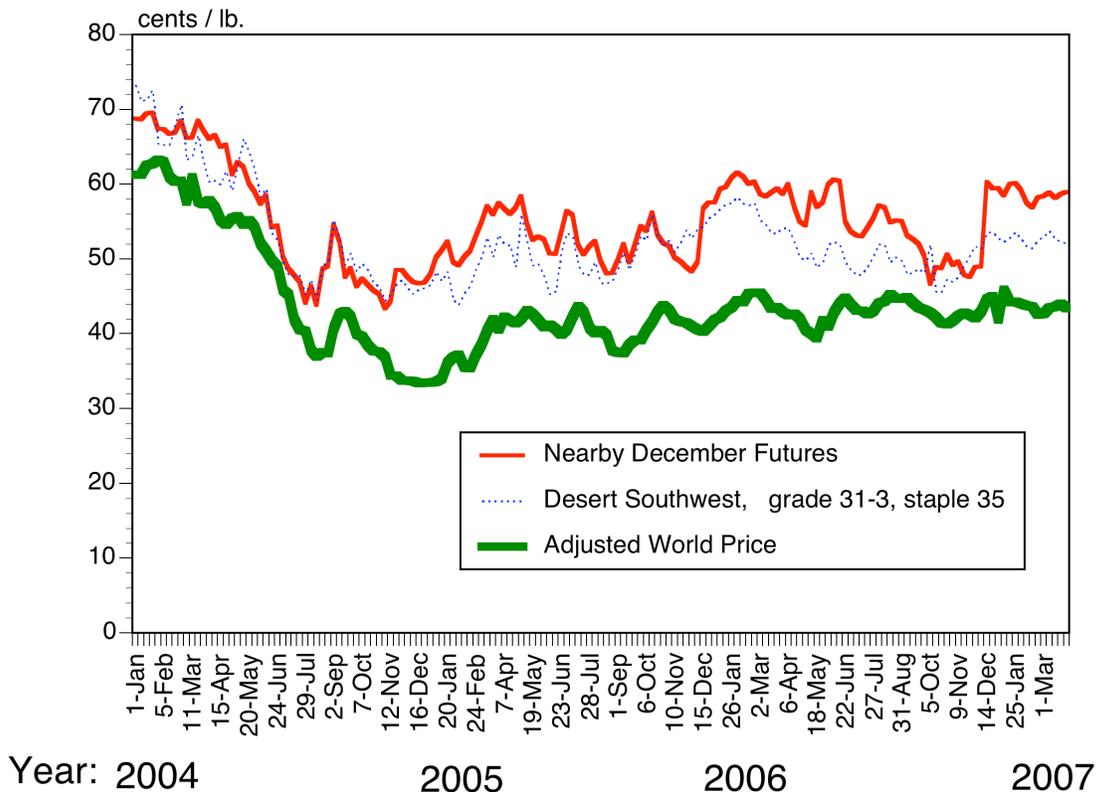


# Review of the 2006 Arizona Cotton Season

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Arizona Agricultural Statistics Service (USDA/NASS) reports that Arizona planted 190,000 acres of Upland (*Gossypium hirsutum* L.) cotton in 2006, down 17% from the 230,000 acres planted in 2005 and the lowest acreage since 1946 when 144,000 acres were planted. Plantings of American Pima (*G. barbadense* L.) cotton totaled 7,000 acres for 2006, up 2,900 acres from 2005. Upland yields averaged 1420 lbs. per acre for 2006, up 10.2% from last year but lower than the 1458 lb. record yield in 2004. Pima yields increased 12.1% to 919 lbs. per acre.

Arizona's estimated total lint production for 2006 is 556,000 bales or down 9.6% from 2005. Similarly, U.S. production for 2006 is down 10.5% from 2005's record setting crop of 23.3 million bales. Ending world stocks for May are estimated at 55.4 million bales, slightly higher than the 55.2 million bales of carryover for last year at this time. Because use or demand is expected to increase more than ending stocks, the stocks-to-use ratio is projected to decline some from 47.5% to 45.4% for 2006/07. These are relatively high stocks-to-use ratios and they are the main reason why prices have been unable to achieve any sustained price appreciation or upward trend in the last three years, as described in figure 1.

