

## Evaluation of weed management systems in soybean at Rochester, MN, in 2007.

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The objective of this trial was to evaluate herbicide systems for weed control in soybean in southeastern Minnesota. The research site was a Lawler loam series with a pH of 6.9 and soil test P and K levels of 77 ppm and 210 ppm, respectively. The field was spring disked and field cultivated prior to planting. The soybean variety, DSR 199 RR/STS, was planted on May 17, 2007, at a depth of 1.5 inches in 30 inch rows at 150,000 seeds per acre. A randomized complete block design was used with four replications. Preemergence (PRE) and postemergence (POST I, POST II, POST III, POST IV) treatments were applied with a tractor-mounted sprayer delivering 20 gpa at 32 psi using Turbo Tee 11002 nozzles. Evaluations of the plots were taken on June 6, June 14, June 20, June 28, July 6 and July 27 (June 6 data not included with this report). Application dates, environmental conditions, and weed stages are listed below. The center two rows of each plot were machine harvested.

<b>Date</b>	<b>May 17</b>	<b>May 17</b>	<b>June 12</b>	<b>June 20</b>	<b>June 26</b>	<b>July 6</b>
<b>Treatment</b>	PPI	PRE	POST I	POST II	POST III	POST IV
<b>Temperature (F)</b>						
Air	--	76	86	80	89	79
soil	67.8	67.8	79	71.4	84.9	79
<b>Relative Humidity (%)</b>	--	29	39	42	53	50
<b>Wind (mph)</b>	--	25	9	17	13	3
<b>Soil moisture</b>	inadequate	inadequate	adequate	adequate	adequate	inadequate
<b>Bean</b>						
stage	--	--	--	V3	V5	R1
height (inch)	--	--	--	6.5	12.0	14.0
<b>Giant Ragweed</b>						
weed density (ft <sup>2</sup> )	--	--	12.1	12.1	12.1	12.1
height (inch)	--	--	3.5	11.0	11.8	6.8
<b>Common Lambsquarters</b>						
weed density (ft <sup>2</sup> )	--	--	13.1	13.1	13.1	13.1
height (inch)	--	--	1.2	2.8	6.0	5.8
<b>Common Waterhemp</b>						
weed density (ft <sup>2</sup> )	--	--	7.4	7.4	7.4	7.4
height (inch)	--	--	1.9	3.6	6.7	4.3
<b>Giant Foxtail</b>						
weed density (ft <sup>2</sup> )	--	--	10.4	10.4	10.4	10.4
height (inch)	--	--	2.1	4.6	6.7	10.0
<b>Rainfall after each application (inch)</b>						
week 1	1.35	1.35	1.4	2.09	0.06	0.66
week 2	2.18	2.18	2.03	0.21	0.87	0.50
week 3	0.49	0.49	0.06	0.66	0.33	0.45

## **CONCLUSIONS**

Soil applied giant ragweed control (June 14 rating) provided a broad array of control ranging from a high of 91 percent (Prefix) to a low of 5 percent (IntRRo and Boundary). Treatments statistically equal to Prefix included Authority First (3.2 and 4 oz rates), Gangster, Sonic, and FirstRate. July 27 ratings of giant ragweed control ranged from a high of 99 percent (Prefix followed by Touchdown Total) to a low of 85 percent (Roundup OriginalMax + Resource). The best giant ragweed control occurred in treatments where sequential treatments were made; a PRE soil applied herbicide applied before a post emergent treatment, or sequential POST I and POST IV treatments. Two treatments were exceptions, FirstRate + Durango tank mix and applied POST II and the Roundup WeatherMax treatment applied POST III. Neither of the latter two treatments maximized grain yield. Sequential PRE/POST II treatments statistically equal to the highest treatment of Prefix followed by Touchdown Total treatment included, Authority First followed by Roundup OriginalMax, Gangster followed by Roundup OriginalMax, Valor followed by Roundup OriginalMax, and Valor SX + Python followed by Roundup OriginalMax. On average, the PRE/POST II treatments provided the highest yielding soybeans, averaging 40 bushels per acre. All of the sequential POST I/POST IV treatments maximized control of giant ragweed; however, average grain yield for the group was 31 bushels per acre.

