

**CONTROL OF VOLUNTEER GLYPHOSATE (ROUNDUP) -TOLERANT  
COTTON AND SOYBEAN IN ROUNDUP READY COTTON**  
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**Abstract**

Two field experiments were established at an on-farm site in Horry County, SC, to evaluate preplant and in-crop control of volunteer Roundup Ready cotton and soybean in Roundup Ready cotton.

In the preplant trial, four rows of Roundup Ready cotton and four rows of Roundup Ready soybean were planted perpendicular to the crop rows May 26, 2001. Preplant treatments were applied 2 weeks later when volunteer cotton and soybean seedlings were 3 and 4 inches tall, respectively. Roundup Ready cotton was planted 2 weeks after application of the preplant treatments.

Urea ammonia nitrate @ 40 qt/ac applied preplant provided  $\leq 10\%$  control of the volunteer Roundup Ready cotton and soybean. Preplant tillage controlled 100% of the volunteer crops but depleted the soil moisture, resulting in a poor stand of Roundup Ready cotton. Gramoxone Max (paraquat) @ 5,10,and 13.4 oz/ac controlled volunteer Roundup Ready cotton 92 to 99%; control of volunteer Roundup Ready soybean with these respective treatments was 77, 98, and 99%. Preplant applications of Valor (flumioxazin-2.6 oz/ac), Weedone LV4 (2,4-D-0.8 qt/ac), Clarity (dicamba-8 oz/ac), and Cobra (lactofen-12.8 oz/ac) controlled Volunteer Roundup Ready cotton 96 to 100%. Aim (carfentrazone-0.144 oz/ac), Direx (diuron-1 pt/ac), and Caparol (prometryn-0.8 qt/ac) provided poor (0 to 7%) control. Preplant application of Valor (2.6 oz/ac), Aim (0.144 oz/ac), Direx (1 pt/ac), Caparol (0.8 qt/ac) and Cobra (12.8 oz/ac) provided poor (0 to 57%) control of volunteer Roundup Ready soybean. Weedone LV4 (0.8 qt/ac) and Clarity (8 oz/ac) controlled volunteer Roundup Ready soybean 100%.

In the in-crop experiment, four rows of Roundup Ready cotton and soybean were planted perpendicular to the crop rows immediately prior to planting the Roundup Ready cotton. Staple (pyrithiobac) @ 0.6 oz/ac applied POST to 2-and 4-leaf cotton provided 92 and 78% control of Roundup Ready soybean, but provided no control of the cotton.

When applied with a hooded/directed sprayer at the 8- to 9- node cotton stage, Gramoxone Extra (paraquat) @ 2.6 to 10 oz/ac controlled volunteer Roundup Ready cotton 20 to 85% and Roundup Ready soybean 52 to 72%, respectively. Cotoran (fluometuron) (1 pt/ac), Aim (0.144 oz/ac), Caparol (0.8 qt/ac), and Cobra (12.8 oz/ac) controlled volunteer Roundup Ready cotton and soybean 4 to 13% and 10 to 43%, respectively.