/bu.)	4.02	5.37	4.28	4.60	4.65	4.72	4.82	4.90
Oats (\$/bu.)	2.63	3.15	2.27	2.38	2.44	2.49	2.55	2.60
Rice (\$/cwt.)	12.80	16.25	14.53	13.24	13.43	13.44	13.58	13.65
Soybean Meal (\$/ton)	320.42	309.99	278.80	267.70	267.00	268.54	272.07	275.66
All Hay (\$/ton)	128.00	157.00	121.35	119.61	119.57	119.05	118.92	120.32
Peanuts (\$/ton)	410.00	460.00	437.60	442.29	470.50	476.42	481.39	487.03
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	2.94	2.94	2.94	2.94	2.94
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	1.95	1.95	1.95	1.95	1.95
Oats (\$/bu.)	1.33	1.33	1.33	1.39	1.39	1.39	1.39	1.39
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 2009 Baseline Assumed Rates of Change in Input Prices, Annual Interest Rates, and Annual Changes in Land Values, 2008-2014

	2007	2008	2009	2010	2011	2012	2013	2014
Annual Rate of Change for Input Prices Paid								
Seed Prices (%)		26.96	15.51	5.04	5.16	3.83	3.65	3.32
All Fertilizer Prices (%)		61.47	-28.28	4.67	19.88	6.46	5.07	5.86
Herbicide Prices (%)		6.56	-0.13	2.19	3.51	2.32	2.18	1.77
Insecticide Prices (%)		5.41	-8.17	1.03	2.68	2.50	2.76	2.33
Fuel and Lube Prices (%)		30.30	-36.63	11.34	11.74	6.42	6.53	4.47
Machinery Prices (%)		9.42	4.98	0.86	2.48	1.88	2.40	2.61
Wages (%)		3.39	2.46	1.74	1.38	1.85	2.54	2.81
Supplies (%)		6.43	2.57	2.57	4.35	2.81	2.45	2.00
Repairs (%)		1.30	1.28	1.43	1.77	2.10	2.59	2.63
Services (%)		0.00	2.51	2.83	4.23	2.77	2.64	2.47
Taxes (%)		10.99	10.38	1.25	3.63	2.48	2.91	2.48
PPI Items (%)		17.5	-5.17	2.01	4.85	3.22	2.88	2.82
PPI Total (%)		16.15	-3.77	1.90	4.56	3.31	2.97	3.05
Annual Change in Consumer Price Index (%)		3.8	-0.65	1.79	2.43	2.17	2.16	2.13
Annual Rate of Change for U.S. Land Prices (%)		8.00	-3.20	-4.20	-0.50	3.20	2.30	2.60

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

Economic Viability of Representative Farms over the 2009-2014 Period

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)	
3/1/12	2009	2014	2009-2014	2009-2014	
TXSP2500			62-94	1-96	
TXSP3745			35-99	1-98	
TXEC5000			1-1	1-27	
TXRP2500			73-82	1-81	
TXMC1800			57-91	1-87	
TXCB2250			27-76	1-69	
TXCB8000			1-79	1-79	
TXVC4500			1-1	1-1	
CAC4000			1-1	1-1	
ARNC5000			13-99	1-93	
TNC1900			1-11	1-18	
TNC4050			99-99	1-99	
ALC3000			66-96	1-83	
GAC2300			99-99	1-99	
SCC1500			20-52	1-55	
NCC1500			20-97	1-81	

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

² P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2009 and 2014

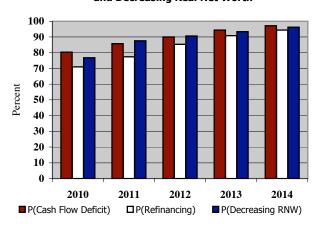
³ P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2007 to 2009 and from 2007 to 2014.

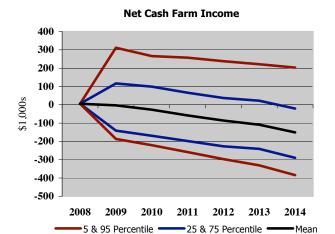
TXSP2500

A 2,500-acre Texas South Plains (Dawson County) cotton farm that is moderate-sized for the area. TXSP2500 plants 1,958 acres of cotton (1,658 dryland, 300 irrigated), 190 acres of sorghum (160 dryland, 30 irrigated), 95 acres of wheat, and 50 acres of peanuts. For 2008, 81 percent of receipts came from cotton.