The majority of the soil applied herbicide treatments for common lambsquarters (June 14 rating) provided excellent control 99-96 percent. Only three treatments were statistically lower than the rest. The lowest control was achieved with IntRRo, 73 percent. Prowl H2O provided only slightly better control at 79 percent. Prefix provided 93 percent control, which was statistically better than the latter two treatments, but statistically lower than the highest grouping. The July 27 ratings of common lambsquarters control ranged from a high of 99 percent (many) to a low of 68 percent (Roundup OriginalMax + Resource). All of the PRE followed by POST II programs provide between 99 and 96 percent control of common lambsquarters, except IntRRo followed by Roundup WeatherMax, 88 percent control, and FirstRate followed by Durango, 93 percent control. This treatment was statistically better than IntRRo, but statistically lower than the high group. All of the sequential POST I/POST IV treatment provided a high level of control, 98 percent or better. None of the POST II treatments maximized lambsquarters control and all provided statistically lower control than the sequential POST I / POST IV programs.

Like common lambsquarters, the majority of the soil applied herbicide treatments for common waterhemp (June 14 rating) provided excellent control at 99-97 percent. Three treatments stood out. The treatments providing the lowest control were achieved with FirstRate, 33 percent; followed by Prowl H2O at 79 percent, and IntRRo at 85 percent control. The July 27 ratings of common waterhemp control ranged from a high of 99 percent (many) to a low of 79 percent (Roundup OriginalMax + Resource). All of the PRE followed by POST II programs provided at least 97 percent control of common waterhemp except for two, IntRRo followed by Roundup WeatherMax with 92 percent control and FirstRate followed by Durango with 94 percent control (both statistically lower than the top treatments). Prowl H2O followed by Exteme (PPI/POST I) and Boundary followed by Flexstar + Fusion + Harmony GT PRE/POST I also provided common waterhemp control statistically equal to the top group. All of the sequential POST I/POST IV treatments provided control at the 99 percent level. POST II treatments provided waterhemp control in the 91 to 94 percent range, with the exception of Roundup OriginalMax + Resource treatment, 79 percent control.

Soil applied giant foxtail ratings (June 14) provided control ranging from a high of 99 percent (Prefix) to a low of 56 percent (Authority MTZ and FirstRate). Treatments statistically equal to Prefix included IntRRo and Boundary. July 27 ratings of giant foxtail control ranged from a high of 99 percent (many) to a low of 92 percent (Authority MTZ followed by Roundup OriginalMax, and F7119 followed by Roundup OriginalMax). Sequential POST I/POST IV treatments provided the most consistent control of giant foxtail.

All soil applied products except for two provided excellent velvetleaf control, IntRRo with 84 percent control and Prefix with 71 percent control. July 27 velvetleaf control ratings were excellent for all treatments (97-99 percent control) except for the IntRRo followed by Roundup WeatherMax treatment with 88 percent control.

**Table 1. Performance of herbicide systems for giant ragweed control in soybean on June 14, June 20, June 28, July 6, and July 27 at Rochester, MN, in 2007.**

