

DOMESTIC COTTON PRODUCTION AND PRICE OUTLOOK

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Abstract

A balance in world cotton supplies and demand for the last two seasons implies fairly stable but weak prices during the year ahead. Yet, strong corn and soybean prices threaten to reduce U.S. cotton acreage well under the 13.9 million for the 1997 crop and far below the 16.9 million planted in 1995. With planting decisions largely guided by financial risk and income potential, producers in several regions of the Cotton Belt plan to cut cotton acreage substantially next season unless the farm price of cotton increases to at least 70 cents per pound or higher.

Acreage for the 1998 crop season may fall in the same range of 13.2 million to 13.7 million acres that were planted for the 1992-1994 crops. The resulting possible production variation could also follow a similar 16.1 to 19.7 million bale path that it did during those years. Since U.S. cotton usage is fairly stable around 18.0 million bales, the resulting market price levels next fall are subject to a sizable variation from well under 70 cents per pound for December '98 futures, if yields are high, to above 80 cents for low yields.

Therefore, the possible price level next fall has a wide range because of the acreage and yield uncertainties. However, the fairly stable December futures price range of 72 to 78 cents since the 1995 crop season could continue if world production and use remain in balance. Thus, a marketing plan that uses strategies to price producer cotton in the vicinity of 70 cents per pound and possibly higher should be considered.

Introduction

Provisions of the 1996 Farm Bill have increased the flexibility of producers to respond to market signals and shift crop acreages. The financial risk associated with crop production has also increased because of production and price uncertainties. The alternative crops of corn, soybeans, sorghum, and wheat are gaining increased attention because they offer less risk when prices of these crops are favorable relative to cotton.

Producers' planting decisions are heavily guided by the economics of costs and returns. The flexibility of planting alternate crops instead of cotton has major implications for producers, lenders, ginners, handlers, oil mills, warehouses,

merchant-shippers, and textile manufacturers. Since producers will plant all of their land to some crop, those agribusiness industries serving cotton producers may experience the greatest adjustments and business restructuring.

U.S. Cotton Supply Adequate

The U.S. cotton supply for 1997/98 season is fully adequate to meet strong domestic and export use. Domestic use has steadily increased from 10.7 million bales during the 1995 season to a projected 11.4 million in the 1997 season. That compares to only 7.6 million use 10 years ago. Domestic demand for cotton remains favorable, and use may exceed 11.4 million next season. Exports are highly variable because of year-to-year changes in foreign production and resulting supply. During the last decade, exports have varied from a low of 5.2 million shipments from the 1992 crop to a high of 9.4 million two seasons later. Seasons when export shipments are low usually follow a year when foreign production and consumption are reasonably balanced. Likewise, exports tend to increase when there is a large shortfall in foreign production relative to consumption. For the last two seasons, the deficit gap in foreign production to consumption has been around 7.0 million bales. Thus, export expectations of around 7.0 million bales for both this and the 1998/99 season are good.

Less Acreage Expected in 1998

Cotton acreage for the new season is expected to decline for the third year in a row. The main reasons are high costs and financial risk associated with cotton production, a sluggish cotton market, relatively strong corn and soybean prices, and fixed transition payments by the government.

Acreage planted to cotton dropped from 16.9 million in 1995 to 13.9 million this season, or 18 percent fewer acres in two seasons. Because price levels for cotton, corn, soybeans and several alternative crops continually change in response to market forces, cotton acreage for 1998 will remain uncertain until the June 30 USDA planted acreage report.

A review of production costs for cotton indicates the lowest costs per pound are in the Southeast and Southwest regions. Production costs are higher in the Delta and the far West. Thus, cotton acreage is likely to decline the least in the Southeast and Southwest. The largest acreage reduction is expected in the Delta, with acreage in California and Arizona fairly stable.

Given the production costs and alternative crops, I currently expect 1998 U.S. acreage to be in the 13.2 to 13.7 million acre range. In order to have a point estimate, I will use 13.5 million acres until information suggests otherwise. Besides, the U.S. cotton industry needs at least 13.5 million acres to meet an 18.0 million bale market at price levels that are internationally competitive. Any smaller acreage suggests the U.S. cotton industry may lose export market share, and domestic mills may resort to importing cotton. Another big

decline in acreage would lead to even fewer gins and agribusinesses, and curtail economic activity in rural areas dependent upon cotton production.