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





	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	557.4	578.4	592.7	616.6	635.7
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	101.1	93.4	89.4	82.7	78.3
Total Receipts (\$1,000)	661.3	676.2	685.0	706.7	719.0
Total Expenses (\$1,000)	687.8	734.3	771.4	815.6	869.6
Net Cash Farm Income (\$1,000)	-26.6	-58.1	-86.4	-108.8	-150.6
Ending Cash (\$1,000)	-108.8	-235.1	-386.0	-558.4	-786.8
Net Worth (\$1,000)	642.1	506.9	362.0	194.2	-23.0
Return on Assets (%)	-6.1	-8.5	-6.7	-10.4	-13.7
P(Cash Flow Deficit) (%)	80.4	85.8	90.0	94.4	97.2
P(Refinancing) (%)	71.0	77.4	85.4	90.8	94.4
P(Decreasing RNW) (%)	76.8	87.6	90.6	93.4	96.2

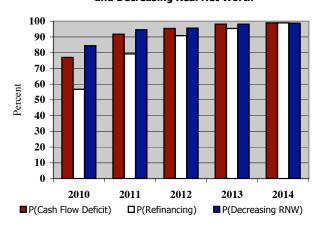
Producers participating in the panel include: Steven Archer, Johnny Ray Todd, and Donald Vogler. Jackie Smith and Jeff Wyatt serve as facilitators.

TXSP3745

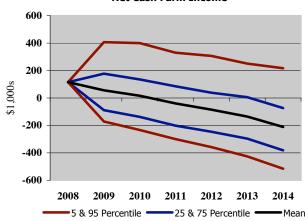
The Texas South Plains (Dawson County) is home to this 3,745-acre, large-sized cotton farm that grows 2,916 acres of cotton (2,406 dryland, 510 irrigated), 120 acres of wheat, 120 acres of peanuts, and has 288 acres in CRP. Cotton sales comprised 81 percent of 2008 receipts.



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



Net Cash Farm Income



	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	907.7	946.9	971.4	1,007.2	1,039.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	163.1	152.6	147.2	133.9	128.6
Total Receipts (\$1,000)	1,064.4	1,095.5	1,112.4	1,138.4	1,162.5
Total Expenses (\$1,000)	1,048.8	1,135.7	1,198.2	1,274.1	1,374.7
Net Cash Farm Income (\$1,000)	15.6	-40.1	-85.8	-135.7	-212.2
Ending Cash (\$1,000)	-29.4	-278.0	-549.5	-907.1	-1,466.3
Net Worth (\$1,000)	1,288.5	1,059.5	846.1	536.3	118.2
Return on Assets (%)	-9.1	-8.0	-8.9	-9.9	-12.0
P(Cash Flow Deficit) (%)	77.0	91.8	95.4	98.2	99.0
P(Refinancing) (%)	56.8	79.2	90.8	95.4	99.0
P(Decreasing RNW) (%)	84.4	94.6	95.6	98.2	98.8

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

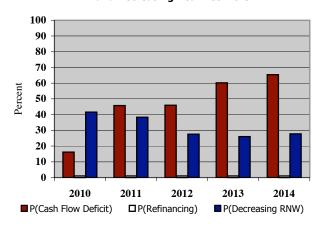
TXEC5000

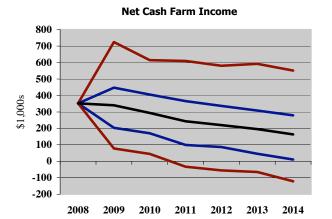
This 5,000-acre farm is located on the Eastern Caprock of the Texas South Plains (Crosby County). Annually, 3,650 acres are planted to cotton (2,650 irrigated and 1,000 dryland), 550 acres of sorghum (250 irrigated and 300 dryland), and 300 acres of dryland wheat. In 2008, cotton sales accounted for 94 percent of gross receipts.



-25 & 75 Percentile -

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





5 & 95 Percentile —

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	1,605.4	1,678.2	1,722.3	1,794.0	1,854.3
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	299.5	274.0	263.7	235.9	225.4
Total Receipts (\$1,000)	1,931.6	1,984.6	2,021.4	2,070.5	2,113.5
Total Expenses (\$1,000)	1,637.5	1,741.1	1,801.3	1,875.0	1,950.2
Net Cash Farm Income (\$1,000)	294.1	243.5	220.1	195.5	163.4
Ending Cash (\$1,000)	821.9	866.7	911.4	901.8	861.8
Net Worth (\$1,000)	2,157.2	2,204.4	2,286.8	2,325.1	2,339.6
Return on Assets (%)	5.5	4.8	5.3	3.6	1.8
P(Cash Flow Deficit) (%)	16.2	45.8	46.0	60.2	65.4
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	41.6	38.4	27.6	26.0	27.8

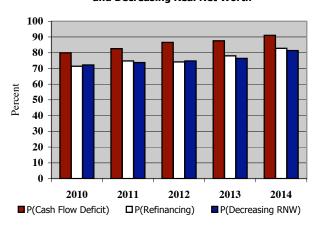
Producers participating in the panel include: Lloyd Arthur, Brooks Ellison, Edwin Moore, and Marvin Schoepf. Clay Miller serves as the facilitator.

