

FIELD PANSY CONTROL IN NO-TILL FIELDS WITH FALL AND SPRING HERBICIDE APPLICATIONS. Jason N. Miller, David L. Regehr, and Dallas E. Peterson, Graduate Research Assistant and Professors, Department of Agronomy, Kansas State University, Manhattan, KS 66506.

Field pansy (*Viola rafinesquii*) is becoming a problematic weed in no-till fields in northeast Kansas. It is a winter annual native to North America, that can germinate both in the fall and spring. This weed grows in thick patches that when left uncontrolled can utilize the stored soil moisture affecting the following crop. Previous work has shown poor or erratic weed control from many spring burndown treatments. Field studies were established in the fall of 2002 in two northeast Kansas no-till fields, to evaluate various herbicide tank-mix combinations at two application timings (fall and spring) on field pansy control. The first field was going to corn where the previous crop had been soybeans, while the second field was going to soybeans that had previously been corn. Ahead of corn, fall-applied treatments ranged from 85% to 100% control. Treatments containing atrazine averaged 98% control vs. 90% without atrazine. Spring-applied treatments provided control similar to the fall applications ranging from 83% to 100%. Ahead of soybeans, most of the fall-applied treatments provided good control ranging from 75% to 100%, with similar results obtained from the burndown-only treatments and residual treatments. In the spring-applied treatments, control ranged from 46% to 90%, and most of the treatments provided far less control than when applied in the fall. One reason less control may have been obtained from the spring-applied treatments ahead of soybeans could be due to the fact that there was more crop residue, and spray coverage could have been affected. Pending further information on how much spring germination does occur and control from spring applied herbicides, it is best to use fall-applied herbicides that provide foliar burndown with adequate residual to control spring germinators.