

STS<sup>®</sup>/ROUNDUP READY<sup>®</sup> STACKED-TRAIT SOYBEAN USES FOR MANAGING WILD BUCKWHEAT AND OTHER GLYPHOSATE TOLERANT WEEDS. James D. Harbour, Mick F. Holm, J. Leslie Lloyd, and David W. Saunders, Field Development, DuPont Agriculture and Nutrition, Johnston, IA 50063.

STS<sup>®</sup>/Roundup Ready<sup>®</sup> (STS/RR) soybean varieties contain genetic traits conferring increased tolerance to certain ALS-inhibitor herbicides and tolerance to glyphosate. STS/RR soybeans allow farmers additional choices for weed control management without increased risk for crop response. The study objective was to determine the benefit of adding thifensulfuron and/or chlorimuron-ethyl herbicides to glyphosate for enhanced control of broadleaf weeds that may be difficult to control with glyphosate treatments alone. STS/RR soybean were treated with glyphosate applied at 15 oz ai/a alone, glyphosate tank mixed with thifensulfuron at 0.0625, 0.125, or 0.25 oz ai/a, glyphosate tank mixed with chlorimuron-ethyl at 0.125 or 0.25 oz ai/a, or glyphosate tank mixed with thifensulfuron at 0.25 oz ai/a and chlorimuron-ethyl at 0.25 oz ai/a. Ammonium sulfate, at 2% (v/v), was added to all treatments. Overall weed control and crop safety with mixtures of thifensulfuron and/or chlorimuron-ethyl plus glyphosate was as good or better than applications of glyphosate alone, particularly on wild buckwheat and horseweed.