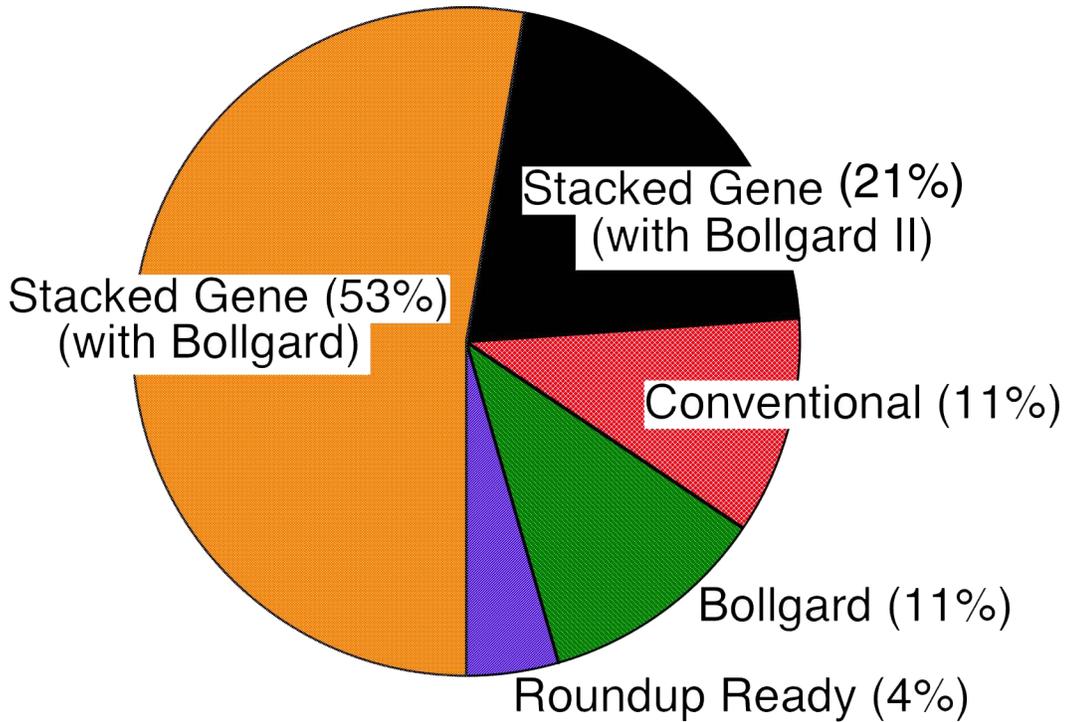


Source: USDA/AMS, Daily Cotton Price Quotes, Thursday Closing Prices.

Figure 1. Recent Upland price movements, weekly frequency for Jan. 2004 to Mar. 2007

The percentage of Upland acreage planted to different classes of seed varieties in 2006 for Arizona is described in figure 2. The percentage planted to transgenic seed varieties increased from around 82% to 89% of all plantings last year. Bollgard II, as a stacked gene with Roundup Ready, was available for commercial use for the second year in 2006 and increased from 4% to 21% of Arizona's acreage. Total stacked gene usage increased from 59% in 2005 to 74% for 2006. Total coverage for either Bollgard or

Bollgard II genes increased to 85% in 2006, up from the 70% coverage purchased in 2005 but down from the 88% coverage level for 2004. Roundup Ready coverage increased by 6%, going from 72% coverage in 2005 to 78% for 2006.