Treatment	Rate	Giant Ragweed Control					Yield
		6/14	6/20	6/28	7/6	7/27	
	(rate/A)	(%)					(bu/A)
<b>PPI / POST I</b>							
Prowl H2O / Extreme + NIS + N-Pa-K AMS	43 oz / 3 pt + 0.25% v/v + 3 qt	10	96	96	94	94	32
<b>PRE / POST I</b>							
Boundary / Flexstar + Fusion + Harmony GT + MSO + 28% N	1.5 pt / 16 oz + 8 oz + 0.125 oz + 1% v/v + 2.5% v/v	5	99	97	93	92	40
Weedy Check		0	0	0	0	0	3
Weed Free		100	100	100	100	99	40
<b>PRE / POST II</b>							
Authority First / Roundup OriginalMax + N-Pa-K AMS	3.2 oz / 22 oz + 3 qt	83	90	97	97	96	42
Authority First / Roundup Original Max + N-Pa-K AMS	4 oz / 22 oz + 3 qt	88	94	98	98	97	35
Authority MTZ / Roundup OriginalMax + N-Pa-K AMS	10 oz / 22 oz + 3 qt	14	15	94	93	93	45
F7119 / Roundup OriginalMax + N-Pa-K AMS	4.8 oz / 22 oz + 3 qt	5	38	94	92	91	40
IntRRo / Roundup WeatherMax + N-Pa-K AMS	2 qt / 22 oz + 3 qt	5	11	93	94	88	39
Gangster V + Gangster FR / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.3 oz / 22 oz + 3 qt	89	95	98	98	98	42
Prefix / Touchdown Total + N-Pa-K AMS	1 qt / 24 oz + 3 qt	91	95	100	99	99	39
Valor / Roundup Original Max + N-Pa-K AMS	2 oz / 22 oz + 3 qt	45	54	95	96	96	46
Valor SX + Python / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.5 oz / 22 oz + 3 qt	73	81	97	96	96	40
Valor SX + Sencor / Roundup Original Max + N-Pa-K AMS	1.75 oz + 4 oz / 22 oz + 3 qt	33	63	96	97	95	41
Sonic / Durango + N-Pa-K AMS	3 oz / 24 oz + 3 qt	83	91	97	96	95	34
FirstRate / Durango + N-Pa-K AMS	0.3 oz / 24 oz + 3 qt	84	90	98	98	95	31
Enlite/ Roundup Original Max + N-Pa-K AMS	2.83 oz / 22 oz + 3 qt	80	82	97	96	95	41
<b>POST I and POST IV</b>							
Roundup WeatherMax + N-Pa-K AMS / Roundup WeatherMax + N-Pa-K AMS	22 oz + 3 qt / 22 oz + 3 qt	0	95	97	88	97	34
Durango DMA + N-Pa-K AMS / Durango DMA+ N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	97	97	89	98	29
Touchdown Total + N-Pa-K AMS / Touchdown Total + N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	97	97	90	99	36
Flexstar + COC / Touchdown Total + N-Pa-K AMS	16 oz + 1% v/v / 24 oz + 3 qt	0	98	86	78	97	25
<b>POST II</b>							
FirstRate + Durango + N-Pa-K AMS	0.3 oz + 24 oz + 3 qt	0	0	93	93	97	31
Harmony GT + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 22 oz + 0.25% v/v + 3 qt	0	0	92	91	91	33
Harmony GT + Classic + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 0.33 oz + 22 oz + 0.25% v/v + 3 qt	0	0	94	92	94	34
Roundup Original Max + Resource + NIS + N-Pa-K AMS	22 oz + 2 oz + 0.25% v/v + 3 qt	0	5	90	87	85	31
<b>POST I</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	95	96	90	89	27
<b>POST II</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	0	92	92	89	29
<b>POST III</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	0	0	79	96	21
<b>LSD (P=0.10)</b>		<b>18</b>	<b>8</b>	<b>7</b>	<b>2</b>	<b>3</b>	<b>10</b>

**Table 2. Performance of herbicide systems for common lambsquarters control in soybean on June 14, June 20, June 28, July 6, and July 27 at Rochester, MN, in 2007.**

