

## COTTON PRICE OUTLOOK

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### Abstract

The U.S. cotton marketing industry faces another year of possible extreme price changes. Prices could move over a 30 cent per pound range from the mid-50 cent level to mid-80 cents during 1996. Despite U.S. growers intending to plant less cotton than last season, supply is likely to increase because of weak demand. Overseas, cotton production has recovered while consumption remains stagnant. As a result, world stocks will likely increase in the season ahead for the third year in a row. Therefore, the pressure on prices is mainly bearish. However, in early 1996, the cotton price needs to be reasonably favorable, relative to high grain and soybean prices, to assure that growers will plant sufficient cotton acreage to supply market requirements.

### Introduction

Cotton supplies worldwide appear adequate to place fairly strong downward pressure on prices for the 1996/97 season. World projections feature increased production and more stocks for this and next season. For the U.S., the perspective includes weak domestic and export demand, and a sizable increase in carryover stocks this season from the tight 2.7 million bales last season. However, there is much uncertainty as to acreage, yield and demand for the new crop.

With attractive grain prices bidding for acreage, the cotton market in early 1996 needs to offer a price adequate to encourage planting enough cotton to meet expected usage. The uncertainty surrounding potential production will clear up somewhat when planted acreage is reported the end of June. Also, by mid-year, crop progress reports begin to put some focus into the expectations for crop size. The resulting supply could range from too little to too much for expected usage. Accordingly, price moves could be large. As a result, the U.S. cotton industry faces another year of possible extreme price changes.

Growers are encouraged to deal with the price risk by preparing a marketing plan that estimates production costs and use price strategies that protect against price declines and still benefit from market rallies. These strategies include forward contracts with or without call options,

using put options, and marketing cotton as a group or in a cooperative pool.

### U.S. Supply Up, Demand Down

Cotton growers are disappointed with their low 551 pounds per acre 1995 yields, the lowest since 506 pounds in the 1983/84 season. They produced 1.5 million fewer bales on 3 million more acres than the 19.7 million from the 1994/95 crop. However, usage is down a substantial 3 million bales. Domestic use has been reduced because of a slowdown in consumer demand and relatively high prices. Exports have slowed because foreign production has rebounded. In December, carryover from the 1995/96 crop was projected at 3.4 million, up substantially from the 2.7 million the season before and close to the 3.5 million bales left over from the 1993/94 crop.

Supply is likely to increase in the year ahead despite the likelihood of fewer acres. Because of the large financial commitment and risk in growing cotton, and attractive corn, sorghum, wheat, and soybean prices, growers intend to plant less acreage to cotton than the 16.8 million last season. The price levels of both cotton and grain will influence cotton acreage. It will take fairly strong cotton prices in early 1996 to keep acreage from dropping substantially. Yet, as the year unfolds, relatively low prices are needed to use more than 18.0 million bales. The slow economy may hold domestic use down, and another good foreign crop could curtail exports.

Assuming 6.5 percent less acreage in 1996/97 than last season, acreage would decrease 1.1 million to 15.7 million acres. Thus, a 650 pound per harvested acre yield would produce about 20.0 million bales. That is enough cotton to fully cover projected use. However, production could fall to only 16.9 million bales with another season of a low 550 pound yield, and strong prices would result. By contrast, a high yield of 700 pounds would produce 21.5 million acres and flood the market and drive prices down sharply.

Should early 1996 cotton prices weaken, growers might reduce acreage 11 percent to 15.0 million. This would tighten potential production considerably and support prices later in the year. Production on 15.0 million acres would fall in the 16.2 million to 20.6 million bale range using 650 to 700 pound yields. Growers indicate that it will take 75 cents per pound or better contract prices in early 1996 to discourage them from planting much less acreage in cotton and much more in grain and soybeans.

### Foreign Supply Increasing, Demand Stable

Foreign cotton production and stocks have recovered substantially during the last two crop seasons. Meanwhile, consumption has been fairly stable around 75 million bales. Therefore, carryover stocks this season are projected to increase some 2.5 million to about 29.0 million bales. Production for the 1995/96 crop stands at 71.3 million. That cuts the foreign consumption versus production deficit

gap to less than 4 million bales. Two seasons ago, the deficit was almost 14 million bales with carryover stocks a low 23.5 million.

It was this huge shortfall in foreign production in 1993/94 that paved the way for the 9.4 million U.S. export shipments last season. The smaller deficit gap this season indicates that foreign countries will need less cotton from the U.S. The increased supply has resulted in foreign cotton selling for around 10 cents per pound under U.S. delivered prices.