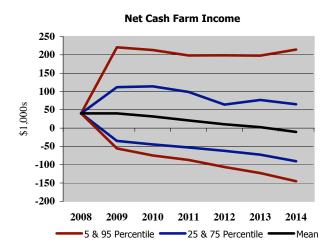
TXRP2500

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. The area is limited by rainfall, and the farm uses a conservative level of inputs. Seventy-seven percent of 2008 farm receipts came from cotton sales. Seventeen head of beef cows generated two percent of farm receipts.



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





	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	273.7	282.5	287.5	301.8	312.7
Livestock Receipts (\$1,000)	8.9	8.5	8.9	10.2	8.9
Government Payments (\$1,000)	60.9	56.8	54.3	51.0	48.7
Total Receipts (\$1,000)	351.5	357.5	361.1	373.1	382.7
Total Expenses (\$1,000)	319.8	336.6	350.7	370.6	393.5
Net Cash Farm Income (\$1,000)	31.7	20.8	10.4	2.5	-10.8
Ending Cash (\$1,000)	-71.4	-99.5	-135.2	-176.2	-246.6
Net Worth (\$1,000)	435.6	400.5	373.1	333.9	271.0
Return on Assets (%)	0.4	2.3	3.2	-0.9	-3.3
P(Cash Flow Deficit) (%)	80.0	82.6	86.6	87.6	91.0
P(Refinancing) (%)	71.4	74.8	74.2	78.0	82.8
P(Decreasing RNW) (%)	72.2	73.8	74.8	76.4	81.4

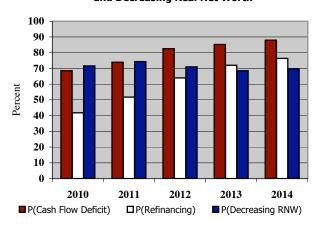
Producers participating in the panel include: Rex Ford, Dennis Olson, Ronnie Richmond, Ronnie Riddle, Mike Sloan, Dale Spurgin, and Ferdie Walker. Steven A. Estes serves as the facilitator.

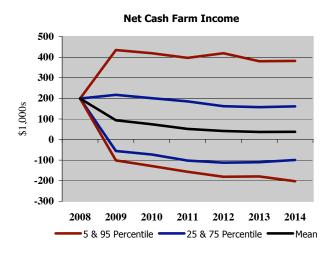
TXCB2250

A 2,250-acre cotton farm located on the Texas Coastal Bend (San Patricio County) that farms 1,000 acres of cotton, 1,125 acres of sorghum, and 125 acres of corn annually. Sixty-three percent of 2008 cash receipts were generated by cotton.



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





	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	597.4	614.9	631.8	650.9	674.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	110.7	103.7	100.0	93.9	88.5
Total Receipts (\$1,000)	731.7	737.7	752.9	768.1	790.8
Total Expenses (\$1,000)	657.5	686.2	711.3	731.1	753.7
Net Cash Farm Income (\$1,000)	74.3	51.4	41.6	37.0	37.2
Ending Cash (\$1,000)	59.9	-16.6	-121.5	-228.5	-319.0
Net Worth (\$1,000)	1,013.2	966.3	933.4	904.3	894.2
Return on Assets (%)	-3.6	-3.2	-1.1	-0.6	-0.7
P(Cash Flow Deficit) (%)	68.6	74.0	82.6	85.2	88.0
P(Refinancing) (%)	41.8	51.8	64.0	72.0	76.4
P(Decreasing RNW) (%)	71.6	74.4	71.0	68.6	69.8

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

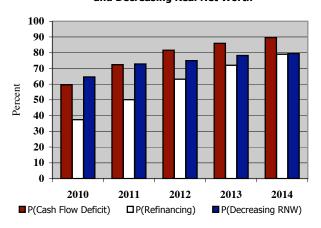
TXCB8000

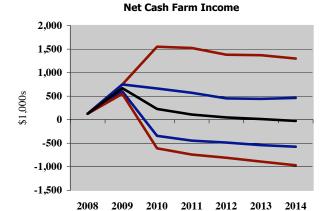
Nueces County, Texas is home to this 8,000-acre farm. Annually, 2,800 acres are planted to cotton and 5,200 acres to sorghum. Cotton sales accounted for 49 percent of 2008 receipts.



