

Controlling newly emerged glyphosate resistant corn. Horky, Kevin T. and Brady F. Kappler. A field study was conducted to evaluate the efficacy of control programs in glyphosate resistant corn. A randomized complete block design with three replications per treatment was utilized. The study was conducted on a Sharpsburg silt loam with 2.7% organic matter and a pH of 6.8. Individual plots consisted of six 30-inch rows, each 30 feet long. 'Dekalb 6019RR' corn was planted May 5 at a population of 21000 seeds per acre. Treatments were applied with a tractor-mounted sprayer at a speed of 3.0 mph. Application, weed, and environmental data are presented below:

Date	May 17
Treatment	1LEAF
Sprayer	
gpa	15
psi	30
Temperature (°C)	
air	18
soil (4 inch)	14
Soil Moisture	adequate
Wind (mph)	10
Sky (% cloudy)	25
Relative	
humidity (%)	55
Precip. After appl. (inches)	
week 1	0
week 2	1.32
Corn	
stage	V1
height (cm)	3

Summary comments: This study examined the use of several standard and several potential treatments for controlling glyphosate resistant corn in a replant situation, particularly in no-till. The standard treatment of paraquat and glufosinate were significantly lower than the other treatments and would not provide satisfactory control of the corn nor make a wise economic investment. In ratings taken 7 and 14 DAT the treatments that contained either sethoxydim, clethoim or fluaziflop all provided significantly higher control of the volunteer glyphosate resistant corn. The control of these treatments at 14 DAT ranged from 70-87% control and the half rate treatments of clethodim and sethoxydim were not significantly different from the full rate of the same products. While the level of control may not be at the level typically desired by the producer this may be a sufficiently high level for reducing the competition of the volunteer corn. Since yield data were not collected for this study it is not possible to answer the question of impact on yield by using full and ½ rates of the clethodim and sethoxydim. The level of control for all treatments is also believed to be impacted by the relatively small V1 growth stage at application and reduced uptake by the volunteer corn plants, yet this simulates the situation, producers often encounter in the field, as well. In the future, yield data will be necessary to accurately assess the potential yield reduction, as previous research has shown, with the use of these products immediately before corn planting. (Dept. of Agronomy and Horticulture, University of Nebraska-Lincoln)

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Treatment	Application		ZEAMX	
	Rate	Timing	5/23	6/1
			% Control	
Sethoxydim& BCH815S+ COC ¹	0.188	1LEAF	67	83
	1.25% v/v			
Sethoxydim& BCH815S+ COC	0.094	1LEAF	32	75
	1% v/v			
Clethodim+ COC	0.094	1LEAF	70	87
	1.25% v/v			
Clethodim+ COC	0.047	1LEAF	75	83
	1% v/v			
Fluazifop-P& fenoxaprop+ NIS ²	0.094	1LEAF	67	70
	0.026			
	0.25% v/v			
Paraquat+ NIS	0.49	1LEAF	15	27
	0.25% v/v			
Glufosinate+ AMS ³	0.42	1LEAF	58	40
	3			
LSD (P=.05)			14.8	14.5

¹COC = 'Prime Oil' by Agrilience²NIS = 'Preference' by Agrilience³AMS = 'N-PAK' by Agrilience