

**WEED CONTROL SYSTEMS IN ROUNDUP
READY® COTTON
J.A. Mills, R.D. Voth,
Monsanto, Collierville, TN, and Monsanto, St. Louis,
MO**

Abstract

The development of Roundup Ready® cotton tolerant to Roundup Ultra® herbicide gives growers a new and unique option for their weed control needs. Field trials were established in 1996 by Monsanto and university weed scientists to determine the value of residual herbicides in a Roundup Ready weed control program. Small-plot replicated studies and large-plot grower demonstrations were established. Parameters evaluated included weed control, crop safety, yield and overall economics. Data indicate that a weed control program utilizing Roundup Ultra® as needed and applied according to label directions without residuals provides effective control of nearly all grasses and broadleaf weeds common in cotton production. Weed control from this program was at least as good and often times better than weed control from commercial standard programs. Crop safety from a Roundup Ultra program without residuals was as good or better than crop safety from commercial standard programs. Improved weed control and/or better crop safety often resulted in higher yields from Roundup Ultra programs without residual herbicides. Large-plot grower trials indicate that higher overall returns (yield dollars minus weed control program cost dollars) are associated with a Roundup Ultra program without residuals or a Roundup Ultra program that utilizes a residual herbicide applied at lay-by.