

Cotton Budgets, Economics, & Outlook

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Bins or Bags in Cotton Country?



Why the interest?

- Cotton Acreage has declined from 700,000 planted acres in 2006 to 300,000 acres in 2009.
- Corn and Soybean acreage has increased from 1.78 million planted acres in 2006 to 2.24 million acres in 2009.
- If cotton prices go up, will producers plant more cotton?
- Do cotton producers who want storage also need the flexibility to go back to cotton?

Why the interest?



Storage

- Grain Bins
 - Reduce harvest time delays from long lines
 - Short & longer term
 - Can dry grain down
 - Can help capture basis improvement
 - Cost – long term investment
 - Should not be a substitute for missed opportunity (Hold and Hope)
- Grain Bags
 - Reduce harvest time delays from long lines
 - Short term
 - Can help capture basis improvement
 - Bags have to be purchased & disposed each year
 - Management issues such as location, insects, rodents, vandals, etc. need to be thought out.

Grain Bag Storage Equipment



Grain Bins – 50,000 bushels

	<u>Initial cost</u>	<u>Per bushel</u>
• Grain Bin	\$54,000	\$1.08 bu.
• Foundation	\$11,000	\$0.22 bu.
• Equipment	<u>\$16,400</u>	<u>\$0.33 bu.</u>
Listed Costs	\$81,400	\$1.63 bu.
Fixed Cost/Life		\$0.18 bu.
Fixed Cost/Loan (10 yr. 6%)		\$0.22 bu.

Grain Bins – 50,000 bushels

	<u>Per bushel</u>
• Repairs, taxes, ins.	\$0.04 bu.
• Transportation to bin	<u>\$0.03 bu.</u>
Variable Cost	\$0.07 bu.
Partial Budget Cost/Life	\$0.25 bu.
Partial Budget Cost/Loan	\$0.29 bu.

Grain Bags

	<u>Initial Cost</u>	<u>Per Bushel(000)</u>		
		50	100	150
• Bagger	\$19,100	\$0.38	\$0.19	\$0.13
• Extractor	<u>\$29,500</u>	<u>\$0.59</u>	<u>\$0.30</u>	<u>\$0.20</u>
Total	\$48,600	\$0.97	\$0.49	\$0.33
Fixed Cost/Life		\$0.12	\$0.06	\$0.04
Fixed Cost/Loan (5 year,6%)		\$0.23	\$0.12	\$0.08

Grain Bags

- Bags
 - \$700 per bag that holds 10,000 bushels
 - \$0.07 per bushel cost



Bins vs Bags

Cost Comparison

	<u>Per Bushel (000)</u>		
<u>Useful Life</u>	<u>50</u>	<u>100</u>	<u>150</u>
Grain Bins	\$0.25	\$0.25	\$0.25
Grain Bags	\$0.19	\$0.13	\$0.11
<u>Loan</u>			
Grain Bins	\$0.29	\$0.29	\$0.29
Grain Bags	\$0.30	\$0.19	\$0.15

Summary & Observations

- Grain bags can offer a lower cost alternative to grain bins, more bushels the lower the cost.
- Bins are a fixed assets that can be leased, bagging equipment can be sold.
- Bags are not without management issues.
- Bags may allow cotton producers profit flexibility.
- Individual situations will vary.

Cotton Situation and Outlook

What Influences the Market?

- Non Agricultural Influences
 - U.S. Dollar
 - Crude Oil
 - Stock market
- Agricultural Influences
 - Fundamental Information
 - Monthly USDA Supply & Demand Report
 - Acreage reports

