

University of Wisconsin-Madison
Weed Science Program

Enhanced Preemergence Weed Control in Corn
(BASF)

Trial ID: 15-ROK-CN04, **Location:** Janesville, WI

Site and Design:

- A. Treated plot width: 10 FT
- B. Treated plot length: 28 FT

- C. Tillage type: conventional till
- D. Study design: Randomized Complete Block 4 reps

Planting date: 5/13/15

Application Description:

	A	B
Application Date:	5/13/2015	6/16/2015
Type of Application	PRE	POST
Crop Stage	-	V6
Avg Weed Height	-	4-7"
Days until Precipitation	2	5
Air Temperature, Unit:	67 F	75 F
% Relative Humidity:	42	53
Wind Velocity, Unit:	6 MPH	4 MPH
Soil Temperature, Unit:	60 F	70 F
% Cloud Cover:	10	5

Application Equipment:

	A	B
Appl. Equipment:	CO2 Backpack	CO2 Backpack
Operating Pressure, Unit:	16 PSI	16 PSI
Nozzle Type:	Flat Fan	Flat Fan
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	15 IN	15 IN
Nozzles/Row:	8	8
Boom Length, Unit:	10 FT	15 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.89 L	1.89 L

HOW DATA WERE SUMMARIZED: Weed control, crop injury and yield were averaged among the 4 replications and values are provided in the tables. As variability in performance/safety can occur among replications we have provided standard deviations for each average. The standard deviation should be considered when comparing means among treatments as this provides users with an idea of how variable the response was observed in the field.

					velvetleaf	RR pigweed	Lambsquarters	Giant ragweed	Woolly cupgrass	Woolly cupgrass	RR pigweed	velvetleaf	Giant ragweed
Rating Date					5/28	5/28	5/28	5/28	5/28	6/2	6/2	6/2	6/2
Rating Type					% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl
Days After First/Last Applic.					15 15	15 15	15 15	15 15	15 15	20 20	20 20	20 20	20 20
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code									
1	NONTREATED CHECK				avg	0	0	0	0	0	0	0	0
					stdev								
2	ZIDUA SC	5	fl oz/a	A	avg	100	100	100	92	100	100	100	85
	SHARPEN	3.5	fl oz/a	A	stdev	0	0	0	10	0	0	0	15
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
3	ZIDUA SC	5	fl oz/a	A	avg	98	88	90	78	96	92	90	74
	SHARPEN	3.5	fl oz/a	A	stdev	5	25	20	19	8	10	20	16
	Atrazine 4L	32	fl oz/a	A									
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
4	Verdict	18	fl oz/a	A	avg	100	100	100	79	100	95	100	76
	Roundup Powermax	22	fl oz/a	B	stdev	0	0	0	13	0	10	0	9
	Ammonium Sulfate	8.5	lb/100 gal	B									
5	Verdict	18	fl oz/a	A	avg	100	100	100	88	100	100	100	88
	Atrazine 4L	32	fl oz/a	A	stdev	0	0	0	3	0	0	0	7
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
6	ZIDUA SC	4	fl oz/a	A	avg	99	100	100	88	100	98	100	86
	Verdict	10	fl oz/a	A	stdev	3	0	0	10	0	5	0	9
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
7	BAS 67703H	20	fl oz/a	A	avg	59	90	89	67	99	85	100	67
	Roundup Powermax	22	fl oz/a	B	stdev	43	20	13	35	3	24	0	27
	Ammonium Sulfate	8.5	lb/100 gal	B									
8	BAS 67703H	20	fl oz/a	A	avg	94	99	100	74	100	98	100	53
	Atrazine 4L	32	fl oz/a	A	stdev	9	3	0	18	0	5	0	32
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
9	LEXAR EZ	96	fl oz/a	A	avg	100	100	100	79	100	99	100	78
	Roundup Powermax	22	fl oz/a	B	stdev	0	0	0	6	0	3	0	7
	Ammonium Sulfate	8.5	lb/100 gal	B									
10	Zemax	76.8	fl oz/a	A	avg	100	100	98	65	100	100	100	67
	Roundup Powermax	22	fl oz/a	B	stdev	0	0	5	26	0	0	0	15
	Ammonium Sulfate	8.5	lb/100 gal	B									
11	SURESTART II	32	fl oz/a	A	avg	89	100	100	79	88	99	100	70
	Roundup Powermax	22	fl oz/a	B	stdev	11	0	0	22	25	3	0	22