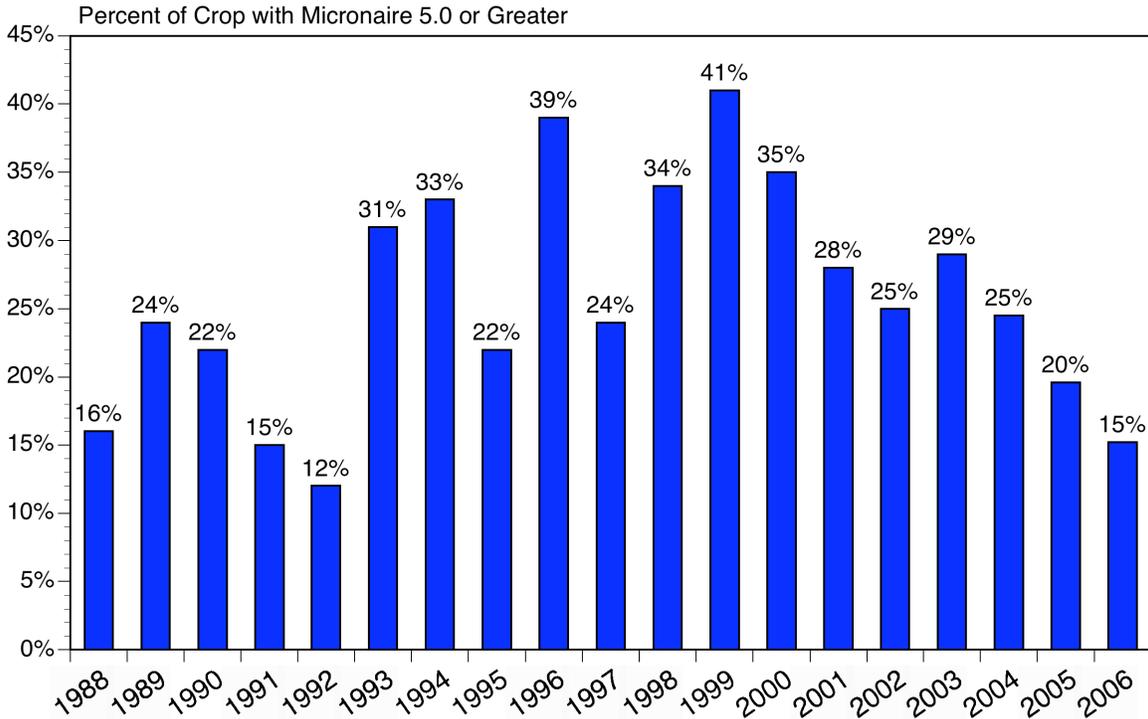
Source: USDA/AMS, Cotton Varieties Planted, 2006 Crop.

Figure 2. General seed varieties of Upland cotton planted in Arizona for the 2006 crop

Overall, most areas of the state reported a very good year for planting conditions, fruit retention and development, pest pressures, and defoliation conditions. Many fields reported yields of 3.5 to 4 bales per acre and this is reflected with the state achieving its second highest yield ever of 1,420 lbs. per acre, only 38 lbs. less than the 2004 record setting yield of 1,458 lbs. Exceptions to these favorable conditions were found in some areas. Relatively cold weather in Yuma after their first plantings resulted in poor germination and seedling development, forcing several growers to replant. This replanted cotton had a late start and incurred significant heat stress and lower yields. Some areas of Central Arizona also had issues with heat stress that resulted in substantial fruit drop. Yields for the Mohave Valley area were down and the reason for the decline was not real clear, although high night temperatures during fruiting are suspect for being a leading factor.

Pest pressures were relatively low, and the Pink BollWorm (PBW) eradication program is attributed to causing sharp reductions in PBW populations throughout Central Arizona. Initial entomology estimates indicate that populations were reduced by around 90% from prior years, and some non-Bt fields were sprayed up to 20 times as part of the PBW eradication program. This program is expected to expand to areas of the Colorado River and Mexico through the 2008 crop year.

Favorable insect and growing conditions resulted in a good first boll set, timely harvest, and the lowest level of high micronaire lint since 1992, as described in figure 3. The percentage of Arizona's crop with a micronaire reading of 5.0 or higher has declined by about 4% annually from 1999 when 41% of the crop had a high micronaire reading. Improving and maintaining a good quality reputation for Arizona cotton is important, even in an era dependent on price supports. Because Counter Cyclical Payments are determined by the average U.S. farm price received, a favorable Arizona price relative to other states can enhance Arizona's net price received from both the marketplace and government payments.



Source: USDA/AMS, Quality of Cotton Classed

Figure 3. Percentage of Arizona Upland cotton that received a micronaire classification  $\geq 5.0$ , 1988–2006

As shown in figure 4, the Desert Southwest price tends to drop below the San Joaquin Valley price the most when Arizona's crop has a higher percentage of high micronaire cotton. Although each cotton bale is sampled and graded for HVI quality attributes, sampling is not 100% accurate. Thus, even though two bales from different regions may have been classed with the same HVI attributes, the odds of having a bale with high micronaire lint is arguably greater from the region that has the higher percentage of high micronaire. Transportation costs and non-HVI quality attributes like stickiness also impact relative price differences, but the DSW price has been discounted the most relative to the SJV price around years in which Arizona has had the highest percentage of high micronaire lint.