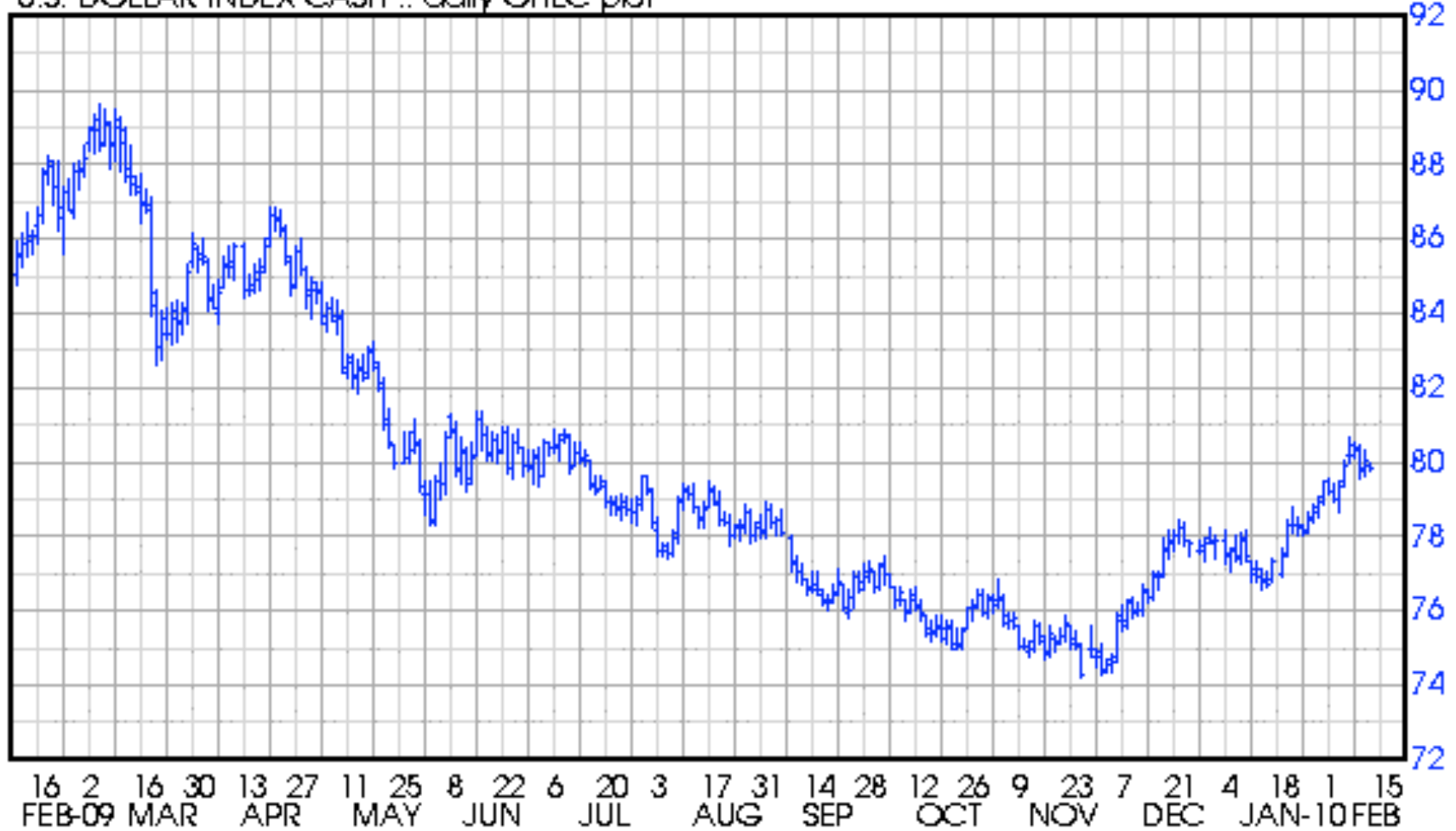
Apparent Market Movers

- **U.S. Dollar**

- Weaker dollar favors commodities, makes exports cheaper for foreign buyers.
- Chinese tightening of credit has lead to concerns of strengthening dollar.
- European Financial Markets.
- Seasonal tendency for high in February



