

Annual weed control with Prefix, Gangster, Boundary, Domain, Valor, and Sonic in glufosinate tolerant soybeans at Lamberton, MN in 2007. Getting, Jodie K. The objective of this study was to evaluate soybean herbicide combinations for annual grass and annual broadleaf weed control in glufosinate tolerant soybeans. This study was conducted on a Normania loam soil containing 4.7% organic matter, pH 6.3 and soil test P and K levels of 34 and 380 lb/A, respectively. A randomized complete block design with four replications and a plot size of 10 by 30 ft was used. The site was planted to oats in 2006 and was fall chiseled. The area was fertilized with 140-60-60 on April 20, 2007. On May 21, 2007, 'SG2077LL' glufosinate tolerant soybeans were planted in 30-inch rows at a seeding rate of 160,000 seeds/A. All plots were treated with glyphosate on July 30 and chopped on August 2 to destroy the crop. All treatments were applied with a tractor-mounted sprayer delivering 20 gpa at a pressure of 40 psi. The sprayer was equipped with 8002 flat-fan nozzles spaced 15 inches apart on the boom. Application dates, environmental conditions, plant sizes and rainfall data are listed below:

Date	May 22	June 10	June 18	July 2
Treatment	PRE	POST I	POST II	POST III
Temperature (F)				
air	66	72	75	70
soil (4 inch)	64	76	80	74
Relative humidity (%)	64	29	39	80
Wind (mph)	S 12	W 10	SW 10	SW 8
Sky	cloudy	clear	cloudy	cloudy
Soil moisture	dry	dry	dry	dry
Soybean				
leaf no.	-	V1	V3	V6
height (inch)	-	3	6	16
Yellow foxtail				
leaf no.	-	1 to 2	3 to 5	4 to 6
height (inch)	-	0.5 to 1.5	2 to 5	4 to 6
no./ft ²	-	4	8	6
Common lambsquarters				
leaf no.	-	1 to 2	3 to 7	5 to 7
height (inch)	-	0.5 to 1.0	1 to 4	4 to 6
no./ft ²	-	1	1	<1
Tall waterhemp				
leaf no.	-	1 to 2	3 to 6	5 to 7
height (inch)	-	0.5 to 1.0	1 to 4	4 to 6
no./ft ²	-	2	8	<1
Rainfall after application (inch)				
1 week	0.27	1.20	0.17	0.00
2 week	1.97	0.59	0.00	0.00
3 week	0.24	0.00	0.00	0.78

(Southwest Research and Outreach Center, University of Minnesota, Lamberton).

Table. Annual weed control with Prefix, Gangster, Boundary, Domain, Valor, and Sonic in glufosinate tolerant soybeans at Lamberton, MN in 2007 (Getting).

Treatment ^a	Rate (oz/A, pt/A, lb/A or %)	Yellow foxtail				Common lambsquarters				Tall waterhemp			
		6/18	6/25	7/9	7/30	6/18	6/25	7/9	7/30	6/18	6/25	7/9	7/30
		-----(% control)-----											
<u>Preemergence/POST II (4-inch weeds)</u>													
Prefix / SP102000017385 + AMS	1.75 pt / 22 oz + 2 qt	95	98	99	97	93	100	100	100	97	100	100	100
Gangster V + Gangster FR / SP102000017385 + AMS	1.5 oz + 0.3 oz / 22 oz + 2 qt	78	97	98	99	94	100	100	100	90	100	100	100
Boundary / SP102000017385 + AMS	1.5 pt / 22 oz + 2 qt	93	98	98	98	90	99	100	100	90	100	100	100
Domain / SP102000017385 + AMS	14 oz / 22 oz + 2 qt	71	98	99	98	95	100	100	100	85	100	100	100
Valor / SP102000017385 + AMS	2 oz / 22 oz + 2 qt	58	97	95	97	88	98	99	97	80	100	100	99
Sonic / SP102000017385 + AMS	3 oz / 22 oz + 2 qt	55	95	94	95	91	100	100	98	81	100	100	99
Sencor / SP102000017385 + AMS	8 oz / 22 oz + 2 qt	38	97	98	97	94	100	100	100	76	100	100	99
Sonic / Liberty 200 SL + AMS	3 oz / 32 oz + 2 qt	55	95	95	96	94	100	100	100	79	100	100	100
<u>POST I (1-inch weeds) / POST III (regrowth)</u>													
SP102000017385 + AMS / SP102000017385 + AMS	22 oz + 2 qt / 22 oz + 2 qt	98	91	99	99	98	95	100	99	98	87	100	100
Weedy Check	-	0	0	0	0	0	0	0	0	0	0	0	0
	LSD (0.10)	8.0	2.1	1.9	2.2	3.9	1.5	1.0	2.2	5.5	0.9	ns	1.7

^a AMS = liquid spray grade ammonium sulfate.