Texas Cooperative EXTENSION
The Texas A&M University System

EVALUATION OF CHAPERONE APPLIED TO COTTON AT THE EARLY BLOOM GROWTH STAGE

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SUMMARY:

Under good cotton growing conditions with some mid-late season stress in Victoria County, no yield increases were observed with 7 oz/ac rate of Chaperone applied to Beltwide Cotton Genetics 28R at the early bloom growth stage in 2005. Likewise, no significant changes in fiber quality or turnout were observed with the 7 oz/ac application of Chaperone.

OBJECTIVES:

As a protein enhancer, atonik has been studied and reported to increase lint yields under certain growing conditions. It is usually required that the cotton be in yield ranges greater than 2 bales/acre; however, lint increases have been reported at 750-1000 lb/A yield ranges as well. This experiment was conducted to determine the effect of foliar-applied Chaperone sprayed at the early bloom growth stage at 7 oz/A during the 2005 growing season in Victoria County.

MATERIALS and METHODS:

This strip test was established on the Bill Obsta farm south of Bloomington, Texas. The ninety-six rows of Beltwide Cotton Genetics 28R cotton were planted on April 5, 2005, with a resulting population of 58,000 plants/acre. Seed was treated with Cruiser. Fertility consisted of 200 lbs/ac of 6-30-25 in December 2004, followed by 350 lb/ac of 24-4-0-1S-0.5Zn side-dressed. Cotton was planted on 30-inch rows with four replications being made for each 7 oz/ac treatment and the untreated check. A 0.1836 acre portion was machine harvested with a 4-row John Deere cotton picker on August 24, 2005, and each treatment was weighed in the field. Turn-outs were calculated using a table gin, and fiber quality was determined by the Texas Tech International Laboratory for Fiber Quality Improvement and Research at Lubbock, Texas. Data was analyzed using ARM.

RESULTS and DISCUSSIONS:

Soil moisture was good at the beginning of the planting season, and was followed by 4-5 weeks of stress without rainfall. Late-season rainfall was sufficient. Cotton yields between the two treatments were minimal (13.7 lb/ac). The coefficients of variability for lint yield and turnout were 3.89 and 0.76, respectively, attesting how small the variability was between replications.

Table 1. Lint yields and performance factors for two rates of Chaperone, Texas Cooperative Extension, Bill Obsta Farm, Victoria County, Texas, 2005.

Treatment	Yield (lb/ac)	Turn-Out (%)	Length	Strength (g/tex)	Mic	UR (%)	Elong
7 oz/A	869.2[a]	43.0	1.04	26.8	5.2	82.2	3.8
Untreated	882.9[a]	43.3	1.03	27.3	5.2	82.5	3.7

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