

EVALUATING WEED CONTROL OPTIONS IN DICAMBA TOLERANT SOYBEAN. Sara K. Carter*, Charles H. Slack, Glen P. Murphy and Paulette Pierson. Department of Plant and Soil Sciences, University of Kentucky, Lexington, The Monsanto Company, St. Louis, MO.

In 2007 and 2008, the University of Kentucky conducted research evaluating weed control measures and overall crop tolerance of soybean with traits exhibiting tolerance of dicamba and glyphosate applications. The trials took place at the Spindletop Research Facility in Lexington, KY. The study site was conventionally prepared on Maury Silt Loam soil. The 2007 study was planted on May 18 using a John Deere MaxEmerge planter at a depth of 1 inch and 30 inch row spacing. Preemergent applications of dicamba (.25 lb ae/A) were made the day of planting. Subsequent applications of dicamba (0.125 and 0.25 lb ae/A) were made when weed growth reached 3 and 6 inches and again when weed re-growth reached 6 inches. Each application of clarity was tank mixed with glyphosate (.75 lbs ae/A) and liquid ammonium sulfate (3.7% v/v). Visual ratings were taken 7 days after each application. The 2008 study was conducted on the same site, under the same field conditions as the 2007 study. Planting occurred on June 2 with preemergent applications of dicamba (.25 lb ae/A). Postemergent treatments were applied at 3 and 6 inches and again when weed re-growth reached 6 inches. Dicamba rates evaluated were 0.125 and 0.25 lb ae/A applied with glyphosate (0.75 lb ae/A) and ammonium sulfate (3.7% v/v). Visual evaluations were taken 7 days after each application.

Evaluations in 2007 showed excellent tolerance of the soybean variety to applications of dicamba regardless of when it was applied throughout the growing season. Weed control using the combination of glyphosate and dicamba resulted in at least 96% control of all weeds evaluated following the final application at 6 inch weed re-growth. Evaluations made in 2008 showed similar results to that of the previous year. Crop tolerance was excellent and weed control reached at least 93% following the final applications.