

POSTEMERGENCE HERBICIDES FOR CONTROL OF COMMON DANDELION IN NO-TILLAGE CORN. Aaron S. Franssen and James J. Kells, Graduate Research Assistant and Professor, Department of Crop and Soil Sciences, Michigan State University, East Lansing, MI 48824.

The occurrence of common dandelion (*Taraxacum officinale*) in Michigan no-tillage corn production has increased over the past several years. Producers have been reporting inconsistent common dandelion control, especially when glyphosate is the primary herbicide applied. To address this issue, several postemergence corn herbicides, premixes and tank mixtures were evaluated for common dandelion control. Research was conducted at the Michigan State University Clarksville Experiment Station on an established population of common dandelion. Glufosinate-resistant corn was planted in 76 cm row spacing. Herbicide treatments were applied when corn reached the V5 growth stage. Common dandelion control was evaluated weekly and plots harvested for yield.

Commercial postemergence corn herbicides evaluated in the study include: 2,4-D amine, 2,4-D ester, dicamba, clopyralid, halosulfuron, primisulfuron, nicosulfuron, carfentrazone, flumiclorac, bromoxynil, atrazine, bentazon, mesotrione, and glufosinate. Premixes evaluated were: atrazine + 2,4-D ester, atrazine + dicamba, primisulfuron + dicamba, diflufenzopyr + dicamba, flumetsulam + clopyralid, and rimsulfuron + thifensulfuron. Tank mixes included in the study were mesotrione + atrazine and glufosinate + atrazine. All treatments were applied at labeled rates and with appropriate adjuvants.

The most effective treatments 21 DAT were the tank mixtures of mesotrione + atrazine and glufosinate + atrazine with 84 and 75 percent control, respectively. All other treatments were significantly less effective. When applied alone, mesotrione and glufosinate controlled common dandelion 72 and 55 percent, respectively. Atrazine applied alone controlled common dandelion 13 percent. Flumiclorac was the only postemergence herbicide treatment that did not result in a corn yield significantly greater than the 2900 kg ha<sup>-1</sup> yield of the untreated. However, carfentrazone and flumiclorac had similar yields of 5300 and 3800 kg ha<sup>-1</sup>, respectively. The treatments which resulted in the greatest yield were; mesotrione, glufosinate, mesotrione + atrazine, glufosinate + atrazine, 2,4-D ester + atrazine, and diflufenzopyr + dicamba with corn yields of 9300, 10500, 10600, 10300, 9200, and 9100 kg ha<sup>-1</sup>, respectively. Atrazine applied alone resulted in a yield of 6300 kg ha<sup>-1</sup>.