

Control of volunteer glyphosate-resistant corn in glyphosate-resistant soybean. Li, Jianmei, Jimmy D. Wait, and Kevin W. Bradley. The objective of this study was to evaluate efficacy of V-10137, clethodim, and quizalofop on volunteer glyphosate-resistant corn in a glyphosate-resistant soybean system. This study was conducted at the Bradford Research and Extension Center near Columbia, MO. The soil was a Mexico silt loam with a pH of 6.8 and 2.1% organic matter. 'MORSOY 3881' glyphosate-resistant soybean was planted 1 inch deep on May 7 in 15 inch rows. Treatments were arranged in a randomized complete block design with four replications of 10 by 35 foot plots. Herbicide applications were made with a CO₂ backpack sprayer equipped with XR8002 flat fan nozzles calibrated to deliver 15 GPA at 26 PSI.

Application data are listed below:

Date	June 24
Treatment	20 to 24 inch volunteer Roundup Ready corn
Temperature (C)	
air	27.2
soil	25.6
Soil moisture	dry
Wind (mph)	5
Cloud cover (%)	40
Relative humidity (%)	58
Precipitation after application	
week 1 (inch)	0.14
week 2 (inch)	1.38
Soybean	
leaf no.	8 trif
height (inch)	12
Volunteer Roundup Ready corn	
leaf no.	6
height (inch)	20
infestation	3/ft ²

Crop injury was less than 3% on all evaluation dates. Control of volunteer glyphosate-resistant corn ranged from 68 to 71% and was similar among all treatments 14 days after application. Control increased to 90% or greater with all treatments 27 days after application. Control by glyphosate at 0.77 ae/A plus quizalofop at 0.034 lb ai/A was slightly better than that with clethodim at both 0.063 and 0.047 lb ai/A. V-10137 provided similar or higher levels of volunteer glyphosate-resistant corn control than clethodim or quizalofop. (Department of Agronomy, University of Missouri-Columbia)

Table. Control of volunteer glyphosate-resistant corn in glyphosate-resistant soybean (Li, Wait, and Bradley).

Application	Rate (lb/A)	Soybean injury		Volunteer ZEAMX	
		7-8	7-21	7-8	7-21
-----%-----					
Untreated		0	0	0	0
Clethodim+ Glyphosate+AMS	0.063+ 0.77+2.55	1	0	68	94
V-10137+ Glyphosate+AMS	0.063+ 0.77+2.55	1	3	71	96
Clethodim+ Glyphosate+AMS	0.047+ 0.77+2.55	1	0	69	92
V-10137+ Glyphosate+AMS	0.047+ 0.77+2.55	0	0	71	97
Glyphosate+AMS+ Quizalofop	0.77+2.55+ 0.034	0	1	70	99
Glyphosate+AMS+ Quizalofop+ NIS	0.77+2.55+ 0.034+ 0.125%	0	3	71	97
LSD(0.05)		1	4	8	4