

## **PENTIA™ PLANT GROWTH REGULATOR – A TEXAS PERSPECTIVE**

**Scott Asher**

**BASF Corporation**

**Lubbock, TX**

**Chandler Mazour**

**BASF Corporation**

**Research Triangle Park, NC**

### **Abstract**

Pentia Plant Regulator (mepiquat pentaborate), the next generation plant regulator, was introduced into the cotton market in 2003 by BASF Corporation. Pentia brings high value to a cotton grower in many ways including: improved uptake and rain-fastness, enhanced height management, improved boll set & retention, increased earliness and maximizes yield potential.

Large scale grower trials were set up in three main cotton producing areas of Texas in 2003 to compare mepiquat chloride containing plant growth regulators to Pentia plant regulator. The three test areas included the South Plains/Rolling Plains, the Gulf Coast, and the Wintergarden. Twenty-three trials were conducted in these areas to evaluate plant height, 1<sup>st</sup> and 2<sup>nd</sup> boll set, earliness and cotton yield.

Pentia provided improved growth control as compared to the mepiquat chloride containing plant growth regulators. Cotton plant height was reduced by an average of 1.9% over the three areas with the Wintergarden area seeing the largest reduction in plant height at 7.6%. The Pentia treated areas also improved the number of 1<sup>st</sup> and 2<sup>nd</sup> position bolls by 10.1% over the three areas with the South Plains/Rolling Plains area having the largest increase at 11.2%. Pentia also increased the number of open 1<sup>st</sup> and 2<sup>nd</sup> position bolls by an overall average of 24.5% with the largest enhancement coming from the Gulf Coast area with 40.4% more open 1<sup>st</sup> and 2<sup>nd</sup> position bolls. Cotton yield was increased on average by 7.1% by using Pentia over the mepiquat chloride containing plant growth regulators with the biggest enhancement coming in from the Wintergarden at 9.6%.