

WEED CONTROL PROGRAMS WITH TEMBOTRIONE IN CORN. David Lamore\*, George Simkins, Kevin Watteyne, and Jayla Allen, Bayer CropScience, Research Triangle Park, NC.

Research was conducted at 38 locations in 17 states across the Eastern and Midwestern United States to determine an effective weed management system using tembotrione applied post emergence in field corn. Three systems were studied including reduce rates and combinations of preemergence herbicides (atrazine, isoxaflutole, flufenacet and s-metolachlor) were followed by an early postemergence application of tembotrione (92 g ai/ha), tembotrione + atrazine (92 g ai/ha + 560-1120 g ai/ha) tank mixed with crop oil concentrate or MSO at 1% v/v and 28% UAN at 3.5 l/ha. Rates of the preemergence products varied by region and soil type. Also evaluated were tank mixes of tembotrione (31 g ai/ha) with glufosinate (450 g ai/ha) on glufosinate resistant corn and tank mixes with glyphosate on glyphosate tolerant corn. Comparisons were made between tank mixes of glufosinate and glyphosate with tembotrione, tembotrione with atrazine (560-1120 g ai/ha) and the combination with both tembotrione and atrazine in each herbicide tolerant system.

Crop injury and weed control data were collected approximately 7, 14, 28 and 56 data after the post emergence treatments. No significant crop injury was reported from any location.

Program included tembotrione provide > 90% control of giant foxtail, barnyardgrass, woolly cupgrass, broadleaf signalgrass, common ragweed, common lambsquarters, giant ragweed, redroot pigweed, velvetleaf, tall waterhemp and common waterhemp.

The weed control spectrum offered by tembotrione brings many options for enhanced weed control, weed resistance management, and application timing to the grower. Tembotrione fits conventional and herbicide tolerant crops.