

Weed management in conventional and Roundup Ready corn. B.J. Williams and A.B. Burns. LSU AgCenter, Baton Rouge, LA

Studies were conducted in 2005 to compare weed management systems for conventional and Roundup Ready corn. All studies were conducted at the Northeast Research Station near Saint Joseph, LA on a Commerce silt loam as RCBs with 3 replications. In the first study, sequential applications of glyphosate and nicosulfuron plus rimsulfuron followed by nicosulfuron resulted in slightly (< 10%) broadleaf signalgrass (*Brachiaria platyphylla* (Griseb.) Nash) control compared to sequential applications of nicosulfuron. Nicosulfuron at 0.3 oz ai/A followed by 0.23 oz ai/A nicosulfuron generally resulted in superior weed control than two applications of nicosulfuron at 0.26 oz ai/A. Tank mixing both glyphosate and nicosulfuron with atrazine improved overall weed control. The best corn yields (180 bu/A) were observed in plots treated with nicosulfuron plus rimsulfuron and followed by nicosulfuron. Sequential applications of nicosulfuron resulted in corn yields equal to or greater than sequential applications of glyphosate. In another study, the best conventional program was metolachlor plus atrazine applied at V1 followed by nicosulfuron plus atrazine and the best Roundup Ready program was two applications of glyphosate plus atrazine. Few differences in weed control were observed between the best conventional program and the best Roundup Ready program. Yields were similar for both conventional and Roundup Ready hybrids and programs. These results suggest that choice of between planting a conventional corn hybrid and a Roundup Ready hybrid should not be made based on the ability to control weeds. The primary weeds evaluated in these studies were broadleaf signalgrass, johnsongrass (*Sorghum halepense* (L.) Pers.), sicklepod (*Senna obtusifolia* (L.) Irwin & Barneby), redroot pigweed (*Amaranthus retroflexus* L.), entireleaf morningglory (*Ipomoea hederacea* (L.) Jacq.) and prickly sida (*Sida spinosa* L.).