

**WEED CONTROL WITH ROUNDUP READY
COTTON IN ALABAMA
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Abstract

Weed control systems for Roundup Ready cotton were evaluated in field trials on Alabama Agricultural Experiment Stations located at Fairhope, Prattville, Belle Mina, and Headland, Alabama in 1996. Cotton was planted from late April to early May depending on the location. Weeds present in different trials included the annual grasses large crabgrass and Texas panicum, and the annual broadleaf weeds pitted and entireleaf morningglory, common cocklebur, sicklepod, and velvetleaf. Systems varied from traditional soil-based residual herbicide programs to total post-emergence programs using Roundup Ultra only as well as mixtures thereof. Treatments were applied to plots which were 4 rows wide and 30 ft long. All trials were conducted using conventional tillage culture with three replications of each system. Herbicides were applied in 15 gallons of spray solution per acre using tractor mounted equipment. Data obtained included visual crop injury and weed control ratings on a scale of 0 to 100 where 0 = no injury or control and 100 = crop death or total control, and seed cotton yields.

Large crabgrass and Texas panicum control was excellent (>90%) for all treatments receiving two or more Roundup applications and equal to or better than traditional systems. Pitted and entireleaf morningglory control was excellent for treatments receiving two or more Roundup applications and equal to traditional systems. Sicklepod, common cocklebur, and velvetleaf required either Cotoran preemergence followed by two Roundup applications, or Cotoran preemergence followed by Staple early postemergence and Bladex + MSMA layby to obtain >90% control. Optimum yield was produced using traditional soil-applied and Roundup total postemergence systems in 2 of 4 locations. Yields for traditional soil-applied herbicide systems was lower than for total postemergence herbicide systems at Belle Mina and at Prattville.