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1994 Cotton Management Economic Notes

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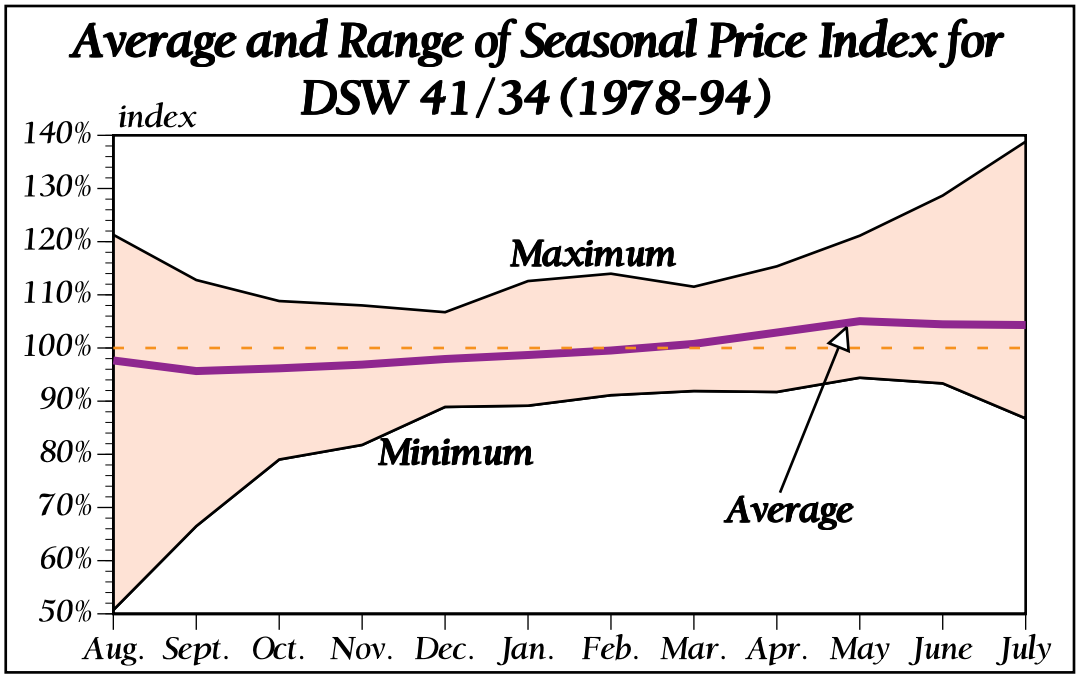
Cotton Price Seasonality

Do you think the market will go up or down? Should I sell or store? These questions are commonly heard in "cotton circles" but really need clarification before an answer can be given. A clarification needs to be made regarding both market and time frame under question.

Spot Market

The figure to the right shows the average and range of monthly price index values for Desert Southwest 41/34 cotton. An index value for a given month, say February 1984, is the average price for DSW 41/34 in February 1984 divided by the average price for the 1984/85 marketing year (Aug. to July). Comparing prices within the same marketing year is important to minimize the impact of switching from one crop year to the next. The average value for February shown in the figure, at 100%, is the average February index value for the last 16 crop marketing years. The February index value has been as high as 114% (1980) and as low as 91% (1992). The range of index values gives a feel for the downside (minimum) and upside (maximum) price potential for storing through different time periods. But the average index value gives the most predictable component for what price to expect from storing from one month to the next.



On average, cash prices for cotton exhibit a season price pattern that is consistent with other storable commodities, like feed grains. Prices reach a low point in September after the first ginnings from the new US crop are available and increase marginally thereafter to reflect storage costs. Storage costs consist of; (1) warehouse costs for having a dry roof, humidity control, and fire insurance, and (2) foregone interest on the money that could have been received if the cotton was sold rather than put in storage. If you are paying a 12% annual interest rate on an operating loan, a dollar received today is the

Recent Prices — ***October 13, 1994***

	Upland (¢/lb)	***Pima (ELS)*** (¢/lb)
Spot - uncompressed	64.91	101.50
Target Price	72.90	102.00
Loan Rate	50.00	85.03
Dec '94 Futures	68.66	

Note: Upland Spot for Desert SW grade 31-3, staple 35, add 300 points for compressed bales, Pima Spot for grade 03, staple 46, 9/30/94, 1994. Phoenix Base loan rates without discounts or premiums for quality.

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same as $1.08 received 8 months from now (i.e., 12%/12 months • 8 months = 8%).

The average index value reaches a low around 96% for the months of September and October, then steadily climbs to 104-105% for the months of May through July. This translates to less than a 1% monthly spot price increase to cover all storage costs. If your total monthly storage costs are less than this, cotton storage should be considered. As shown by the lower range of price index values, risks are associated with storage since prices can drop below the anticipated seasonal price pattern. An examination of futures prices can also help determine what to expect for nearby monthly price changes.

Futures Market

Futures price quotes are time invariant or reflect a delivery date that remains fixed throughout the life of the contract. Thus, futures prices don't have any reason to exhibit a seasonal price pattern like in the cash market. "Storage costs" for a futures contract are essentially zero since the commodity doesn't have to be available until right before delivery date. The average seasonal price index values for December Futures below verify that futures prices don't exhibit any predictable seasonality. On average, the price index values for December Futures are right at or within one percent of 100%. If prices were consistently higher or lower for some months compared to others, then money could be made by selling December Futures in the high months and buying the contracts back in the low months.

Although a given futures contract has no predictable seasonal component, expected returns from storage can be inferred by comparing different contract months. December 94 Futures are currently selling for 68.66¢ and July 95 Futures are selling for 71.50¢. The price for July 95 is 2.84¢ or about 4% higher than December 94 since someone will have to cover the storage costs for an extra seven months. Futures prices reflect a positive carrying cost for storage and indicate that storage may be profitable.

Futures prices for October 1995 are 69.3¢, 2.2¢ less than July 1995's price. The futures market between July and October 1995 reflects a negative premium for storage due to the arrival of the new crop. This is referred to as an inverted market and indicates that cotton in storage should be sold prior to the arrival of the new crop. If the 1995 harvest was expected to be small, then a normal storage premium would be reflected by October 95 Futures at a higher level than July 95 Futures. Under these conditions, cotton storage into the new crop year could be a viable alternative.

Recent Price Decline

On July 20th, the closing December 94 Futures was 70.60¢ and on October 13th 68.66¢. Clearly, the market for December 94 Futures has fallen by 1.94¢. But the same comparison cannot be made for spot prices. The July 20th spot price reflects demand and stocks available prior to the arrival of any cotton from the upcoming harvest, unlike the December Futures price in July. The current DSW 31/35 spot price is 634 points below the July 20th spot price of 71.25¢. Since maturity basis levels were similar for July and October contracts, about two-thirds ((634-194)/634) of the spot price drop reflects a price level differential from being in different crop years. A drop in spot prices as the new crop comes on line is consistent with seasonal price patterns and the carrying costs associated with placing cotton in storage.