Treatment	Rate	Common Lambsquarters Control					Yield
		6/14	6/20	6/28	7/6	7/27	
	(rate/A)	(%)					(bu/A)
<b>PPI / POST I</b>							
Prowl H2O / Extreme + NIS + N-Pa-K AMS	43 oz / 3 pt + 0.25% v/v + 3 qt	79	94	94	96	95	32
<b>PRE / POST I</b>							
Boundary / Flexstar + Fusion + Harmony GT + MSO + 28% N	1.5 pt / 16 oz + 8 oz + 0.125 oz + 1% v/v + 2.5% v/v	97	99	100	97	96	40
Weedy Check		0	0	0	0	0	3
Weed Free		100	100	100	100	99	40
<b>PRE / POST II</b>							
Authority First / Roundup OriginalMax + N-Pa-K AMS	3.2 oz / 22 oz + 3 qt	99	100	100	99	99	42
Authority First / Roundup Original Max + N-Pa-K AMS	4 oz / 22 oz + 3 qt	99	100	100	99	99	35
Authority MTZ / Roundup OriginalMax + N-Pa-K AMS	10 oz / 22 oz + 3 qt	99	100	100	99	98	45
F7119 / Roundup OriginalMax + N-Pa-K AMS	4.8 oz / 22 oz + 3 qt	99	100	100	99	99	40
IntRRo / Roundup WeatherMax + N-Pa-K AMS	2 qt / 22 oz + 3 qt	73	12	94	91	88	39
Gangster V + Gangster FR / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.3 oz / 22 oz + 3 qt	99	100	100	99	98	42
Prefix / Touchdown Total + N-Pa-K AMS	1 qt / 24 oz + 3 qt	93	96	99	98	97	39
Valor / Roundup Original Max + N-Pa-K AMS	2 oz / 22 oz + 3 qt	99	100	100	98	98	46
Valor SX + Python / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.5 oz / 22 oz + 3 qt	99	100	100	99	98	40
Valor SX + Sencor / Roundup Original Max + N-Pa-K AMS	1.75 oz + 4 oz / 22 oz + 3 qt	99	99	100	99	99	41
Sonic / Durango + N-Pa-K AMS	3 oz / 24 oz + 3 qt	99	100	100	99	99	34
FirstRate / Durango + N-Pa-K AMS	0.3 oz / 24 oz + 3 qt	96	89	98	96	93	31
Enlite / Roundup Original Max + N-Pa-K AMS	2.83 oz / 22 oz + 3 qt	99	100	100	99	99	41
<b>POST I and POST IV</b>							
Roundup WeatherMax + N-Pa-K AMS / Roundup WeatherMax + N-Pa-K AMS	22 oz + 3 qt / 22 oz + 3 qt	0	48	66	73	99	34
Durango DMA + N-Pa-K AMS / Durango DMA+ N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	37	69	73	98	29
Touchdown Total + N-Pa-K AMS / Touchdown Total + N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	56	73	77	99	36
Flexstar + COC / Touchdown Total + N-Pa-K AMS	16 oz + 1% v/v / 24 oz + 3 qt	0	3	0	15	99	25
<b>POST II</b>							
FirstRate + Durango + N-Pa-K AMS	0.3 oz + 24 oz + 3 qt	0	0	73	86	91	31
Harmony GT + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 22 oz + 0.25% v/v + 3 qt	0	0	96	95	91	33
Harmony GT + Classic + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 0.33 oz + 22 oz + 0.25% v/v + 3 qt	0	0	97	95	95	34
Roundup Original Max + Resource + NIS + N-Pa-K AMS	22 oz + 2 oz + 0.25% v/v + 3 qt	0	0	68	71	68	31
<b>POST I</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	76	70	76	72	27
<b>POST II</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	0	73	82	81	29
<b>POST III</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	0	0	88	93	21
<b>LSD (P=0.10)</b>		<b>3</b>	<b>17</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>10</b>

**Table 3. Performance of herbicide systems for common waterhemp control in soybean on June 14, June 20, June 28, July 6 and July 27at Rochester, MN, in 2007.**

