

## Annual weed control with Zidua, Sharpen, Optill, Verdict and Valor in soybeans at Lamberton, MN in 2012.

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The objective of this study was to evaluate soil applied Zidua, Sharpen, Optill, Verdict, and Valor for annual grass and annual broadleaf weed control in glyphosate-resistant soybeans. This study was conducted on a Normania loam soil containing 4.3% organic matter, pH 5.2 and soil test P and K levels of 72 and 358 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 corn in 2011 and was moldboard plowed. On June 4, 2012, Asgrow 'AG1431' glyphosate-resistant soybeans were planted in 30-inch rows at a seeding rate of 160,000 seeds/A. 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	June 4	July 2
Treatment	PRE	POST
Temperature (F)		
air	84	88
soil (4 inch)	80	84
Relative humidity (%)	25	55
Wind (mph)	NW 8	S 8
Sky	clear	clear
Soil moisture	dry	dry
Soybean		
leaf no.	-	V5
height (inch)	-	10
Yellow foxtail		
leaf no.	-	4 to 6
height (inch)	-	4 to 6
no./ft <sup>2</sup>	-	2
Common lambsquarters		
leaf no.	-	3 to 5
height (inch)	-	2 to 4
no./ft <sup>2</sup>	-	< 1
Tall waterhemp		
leaf no.	-	4 to 6
height (inch)	-	3 to 6
no./ft <sup>2</sup>	-	1
Rainfall after application (inch)		
1 week	0.45	0.09
2 week	0.27	0.06
3 week	0.53	0.21

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

**Table. Annual weed control with Zidua, Sharpen, Optill, Verdict and Valor in soybeans at Lamberton, MN in 2012 (Getting).**

Treatment <sup>a</sup>	Rate	Yellow foxtail				Common lambsquarters				Tall waterhemp				Yield
		Jul 2	Jul 9	Jul 23	Sep 10	Jul 2	Jul 9	Jul 23	Sep 10	Jul 2	Jul 9	Jul 23	Sep 10	
<b>Preemergence/POST(6-inch weeds)</b>	(oz/A, pt/A, qt/A or %)	-----(% control)-----												(bu/A) <sup>b</sup>
Zidua + Sharpen / Roundup Powermax + AMS	2.5 oz + 1 oz / 22 oz + 2 qt	83 ab	99 a	99 a	99 a	99 a	99 a	99 a	99 a	97 a	99 a	99 a	98 b	49.1 ab
Optill + Outlook / Roundup Powermax + AMS	2 oz + 10 oz / 22 oz + 2 qt	85 ab	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	47.4 b
Verdict + Outlook / Roundup Powermax + AMS	5 oz + 12 oz / 22 oz + 2 qt	86 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	98 a	99 a	99 a	99 a	50.2 a
Valor SX / Roundup Powermax + AMS	2 oz / 22 oz + 2 qt	80 bc	99 a	99 a	99 a	98 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	48.4 ab
Zidua + Valor SX / Roundup Powermax + AMS	1.5 oz + 2 oz / 22 oz + 2 qt	84 ab	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	47.6 b
Anthem / Roundup Powermax + AMS	10 oz / 22 oz + 2 qt	80 bc	99 a	99 a	99 a	99 a	99 a	99 a	99 a	88 b	99 a	99 a	99 a	50.4 a
Prefix / Roundup Powermax + AMS	2 pt / 22 oz + 2 qt	86 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	98 a	99 a	99 a	99 a	47.3 b
Authority First / Roundup Powermax + AMS	6.4 oz / 22 oz + 2 qt	76 c	99 a	99 a	99 a	99 a	99 a	99 a	99 a	90 b	99 a	99 a	99 a	48.5 ab
<b>Check</b>														
Weedy Check	-	0 d	0 b	0 b	0 b	0 b	0 b	0 b	0 b	0 c	0 b	0 b	0 c	38.7 c
	LSD (0.10)	5.4	ns	ns	ns	1.2	ns	ns	ns	3.7	ns	ns	0.8	2.13

<sup>a</sup> AMS = liquid spray grade ammonium sulfate.

<sup>b</sup> Yield adjusted to 13% moisture.