-25 & 75 Percentile -

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





5 & 95 Percentile -

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	2,299.0	2,348.9	2,394.3	2,486.1	2,575.4
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	369.6	347.2	326.8	311.7	298.7
Total Receipts (\$1,000)	2,720.2	2,747.8	2,784.5	2,868.5	2,932.6
Total Expenses (\$1,000)	2,492.0	2,639.4	2,736.0	2,854.6	2,960.7
Net Cash Farm Income (\$1,000)	228.2	108.4	48.5	13.8	-28.1
Ending Cash (\$1,000)	288.3	-12.0	-386.2	-858.6	-1,314.9
Net Worth (\$1,000)	1,721.3	1,457.1	1,180.2	857.3	562.8
Return on Assets (%)	-3.7	-7.2	-8.1	-8.2	-9.3
P(Cash Flow Deficit) (%)	59.6	72.4	81.6	86.0	89.6
P(Refinancing) (%)	37.4	50.2	63.2	72.0	79.0
P(Decreasing RNW) (%)	64.6	72.8	75.0	78.2	79.6

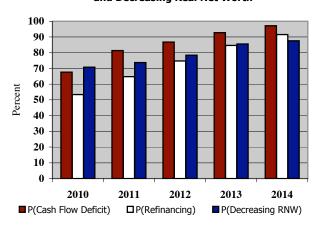
Producers participating in the panel include: Jimmy Dodson, Jon Gwynn, Wayne Lambert, Larry McNair, Toby Robertson, and David Weaver. Larry Falconer, Mark Miller, Jeff Nunley, and John Parker serve as facilitators.

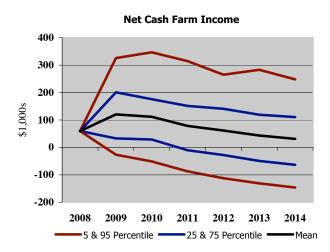
TXMC1800

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 2008, cotton sales comprised 52 percent of total cash receipts on this operation.



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





	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	561.8	572.0	589.0	608.4	627.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	84.4	80.1	78.5	73.7	71.4
Total Receipts (\$1,000)	656.3	661.0	677.1	692.9	710.5
Total Expenses (\$1,000)	545.1	582.8	615.7	649.5	679.8
Net Cash Farm Income (\$1,000)	111.2	78.2	61.4	43.4	30.7
Ending Cash (\$1,000)	-9.3	-75.6	-171.0	-298.8	-453.7
Net Worth (\$1,000)	864.3	811.9	748.2	653.2	558.8
Return on Assets (%)	-0.7	-3.4	-3.3	-5.1	-5.0
P(Cash Flow Deficit) (%)	67.6	81.4	86.8	92.8	97.2
P(Refinancing) (%)	53.4	64.8	74.8	84.6	91.6
P(Decreasing RNW) (%)	70.8	73.8	78.4	85.6	87.6

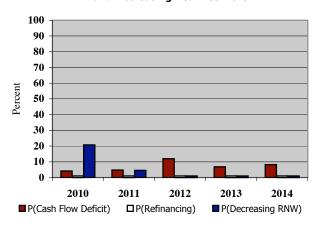
Producers participating in the panel include: Jimmy Barosh, Keith Bram, Glenn Emshosf, Daniel Gavranovic, Rob Kainer, Cedric Popp, and Michael Popp. Larry Falconer, Jeff Nunley, and Jimmy Roppolo serve as facilitators.

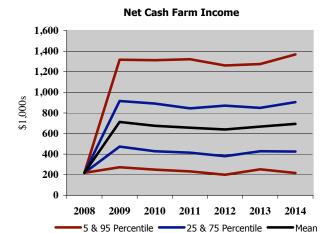
TXVC4500

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 2008, 52 percent of TXVC4500's cash receipts were generated by cotton sales.



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





	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	1,703.7	1,752.8	1,790.8	1,845.3	1,905.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	227.0	211.9	190.5	183.9	173.1
Total Receipts (\$1,000)	1,947.8	1,982.3	2,003.7	2,050.9	2,100.2
Total Expenses (\$1,000)	1,272.9	1,326.9	1,363.9	1,384.3	1,407.3
Net Cash Farm Income (\$1,000)	674.9	655.4	639.8	666.6	692.9
Ending Cash (\$1,000)	768.5	1,074.6	1,337.6	1,628.3	1,946.6
Net Worth (\$1,000)	3,080.8	3,422.2	3,821.0	4,244.1	4,693.3
Return on Assets (%)	14.1	11.8	12.7	11.9	12.2
P(Cash Flow Deficit) (%)	4.2	4.8	12.0	6.8	8.2
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	20.8	4.6	1.0	1.0	1.0

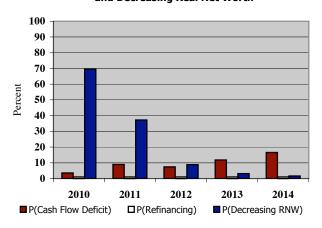
Producers participating in the panel include: Gary Busse, Derrick Swanberg, Marshall Swanberg, and Mark Willis. Reagan Florence, Luis Ribera, and Terry Wolfe serve as facilitators.

