

GLYPHOSATE-RESISTANT GIANT RAGWEED CONTROL IN COTTON**Lawrence E. Steckel****Christopher L. Main****University of Tennessee****West Tennessee Research and Extension Center****Jackson, TN****Abstract**

Giant ragweed is becoming a more prevalent problem in cotton fields in Tennessee. Historically, giant ragweed was mostly confined to field edges but in recent years has progressively spread into cotton fields. In just the last two years growers reported that glyphosate was not providing the same level of giant ragweed control as before. Field as well as greenhouse research has shown that giant ragweed in our cotton fields has more tolerance to glyphosate than giant ragweed in fence rows. Research was conducted in 2009 looking at post control options in Phytogen Widestrike cotton. Treatments evaluated were Ignite, Ignite + glyphosate, Ignite + Staple, glyphosate, glyphosate + Staple, glyphosate + Envoke, and Ignite at 2lf followed by Ignite at 5lf. All Ignite rates were applied at 29 oz/A. All other rates were applied at the standard labeled rate. Ignite alone or Ignite followed by Ignite and Ignite + Staple provided >95% control of 8 to 10" giant ragweed. Ignite tank mixed with glyphosate provided poor giant ragweed control 65%. All other glyphosate treatments provided less than 30% giant ragweed control. Ignite and Ignite tank mixtures showed visual cotton injury from 10 to 15%. All the Ignite treatments provided the best yield over 1000 lbs/A. The glyphosate treatments yielded very poorly do to very little giant ragweed control. This 1 year of data would suggest that an Ignite based system is needed to successfully raise cotton in glyphosate-resistant giant ragweed infested fields.