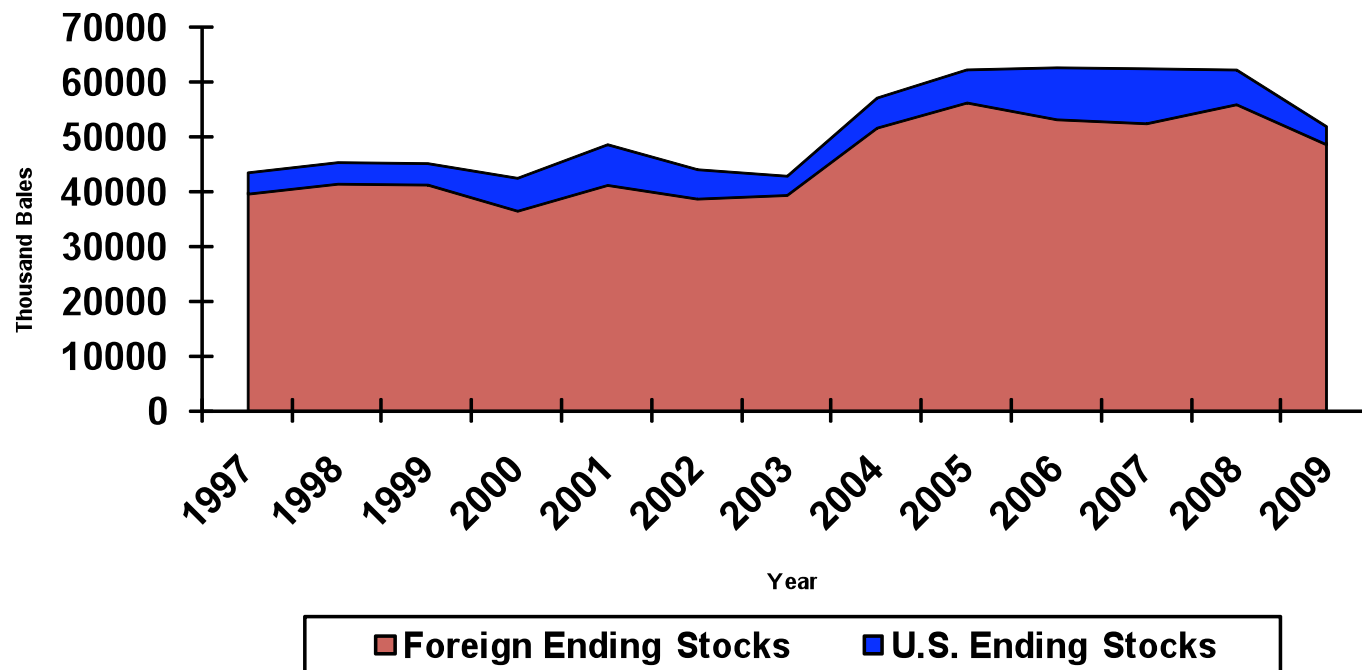
U.S. DOLLAR INDEX CASH .. daily OHLC plot



As of 02/11/10

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U.S. & Foreign Cotton Ending Stocks, 1997-2009



Prospective 2010 U.S. Cotton Area

	2009 USDA Actual	2010 NCC Intentions	Percent Change
	(Thousand Acres)		
SOUTHEAST	1,891	2,123	12.2%
Alabama	255	306	19.9%
Florida	82	80	-2.7%
Georgia	1,000	1,089	8.9%
North Carolina	375	448	19.5%
South Carolina	115	130	12.7%
Virginia	64	71	10.3%
MID-SOUTH	1,627	1,764	8.4%
Arkansas	520	522	0.4%
Louisiana	230	233	1.1%
Mississippi	305	362	18.7%
Missouri	272	293	7.7%
Tennessee	300	354	18.0%
SOUTHWEST	5,243	5,718	9.1%
Kansas	38	45	19.0%
Oklahoma	205	259	26.3%
Texas	5,000	5,414	8.3%
WEST	247	312	26.6%
Arizona	145	175	20.4%
California	71	97	37.1%
New Mexico	31	40	31.9%
TOTAL UPLAND	9,008	9,916	10.1%
TOTAL ELS	142	176	24.4%
ALL COTTON	9,149	10,093	10.3%

