

EVOLVING PROGRAMS TO CONTROL WEED ESCAPES IN GLYPHOSATE RESISTANT CORN. Jeremy Frie, Dennis Belcher, and Duane P. Rathmann, Technical Service Representatives, BASF Corporation, Research Triangle Park, NC, 27709.

Increasing glyphosate resistant corn acres are commonly planted in rotation with glyphosate resistant soybean causing continuous use of glyphosate, many times as a stand alone product. Repeated use of glyphosate has given rise to common weed escapes such as waterhemp, velvetleaf, common lambsquarters, kochia, Canada thistle, Pennsylvania smartweed, wild buckwheat, giant ragweed, dandelion, and volunteer alfalfa. Trials were conducted at six university sites in North Dakota, South Dakota, Minnesota, and Missouri to evaluate programs that would successfully control common weed escapes being experienced in glyphosate resistant corn. Glyphosate programs were enhanced with soil-applied applications of dimethenamid-P or dimethenamid-P plus atrazine, as well as post glyphosate applications tank mixed with dicamba, dicamba plus diflufenzopyr, dimethenamid-P, or dimethenamid-P plus atrazine. These additional modes of actions were successful in controlling the weed escapes common to glyphosate alone programs. At Lamberton, MN, corn yields were increased from 143 bushels per acre with glyphosate alone to 163 bushels per acre when glyphosate was tank mixed with dicamba plus diflufenzopyr.