## COTTON (GOSSYPIUM HIRSUTUM L.) RESPONSE TO EARLY AND MID-SEASON TERMINAL REMOVAL D. P. Delaney, C. D. Monks, C. Burmester and B. Durbin, D. Moore, L. Wells, J. Bannon and M. G. Patterson Cooperative Extension System and College of Agriculture Auburn University

## Abstract

Studies have been conducted investigating the effects of removing the terminal growing point to simulate hail or insect damage to cotton. Earlier published research indicated variable response according to variety, plant age and status, and environment. The objectives of this study were to evaluate the effects of a one-time removal of the terminal growing point on plant height, earliness, yield, and fiber qualities of 'NuCotn 33B' cotton. Experiments were planted in early May of 1996 (one location) and 1997 (three locations) across Alabama. Results from the E. V. Smith Experiment Station are presented. All trials were maintained weed-free, scouted and treated for insects, and irrigated. The experimental design was a randomized complete block with four replications. Terminals were removed one time for each treatment. The eight treatments included a control where terminals were not removed. Beginning at the two true-leaf stage, terminals were removed from one set of four plots, then weekly from different plots for six weeks. Data collection included open and closed boll counts, yield of vegetative and fruiting branch bolls, total yield, plant mapping and fiber quality analysis. Cotton height was not affected by terminal removal. Removing the terminal prior to 3 weeks after the 2 leaf stage delayed maturity in 1996 but not in 1997. Removing the terminal at 2 leaf and 2 leaf plus 1 week decreased total yield in 1996. Removing the terminal at 3 to 5 weeks after 2 leaf decreased total yield in 1997. Fiber quality was not affected by terminal removal.