

EFFECTS OF EXOGENOUSLY APPLIED INDOLE-3-ACETIC ACID (IAA) TO COTTON**J. D. Clement****S.S. Hague****J.H. Gould****Texas A&M University****College Station, TX****Abstract**

Contrasting genotypes were placed in a field study to observe the effects of exogenous IAA on yield components and fiber properties. A three year study was conducted during the growing seasons of 2008 to 2010 in College Station, TX. One boll per plant was treated with IAA to coincide with different phases of fiber development. Results showed a significant year interaction with IAA treatment and genotype. The growing seasons, 2008 and 2010, did not respond to IAA application. This may be due to differences in environmental conditions or to the source of IAA. In 2009, the IAA treatment positively affected lint percent by increasing fibers per seed. Genotypes with the longest fiber length were negatively affected, suggesting that a higher number of fibers per seed may decrease fiber length through competition. There was a genotype by IAA treatment interaction for fiber length, fiber elongation and seed index. This research shows that genotypes do differ in IAA sensitivity and suggests that previous work on IAA should be classified as genotype specific.