

WEED CONTROL IN COTTON WITH CGA 362,622
Edward C. Murdock and Joe E. Toler
Clemson University
Florence, SC

Abstract

A field experiment was established at an on-farm site in Horry County, SC to evaluate weed control in Roundup Ready cotton with postemergence (POST) and POST-directed applications of CGA 362,622. 'Stoneville 4892 BR' cotton was planted May 26, 2001. Plots were four rows, 30 ft long, and were arranged in a randomized complete block design with three replications. POST, POST-directed, and Layby treatments were applied to cotton in the 3-to 4-leaf, 6-leaf, and 12-to13-leaf stage, respectively. Prowl + Cotoran (pendimethalin + fluometuron) was applied preemergence (PRE) @ 2.4 pt + 1.25 qt/ac to the entire test site (except the untreated check).

Prowl + Cotoran applied PRE provided poor (37 to 40%) control of southern crabgrass, sicklepod, entireleaf morningglory, and pitted morningglory 9 weeks after planting. When Prowl + Cotoran was followed by (fb) CGA 362,622 @ 2.15 g/ai/ac applied POST, southern crabgrass, sicklepod and morningglory were controlled 76,92, and 93%, respectively. Sequential applications of CGA 362,622 applied POST (2.15 g/ai/ac) fb CGA 362,622 applied at layby (3.2 and 5.34 g/ai/ac) averaged 77, 100, and 100% control of southern crabgrass, sicklepod, and morningglory, respectively. CGA 362,622 applied POST-directed @ 3.2 and 5.34 g/ai/ac controlled these respective weeds 28 and 63%, 80 and 85%, and 67 and 87%. Sequential applications of CGA 362,622 POST (3.2 and 5.34 g/ai/ac) fb POST - directed (3.2 g/ai/ac) provided an average of 66,99, and 99% control of southern crabgrass, sicklepod, and morningglory, respectively. Touchdown (glyphosate) applied POST (0.75/lb ae/ac) fb a layby treatment of CGA 362,622 (3.2 and 5.34 g/ai/ac) averaged 87,98, and 99% control of these respective weeds. Sequential applications of Touchdown POST fb Touchdown + CGA 362,622 (3.2g/ai/ac) applied at layby provided 98 to 99% control of all weeds present. Touchdown applied POST fb a layby application and three applications of Roundup Ultra Max (glyphosate) @ 0.75 lb ae/ac (POST, POST-directed, and layby) controlled southern crabgrass, sicklepod, and morningglory 96 to 100%.

Lint yield in the untreated check was 31 lb/ac. Prowl + Cotoran alone and followed by CGA 362,622 applied POST-directed @ 3.2 g/ai/ac averaged 163 lb lint/ac. The average lint yield for all other treatments was 616 lb/ac.