					Lambsquarters	Giant ragweed	Lambsquarters	Woolly cupgrass	Velvetleaf	RR pigweed	Common dandelion	Lambsquarters	RR pigweed
Rating Date					6/2	6/16	6/16	6/16	6/16	6/16	6/16	6/30	6/30
Rating Type					% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl
Days After First/Last Applic.					20 20	34 34	34 34	34 34	34 34	34 34	34 34	48 14	48 14
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code									
1	NONTREATED CHECK				avg	0	0	0	0	0	0	0	0
					stdev								
2	ZIDUA SC	5	fl oz/a	A	avg	100	96	97	98	100	100	98	100
	SHARPEN	3.5	fl oz/a	A	stdev	0	5	2	4	0	0	5	0
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
3	ZIDUA SC	5	fl oz/a	A	avg	98	91	99	99	100	100	99	100
	SHARPEN	3.5	fl oz/a	A	stdev	5	4	3	0	0	0	2	0
	Atrazine 4L	32	fl oz/a	A									
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
4	Verdict	18	fl oz/a	A	avg	95	81	91	99	100	100	100	100
	Roundup Powermax	22	fl oz/a	B	stdev	10	9	6	2	0	0	0	0
	Ammonium Sulfate	8.5	lb/100 gal	B									
5	Verdict	18	fl oz/a	A	avg	98	95	97	98	100	98	81	100
	Atrazine 4L	32	fl oz/a	A	stdev	5	4	4	5	0	5	27	0
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
6	ZIDUA SC	4	fl oz/a	A	avg	98	93	95	100	98	100	83	100
	Verdict	10	fl oz/a	A	stdev	5	5	4	0	5	0	29	0
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
7	BAS 67703H	20	fl oz/a	A	avg	85	61	85	100	83	100	90	100
	Roundup Powermax	22	fl oz/a	B	stdev	24	43	10	0	16	0	7	0
	Ammonium Sulfate	8.5	lb/100 gal	B									
8	BAS 67703H	20	fl oz/a	A	avg	98	52	93	96	98	100	96	100
	Atrazine 4L	32	fl oz/a	A	stdev	5	37	8	8	5	0	8	0
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
9	LEXAR EZ	96	fl oz/a	A	avg	99	82	97	96	100	100	98	100
	Roundup Powermax	22	fl oz/a	B	stdev	3	11	4	5	0	0	5	0
	Ammonium Sulfate	8.5	lb/100 gal	B									
10	Zemax	76.8	fl oz/a	A	avg	96	88	98	98	100	100	98	100
	Roundup Powermax	22	fl oz/a	B	stdev	8	9	2	4	0	0	5	0
	Ammonium Sulfate	8.5	lb/100 gal	B									
11	SURESTART II	32	fl oz/a	A	avg	99	85	97	91	97	99	90	100
	Roundup Powermax	22	fl oz/a	B	stdev	3	11	2	12	3	3	20	0

					Woolly cupgrass	Giant ragweed	Giant ragweed	RR pigweed	Lambsquarters	Woolly cupgrass	Giant ragweed	RR pigweed	Lambsquarters
Rating Date					6/30	6/30	7/15	7/15	7/15	7/15	7/29	7/29	7/29
Rating Type					% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl
Days After First/Last Applic.					48 14	48 14	63 29	63 29	63 29	63 29	77 43	77 43	77 43
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code									
1	NONTREATED CHECK				avg	0	0	0	0	0	0	0	0
					stdev								
2	ZIDUA SC	5	fl oz/a	A	avg	100	99	98	100	100	100	99	100
	SHARPEN	3.5	fl oz/a	A	stdev	0	2	2	0	0	0	1	0
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
3	ZIDUA SC	5	fl oz/a	A	avg	100	97	94	99	99	99	95	99
	SHARPEN	3.5	fl oz/a	A	stdev	0	2	1	3	3	3	2	3
	Atrazine 4L	32	fl oz/a	A									
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
4	Verdict	18	fl oz/a	A	avg	100	96	95	99	99	99	93	99
	Roundup Powermax	22	fl oz/a	B	stdev	0	2	1	3	3	2	2	3
	Ammonium Sulfate	8.5	lb/100 gal	B									
5	Verdict	18	fl oz/a	A	avg	100	97	96	97	98	99	96	99
	Atrazine 4L	32	fl oz/a	A	stdev	0	2	3	4	2	2	3	3
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
6	ZIDUA SC	4	fl oz/a	A	avg	100	100	98	100	99	99	97	99
	Verdict	10	fl oz/a	A	stdev	0	1	4	0	2	2	4	2
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
7	BAS 67703H	20	fl oz/a	A	avg	100	98	95	98	99	97	98	99
	Roundup Powermax	22	fl oz/a	B	stdev	0	3	4	3	3	4	4	3
	Ammonium Sulfate	8.5	lb/100 gal	B									
8	BAS 67703H	20	fl oz/a	A	avg	100	96	95	99	99	98	95	99
	Atrazine 4L	32	fl oz/a	A	stdev	0	1	1	3	3	3	2	3
	Roundup Powermax	22	fl oz/a	B									
	Ammonium Sulfate	8.5	lb/100 gal	B									
9	LEXAR EZ	96	fl oz/a	A	avg	100	94	94	96	99	99	93	99
	Roundup Powermax	22	fl oz/a	B	stdev	0	2	1	3	3	2	3	3
	Ammonium Sulfate	8.5	lb/100 gal	B									
10	Zemax	76.8	fl oz/a	A	avg	100	98	95	99	99	99	99	99
	Roundup Powermax	22	fl oz/a	B	stdev	0	4	4	3	3	2	2	3
	Ammonium Sulfate	8.5	lb/100 gal	B									
11	SURESTART II	32	fl oz/a	A	avg	100	97	95	99	99	98	97	100
	Roundup Powermax	22	fl oz/a	B	stdev	1	4	4	3	3	5	3	1