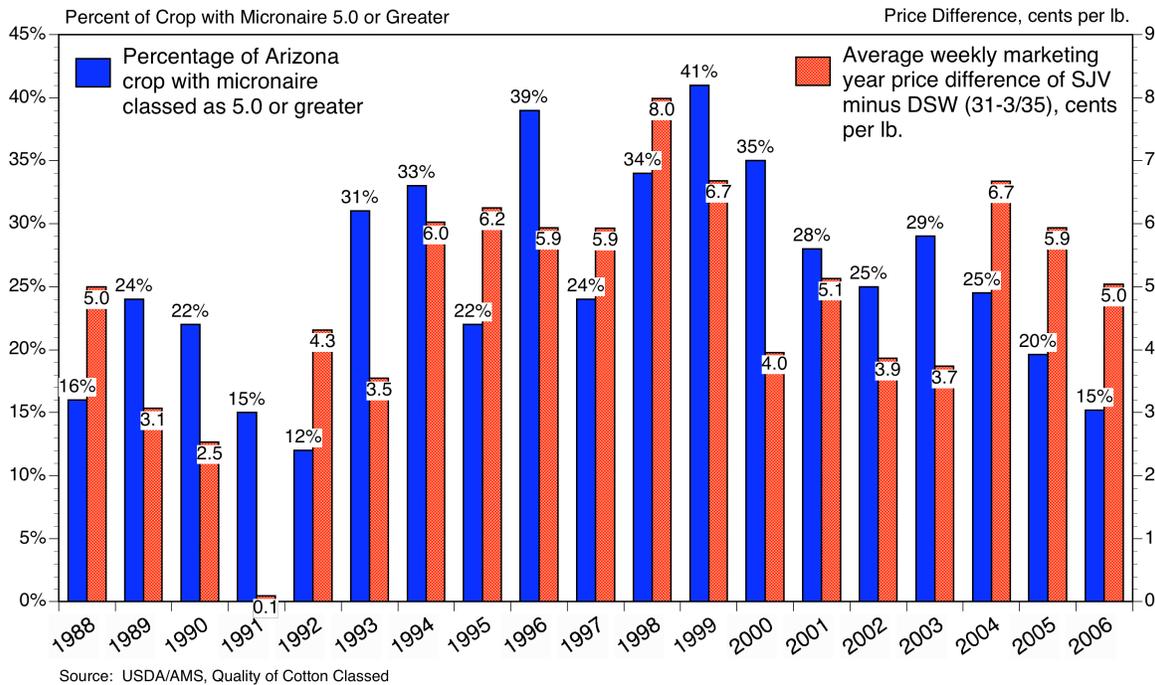


Figure 4. Percentage of Arizona's Crop with High Micronaire and the Price Differential Between San Joaquin Valley versus Desert Southwest (31-3/35)

All MultiFiber Arrangement (MFA) apparel quotas ended in January 2005 and this has resulted in the U.S. importing more cotton textile and apparel products and exporting more cotton bales. U.S. cotton mills supplied 23% of our domestic cotton textiles and apparel products in 2006, compared to 62% in 1997. World cotton mill use has also reached record high levels in recent years. Robust economic growth has been concentrated in Asia where low per capita incomes translate to greater increases in demand for clothing than in developing countries. Genetically modified seeds and rising petroleum prices have also given cotton a competitive edge relative to polyester. However, yield enhancing technologies, in particular Bt, have revolutionized and brought back cotton production to many areas of India and China. Smaller producing countries of Australia, Argentina, Mexico, and South Africa have also adopted Bt cotton. World production averaged 117 million bales for the last three years (2004-06), compared to 94 million bales for 2001-03.

High world cotton stocks-to-use ratios have kept prices relatively low and farm program payments remain important to the bottom-line of producers. Cotton farms in the West received more government payments per farm on average than other regions of the U.S. (i.e., Southeast, Delta, and Southwest) but they also have the lowest ratio of government payments to gross cash income. This ratio was 8% for the West in 2003 compared to 13-17% for the other regions, according to a recently released report from Economic Research Service entitled Cotton Background. Changes and adjustments to farm policy in the upcoming 2007 Farm Bill are under close watch by the cotton sector and policy will be influenced by the Federal budget deficit, trade negotiations, domestic market conditions, political party agendas, lobbying groups, and other related factors. About 70% of annual revenues have come from the marketplace for cotton producers in recent years, with the remaining coming from government payments. However, for crop years of 2001/02 and 2004/05, government payments accounted for around 45% to 55% of cotton farm revenues.