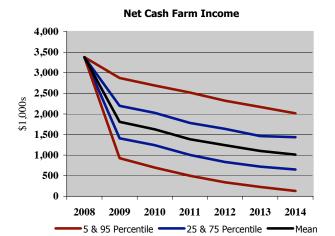
CAC4000

A 4,000-acre cotton farm located in Kings County, California, CAC4000 plants 1,333 acres to cotton, 267 acres to hay, 2666 acres of silage, and harvests 400 acres of almonds. Twentynine percent of 2008 receipts came from cotton sales.



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





	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	6,234.1	6,272.1	6,300.0	6,339.9	6,405.4
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	59.2	52.8	56.2	49.9	57.4
Total Receipts (\$1,000)	6,407.4	6,430.3	6,452.0	6,479.4	6,543.0
Total Expenses (\$1,000)	4,784.0	5,045.9	5,212.1	5,378.1	5,531.4
Net Cash Farm Income (\$1,000)	1,623.4	1,384.3	1,239.9	1,101.3	1,011.6
Ending Cash (\$1,000)	4,511.0	4,973.6	5,492.4	5,920.7	6,271.2
Net Worth (\$1,000)	17,206.4	17,764.7	19,005.5	19,979.1	20,931.1
Return on Assets (%)	5.3	6.7	9.0	6.7	6.1
P(Cash Flow Deficit) (%)	3.6	9.0	7.4	11.8	16.6
P(Refinancing) (%)	1.0	1.0	1.0	1.0	1.0
P(Decreasing RNW) (%)	69.6	37.2	8.8	3.2	1.6

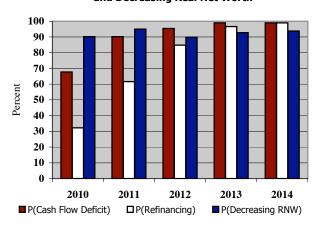
Producers participating in the panel include: Bo Champlin, Kirk Gilkey, Matt Gilkey, Ted Sheely, Bill Stone, Bill Tos, and Mark Watte. Steve Wright serves as the facilitator.

ARNC5000

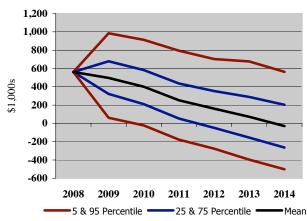
Far northeast Arkansas (Mississippi County) is home to this 5,000-acre cotton farm. ARNC5000 plants all its acres to cotton annually, generating 100 percent of its receipts from cotton.



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



Net Cash Farm Income



	<u>2010</u>	2011	2012	2013	<u>2014</u>
Market Receipts (\$1,000)	3,137.8	3,231.5	3,303.1	3,399.7	3,479.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	493.4	455.0	425.4	378.1	359.2
Total Receipts (\$1,000)	3,665.6	3,722.2	3,765.4	3,815.4	3,874.3
Total Expenses (\$1,000)	3,265.9	3,469.5	3,605.2	3,744.4	3,903.7
Net Cash Farm Income (\$1,000)	399.8	252.7	160.1	70.9	-29.4
Ending Cash (\$1,000)	158.0	-152.2	-547.0	-1,076.4	-1,647.8
Net Worth (\$1,000)	5,512.4	5,310.3	5,193.9	4,959.7	4,679.4
Return on Assets (%)	-0.9	-0.6	0.7	-0.6	-1.1
P(Cash Flow Deficit) (%)	67.8	90.2	95.4	99.0	99.0
P(Refinancing) (%)	32.2	61.6	84.8	96.6	99.0
P(Decreasing RNW) (%)	90.2	95.0	89.8	92.8	93.8

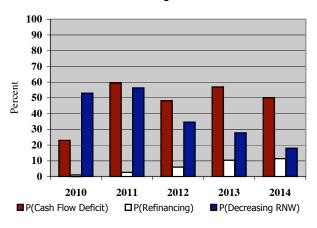
Producers participating in the panel include: Chad Costner, Heath Donner, Todd Edwards, Cole Hawkins, Justin Hawkins, Randy Jackson, and David Wildy. Dave Freeze, Ronnie Kennett, Blake McClelland, Jenny Stacks, and Brad Watkins serve as the facilitators.

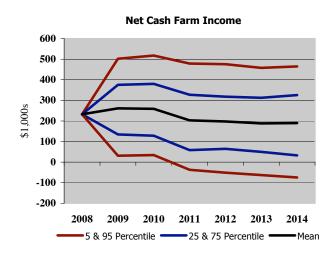
TNC1900

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 68 percent of 2008 gross receipts, with corn and soybeans contributing 19 percent and 14 percent, respectively.



