

DANDELION CONTROL WITH SPRING APPLIED, PRE-PLANT TREATMENTS IN NO-TILL CORN. J. Earl Creech, William G. Johnson, and Reece A. Dewell, Graduate Research Assistant, Assistant Professor, and Postdoctoral Research Associate, Purdue University, West Lafayette, IN 47907.

Dandelion management in no-till cropping systems has become a major concern for growers in Indiana and throughout the North Central region. Field studies were conducted at the Agronomy Center Research and Extension (ACRE), West Lafayette, IN, in 2003 to evaluate control of established dandelion in no-till corn with late spring applied treatments. In an initial experiment, combinations of a number of commonly used burndown and preemergence corn herbicides were applied on May 8. A second study was initiated on May 22 to examine the interaction between *s*-metolachlor + atrazine + mesotrione (Lumax) and paraquat. Treatments were arranged in a randomized complete block design with four replications. Visual estimates of dandelion control were taken at two-week intervals throughout the growing season. Treatments containing paraquat generally received higher ratings at 14 days after treatment (DAT) than treatments without. The *s*-metolachlor + atrazine + mesotrione treatment controlled dandelion 71% while the addition of paraquat increased control to 94% or greater. At 41 DAT, dandelion control with treatments containing paraquat had decreased to levels similar to treatment combinations without paraquat. Treatments containing glyphosate, *s*-metolachlor + atrazine + mesotrione, or 2,4-D generally provided greater than 80% dandelion control at 41 DAT. Mesotrione at 105 g/ha and 210 g/ha controlled dandelion 68% and 80%, respectively. The addition of atrazine to mesotrione had no effect on dandelion control in this study. Although initial (11 DAT) activity was approximately 4-fold higher than mesotrione alone, dandelion control in the mesotrione + paraquat treatments was 8-15% less than a similar rate of mesotrione alone at 35 DAT. These studies demonstrate that a number of herbicides can be effective for suppression of established dandelion in the spring.