

1992 Cotton Management Economic Notes

The University of Arizona • College of Agriculture • Tucson, Arizona, 85721
 Department of Agricultural Economics

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James C. Wade and Russell Tronstad
Extension Economists

1992 Planted Acres

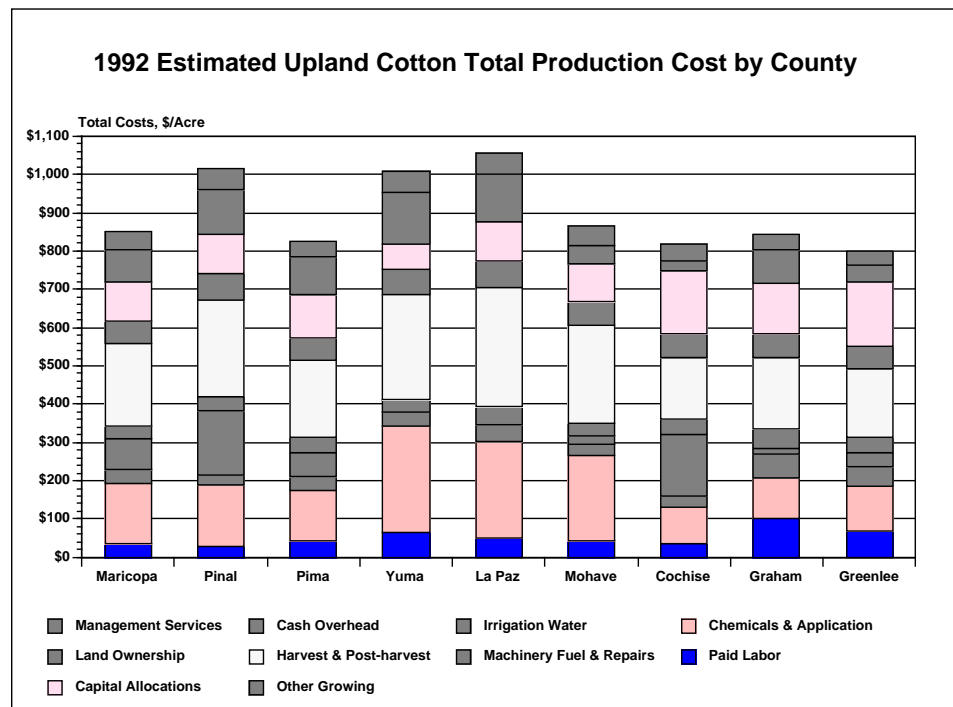
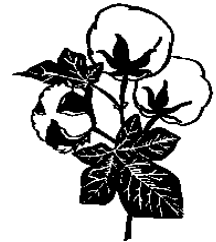
On June 30, the USDA issued its first estimate of 1992 planted cotton acreage. The estimates include 13,311,000 acres of Upland and 265,500 acres of American-Pima cotton. These estimates represent a decrease from 1991 planted acreage of 3.6% for Upland and an increase of 6% for Pima. Arizona is estimate have planted 320,000 acres of Upland and 110,000 acres of Pima. Arizona planted acreage is off about 11.1% for Upland and increased about 3.8% for Pima from 1991.

Upland acreage has increased in the Delta and the South. Acreages in the West and Southwest are significantly lower than in 1991. California Pima acreage is estimated to have increased by about 48% to near 95,000 acres while Texas and New Mexico acreages have decreased 10 and 30%, respectively.

Production Cost

Where does all of that money go? To answer this

question, examine the 1992 estimated total cost of producing cotton in the graph below. Total costs range from \$800 to \$1,060 per acre. The graph summarizes data detailed in the **1992-93 Arizona Field Crop Budget** publications developed by Wade, *et al.* While the range of costs does not seem too large, the yields associated with these costs vary widely with the highest yields found in Pinal and Maricopa counties, the lowest in Cochise and Greenlee counties.