Treatment	Rate	Common Waterhemp Control					Yield
		6/14	6/20	6/28	7/6	7/27	
	(rate/A)	(%)					(bu/A)
<b>PPI / POST I</b>							
Prowl H2O/ Extreme + NIS + N-Pa-K AMS	43 oz / 3 pt + 0.25% v/v + 3 qt	79	100	100	95	96	32
<b>PRE / POST I</b>							
Boundary / Flexstar + Fusion + Harmony GT + MSO + 28% N	1.5 pt / 16 oz + 8 oz + 0.125 oz + 1% v/v + 2.5% v/v	97	100	100	99	99	40
Weedy Check		0	0	0	0	0	3
Weed Free		100	100	100	100	99	40
<b>PRE / POST II</b>							
Authority First / Roundup OriginalMax + N-Pa-K AMS	3.2 oz / 22 oz + 3 qt	97	99	99	99	97	42
Authority First / Roundup Original Max + N-Pa-K AMS	4 oz / 22 oz + 3 qt	98	100	100	99	98	35
Authority MTZ / Roundup OriginalMax + N-Pa-K AMS	10 oz / 22 oz + 3 qt	99	100	100	99	97	45
F7119 / Roundup OriginalMax + N-Pa-K AMS	4.8 oz / 22 oz + 3 qt	99	100	100	99	97	40
IntRRo / Roundup WeatherMax + N-Pa-K AMS	2 qt / 22 oz + 3 qt	85	100	99	92	92	39
Gangster V + Gangster FR / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.3 oz / 22 oz + 3 qt	99	100	100	99	99	42
Prefix / Touchdown Total + N-Pa-K AMS	1 qt / 24 oz + 3 qt	99	100	100	99	99	39
Valor / Roundup Original Max + N-Pa-K AMS	2 oz / 22 oz + 3 qt	99	100	100	99	98	46
Valor SX + Python / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.5 oz / 22 oz + 3 qt	99	100	100	99	98	40
Valor SX + Sencor / Roundup Original Max + N-Pa-K AMS	1.75 oz + 4 oz / 22 oz + 3 qt	99	99	100	99	98	41
Sonic / Durango + N-Pa-K AMS	3 oz / 24 oz + 3 qt	99	100	98	99	98	34
FirstRate / Durango + N-Pa-K AMS	0.3 oz / 24 oz + 3 qt	33	0	94	91	94	31
Enlite / Roundup Original Max + N-Pa-K AMS	2.83 oz / 22 oz + 3 qt	99	100	100	99	98	41
<b>POST I and POST IV</b>							
Roundup WeatherMax + N-Pa-K AMS / Roundup WeatherMax N-Pa-K AMS	22 oz + 3 qt / 22 oz + 3 qt	0	100	100	81	99	34
Durango DMA + N-Pa-K AMS / Durango DMA+ N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	100	93	84	99	29
Touchdown Total + N-Pa-K AMS / Touchdown Total + N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	100	98	85	99	36
Flexstar + COC / Touchdown Total + N-Pa-K AMS	16 oz + 1% v/v / 24 oz + 3 qt	0	98	86	93	99	25
<b>POST II</b>							
FirstRate + Durango + N-Pa-K AMS	0.3 oz + 24 oz + 3 qt	0	0	99	91	91	31
Harmony GT + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 22 oz + 0.25% v/v + 3 qt	0	0	97	90	92	33
Harmony GT + Classic + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 0.33 oz + 22 oz + 0.25% v/v + 3 qt	0	0	97	94	94	34
Roundup Original Max + Resource + NIS + N-Pa-K AMS	22 oz + 2 oz + 0.25% v/v + 3 qt	0	0	96	80	79	31
<b>POST I</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	100	99	84	89	27
<b>POST II</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	0	98	86	88	29
<b>POST III</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	0	0	93	92	21
<b>LSD (P=0.10)</b>		<b>4</b>	<b>1</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>10</b>

**Table 4. Performance of herbicide systems for giant foxtail control in soybean on June 14, June 20, June 28, July 6, and July 27 at Rochester, MN, in 2007.**

