

**COTTON YIELD RESPONSE TO MEPPLUS
AND MEPIQUAT CHLORIDE**

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Abstract

Plant growth regulator use of compounds containing mepiquat chloride (MC) such as Pix (BASF), Mepichlor (MicroFlo), and Mepex (Griffin) to control plant height is widespread. A new product, MepPlus, which contains MC and *Bacillus cereus* became commercially available in 1998. This product is promoted as an improved formulation of MC. Small plot studies in 1996 and 1997 in Central Arkansas revealed trends for improvements in lint yields ranging from 5 to 9% with MepPlus compared to MC. This demonstration was conducted to compare MepPlus and MC in production situations using producer established rates and timings. Five Demonstrations were conducted in producer fields using strips the length of the field. Replicated treatments were harvested with conventional pickers and weighed in the field using boll buggies equipped with load cells. Samples were ginned on a laboratory gin to determine lint fraction. Height control was very similar. Appearance late season varied from a distinct blockier appearance for MepPlus to no visual differences between treatments. However, no visual differences were observed at harvest. Visual observations regarding maturity or ease of defoliation did not reveal difference between treatments. Significant yield differences were not observed. However, Mepiquat chloride numerically out-yielded MepPlus treatments at 4 of the 5 locations for an average of 42 lbs lint/A (MC 1027 lb lint/A vs MepPlus 985 lb lint/A). Despite trends of increased lint yield for MepPlus compared to MC, in small plots, demonstrations in 1998 using producers set rates and timings reveal little benefit of MepPlus to that of MC.