Assuming 13.5 million planted acres, 7 percent loss between planted and harvested acreage and an average yield of 665 pounds per acre, a 17.4 million bale crop would be produced. That's almost 1.5 million less than produced during the last two seasons. If domestic use remains at 11.4 million and exports at 7.0 million, total use would exceed production by a million bales and decrease carryover to 3.3 million bales, compared to 4.3 million carryover estimated this season.

A decrease in carryover to around 3.0 million bales would likely push farm prices above 70 cents per pound. Of course, a carryover of 4.0 million or more results in lower prices. To indicate the potential variation in supply, a lower 600 pound per acre yield on 13.5 million acres produces a 15.9 million bale crop, and a higher 700 pound yield results in 18.5 million bales. Cotton yield has averaged 655 pounds for the last 6 years. However, yield has varied from 673 pounds this season, 707 pounds last season, and 536 pounds for the 1995 crop. Should yield and acreage result in a small crop, imports would likely be used to meet domestic mill use.

Foreign Production and Consumption Gap Steady

Foreign production and consumption for the last two seasons have been fairly stable around 71 and 78 million bales, respectively. The stability in foreign production is in sharp contrast to earlier years when production reached 78.1 million bales in 1991/92 and dropped to 60.6 million in 1993/94. Most of the decline was due to fewer acres in response to the low world price of 57.7 cents per pound Cotlook "A" Index for the 1992/93 crop. During the same time, foreign consumption remained steady at 75.0 to 76.4 million bales.

With the deficit gap in foreign production near 7.0 million bales for two seasons, the U.S. export market potential remains around 7.0 million bales. Too, all foreign stocks are close to 32.0 million bales, up substantially from 22.7 million carryover from the 1993 crop.

Overall, the balance in foreign production and consumption suggests a fairly stable situation for the international market. Thus, until acreage and/or yields change enough to create an imbalance in supply and demand, world price will likely remain in the upper 70 cent range.

U.S. Price Outlook Stable

A balance in world cotton supplies and demand implies fairly stable but weak prices for the year ahead. However, in early 1998, the cotton price level, relative to corn and soybean prices, needs to be favorable to assure that growers will plant enough cotton acreage to meet market requirements. Strong grain and soybean prices threaten to reduce cotton acreage well below the 13.9 million for the 1997 crop. Producers in several states plan to cut cotton acreage substantially unless

the farm price before planting increases to at least 70 cents per pound and higher. Hence, December '98 futures need to rally above 75 cents.

The December '98 price level next fall has a wide range of possibilities from well under 70 cents to near 80 cents per pound because of the uncertain acreage and yield. Although, if world production and use remain in balance, the stability in prices since 1995 could continue another season.

Given expectations of slightly less cotton acreage at home and overseas, December '98 futures this spring may follow a path similar to the '97 contract but slightly lower. December '97 traded mostly in the 76 to 78 cent range during the first half of last year. During its two year trading period, December '97 futures settlement prices varied from 80.02 cents on May 2, 1996 to 66.38 on December 4, 1997.

The new crop expectations in late spring and early summer, along with the June acreage report, will direct market forces in the second half of 1998. To protect your cash flow, it appears advisable to consider a marketing plan that prices your crop in the vicinity of 70 cents and above range. Pricing strategies that insure against price declines but allow benefits from higher prices are desirable.

Plan to Manage Risk

An essential step in effectively managing price risk is a marketing plan. The plan should include a financial picture of your business, estimated break-even cost, and a realistic profit margin. Knowing your production costs and why is a key to survival.

If your total costs per pound are over 70 to 75 cents, you need to review costs, financial risk, and income from alternative crops. Producers with the most efficient operations report production costs in the 60 to 70 cent per pound range. The price to producers is projected to average in the 66 to 68 cent range over the next five years. However, skillful market watchers can find favorable pricing opportunities in most years.

Markets are not going to give you anything if you do not take action to implement your marketing plan. Space pricing over time and forget about picking the market peak. Seasonally, the strongest price tends to be in April, May, and June.

The pressure for producers to manage market risk will encourage more integration of production and marketing activities. The integration can be accomplished by innovative private enterprise or expansion of producer-owned cooperatives for both buying inputs and marketing direct to mills.

Long-Run Perspective for U.S. Cotton

Cotton producers in the U.S. have the capability to substantially expand production. Yet, producers are cutting acreage because of high production costs and weak markets.

Reduced cotton acreage means a direct economic slowdown for agribusiness firms servicing producers and the rural economies. If acreage decreases enough to raise prices, lower priced man-made fibers could gain market share, especially overseas. Too, foreign growers may expand production and claim a large share of export market.

