

**THE POTENTIAL FOR EARLY APPLICATION
TIMINGS OF COMMAND**

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Abstract

Field studies were conducted in 1994 and 1995 to determine the effect of Command application method and timing on cotton. Command was applied at 1.0 qt/A PPI or preplant surface (PPS) at 4, 3, 2, 1, weeks before (WBP), and at planting PPI and PRE. Temik at 4.0 lb/A or Thimet at 5.0 lb/A was used in-furrow.

In 1994 at 21 days after planting (DAP), cotton injury was above 20% when Command was applied PPI or PPS 2 WBP or PRE, in the presence of Temik. All Thimet applications reduced injury below 20%. At 56 DAP, all treatments injured cotton less than 10%. No detrimental effects were observed for plant height, boll position, total nodes per plant, or maturity with any application timing, application method, or insecticide. Seed cotton yields were above 2500 lb/A for all treatments, with no differences compared to the nontreated.

In 1995 at 21 DAP, cotton injury was less than 20% when Command was applied PPI in the presence of Temik 4, 3, and 2 WBP. With Thimet, cotton injury was 20% or less with Command PPI, PPS, or PRE. Command applied PPI with Temik caused less cotton injury than PPS or PRE applications. Command PPS or PRE caused 30% or greater injury in the presence of Temik. AT 56 DAP, cotton injury was above 30% with Command PPI or PPS applications at 1 WBP and PRE in the presence of Temik; however, Command PPI 4 or 3 WBP with Temik caused less than 10% injury. The PRE application of Command injured cotton 100% with Temik in-furrow. All application methods and timings with Thimet caused less than 10% injury. Cotton plant height and total nodes per plant increased with Command PPI with Thimet 1 WBP or Temik PRE compared to the nontreated. No detrimental effects were observed for boll position or maturity with any application timing, application method, or insecticide. Cotton yield was reduced with Command PPI at 3 and 1 WBP and at planting with Temik compared to the nontreated, and Command PPS reduced yield at 3, 2, and 1 WBP and PRE with Temik than the nontreated. No yield difference occurred when Command was applied PPI, PPS, or PRE at any timing with Thimet as the insecticide.

This research indicates that Command can be applied early PPI in a cotton production system to reduce early season

injury when Temik is used as the insecticide. However, Command PRE could cause significant injury from year to year depending on environmental conditions. When Thimet is used with Command applications, injury is reduced at any timing or method. Early application timings and methods may reduce the visual impact of off-site movement of Command to non-target species.