

## COTTON HARVEST-AID TRIALS IN ARKANSAS

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### Abstract

New harvest-aid products have been developed and marketed in Arkansas in recent years. It is a common practice to tankmix harvest-aid products, particularly defoliant and boll openers. The objective of this study was to evaluate newer and older harvest-aid compounds containing defoliant and boll openers under irrigated conditions. Three sites were utilized to evaluate harvest-aids in 1998. Treatments consisted of 1) Cotton Quik 1.75 qt/A + Def 5.0 oz pr/A (CQDf), 2) Def 1.0 pt/A + Prep 1.33 pt (DfPr), 3) DfPr + Roundup Ultra 1.5 pt/A, 4) Def 0.75 pt/A + Dropp 0.1 lb pr/A + Prep 1.33 pt/A (DfDpPr), 5) Def 0.75 pt/A + Dropp Ultra 0.1 lb pr/A + Prep 1.33 pt/A (DfDUPr), 6) Def 0.75 pt/A + Ginstar 4.0 oz pr/A + Prep 1.33 pt/A (DfGSPr), 7) Ginstar 8.0 oz pr/A + Prep 1.33 pt (GSPr), 8) Finish 1.0 qt + Def 6.0 oz (FiDf), 9) FiDf + Roundup Ultra 1.5 pt/A (FiDfRU), 10) Harvade 8.0 oz pr/A + Dropp 0.1 lb pr/A + Prep 1.33 pt/A + COC 1 pt (HaDpPr), 11) Harvade 8.0 oz pr/A + Ginstar 4.0 oz pr/A + Prep 1.33 pt/A + COC 1 pt (HaGSPr). Treatments were applied with a self-propelled high clearance sprayer calibrated to deliver 13 GPA. The three sites were similar and averaged 4.0 NACB, 45% open and 30% defoliated at treatment. Products were evaluated two weeks after treatment. The farmer standard DfDpPr resulted in the best overall performance (92% defoliation). CottonQuik + Dropp performed similarly to DfDpPr (90% defoliation). However CQDf did not produce satisfactory results with such a low rate of Def in the tankmix (77% defoliation). Drop Ultra (DfDUPr) when substituted for Dropp in DfDpPr gave slightly better regrowth inhibition but slightly less defoliation (95% vs 90% regrowth inhibition and 88% vs 92% defoliation, respectively). The Ginstar tankmix (DfGSPr) was slightly behind Dropp Ultra (86% vs 88% defoliation). Finish with Def (FiDf) performed well; however, the addition of Roundup Ultra to this combination appeared to reduce defoliation activity (88% vs 86% defoliation). Harvade performance (HaDpPr) was adequate, but was not as effective as Def tankmixture (DfDpPr) (87% vs 92% defoliation). The old standby, DfPr (83% defoliation), was not as efficacious as other mixtures.