Producers, suppliers, handlers, ginner, operators of oil mills and warehouses, merchants, and textile manufactures need to unite their interests and capitalize on the opportunities available to lower production costs and seek industry growth. Without support from all sectors, the financial risks associated with growing cotton could curtail production beyond current expectations. Acreage recovery from the steep 18 percent decline in two seasons from 16.9 million acres in 1995 depends on cost effective production, less foreign production, competitive price with man-made fibers, improved quality, an effective marketing system, and increased world demand.

The cotton industry has an opportunity to slow the industry's decline. But, it must unite the industry from producer to mill operator to quickly strive to streamline production and marketing systems. New technology such as cost effective insect control programs and genetically engineered cottons offer growers lower production costs and increased yields. Producers with total production costs above 75 cents per pound need to lower costs or consider alternatives to growing cotton.

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Table 1. Cotton World Supply/Demand ^{1/}, million bales

Supply	1995/96	1996/97 ²	1997/98 ³	1998/99 ⁴
Acreage (000 ac.)	88.8	83.6	84.0	82.0
Yield (lbs./ac.)	506	516	519	515
Beginning Stks	28.3	33.8	36.4	37.0
Production	93.0	89.2	90.1	88.0
Total Supply	121.3	123.0	126.5	125.0
Disappearance				
Mill Use	86.9	88.3	89.6	90.0
Exports	27.8	26.6	26.7	26.0
Ending Stks	33.8	36.4	37.0	35.0
Ending Stks/Use	38.9	41.2	41.3	38.9
"A" Index	85.6	78.58	^{5/} 78.36	↑

Table 2. Cotton U.S. Supply/Demand ^{1/}, million bales

Supply	1995/96	1996/97 ²	1997/98 ³	1998/99 ⁴
% ARP	0.0	NA	NA	NA
Planted Acres	16.9	14.6	13.9	13.5
Harvested Acres	16.0	12.9	13.4	12.6
Yield (lbs./ac.)	536	707	672	665
Beginning Stks	2.7	2.6	4.0	4.3
Production	17.9	18.9	18.8	17.4
Imports	0.4	0.4	0.0	0.0
Total Supply	21.0	22.0	22.8	21.7
Disappearance				
Mill Use	10.7	11.1	11.4	11.4
Exports	7.7	6.9	7.1	7.0
Total Use	18.3	18.0	18.5	18.4
Unaccounted	0.03	-0.01	0.01	0.00
Ending Stks	2.6	4.0	4.3	3.3
Ending Stks/Use	14.25	22.07	23.24	17.9
Avg. Farm Price	75.4	69.3	↓	↑

^{1/}"World Ag. Supply-Demand Estimates", USDA, 12/11/97

^{2/} Estimated. ^{3/} Projected. ^{4/} Projected by Author

^{4/} Final 94/95 annual "A" Index number from August 1, 1994 through May 23, 1995. "A" Index was not reported from May 24, 1995 - July 31, 1995.

^{5/} 97/98 "A" Index from August 1, 1997 through December 17, 1997.

Note: Numbers may not calculate due to rounding.

Table 3. U.S. Cotton Price Prospects for 1998/99 Crop, 13.5 Million Acres Projected With Alternative Yields

	Average Yield	Higher Yield	Lower Yield
Yield	650	700	600
Beg. Stocks	4.3	4.3	4.3
Production	17.2	18.5	15.9
Imports	0.1	0.0	0.8
Supply	21.6	22.8	21.0
Use	18.3	18.5	18.0
Carryover	3.3	4.3	3.0
Dec. '98 Futures	70-77	66-76	72-78

Table 4. U.S. Cotton Acreage

Region	1997	1998
----- Million Acres -----		
Southeast	3.1	3.0 - 3.1
Delta	3.4	3.1 - 3.2
Southwest	5.8	5.7 - 5.8
West	1.3	1.2 - 1.3
Pima	0.3	0.2 - 0.3
Total Plantings	13.9	13.2 - 13.7
Harvested Acres	13.4	12.3 - 12.7
Production	18.8	17.4 MB*

*(13.5 x .93) = 12.55 Harvested Acres (12.55 x 665 lbs.)

