EVALUATION OF VARIOUS PLANT GROWTH REGULATORS ON COTTON IN NORTH LOUISIANA

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Abstract

Research on the effect of plant growth regulators (PGRs) on cotton yield and development has been highly variable. Thus, a field study was conducted near St. Joseph, LA to establish a database on some of the commonly used PGRs. The field study was conducted on a Commerce silt loam and Sharkey clay in 1998 and 1999 with 12 treatments arranged in a randomized complete block design with four replications. The products tested included an untreated control, Early Harvest, PGR-IV, Asset RTU, Pix, MepPlus, ACT, and ACT Plus. Cultivar 'Deltapine 5415' was planted on May 3 and 1 in 19998 and 1999, respectively. Plots were four, 40 inch rows by 40 feet. There was little economic or agronomic benefit from most of the products tested. However, Pix and MepPlus did hasten maturity by 3-5 days depending upon the growing conditions and did reduce plant height. treatment that called for automatic applications of Pix at certain growth stages lead to loss of yield in dry years like 1998. Results with MepPlus were very similar to Pix except in 1998 when the yield reduction with scheduled applications of MepPlus was not statistically significant from untreated plants whereas it was significant with Pix.