Recent Prices	July 10, 1992	
	Upland (c/lb)	Pima (ELS) (c/lb)
Spot	63.50	88.50
Target Price	72.90	105.80
Loan Rate	51.15	88.15
December Futures	63.30	

Note: Upland Spot for Desert SW grade 31, staple 35;
 Pima Spot for grade 03, staple 46 (7/292); Phoenix Loan Rates

The total cost estimate for each county is represented by the top of the bar. Total cost is then divided into ten components. The top four components shown in each bar are fixed or overhead costs, both cash costs and non-cash costs such as depreciation on equipment and payments to equity capital. The lower six components are operating costs.

No single or simple answer to the question

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"**Where is the cost?**" will do for such a diverse cotton producing state as Arizona. However, the most obvious answers are chemicals and irrigation water. Chemical cost, especially for insecticides, is major input to cotton production. Insecticide cost is also highly variable depending on the level of insect infestation and the strategies adopted by individual farmers. Water cost depends not only on the source of water but also on the irrigation technology used. Low water costs in some areas reflect the payment of water costs as assessments as a part of land ownership. Increased irrigation efficiency and decreased water cost requires capital investment and attentive management of each irrigation.

Another major cost is for harvesting. Harvest costs shown in the graph are for two pickings including module building, hauling, assessments and plowdown. Harvesting is an expensive activity. Pickers are expensive to own and operate. A cost reduction strategy is pick all of the cotton in one harvest. Such a strategy would, of course, require cotton bolls to open in a uniform pattern. This strategy could also take advantage of earlier markets and possibly improve quality of the overall crop. These trade-offs will be examined in a future newsletter.

Conclusions

- High yields come at high costs.
- Cost control is total management.

Options Versus Futures for Hedging

As discussed in the previous issue, hedging with NYCE futures allows cotton producers to "lock in a price" prior to harvest. If the general price level increases or decreases, the net price received in hedging with futures will only be affected by changes in the basis rather than the general price level. Hedging with options gives producers the opportunity to benefit from an increasing price level, but a premium must be made to obtain a floor price in the futures market.

There are only two basic types of options traded, **put and call options**. Both put and call options require a writer and a purchaser. The writer and purchaser of a call option are not directly related to a put option and vice versa. Put and call options are both separate contracts.

The purchaser of a call option obtains the right to buy futures for a specified contract

month at a specified price (strike price) any time before the option expires, but is in no way obligated to buy. The purchaser of a put option obtains the right to sell futures at a given strike price, but is under no obligation to sell. In hedging with futures, the producer is obligated to buy back contracts previously sold or else make delivery — which is generally not a viable option for Arizona producers. In order to obtain the right to sell at the strike price, a premium is paid to the writer or seller of the put option. Thus, higher strike prices command a larger premium than lower strike prices for a put option. Hedging with options is very much like taking out an insurance policy — more benefits (i.e., higher strike price when purchasing a put) translate to a higher premium. Also, greater volatility or uncertainty in the market (i.e., primarily the cotton growing season for the Northern Hemisphere) commands a higher premium for both put and call options.

An advantage to purchasing a put for hedging is that no margin monies (monies required for collateral on futures position) are required. Margin expenses are the amount of collateral required multiplied by your cost of funds or interest rate. If the market were to increase, a producer hedging with futures would incur margin expenses whereas the purchaser of a put is not obligated to exercise his option (i.e., sell at a price below the market price). Because there is no obligation to exercise an option for the purchaser, a producer can benefit from a price increase (amount of price increase less premium paid) while placing a price floor on the net price received by exercising the option if the market price decreases. In hedging with futures, a producer is unable to benefit from a price increase in the market. But no premium is required so that a futures hedge will always yield a higher net price than an option hedge (purchase of a put) when the market is declining.

Other advantages to hedging with futures over options are that futures contracts are more widely and heavily traded than option contracts. Option contracts are generally not offered for more distant contract months and the volume of trade is often thin for many contract months. However, options do offer an upside price potential and should be considered.

Most importantly, futures and option information can be utilized as a valuable source of market information for making planting and cash marketing decisions, even if they are not utilized as a hedging tool.