<u>Cotton</u>	Demand			Supply/
	<u>2008/09</u>	<u>2009/10</u>	<u>2010/11</u>	
		<u>Expected</u>	<u>Estimated</u>	
Beg. Stocks(MB)	10.04	6.34	3.30	
Acres (MAP)	9.47	9.15	10.1	
Acres (MAH)	7.57	7.69	8.95	
Yield (lbs.)	813	774	830	
Imports	0.00	0.01	0.01	
Supply(MB)	22.86	18.74	18.81	
Use:				
Domestic	3.59	3.4	3.4	
Exports	13.28	12.0	12.1	
Ending Stocks (MB)	6.34	3.3	3.31	
Projected Price/lb	\$0.478	\$.62		
Stocks/Use	37.6%	21.4%	21.4%	

COTTON #2 DEC 2010 .. daily OHLC plot

Expires: 12/08/10



Support	Resistance
70.89	73.43

Cotton Comments

- Cotton usage tied to general economy
- 2009 pricing
 - Loan equities – 13 cents
 - March Futures 72.82 cents/lb. February 10 close
 - Explore equities and buying a call
- 2010 pricing
 - Dec. Futures 72.51 cents/lb. February 10 close
 - Price some on rally to 76 – 78 cents.
 - Look at put option strategies.
 - Loan equities – 12.00 + cent range

Market Information

- Weekly Crop Comments
 - <http://economics.ag.utk.edu/cropcomm.html>
- Monthly Comments
 - <http://economics.ag.utk.edu/outlook.html>
- Cotton Price Risk Management Seminar
 - February 17,2010 Memphis Peabody

What Influences Planting Decisions?

- Profitability Outlook
 - Price Outlook
 - Input costs
 - Yield
- Financial Position or Financing
- Land – Owned, cash or share rent
- Seed Availability
- Rotational Needs
 - Short term vs long term
- Crop Insurance



UT Budgets

- Excel format
- Data, all budgets available in one file
- Individual budgets located on tabs on bottom
- Need some knowledge of Excel
- Financial or crop planning tab
- Operations tab
- Current & archived budgets on <http://economics.ag.utk.edu/budgets.html>



**COTTON, BG II or WIDESTRIKE RR FLEX - NO TILLAGE, 850 POUND YIELD
ESTIMATED RETURNS AND EXPENSES PER ACRE. (12/16ROW EQUIPMENT)**