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





	<u>2010</u>	<u>2011</u>	2012	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	914.8	936.6	960.0	986.5	1,013.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	126.1	116.2	111.0	101.1	96.9
Total Receipts (\$1,000)	1,052.0	1,064.6	1,083.6	1,099.9	1,122.7
Total Expenses (\$1,000)	793.2	862.1	886.6	912.2	933.2
Net Cash Farm Income (\$1,000)	258.7	202.5	197.0	187.7	189.5
Ending Cash (\$1,000)	458.7	424.9	423.6	395.2	404.3
Net Worth (\$1,000)	2,522.0	2,535.5	2,646.8	2,723.7	2,863.3
Return on Assets (%)	3.4	3.4	3.9	2.9	3.6
P(Cash Flow Deficit) (%)	23.0	59.4	48.2	57.0	50.2
P(Refinancing) (%)	1.0	2.6	6.0	10.4	11.4
P(Decreasing RNW) (%)	53.0	56.4	34.6	27.8	18.0

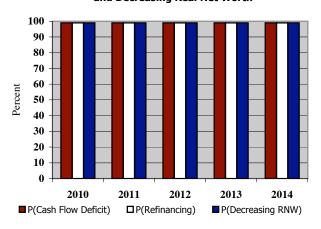
Producers participating in the panel include: Harris Armour, III, Tom Karcher, and William E. Powers. Jim Castellaw, Kelly Tiller, and Jeff Via serve as facilitators.

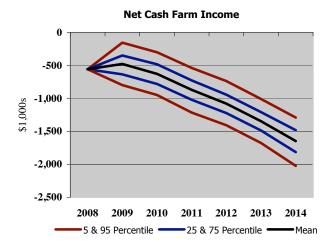
TNC4050

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 2008, cotton sales generated 74 percent of gross receipts.



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





<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
1,544.5	1,589.2	1,626.0	1,671.8	1,719.1
0.0	0.0	0.0	0.0	0.0
284.7	263.4	251.5	230.3	218.8
1,849.7	1,872.8	1,898.3	1,922.7	1,957.8
2,477.6	2,741.8	2,975.8	3,267.4	3,604.1
-627.9	-869.0	-1,077.6	-1,344.8	-1,646.3
-3,160.1	-4,466.0	-5,899.3	-7,673.8	-9,664.9
1,193.1	36.5	-1,055.3	-2,595.7	-4,308.5
-12.7	-12.6	-10.1	-11.9	-12.4
99.0	99.0	99.0	99.0	99.0
99.0	99.0	99.0	99.0	99.0
99.0	99.0	99.0	99.0	99.0
	1,544.5 0.0 284.7 1,849.7 2,477.6 -627.9 -3,160.1 1,193.1 -12.7 99.0 99.0	1,544.5 1,589.2 0.0 0.0 284.7 263.4 1,849.7 1,872.8 2,477.6 2,741.8 -627.9 -869.0 -3,160.1 -4,466.0 1,193.1 36.5 -12.7 -12.6 99.0 99.0 99.0 99.0	1,544.5 1,589.2 1,626.0 0.0 0.0 0.0 284.7 263.4 251.5 1,849.7 1,872.8 1,898.3 2,477.6 2,741.8 2,975.8 -627.9 -869.0 -1,077.6 -3,160.1 -4,466.0 -5,899.3 1,193.1 36.5 -1,055.3 -12.7 -12.6 -10.1 99.0 99.0 99.0 99.0 99.0 99.0	1,544.5 1,589.2 1,626.0 1,671.8 0.0 0.0 0.0 0.0 284.7 263.4 251.5 230.3 1,849.7 1,872.8 1,898.3 1,922.7 2,477.6 2,741.8 2,975.8 3,267.4 -627.9 -869.0 -1,077.6 -1,344.8 -3,160.1 -4,466.0 -5,899.3 -7,673.8 1,193.1 36.5 -1,055.3 -2,595.7 -12.7 -12.6 -10.1 -11.9 99.0 99.0 99.0 99.0 99.0 99.0 99.0 99.0 99.0 99.0

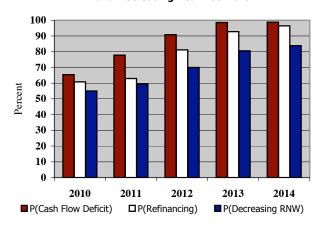
Producers participating in the panel include: R. Morris English, Jr., Dewayne Hendrix, Allen King, John King, Travis Lonon, and Ronald Woods. Chism Craig, Chuck Danehower, Tracey Sullivan, and Kelly Tiller serve as facilitators.