The 1995/96 crops of our chief foreign competitors--China, Pakistan, and India--were much better than the year before. China is expected to produce 20.0 million bales; use, 20.80; and carryover, 10.68 million. Thus, the China factor that drove U.S. exports and price up last season is diminished substantially. They are expected to import 2.2 million bales from all sources versus the 4.06 million in 1994/95.

Pakistan's current crop stands at a remarkable 8.5 million bales, up 2.0 million from last season. They planted more acreage to cotton, used disease resistant varieties, and had less insect problems and flooding. Where last season Pakistan imported cotton, they will be exporting this season to the same Asian markets that buy U.S. cotton.

India also experienced a good 11.0 million bale harvest, slightly better than the previous season. That should allow them to export several hundred thousand bales.

A major factor in the slowdown of foreign consumption, and to a lesser degree, production, are the Republics of the Former Soviet Union. However, the 6 million bale drop in their use since the 1989/90 season has more than offset the 3.2 million decrease in production. As a result, these Republics, mainly Uzbekistan, have switched from mostly internal exports to external exports. Where their external exports that compete with U.S. cotton was 2.0 million in 1990/91, it had increased by almost 4.0 million bales to 5.9 million in the current season. Thus, 1995/96 U.S. cotton faces stiff competition in the international market. The same competitiveness with Central Asian cotton is expected to continue in the 1996/97 marketing year.

In summary, the foreign production-consumption deficit gap has narrowed. As the need for U.S. cotton in foreign markets is diminished, U.S. growers will have to compete vigorously price wise to maintain a 6 to 7 million bale export market. Combining U.S. and foreign cotton into the world situation for 1996/97 strongly indicates that carryover stocks will increase for the third year in a row.

#### **Price Expectations Mixed**

The big question is how much shifting out of cotton from the 16.8 million acres planted last season will occur this season? Uncertain acreage and yields may provide some support under December '96 futures, at least until planting

time, when some idea begins to shape up as to how much acreage will be planted. At the end of June, the first estimate of acreage is released. In July, domestic use, exports and carryover from the 1995/96 crop will firm up. During mid-year, prices will be adjusting to the expected 1996/97 supply-demand balance.

The "A" Index (world price) rallied from 74 cents per pound in October 1994 to almost 114 cents by April 1995. Since then, with improvement in cotton supplies, the "A" Index has decreased to 87.86 cents in December 1995. Currently, the world price adjusted to the U.S. (AWP) is down in the lower 70 cent level. It is clear that world and U.S. prices have decreased because of increased available supplies.

A review of stocks-to-use (s/u) percentages since the 1989/90 season helps put the 1996/97 cotton market outlook into perspective. During the last seven seasons, cotton prices have been on roughly a two-year price swing. Prices were on the increase during the 1989/90 - 1990/91 seasons. With world s/u percent in a tight 29 to 32 percent range, and U.S. s/u at 18 percent and declining toward 14 percent, the "A" Index reached a strong 83 cents, and U.S. prices increased to 75 cents. In the 1991/92 - 1992/93 seasons, world stocks shot up to around 45 percent, and, in the U.S., stocks increased to the 23-30 percent range. Price responded to the increased supply by declining 15 to 20 cents per pound.

In the 1993/94 season, world acreage dropped 5 million acres, and yields averaged a low 489 pounds per acre. Stocks decreased as the crop was small, and prices started increasing. World stocks decreased a substantial 10 million bales. With stocks especially tight in some areas by 1994/95, world average prices skyrocketed to 92 cents, 10 cents beyond the high levels in 1990. Yet, world demand remained stable at 85 million bales.

Barring bad weather and insect problems, prospects for the 1996/97 season indicates world stocks will increase for the third year in a row. If realized, the pressure will increase for a substantial decline in price from the 1994/95 - 1995/96 level of 90 cents in average world price. My projections for the new season suggest that s/u percentages for the world, foreign and U.S. will be the highest in four seasons. In the past, these high levels of stocks placed considerable downward pressure on prices.

Uncertainty of supply and, to some degree, U.S. demand should cushion the price break in early 1996. But, in the second half of 1996, price will be determined by the eventual crop size. Supply relative to demand is on a thin edge of being too much or too little. Only low yields because of poor growing conditions will lead to tight stocks. It is the exceptionally low yields in several major cotton producing countries for the last three seasons that have supported relatively high prices.