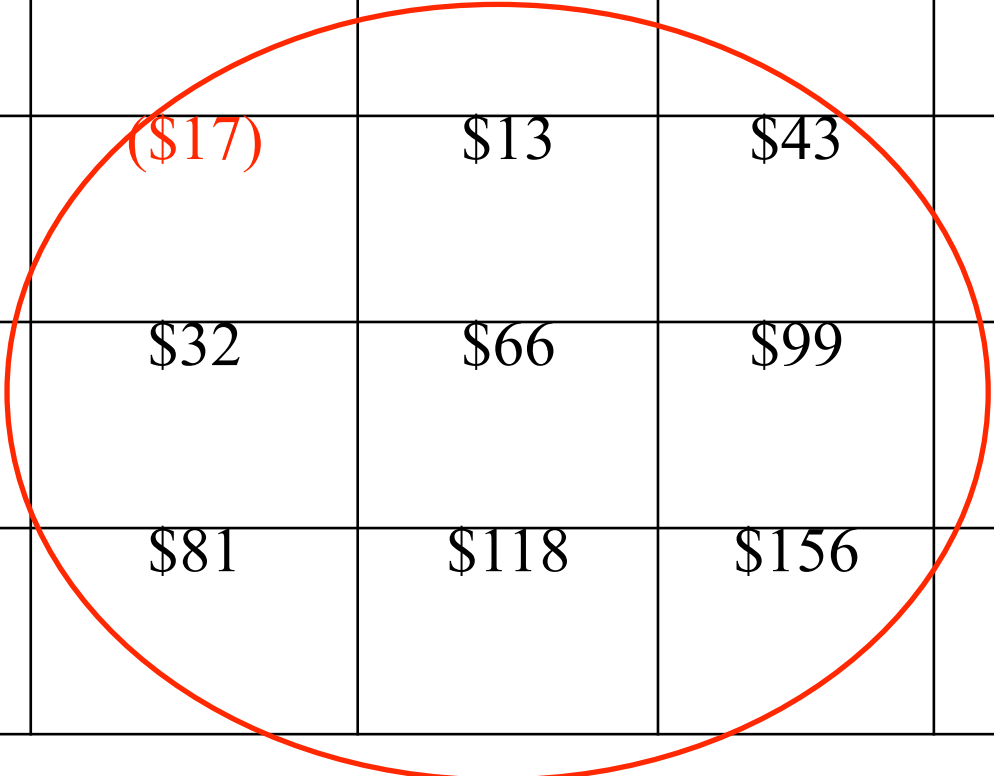


<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>PRICE</u>	<u>AMOUNT</u>	<u>YOUR FARM</u>
REVENUE						
COTTON(1)(2)(7)	LINT	LB.	850	\$0.69	\$586.50	_____
VARIABLE EXPENSES						
SEED (3)	3.5 SEEDS/FOOT BG II or WIDESTRIKE RR	THOUS	48.145	\$0.60	\$28.89	_____
TECH FEE (4)	FLEX	THOUS	48.145	\$1.20	\$57.77	_____
FUNGICIDE	SEED TREATMENT	ACRE	1	\$7.00	\$7.00	_____
INSECTICIDE(5)						
SEED TREATMENT		ACRE	1	\$10.50	\$10.50	_____
IN-SEASON INSECTICIDES(6):		ACRE	1	\$25.00	\$25.00	_____
FERTILIZER	N (UREA)	LB.	80	\$0.48	\$38.40	_____
	P2O5	LB.	60	\$0.52	\$31.20	_____
	K2O	LB.	90	\$0.44	\$39.60	_____
BORON		LB.	0.5	\$3.85	\$1.93	_____
LIME		TON	0.5	\$34.50	\$17.25	_____
HERBICIDES:						
BURNDOWN	ROUNDUP POWER MAX	PT.	1.38	\$4.38	\$6.04	_____
BURNDOWN	CLARITY	OZ.	8	\$0.70	\$5.60	_____
PRE-EMERGE	COTORAN 4L	PT.	2	\$5.18	\$10.36	_____
OVER THE TOP	ROUNDUP POWER MAX	PT.	1.38	\$4.38	\$6.04	_____
OVER THE TOP	DUAL MAGNUM	PT.	1	\$13.42	\$13.42	_____
OVER THE TOP	ROUNDUP POWER MAX	PT.	1.38	\$4.38	\$6.04	_____
OVER THE TOP	ROUNDUP POWER MAX	PT.	1.38	\$4.38	\$6.04	_____
GROWTH REGULATOR	MEPEX (Mepiquat Chloride)	PT.	2	\$2.38	\$4.76	_____
SCOUTING		ACRE	1	\$8.00	\$8.00	_____
DEFOLIANT		OZ.	12	\$0.45	\$5.40	_____
BOLL OPENER	ETHEPHON	OZ.	32	\$0.22	\$7.04	_____
MACHINERY REPAIR		AC.	1	\$32.33	\$32.33	_____
MACHINERY FUEL	DIESEL @ \$2.35/GALLON	AC.	1	\$24.21	\$24.21	_____
OPERATING CAPITAL	6 MONTHS	AC.	\$392.83	6.00%	\$11.78	_____
TOTAL VARIABLE EXPENSES					\$404.61	_____
RETURN ABOVE VARIABLE EXPENSES					\$181.89	_____
MACHINERY EXPENSES						
MACHINERY DEPRECIATION		AC.	1	\$40.96	\$40.96	_____
INTEREST EXPENSE	MACHINERY & EQUIP.	AC.	1	\$16.73	\$16.73	_____
RETURN TO LAND, LABOR, MANAGEMENT, AND RISK					\$124.19	_____
LABOR EXPENSES						
LABOR		HR.	1.12	\$9.75	\$10.93	_____
RETURN TO LAND, MANAGEMENT, AND RISK					\$113.27	_____