Table 5. Possible All U.S. Cotton Production

Million Acres Planted	--- Pounds Per Harvested Acre ---			
	550	600	650	700
	--- Million 480 Lb. Bales ---			
14.0	15.6	16.5	17.8	19.2
13.5	14.5	15.9	17.2	18.5
13.0	14.0	15.3	16.5	17.8

Table 6. U.S. Cotton Planted, Harvested Acreage, Yield Per Acre and Production

Crop Year	Planted	% Acres Lost	Harvested	Yield	Production
	(000 acs.)		(000 acs.)	lbs.	(000 bales)
1995	16,931	-5.46	16,007	536	17,900
1996	14,634	-12.07	12,868	707	18,942
1997	13,910	-3.59	13,437	673	18,848
11 Year Avg.	13,252	-6.86	12,343	650	16,654
6 Year Avg.	14,312	-7.35	13,260	655	17,951

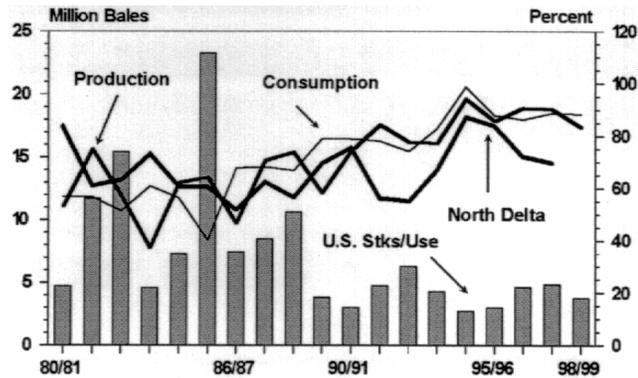


Figure 1. U.S. Cotton production, Use, %, Stocks/Use and North Delta, 1980/81-1998/99.

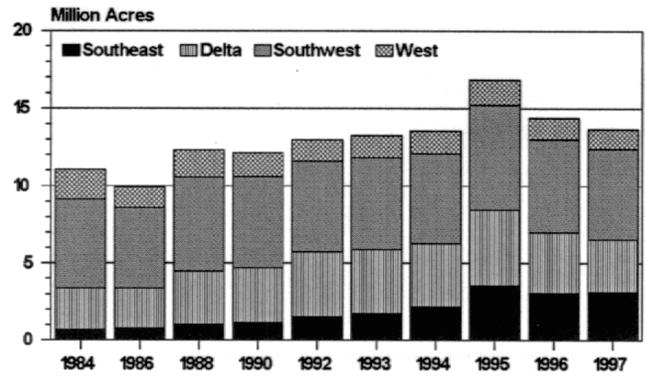


Figure 2. U.S. Upland Cotton: Planted Acreage by Region, 1984-1997.

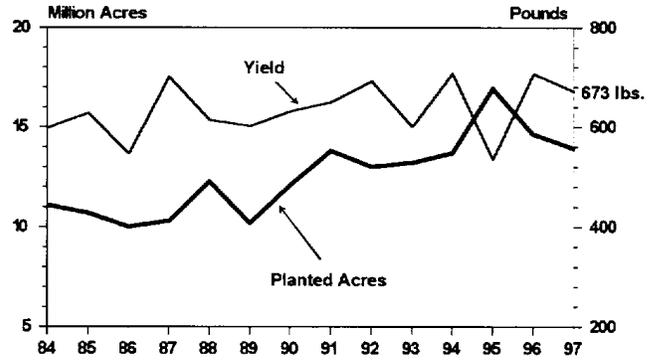


Figure 3. U.S. Cotton Planted and Yield Per Acre, 1984-1997.

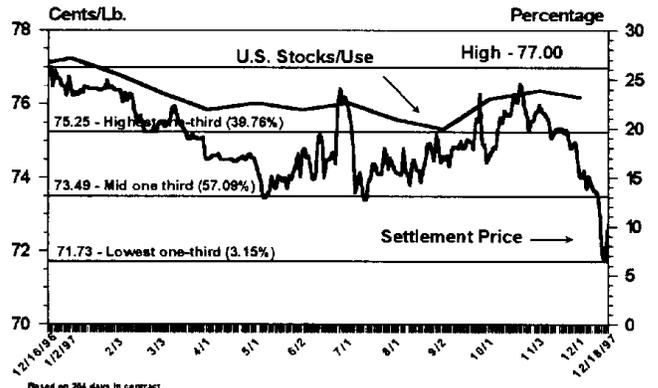


Figure 4. December 98 Cotton Futures Settlement Price and U.S. Ending Stocks-to-Use.