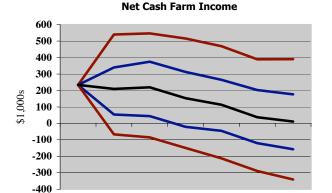
ALC3000

A 3,000-acre cotton farm located in northern Alabama (Lawrence County) that plants 1,500 acres to cotton, 1,350 acres to corn, and 150 acres to soybeans annually. This farm was early to adopt no-till cropping practices. Cotton sales accounted for 61 percent of total farm receipts during 2008.



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





2010

2011 2012 2013

-25 & 75 Percentile -

2009

5 & 95 Percentile —

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	1,069.7	1,081.9	1,113.4	1,139.2	1,176.5
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	213.8	199.4	191.8	178.2	169.3
Total Receipts (\$1,000)	1,297.6	1,294.8	1,319.8	1,331.7	1,360.4
Total Expenses (\$1,000)	1,078.9	1,142.1	1,207.0	1,294.7	1,349.4
Net Cash Farm Income (\$1,000)	218.7	152.6	112.7	37.0	11.0
Ending Cash (\$1,000)	-81.4	-156.3	-333.6	-699.6	-976.5
Net Worth (\$1,000)	1,213.7	1,157.1	1,040.4	855.5	650.8
Return on Assets (%)	1.8	1.7	2.4	-3.0	-3.9
P(Cash Flow Deficit) (%)	65.4	77.8	90.8	98.6	98.8
P(Refinancing) (%)	60.8	63.0	81.2	92.8	96.4
P(Decreasing RNW) (%)	55.0	59.4	70.0	80.6	83.8

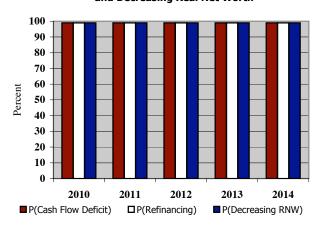
Producers participating in the panel include: James Blythe, Paul Clark, Steve Ford, William Lee, Larkin Martin, and Ron Terry.

GAC2300

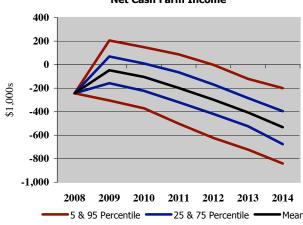
Southwest Georgia (Decatur County) is home to a 2,300-acre cotton farm that plants 1,495 acres to cotton, 575 acres to peanuts, and 230 acres to corn. This farm utilizes the availability of water in the region, irrigating 73 percent of its cropland. In 2008, farm receipts were comprised largely of cotton sales (61 percent) and peanut sales (31 percent).



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



Net Cash Farm Income



<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
1,600.6	1,679.6	1,725.2	1,785.1	1,839.1
0.0	0.0	0.0	0.0	0.0
282.3	262.6	254.4	234.1	226.7
1,862.4	1,924.2	1,961.5	2,002.0	2,048.4
1,967.6	2,122.3	2,259.5	2,408.7	2,579.8
-105.2	-198.2	-298.0	-406.8	-531.4
-1,053.8	-1,511.6	-2,100.1	-2,771.0	-3,598.4
2,346.6	1,953.5	1,596.1	1,104.3	471.6
-4.6	-2.9	-0.7	-2.3	-2.5
99.0	99.0	99.0	99.0	99.0
99.0	99.0	99.0	99.0	99.0
99.0	99.0	99.0	99.0	99.0
	1,600.6 0.0 282.3 1,862.4 1,967.6 -105.2 -1,053.8 2,346.6 -4.6 99.0 99.0	1,600.6 1,679.6 0.0 0.0 282.3 262.6 1,862.4 1,924.2 1,967.6 2,122.3 -105.2 -198.2 -1,053.8 -1,511.6 2,346.6 1,953.5 -4.6 -2.9 99.0 99.0 99.0 99.0	1,600.6 1,679.6 1,725.2 0.0 0.0 0.0 282.3 262.6 254.4 1,862.4 1,924.2 1,961.5 1,967.6 2,122.3 2,259.5 -105.2 -198.2 -298.0 -1,053.8 -1,511.6 -2,100.1 2,346.6 1,953.5 1,596.1 -4.6 -2.9 -0.7 99.0 99.0 99.0 99.0 99.0 99.0	1,600.6 1,679.6 1,725.2 1,785.1 0.0 0.0 0.0 0.0 282.3 262.6 254.4 234.1 1,862.4 1,924.2 1,961.5 2,002.0 1,967.6 2,122.3 2,259.5 2,408.7 -105.2 -198.2 -298.0 -406.8 -1,053.8 -1,511.6 -2,100.1 -2,771.0 2,346.6 1,953.5 1,596.1 1,104.3 -4.6 -2.9 -0.7 -2.3 99.0 99.0 99.0 99.0 99.0 99.0 99.0 99.0

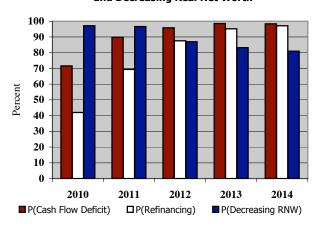
Producers participating in the panel include: Andy Bell, John Bridges, Jr., David Holton, and Donald Shirah. Joel Hudgins, Brad Mitchell, Don Shurley, Nathan Smith, and Amanda Ziehl serve as facilitators.

