

Review of the 2002 Arizona Cotton Season

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According to the Arizona Agricultural Statistics Service (USDA), a total of 238,000 acres were planted to cotton in 2002. Approximately 230,000 acres consisted of Upland (*Gossypium hirsutum* L.) varieties and 8,000 acres were planted to American Pima (*G. barbadense* L.) cotton. Current yield estimates indicate a statewide average of 1,262 lbs. lint/acre for Upland and 972 lbs. lint/acre for Pima. For both Upland and Pima these are good “average” yields for Arizona. The five-year average for Upland cotton yields in Arizona is 1253 lbs. lint/acre.

Arizona continues to plant a rather large proportion of the acreage to transgenic varieties. Seed sales estimates (Figure 1) indicate that transgenic varieties were planted on approximately 80% of the Arizona acreage in 2002. The BG (bollgard) and herbicide resistant (Roundup Ready (RR) and Buctril resistant) varieties have been very important in Arizona in recent years. The “stacked gene” varieties that possess both BG and RR characteristics continue to hold about 43% of the total cotton acreage in Arizona. Total acreage planted to varieties with BG and RR genes were 64% and 57%, respectively in 2002.

The 2002 cotton-growing season was actually very good in terms of weather and climate patterns. In general, many cotton fields in Arizona experienced early fruiting (first fruiting branch initiated at nodes 5 through 7) and excellent early fruit retention. Fruit retention levels were generally very good for most of the season in relation to established baselines for Arizona cotton production conditions. Thus, the potential for a good crop was developed relatively early in Arizona in 2002. This potential was further enhanced by the fact that insect pest infestations were generally light (in relation to what we commonly experience) and crop managers were able to handle them very effectively in most cases.

High micronaire values have plagued the Arizona Upland cotton crops in recent years (Figure 2). In 2002 only 25% of the Upland cotton has been classified as having fiber micronaire in the discount range (≥ 5.0). This represents a substantial reduction in relation to recent years for Arizona. We were fortunate in 2002 to experience an early crop with a uniform fruit set, good fruit retention, good yields, and the benefit of more fields with good micronaire and other fiber properties. However, the potential for a high micronaire problem still exists and continues to be a point of major concern for future Arizona cotton production. Fiber quality (length, strength, uniformity, micronaire, etc.) will continue to be a point of major focus and concern in the development of varieties and production practices that are best for Arizona production conditions.

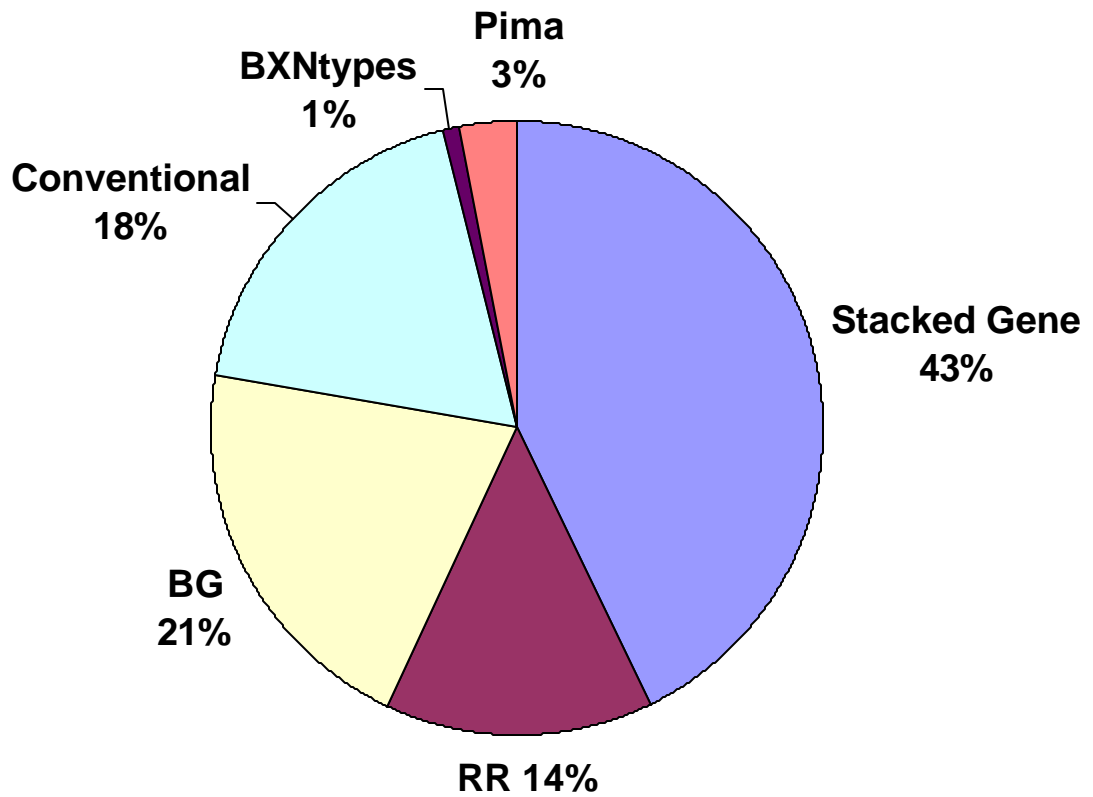


Figure 1. Percentages of cotton types grown in Arizona in 2002. (Source: based on seed sales in Arizona) Note: Herb. Res. = Herbicide Resistant (RR and Buctril Resistant varieties).

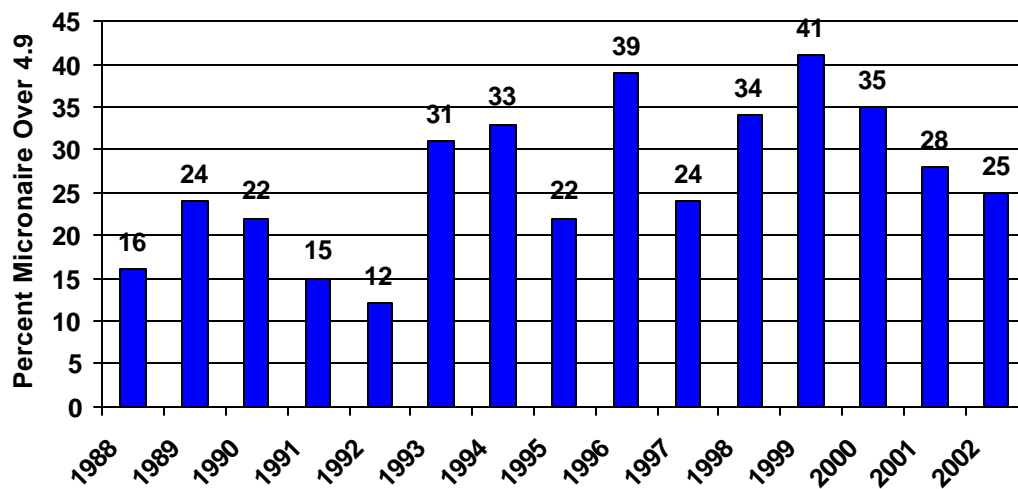


Figure 2. Percentage of the Arizona Upland cotton crop that received a micronaire classification of ≥ 5.0 , 1988 – 2002.