Glyphosate resistant canola control in glyphosate resistant soybean. Zollinger, Richard K. and Jerry L. Ries. An experiment was conducted near Prosper, ND, to evaluate control of volunteer glyphosate resistant canola in glyphosate resistant soybean. Asgrow 'AG0801' soybean was planted on May 17. POST treatments were applied June 26 at 8:30 am with 72 F air, 75 F soil surface, 65% relative humidity, 10% clouds, 3 mph NW wind, wet soil surface, wet subsoil, excellent crop vigor, and no dew present to V2 to V3 soybean. Weed species present were: 1 to10 inch (10 to 40/ft^2) yellow foxtail; 3 to 8 inch (1 to 3/yd^2) common lambsquarters; 2 to 8 inch (1 to 3/yd^2) redroot pigweed; 1 to 8 inch (1 to 15/yd^2) common ragweed; and 3 to 7 inch (3 to 10/yd^2) volunteer canola. Treatments were applied to the center 6.67 feet of the 10 by 40 foot plots with a backpack-type plot sprayer delivering 8.5 gpa at 40 psi through 8001 flat fan nozzles. The experiment had a randomized complete block design with three replicates per treatment.

All treatments controlled yellow foxtail, redroot pigweed, common lambsquarters, and common ragweed. At July 2 (7 DAT), 10 (14 DAT), and 24 (28 DAT), treatments containing thifensulfuron mainly caused soybean stunting. Generally, by 28 DAT glyphosate combined with cloransulam, fomesafen, or imazamox controlled glyphosate resistant canola. Cloransulam and imzamox were slower to control the canola (July 10 vs. July 24) and the lowest rate used did not provide adequate control. Thifensulfuron and carfentrazone at any rate used did not control the resistant canola. (Dept. of Plant Sciences, North Dakota State University, Fargo).

Table. Glyphosate resistant canola control in glyphosate resistant soybean (Zollinger and Ries).

Treatment[1]	Rate	June 29	June 3	July 10		July 24	
		Soybean injury	Soybean injury	Soybean injury	BRSNS	Soybean injury	BRSNS
	(lb/A)	(%)	(%)	(%)	(%)	(%)	(%)
Glyphosate+AMS	0.75	0	0	0	0	0	0
Glyphosate+thifensulfuron+AMS	0.75+0.0039	3	13	12	57	15	40
Glyphosate+thifensulfuron+AMS	0.75+0.00262	3	17	22	73	25	73
Glyphosate+thifensulfuron+AMS	0.75+0.00197	3	12	20	70	25	73
Glyphosate+carfentrazone+AMS	0.75+0.004	0	0	0	25	0	22
Glyphosate+carfentrazone+AMS	0.75+0.0028	0	0	0	10	0	10
Glyphosate+carfentrazone+AMS	0.75+0.0021	0	0	0	20	0	10
Glyphosate+cloransulam+AMS	0.75+0.0157	0	0	2	75	0	96
Glyphosate+cloransulam+AMS	0.75+0.0117	0	0	0	80	0	92
Glyphosate+cloransulam+AMS	0.75+0.0105	0	0	0	82	0	90
Glyphosate+cloransulam+AMS	0.75+0.00525	0	0	0	45	0	72
Glyphosate+fomesafen+AMS	0.75+0.088	5	10	5	97	0	99
Glyphosate+fomesafen+AMS	0.75+0.117	5	7	2	96	0	99
Glyphosate+fomesafen+AMS	0.75+0.176	7	7	5	98	0	99
Glyphosate+imazamox+AMS	0.75+0.0156	0	0	5	97	0	93
Glyphosate+imazamox+AMS	0.75+0.0117	0	0	2	73	0	92
Glyphosate+imazamox+AMS	0.75+0.0078	0	0	0	70	0	90
Imazethapyr&glyphosate+NIS+AMS	0.047&0.42	0	0	5	95	5	99
LSD (0.05)		2	2	3	7	0	3

[1]Glyphosate = Roundup UltraMax; AMS = ammonium sulfate at 2% w/w; NIS = nonionic surfactant = Activator 90 at 0.125% v/v.