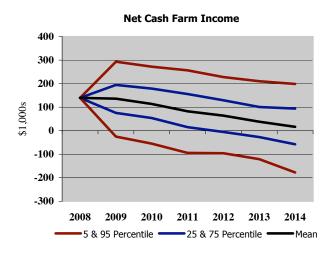
NCC1500

This is a 1,500-acre cotton farm located on the upper coastal plain of North Carolina (Wayne County). NCC1500 plants 575 acres of cotton, 325 acres of wheat, and 650 acres of soybeans annually. Cotton accounted for 46 percent of this farm's 2008 receipts with 22 percent coming from soybean sales.



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





	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	671.7	692.7	707.5	727.3	747.2
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	112.3	103.6	99.2	91.0	86.4
Total Receipts (\$1,000)	871.1	883.3	894.1	906.0	921.2
Total Expenses (\$1,000)	757.2	801.0	829.9	867.7	905.0
Net Cash Farm Income (\$1,000)	113.8	82.2	64.2	38.3	16.3
Ending Cash (\$1,000)	11.8	-85.2	-207.0	-372.1	-509.5
Net Worth (\$1,000)	2,529.4	2,470.7	2,474.8	2,438.2	2,426.3
Return on Assets (%)	-1.4	-0.1	2.2	1.1	0.7
P(Cash Flow Deficit) (%)	71.6	89.8	95.8	98.6	98.4
P(Refinancing) (%)	42.0	69.4	87.6	95.2	97.2
P(Decreasing RNW) (%)	97.2	96.6	87.0	83.2	81.0

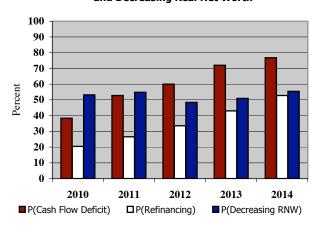
Producers participating in the panel include: Daryl Anderson, Landis Brantham, Jr., Willie Howell, David B. Mitchell, Sr., Danny C. Pierce, Craig West, and Bryant Worley. Kevin Johnson serves as the facilitator.

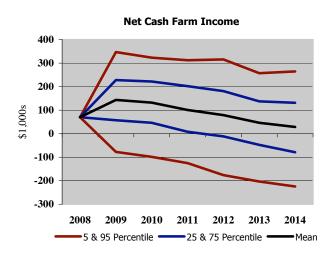
SCC1500

SCC1500 is a moderate-sized, 1,500-acre grain farm in South Carolina (Barnwell County) consisting of 525 acres of corn, 525 acres of cotton, 375 acres of peanuts, 75 acres of soybeans (double cropped behind wheat), and 75 acres of wheat. Fortynine percent of the farm's receipts were from cotton sales during 2008.



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





	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Receipts (\$1,000)	774.2	801.5	821.8	840.2	861.1
Livestock Receipts (\$1,000)	0.0	0.0	0.0	0.0	0.0
Government Payments (\$1,000)	146.2	134.2	129.3	119.8	114.1
Total Receipts (\$1,000)	933.6	950.4	965.8	976.5	991.2
Total Expenses (\$1,000)	801.5	849.5	886.7	930.5	963.0
Net Cash Farm Income (\$1,000)	132.1	100.9	79.0	46.0	28.3
Ending Cash (\$1,000)	108.3	105.5	76.4	19.2	-58.2
Net Worth (\$1,000)	1,007.1	1,009.4	1,027.9	1,001.6	960.1
Return on Assets (%)	5.2	6.5	5.9	2.4	2.3
P(Cash Flow Deficit) (%)	38.4	52.8	60.0	72.0	76.8
P(Refinancing) (%)	20.4	26.6	33.6	43.0	52.8
P(Decreasing RNW) (%)	53.2	54.8	48.4	51.0	55.4

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

AFPC Briefing Series

The briefing series is designed to facilitate presentation by AFPC related to requests for specific policy impact analyses. The materials included in this package are intended only as visual support for an oral presentation. The user is cautioned against drawing extraneous conclusions from the material. In most instances, the briefing series will be followed by an AFPC Working Paper. AFPC welcomes comments and discussions of these results and their implications. Address such comments to:

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