Treatment	Rate	Giant Foxtail Control					Yield
		6/14	6/20	6/28	7/6	7/27	
	(rate/A)	(%)					(bu/A)
<b>PPI / POST I</b>							
Prowl H2O/ Extreme + NIS + N-Pa-K AMS	43 oz / 3 pt + 0.25% v/v + 3 qt	80	100	100	99	98	32
<b>PRE / POST I</b>							
Boundary / Flexstar + Fusion + Harmony GT + MSO + 28% N	1.5 pt / 16 oz + 8 oz + 0.125 oz + 1% v/v + 2.5% v/v	96	100	100	99	98	40
Weedy Check		0	0	0	0	0	3
Weed Free		100	100	100	100	99	40
<b>PRE / POST II</b>							
Authority First / Roundup Original Max + N-Pa-K AMS	3.2 oz / 22 oz + 3 qt	69	64	100	98	98	42
Authority First / Roundup Original Max + N-Pa-K AMS	4 oz / 22 oz + 3 qt	69	69	99	98	97	35
Authority MTZ / Roundup Original Max + N-Pa-K AMS	10 oz / 22 oz + 3 qt	56	65	100	98	92	45
F7119 / Roundup Original Max + N-Pa-K AMS	4.8 oz / 22 oz + 3 qt	70	75	100	98	92	40
IntRRo / Roundup Weather Max + N-Pa-K AMS	2 qt / 22 oz + 3 qt	98	100	100	98	95	39
Gangster V + Gangster FR / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.3 oz / 22 oz + 3 qt	80	90	100	98	96	42
Prefix / Touchdown Total + N-Pa-K AMS	1 qt / 24 oz + 3 qt	99	100	100	99	99	39
Valor / Roundup Original Max + N-Pa-K AMS	2 oz / 22 oz + 3 qt	71	75	100	99	97	46
Valor SX + Python / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.5 oz / 22 oz + 3 qt	68	64	98	97	93	40
Valor SX + Sencor / Roundup Original Max + N-Pa-K AMS	1.75 oz + 4 oz / 22 oz + 3 qt	69	69	100	97	94	41
Sonic / Durango + N-Pa-K AMS	3 oz / 24 oz + 3 qt	69	64	99	97	95	34
FirstRate / Durango + N-Pa-K AMS	0.3 oz / 24 oz + 3 qt	56	61	99	97	94	31
Enlite / Roundup Original Max + N-Pa-K AMS	2.83 oz / 22 oz + 3 qt	71	69	100	97	95	41
<b>POST I and POST IV</b>							
Roundup WeatherMax + N-Pa-K AMS / Roundup WeatherMax N-Pa-K AMS	22 oz + 3 qt / 22 oz + 3 qt	0	100	100	93	99	34
Durango DMA + N-Pa-K AMS / Durango DMA+ N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	100	100	92	99	29
Touchdown Total + N-Pa-K AMS / Touchdown Total + N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	100	100	94	99	36
Flexstar + COC / Touchdown Total + N-Pa-K AMS	16 oz + 1% v/v / 24 oz + 3 qt	0	0	6	0	99	25
<b>Post II</b>							
FirstRate + Durango + N-Pa-K AMS	0.3 oz + 24 oz + 3 qt	0	0	100	98	97	31
Harmony GT + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 22 oz + 0.25% v/v + 3 qt	0	0	100	97	94	33
Harmony GT + Classic + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 0.33 oz + 22 oz + 0.25% v/v + 3 qt	0	0	99	98	97	34
Roundup Original Max + Resource + NIS + N-Pa-K AMS	22 oz + 2 oz + 0.25% v/v + 3 qt	0	0	100	95	94	31
<b>Post I</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	100	100	96	95	27
<b>Post II</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	0	100	97	93	29
<b>Post III</b>							
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	0	0	99	99	21
<b>LSD (P=0.10)</b>		<b>7</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>10</b>

**Table 5. Performance of herbicide systems for velvetleaf control in soybeans on June 14, July 6, and July 27 at Rochester, MN, in 2007.**