In looking at U.S. price prospects, there is a real possibility of rather large price swings. Based on a tentative projection of 15.7 million planted acres for the 1996/97 season, carryover stocks could end up around 6 million bales with a high yield of 700 pounds per acre or 3 million from a very low yield, like this year, of 550 pounds. As a result, the December '96 futures price could vary from the mid-50 cent to the mid-80 cent levels. The most likely range seems to be in the low 60 cent level to the low 80 cent level. In early January, the December '96 futures price at the mid-70's might be on the strong side of the expected range.

Assuming an average 650 pound yield, production of 20 million bales, an optimistic use of 18.5 million bales (11 domestic and 7.5 exports), and carryover close to 5 million bales, the December '96 futures price this fall would likely dip to the mid-60 cents to high 50 cent levels. Therefore, growers who desire protection against lower prices should take a hard look at favorable price contracts or put options in the mid-70 cent level.

### Price for Profit

It is clear that the financial stakes are high in developing a sound plan to deal with fluctuating price levels. Marketing plans and year-round pricing strategies provide opportunities to increase income and obtain needed financing. To start, estimate your costs of producing cotton. If your total costs (cash plus fixed) per pound are over 70 to 75 cents, you need to review your costs, financial risk and alternative crop potential to evaluate income and risk exposure. Growers with efficient operations on the more productive soils report production costs in the 60 to 70 cent per pound range. Your costs need to be in line with prices that are projected to average in the lower 60 cent level over the next five years. However, prices during the year usually vary substantially above and below the averages, offering favorable pricing opportunities in most years for skillful market watchers.

These price changes are mixed and follow no easily predictable pattern over time. Daily December cotton futures since 1980 have reached the highest price 13 times out of 16 between May and September. But, 7 of 13 highs have been in the year prior to harvest. Five of these early highs have preceded crops where supplies increased substantially. The price swings from low to high per futures contract have averaged near 21.0 cents per pound over the last 10 years. Price highs have exceeded 76 cents 11 of the 16 years.

Cotton futures and options markets offer the flexibility to custom build a selling or buying program. Options may be used alone, with forward contracts, and with futures. Options are extremely flexible. A big plus for using options by producers is that if price increases, additional profits can be enjoyed. "A producer can not control price,

but can control when and how to price." Best wishes for a prosperous New Year!

### Acknowledgment

The author gratefully acknowledges the technical assistance of Caroline Smith in the assembling of data and preparation of manuscript, tables, charts and slides.

**Table 1. Cotton world supply/demand<sup>1/</sup>, million bales.**

Supply	93/94	94/95 <sup>2/</sup>	95/96 <sup>3/</sup>	96/97 <sup>4/</sup>
Acreage (000 ac.) . . . . .	75.6	78.9	85.6	85.5
Yield (lbs./ac.) . . . . .	489	521	494	515
Beginning Stocks . . . . .	35.1	27.0	29.2	32.5
Production . . . . .	77.0	86.0	89.5	90.0
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Total Supply . . . . .	112.1	113.0	118.7	122.5
Disappearance				
Mill Use . . . . .	85.3	84.6	85.8	87.0
Exports . . . . .	27.3	29.1	28.1	29.4
Ending Stocks . . . . .	27.0	29.2	32.2	35.5
Ending Stks/Use . . . . .	31.7	34.8	37.5	40.8
"A" Index . . . . .	70.7	<sup>4/</sup> 92.69	<sup>5/</sup> 88.90	???

**Table 2. Cotton U.S. supply/demand<sup>1/</sup>, million bales.**

Supply	93/94	94/95 <sup>2/</sup>	95/96 <sup>3/</sup>	96/97 <sup>4/</sup>
% ARP . . . . .	7.5	11.0	0.0	0.0
Planted Acres . . . . .	13.4	13.7	16.8	15.7
Harvested Acres . . . . .	12.8	13.3	15.9	14.8
Yield (lbs./ac.) . . . . .	606	708	551	650
Beginning Stocks . . . . .	4.7	3.5	2.7	3.4
Production . . . . .	16.1	19.7	18.2	20.0
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Total Supply . . . . .	20.8	23.2	20.9	23.4
Disappearance				
Mill Use . . . . .	10.4	11.2	10.7	11.0
Exports . . . . .	6.9	9.4	6.8	7.5
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Total Use . . . . .	17.3	20.6	17.5	18.5
Unaccounted . . . . .	-0.01	-0.04	-0.01	---
Ending Stocks . . . . .	3.5	2.7	3.4	4.9
Ending Stks/Use . . . . .	20.4	12.9	19.4	26.5
Avg. Farm Price . . . . .	58.4	73.0	75.0	???

<sup>1/</sup> "World Ag. Supply-Demand Estimates", USDA, 12/11/95.

