

**SUMMARY OF MEPIQUAT CHLORIDE
RESEARCH ON IRRIGATED COTTON IN
ARIZONA**

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Abstract

A series of multiple experiments have been conducted from 1988 to 1999 at various locations across the cotton producing regions of Arizona to evaluate mepiquat chloride (MC) applications in terms of plant growth and yield. These experiments were designed to evaluate MC under three application regimes. These regimes included low rate multiple applications, late season applications, and a feedback vs. scheduled management of MC and Nitrogen (N) applications. A total of 31 site-years are included in this summary. The objective of this summary is to determine which of these three application regimes offer the greatest opportunity for a positive lint yield response to MC. Stability analysis was conducted utilizing the corresponding data for each application regime. This was accomplished by regressing the treatment lint yield against the environmental mean for each application regime. Results from the stability analysis revealed that the most viable method of application is a feedback approach. The most reliable technique associated with plant assessment in a feedback approach was height to node ratio (HNR) to indicate vegetative tendencies for appropriate rate and timing of applications.