

DIFFERENTIAL WEED SPECIES RESPONSES TO THE USE OF WATER CONDITIONERS WITH GLYPHOSATE. Donald Penner and Jan Michael, Department of Crop and Soil Sciences, Michigan State University, East Lansing, MI 48824-1325.

The objective of the research was to compare the responsiveness of a range of weed species to the presence of diammonium sulfate applied with glyphosate. The weed species were grown in the greenhouse. Two formulations of glyphosate were applied generally at 0.17 and 0.34 kg ae/ha with and without 2% diammonium sulfate. The spray solution was applied when the plants were 10 to 15 cm. tall. Weed species were evaluated for control 7, 10, and 14 days after treatment. Weed control in the presence of the diammonium sulfate applied with glyphosate was divided into three groups. Very responsive weed species to the addition of diammonium sulfate with glyphosate included prickly sida, venice mallow, velvetleaf, and small sized common dandelion. Intermediate in response were giant foxtail, barnyardgrass, large crabgrass, and yellow nutsedge. The least responsive weed species in the study were yellow foxtail, eastern black nightshade, ivyleaf morningglory and common lambsquarters.