

CONTROL OF VOLUNTEER HORSERADISH IN CORN PRODUCTION. Mark F. Rundle, S. Alan Walters, Ronald F. Krausz, and Bryan G. Young, Graduate Research Assistant, Assistant Professor, Researcher, and Associate Professor, Southern Illinois University, Carbondale, IL, 62901.

Volunteer horseradish (*Armoracia rusticana*) in rotational crops can serve as a host for verticillium wilt (*Verticillium dahliae*) which is a major production challenge in horseradish production. Control of volunteer horseradish in rotational crops is desirable to possibly reduce the inoculum levels of this pathogen. Greenhouse and field studies were conducted in 2002 and 2003 to determine the efficacy of various postemergence herbicides for control of volunteer horseradish in corn. In greenhouse studies, halosulfuron and 2,4-De provided 92% or greater control of horseradish at 21 days after treatment. Dicamba provided less control than halosulfuron and glyphosate provided less than 75% control of volunteer horseradish.

Herbicides were applied in field studies when volunteer horseradish was 15 and 30 cm in height in conventional till corn. Primisulfuron was not effective for control of volunteer horseradish (<63%) at 56 days after treatment, regardless of application timing. The efficacy of halosulfuron on volunteer horseradish was greatest when applied to 15 cm horseradish compared with 30 cm. Control of volunteer horseradish was the most consistent with 2,4-De and the level of control achieved was similar to or greater than using primisulfuron or halosulfuron. In 2003, applying 2,4-De at the later application timing increased control of volunteer horseradish. However, application timing was not significant for 2,4-De in 2002. The general ranking of herbicide efficacy on volunteer horseradish was 2,4-De>halosulfuron>primisulfuron.