<sup>2/</sup> Estimated. <sup>3/</sup> Projected.

<sup>4/</sup> 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.

<sup>5/</sup> 95/96 "A" Index from August 1, 1995 through December 31, 1995.

<sup>6/</sup> Projected by author.

**Table 3. U.S. price prospects, 15.7 million acres projected with alternative yields.**

	Average Yield	High Yield	Low Yield	Very Low Yield
Yield . . . . .	650	700	600	550
Production . . . . .	20.0	21.5	18.4	16.9
Use . . . . .	18.5	19.0	18.0	17.5
Carryover . . . . .	4.9	5.9	3.8	2.8
Dec. Futures . . . . .	Mid-60's High-50's	Low-60's Mid-50's	Low-70's Mid-70's	Low-80's Mid-80's

Most likely range low 60's to low 80's

**Table 4. Cotton market indicators: world, foreign and U.S. stocks-to-use percentages, and North Delta and "A" Index price quotes.**

Season	Stocks-to-Use			Price	
	World	Foreign	U.S.	North Delta	"A" Index
	---- Percentage ----			--- Cents/Lb. ---	
1989/90	29.4	28.9	18.2	69.51	82.40
1990/91	32.4	33.1	14.2	75.50	82.90
1991/92	46.8	47.9	22.8	56.18	63.05
1992/93	43.7	43.4	30.2	55.03	57.74
1993/94	31.7	31.4	20.4	67.04	70.69
1994/95	34.5	36.1	12.9	87.25	92.92
1995/96 <sup>1/</sup>	37.5	38.3	19.4	83.58 <sup>2/</sup>	88.90 <sup>2/</sup>
1996/97 <sup>3/</sup>	40.8	43.7	26.5	???	???

<sup>1/</sup> 1995/96 projected December 1995.

<sup>2/</sup> North Delta and "A" Index averages 8/1/95 - 12/31/95.

<sup>3/</sup> Projected by author.

Source: USDA

**Table 5. Former Soviet Union cotton production, consumption and exports.**

MY	Production	Consumption	Exports <sup>1/</sup>
	----- 1,000 480 Lb. Bales -----		
1988/89	12,686	8,900	3,656
1989/90	12,203	9,200	3,330
1990/91	11,910	8,700	2,000
1991/92	11,250	7,600	3,300
1992/93	9,370	4,523	5,595
1993/94	9,615	3,890	6,547
1994/95	9,020	2,850	6,795
1995/96 <sup>2/</sup>	8,960	3,115	5,815

<sup>1/</sup> Reflects FSU trade with external trading partners.

<sup>2/</sup> Forecast

Source: USDA/FAS, "Cotton: World Markets and Trade", December 1995.

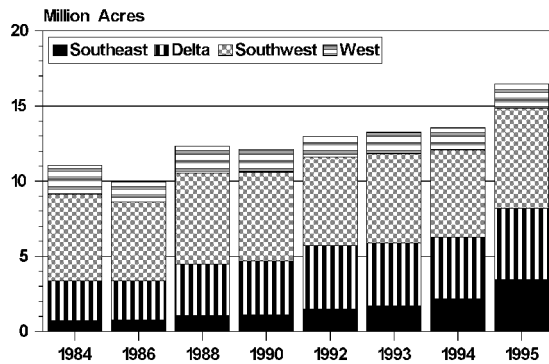


Figure 1. U.S. Upland cotton: planted acreage by region, 1980-1995.

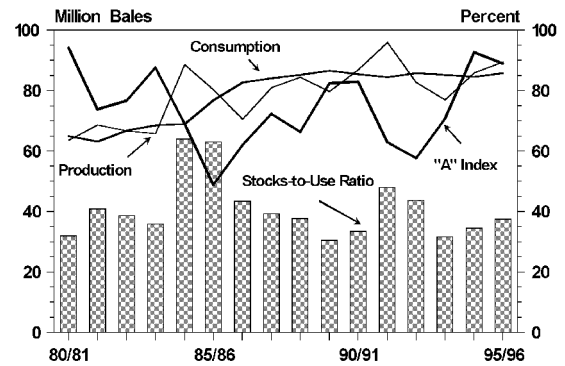


Figure 2. World Cotton Production, Use, % Stocks/Use and "A" Index, 1980/81-1995/96.

