

FALL HERBICIDES FOR ITALIAN RYEGRASS CONTROL PRIOR TO NO-TILL CORN. Ron A. Hines, Senior Research Specialist, Department of Crop Sciences, University of Illinois, Dixon Springs Agricultural Center, Simpson, IL 62985.

The use of some winter annual cover crops for soil erosion control prior to no-till crops can lead to significant weed control problems if seed development is not prevented. One such cover crop is Italian ryegrass. Seed germination and plant development can occur in the fall or early spring. Prevention of plant establishment in the fall can help minimize early plant maturity and seed development in the spring.

The objective of this study was to evaluate fall herbicide applications for control and establishment prevention of Italian ryegrass prior to no-till corn. The herbicide treatments included single and combination treatment of simazine, paraquat, glyphosate, 2,4-D, rimsulfuron plus thifensulfuron and tribenuron.

Italian ryegrass seed was broadcast over the entire trial area at 66 kg/ha on October 23, 2001. All fall herbicide treatments were applied on November 15, 2001 to one to three inch tall ryegrass.

Control results 30 days after application indicated that glyphosate or paraquat applied alone, combinations of simazine plus paraquat and combinations of glyphosate plus 2,4-D were all providing greater than 85 percent control. Simazine applied alone was providing less than 60 percent control.

Control results on April 16, 2002 indicated that only the treatment combination of simazine plus paraquat was providing at least 70 percent control of Italian ryegrass. No other treatment was providing more than 31 percent control.

This research indicates that the best fall control of volunteer Italian ryegrass will be obtained with the use of a combination of burndown and residual control herbicides.