

**WEED CONTROL IN
ROUNDUP READY™ COTTON**
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adequate broadleaf weed control. The residual activity associated with Cotoran applied preemergence or Bladex + MSMA applied POST-directed generally improved late-season control of sicklepod, entireleaf morningglory, and ivyleaf morningglory.

Abstract

Weed control in Roundup Ready™ cotton was evaluated in three experiments at two locations in South Carolina in 1995. Roundup applied postemergence (POST) provided excellent early-season control of Palmer amaranth up to 9 inches in height. POST control of sicklepod and common cocklebur with Roundup ranged from 88 to 100 and 90 to 100% 2 to 6 weeks after treatment (WAT), respectively. Roundup provided 71 to 93% control of entireleaf morningglory and ivyleaf morningglory. At one location two applications of Roundup were need to achieve satisfactory control. In most experiments a soil-applied herbicide improved late-season broadleaf weed control.

Introduction

Roundup Ready™ cotton will likely be commercially available in limited quantities in 1997. Weed scientists have had limited opportunity to evaluate this new technology. Therefore, there are many questions regarding the optimum timing of application, the need for soil-applied and/or postemergence residual herbicides etc. Weed scientists are challenged to develop cost-effective weed management programs utilizing Roundup Ready™ technology.

Materials and Methods

Weed management in Roundup Ready™ cotton was evaluated in three experiments at two locations in South Carolina in 1995. Plots were four rows, 30 ft long, and were arranged in a randomized complete block design with three replications. Crop and weed responses were evaluated 2 to 3 and 4 to 5 WAT, and seed cotton yields were obtained by harvesting one or two rows from the center of each plot.

Results and Discussion

Roundup provided 97 to 100% control of Palmer amaranth up to 9 inches tall 2 WAT. Sicklepod control 2 and 4 WAT ranged from 78 to 100 and 90 to 98%, respectively. Entireleaf morningglory and ivyleaf morningglory control ranged from 87 to 100% 2 to 4 WAT at one location, but was only 71 to 82% at another location. At one location two applications of Roundup were necessary to achieve