Cotton Per Acre Returns Above Variable Expenses and Share Rent (25%)

Yield/Acre	\$0.60 lb.	\$0.65 lb.	\$0.70 lb.	\$0.75 lb.	\$0.80 lb.
700	(\$92)	(\$66)	(\$39)	(\$13)	\$13
800	(\$47)	(\$17)	\$13	\$43	\$73
900	(\$ 2)	\$32	\$66	\$99	\$133
1000	\$43	\$81	\$118	\$156	\$193



Tennessee Average Yields

	<u>Five year Average</u>	<u>Prices Offered</u>
• Corn	125 bu./acre	\$3.80 bu.
• Cotton	825 lbs./acre	\$0.68
• Soybeans	35 bu./acre	\$9.00

2010 Projected Per Acre Returns

	Corn	Cotton	Soybeans (Full Season)
Yield	125 bu.	875 lbs.	40 bu.
Price	\$3.80 bu.	\$0.68 lb.	\$9.00 bu.
Revenue	\$475	\$595	\$360
Variable Cost	\$322	\$408	\$214
Returns over Variable Cost	\$ 153	\$187	\$146
Land Costs (25% share)	\$ 119	\$148	\$ 90
Returns over Variable and Land Costs	\$34	\$39	\$ 56
Returns over Variable with Cotton Land Costs	\$5	\$39	(\$ 2)

2010 Projected Per Acre Returns +10%

	Corn	Cotton	Soybeans (Full Season)
Yield	137.5 bu.	963 lbs.	44 bu.
Price	\$3.80 bu.	\$0.68 lb.	\$9.00 bu.
Revenue	\$523	\$655	\$396
Variable Cost	\$322	\$408	\$214
Returns over Variable Cost	\$ 201	\$246	\$182
Land Costs (25% share)	\$131	\$162	\$ 99
Returns over Variable and Land Costs	\$70	\$84	\$ 83
Returns over Variable with Cotton Land Costs	\$39	\$84	\$20

2010 Projected Per Acre Returns -10%

	Corn	Cotton	Soybeans (Full Season)
Yield	112.5 bu.	788 lbs.	36 bu.
Price	\$3.80 bu.	\$0.68 lb.	\$9.00 bu.
Revenue	\$428	\$536	\$324
Variable Cost	\$322	\$408	\$214
Returns over Variable Cost	\$ 105	\$127	\$110
Land Costs (25% share)	\$107	\$133	\$ 81
Returns over Variable and Land Costs	(\$ 2)	(\$ 5)	\$ 29
Returns over Variable with Cotton Land Costs	(\$28)	(\$ 5)	(\$23)

2010 Projected Per Acre Returns (2006 yields)

	Corn	Cotton	Soybeans (Full Season)
Yield	125 bu.	945 lbs.	39 bu.
Price	\$3.25 bu.	\$0.75 lb.	\$8.25 bu.
Revenue	\$406	\$709	\$322
Variable Cost	\$322	\$408	\$214
Returns over Variable Cost	\$ 84	\$301	\$108
Land Costs (25% share)	\$ 102	\$176	\$80
Returns over Variable and Land Costs	(\$17)	\$125	\$ 28
Returns over Variable with Cotton Land Costs	(\$92)	\$125	(\$96)

What looks best?

- Prices are at a level where a slight change in yield and or price can favor one crop over another.
- Uncertainty in weather.
- Machinery complement
- Diversification
 - Diversify among crops
 - Diversify among maturity groups, varieties
 - Opportunities for rotation
- Do some planning – contact your County Extension office

