

## UTILIZATION OF ROUNDUP READY AND BXN COTTON TECHNOLOGIES IN CENTRAL TEXAS

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### Abstract

The development of Roundup and Buctril tolerant cottons will play a major role in the management of several troublesome weed species infesting Central Texas cotton fields. However, employment of these systems will require careful consideration of several factors before a cotton producer should decide which of these, if any, best fit his weed management program.

One of the most pernicious weeds in Central Texas cotton cultures is sharppod morningglory (*Ipomoea trichocarpa*). A study conducted in 1996 showed that Roundup Ultra provided good control of this weed specie (82-91%) when applied early POST at 1.5 pts./A, followed by a POST-DIRECTED application 21 days later at the same rate. The use of Cotoran PRE at 2.4 pts./A followed by the same Roundup treatments did not significantly improve control. At the same location, treatments of Staple (1.2 ozs./A) followed by a Buctril (1.5 pts./A) application 21 days later also provided good sharppod morningglory control (87%). However, when Staple and Buctril were tank-mixed, some antagonism was noted and weed control was reduced ranging from 58 to 73%.

In a separate study, one application of Roundup early POST at 1.5 pts./A was sufficient to provide season-long control of Palmer amaranth (*Amaranthus palmeri*) and seedling johnsongrass (*Sorghum halpense*). Control was equal to Treflan applied PPI and followed by a PRE application of Cotoran or Bladex + MSMA POST-DIRECTED. It should be pointed out that 1996 was extremely dry during the growing season which no doubt reduced the potential for multiple weed flushes.

These studies, along with others, have proven that effective management of troublesome and common weeds can be achieved with the Roundup Ready and BXN cotton programs. However, cotton producers need to carefully consider the following factors before deciding on which system to employ: (1) What are the most likely weed species to infest your cotton field, and which products will provide control?; (2) Weed pressure — can you get by with a total POST program?; (3) Application technology and flexibility — are you set-up to post-direct late Roundup applications and can you get over your fields in time to treat at the proper weed stage of growth with any POST

product?; (4) Varietal selection — do the Roundup Ready or BXN cottons available fit your area or will the weed control provided offset any loss due to lack of varietal “fit”?; (5) Available alternatives — do you really need to use either system when compared to traditional weed control practices or the use of Staple herbicide?; (6) Value — will the benefits of these new systems in terms of weed control result in higher crop yields to offset the added expense, if there is any. Consideration must also be given to the value of using these new systems as a long-term approach for eliminating perennial and other pernicious weed problems. These considerations should be carefully explored by cotton farmers when deciding on a weed control program to avoid any false expectations or economic loss.