Treatment	Rate	Velvetleaf Control			Yield
		6/14	7/6	7/27	
	(rate/A)	(%)			(bu/A)
<b>PPI / POST I</b>					
Prowl H2O/ Extreme + NIS + N-Pa-K AMS	43 oz / 3 pt + 0.25% v/v + 3 qt	95	98	99	32
<b>PRE / POST I</b>					
Boundary / Flexstar + Fusion + Harmony GT + MSO + 28% N	1.5 pt / 16 oz + 8 oz + 0.125 oz + 1% v/v + 2.5% v/v	99	98	99	40
Weedy Check		0	0	0	3
Weed Free		100	100	99	40
<b>PRE / POST II</b>					
Authority First / Roundup OriginalMax + N-Pa-K AMS	3.2 oz / 22 oz + 3 qt	99	99	99	42
Authority First / Roundup Original Max + N-Pa-K AMS	4 oz / 22 oz + 3 qt	99	99	99	35
Authority MTZ / Roundup OriginalMax + N-Pa-K AMS	10 oz / 22 oz + 3 qt	97	99	98	45
F7119 / Roundup OriginalMax + N-Pa-K AMS	4.8 oz / 22 oz + 3 qt	99	99	99	40
IntRRo / Roundup WeatherMax + N-Pa-K AMS	2 qt / 22 oz + 3 qt	84	88	88	39
Gangster V + Gangster FR / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.3 oz / 22 oz + 3 qt	99	99	99	42
Prefix / Touchdown Total + N-Pa-K AMS	1 qt / 24 oz + 3 qt	71	98	99	39
Valor / Roundup Original Max + N-Pa-K AMS	2 oz / 22 oz + 3 qt	99	99	99	46
Valor SX + Python / Roundup Original Max + N-Pa-K AMS	1.5 oz + 0.5 oz / 22 oz + 3 qt	99	99	99	40
Valor SX + Sencor / Roundup Original Max + N-Pa-K AMS	1.75 oz + 4 oz / 22 oz + 3 qt	99	99	99	41
Sonic / Durango + N-Pa-K AMS	3 oz / 24 oz + 3 qt	99	99	99	34
FirstRate / Durango + N-Pa-K AMS	0.3 oz / 24 oz + 3 qt	99	99	99	31
Enlite / Roundup Original Max + N-Pa-K AMS	2.83 oz / 22 oz + 3 qt	99	99	99	41
<b>POST I and POST IV</b>					
Roundup WeatherMax + N-Pa-K AMS / Roundup WeatherMax N-Pa-K AMS	22 oz + 3 qt / 22 oz + 3 qt	0	92	97	34
Durango DMA + N-Pa-K AMS / Durango DMA+ N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	91	98	29
Touchdown Total + N-Pa-K AMS / Touchdown Total + N-Pa-K AMS	24 oz + 3 qt / 24 oz + 3 qt	0	93	99	36
Flexstar + COC / Touchdown Total + N-Pa-K AMS	16 oz + 1% v/v / 24 oz + 3 qt	0	15	98	25
<b>POST II</b>					
FirstRate + Durango + N-Pa-K AMS	0.3 oz + 24 oz + 3 qt	0	96	99	31
Harmony GT + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 22 oz + 0.25% v/v + 3 qt	0	97	98	33
Harmony GT + Classic + Roundup Original Max + NIS + N-Pa-K AMS	0.5 oz + 0.33 oz + 22 oz + 0.25% v/v + 3 qt	0	99	99	34
Roundup Original Max + Resource + NIS + N-Pa-K AMS	22 oz + 2 oz + 0.25% v/v + 3 qt	0	99	97	31
<b>POST I</b>					
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	98	97	27
<b>POST II</b>					
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	98	99	29
<b>POST III</b>					
Roundup Weather Max + N-Pa-K AMS	22 oz + 3 qt	0	97	99	21
<b>LSD (P=0.10)</b>		<b>6</b>	<b>6</b>	<b>3</b>	<b>10</b>