						Woolly cupgrass	Giant ragweed	Lambsquarters	RR pigweed	Fall panicum	
Rating Date						7/29	10/13	10/13	10/13	10/13	10/26
Rating Type						% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	YIELD Bu/A
Days After First/Last Applic.						77 43	153 119	153 119	153 119	153 119	166 132
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code							
1	NONTREATED CHECK				avg	0	0	0	0	0	112
					stdev						74
2	ZIDUA SC	5	fl oz/a	A	avg	100	94	100	100	100	186
	SHARPEN	3.5	fl oz/a	A	stdev	0	5	0	0	0	23
	Roundup Powermax	22	fl oz/a	B							
	Ammonium Sulfate	8.5	lb/100 gal	B							
3	ZIDUA SC	5	fl oz/a	A	avg	99	91	100	98	98	228
	SHARPEN	3.5	fl oz/a	A	stdev	3	7	1	5	5	32
	Atrazine 4L	32	fl oz/a	A							
	Roundup Powermax	22	fl oz/a	B							
	Ammonium Sulfate	8.5	lb/100 gal	B							
4	Verdict	18	fl oz/a	A	avg	100	86	100	100	100	193
	Roundup Powermax	22	fl oz/a	B	stdev	1	12	1	1	1	21
	Ammonium Sulfate	8.5	lb/100 gal	B							
5	Verdict	18	fl oz/a	A	avg	99	91	100	96	99	191
	Atrazine 4L	32	fl oz/a	A	stdev	3	5	0	8	2	9
	Roundup Powermax	22	fl oz/a	B							
	Ammonium Sulfate	8.5	lb/100 gal	B							
6	ZIDUA SC	4	fl oz/a	A	avg	100	94	100	100	100	183
	Verdict	10	fl oz/a	A	stdev	1	6	0	0	0	13
	Roundup Powermax	22	fl oz/a	B							
	Ammonium Sulfate	8.5	lb/100 gal	B							
7	BAS 67703H	20	fl oz/a	A	avg	98	90	100	99	100	179
	Roundup Powermax	22	fl oz/a	B	stdev	3	12	0	2	1	15
	Ammonium Sulfate	8.5	lb/100 gal	B							
8	BAS 67703H	20	fl oz/a	A	avg	99	87	99	95	100	180
	Atrazine 4L	32	fl oz/a	A	stdev	3	2	3	7	0	15
	Roundup Powermax	22	fl oz/a	B							
	Ammonium Sulfate	8.5	lb/100 gal	B							
9	LEXAR EZ	96	fl oz/a	A	avg	100	84	99	99	100	199
	Roundup Powermax	22	fl oz/a	B	stdev	1	6	3	3	0	22
	Ammonium Sulfate	8.5	lb/100 gal	B							
10	Zemax	76.8	fl oz/a	A	avg	100	86	100	97	100	220
	Roundup Powermax	22	fl oz/a	B	stdev	1	11	0	5	0	79
	Ammonium Sulfate	8.5	lb/100 gal	B							
11	SURESTART II	32	fl oz/a	A	avg	95	95	100	99	99	224
	Roundup Powermax	22	fl oz/a	B	stdev	7	7	0	2	3	67

					Woolly cupgrass	Giant ragweed	Lambsquarters	RR pigweed	Fall panicum		
Rating Date					7/29	10/13	10/13	10/13	10/13	10/26	
Rating Type					% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	YIELD Bu/A	
Days After First/Last Applic.					77 43	153 119	153 119	153 119	153 119	166 132	
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code							
	Ammonium Sulfate	8.5	lb/100 gal	B							
12	HARNESS XTRA	48	fl oz/a	A	avg	96	91	100	99	100	191
	Roundup Powermax	22	fl oz/a	B	stdev	7	9	0	2	0	10
	Ammonium Sulfate	8.5	lb/100 gal	B							
13	LUMAX EZ	2.7	qt/a	A	avg	99	93	100	99	100	184
	Roundup Powermax	22	fl oz/a	B	stdev	3	8	0	3	0	15
	Ammonium Sulfate	8.5	lb/100 gal	B							
14	ANTHEM ATZ	40	fl oz/a	A	avg	100	83	100	99	100	186
	Roundup Powermax	22	fl oz/a	B	stdev	1	5	0	3	0	10
	Ammonium Sulfate	8.5	lb/100 gal	B							
15	ACURON	3	qt/a	A	avg	98	92	100	100	100	192
	Roundup Powermax	22	fl oz/a	B	stdev	5	5	0	1	1	27
	Ammonium Sulfate	8.5	lb/100 gal	B							