EVALUATION OF FINISH FOR COTTON DEFOLIATION

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Abstract

Field experiments were conducted in 1997 to evaluate defoliation, desiccation, boll opening, and regrowth inhibition with Finish (ethephon + cyclanalide) and Prep (ethephon) when applied alone or in combination with Folex (tributyl phosphorotrithioate) or Dropp (thidazuron). Finish and Prep were applied at a rate of 1.0 lb ai/ A, alone, tank mixed with Folex (0.25 lb ai/A) or Dropp (0.05 lb ai/A), or followed by Folex (0.25 lb ai/A). Treatments were arranged in a randomized complete block design with 4 replications. Applications were made with a high-cycle sprayer at a carrier volume of 15 gal/A.

Defoliation and desiccation were visually determined 7 and 14 days after treatment (DAT). Plants in a 1 meter section of the center two rows were utilized to determine percent open bolls, apical regrowth, and basal regrowth.

Defoliation 7 DAT was 78-87% and did not differ among treatments, except Prep applied alone which defoliated only 37%. By 14 DAT defoliation increased to 85-93% from all treatments except Prep alone, which defoliated 53%. All Finish treatments provided 66-70% boll opening 7 DAT which was more than the 47% from Prep. Finish treatments opened bolls 89-95% which was more than the 74% from the Prep-Folex sequential 14 DAT.

Finish or Prep applied in combination with Dropp or Folex caused less than 20% apical or basal regrowth 14 DAT. Regrowth 21 DAT did not differ among Finish or Prep combinations with either Dropp or Folex.

These preliminary data indicate that Finish applied alone defoliated equal to Finish or Prep in combinations with Dropp or Folex. Finish alone or in combination with a defoliant provided greater boll opening than did Prep in combination with a defoliant.

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