<sup>1/4/95</sup> estimated; <sup>1/5/96</sup> projected  
Source: USDA/WASDE

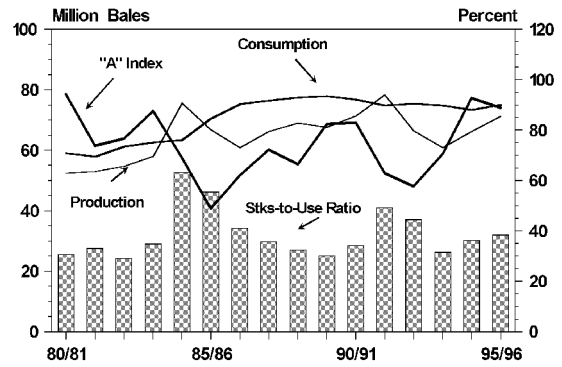


Figure 3. Foreign Cotton Production, Use, % Stocks/Use and "A" Index, 1980/81 - 1995/96.

<sup>1/4/95</sup> estimated; <sup>1/5/96</sup> projected  
Source: USDA/WASDE

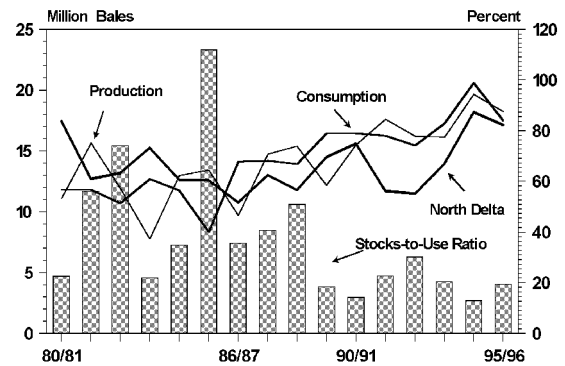


Figure 4. U.S. Cotton Production, Use, Stocks/Use and North Delta Price, 1980/81 - 1995/96.

<sup>1/4/95</sup> estimated; <sup>1/5/96</sup> projected  
Source: USDA/WASDE

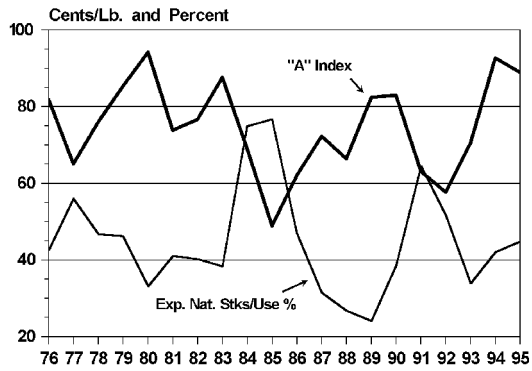


Figure 5. "A" Index Turns Up Sharply as Exporting Nations Stocks/Domestic Use % Declines.

Note: 9495 "A" Index: August 1, 1994 through May 23, 1996; 9696 "A" Index: August 1, 1996 through December 31, 1996.

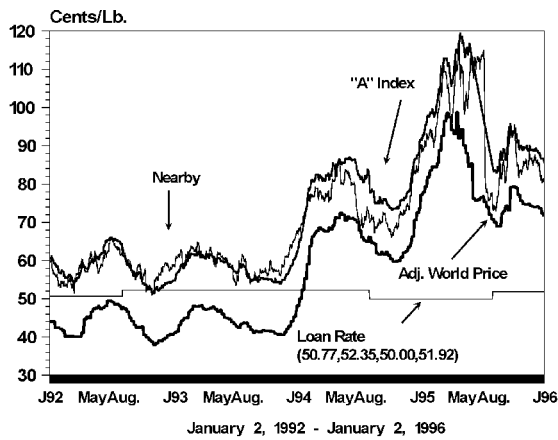


Figure 6. World Cotton Prices: "A" Index, Nearby Futures, AWP and U.S. Loan Rate.

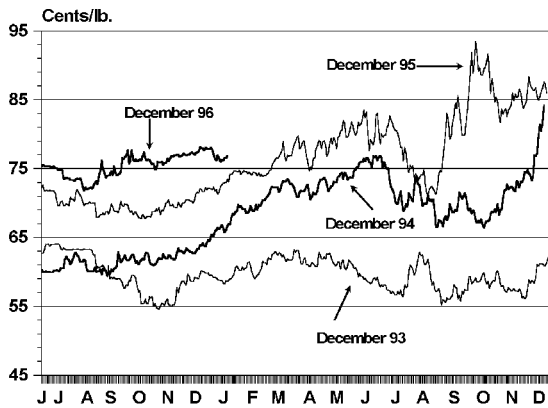


Figure 7. Cotton Futures: December 1993, 1994, 1995, and 1996 Settlement Prices.