

University of Wisconsin-Madison
Weed Science Program

Comparison of Anthem to other herbicide combinations
(FMC)

Trial ID: 15-ARL-CN01, **Location:** Arlington, 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: 5/1/2015

Application Description:

	A	B	C	D
Application Date:	5/1/2015	5/28/2015	6/5/2015	6/16/2015
Type of Application	PRE	POST	POST	POST
Crop Stage	-	V2	V4	V5
Avg Weed Height	-	1-2"	2-3"	2-5"
Days until Precipitation	3 days	1 day	2 days	6 days
Air Temperature, Unit:	63.5 F	73 F	65.5 F	82 F
% Relative Humidity:	43	57	77	56
Wind Velocity, Unit:	6.5 MPH	8 MPH	5 MPH	3 MPH
Soil Temperature, Unit:	50 F	60 F	61 F	75 F
% Cloud Cover:	40	5	100	5

Application Equipment:

	A	B	C	D
Appl. Equipment:	CO2 Backpack	CO2 Backpack	CO2 Backpack	CO2 Backpack
Operating Pressure, Unit:	24 PSI	24 PSI	24 PSI	24 PSI
Nozzle Type:	Flat Fan	Flat Fan	Flat Fan	Flat fan
Nozzle Size:	11002	11002	11002	11002
Nozzle Spacing, Unit:	20 IN	15 IN	15 IN	15 IN
Nozzles/Row:	8	8	8	8
Boom Length, Unit:	10 FT	10 FT	10 FT	10 FT
Boom Height, Unit:	20 IN	24 IN	24 IN	24 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH	3 MPH
Carrier:	WATER	WATER	WATER	WATER
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.89 L	1.89 L	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.

						Giant foxtail	Lambsquarters	Velvetleaf	Common Ragweed	Giant foxtail	Giant foxtail	Velvetleaf	Lambsquarters
Rating Date						5/12	5/27	5/27	5/27	5/27	6/5	6/5	6/5
Rating Type						% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl
Days After First/Last Applic.						11 11	26 26	26 26	26 26	26 26	35 8	35 8	35 8
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code									
1	ANTHEM MAXX	4	oz/a	A	avg	97	92	91	96	89	86	71	69
	ROUNDUP POWERMAX	32	oz/a	D	stdev	3	3	5	5	13	24	32	31
	AMMONIUM SULFATE	9	lb/100 gal	D									
2	ANTHEM MAXX	4	oz/a	A	avg	97	99	91	100	87	84	93	100
	HORNET	3	oz/a	A	stdev	2	2	5	0	12	24	5	0
	ROUNDUP POWERMAX	32	oz/a	D									
	AMMONIUM SULFATE	9	lb/100 gal	D									
3	ANTHEM MAXX	4	oz/a	A	avg	99	98	97	100	93	87	97	99
	SHARPEN	3	oz/a	D	stdev	2	4	4	0	5	9	6	3
	ROUNDUP POWERMAX	32	oz/a	D									
	AMMONIUM SULFATE	9	lb/100 gal	D									
4	ANTHEM MAXX	4	oz/a	A	avg	99	98	87	89	84	85	68	74
	SOLSTICE	3	oz/a	C	stdev	2	2	8	10	6	23	29	33
	ROUNDUP POWERMAX	32	oz/a	C									
	CROP OIL CONCENTRATE	1	% v/v	C									
	AMMONIUM SULFATE	9	lb/100 gal	C									
5	DUAL II MAGNUM	1	pt/a	A	avg	99	93	70	72	96	96	55	68
	ROUNDUP POWERMAX	32	oz/a	D	stdev	2	5	43	45	5	7	37	22
	AMMONIUM SULFATE	9	lb/100 gal	D									
6	SURESTART	2	pt/a	A	avg	99	100	85	100	96	96	76	96
	ROUNDUP POWERMAX	32	oz/a	D	stdev	3	1	7	1	7	8	34	5
	AMMONIUM SULFATE	9	lb/100 gal	D									
7	ZEMAX	2	qt/a	A	avg	99	100	100	100	99	97	100	100
	ROUNDUP POWERMAX	32	oz/a	D	stdev	2	0	0	0	1	6	0	0
	AMMONIUM SULFATE	9	lb/100 gal	D									
8	VERDICT	16	oz/a	A	avg	88	99	96	98	92	89	100	100
	ROUNDUP POWERMAX	32	oz/a	D	stdev	25	3	5	3	6	3	0	0
	AMMONIUM SULFATE	9	lb/100 gal	D									
9	ANTHEM MAXX	4	oz/a	B	avg	0	0	0	0	0	100	100	100
	ROUNDUP POWERMAX	32	oz/a	B	stdev	0	0	0	0	0	0	0	0
	AMMONIUM SULFATE	9	lb/100 gal	B									
10	NONTREATED CHECK				avg	0	0	0	0	0	0	0	
					stdev								

Rating Date						Lady's thumb	Wild buckwheat	Common ragweed	Lambsquarters	Velvetleaf	Lady's thumb	Wild buckwheat	Giant foxtail
Rating Type						% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl
Days After First/Last Applic.						35 8	35 8	35 8	45 10	45 10	45 10	45 10	45 10
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code									
1	ANTHEM MAXX	4	oz/a	A	avg	95	100	66	88	95	94	100	92
	ROUNDUP POWERMAX	32	oz/a	D	stdev	10	0	35	5	10	9	0	6
	AMMONIUM SULFATE	9	lb/100 gal	D									
2	ANTHEM MAXX	4	oz/a	A	avg	100	100	100	97	93	100	100	91
	HORNET	3	oz/a	A	stdev	0	0	0	2	6	0	0	8
	ROUNDUP POWERMAX	32	oz/a	D									
	AMMONIUM SULFATE	9	lb/100 gal	D									
3	ANTHEM MAXX	4	oz/a	A	avg	100	100	97	97	99	100	100	90
	SHARPEN	3	oz/a	D	stdev	0	0	6	6	3	0	0	3
	ROUNDUP POWERMAX	32	oz/a	D									
	AMMONIUM SULFATE	9	lb/100 gal	D									
4	ANTHEM MAXX	4	oz/a	A	avg	99	100	56	100	100	100	100	100
	SOLSTICE	3	oz/a	C	stdev	3	0	31	0	0	0	0	1
	ROUNDUP POWERMAX	32	oz/a	C									
	CROP OIL CONCENTRATE	1	% v/v	C									
	AMMONIUM SULFATE	9	lb/100 gal	C									
5	DUAL II MAGNUM	1	pt/a	A	avg	75	88	79	71	61	94	94	97
	ROUNDUP POWERMAX	32	oz/a	D	stdev	29	25	25	20	41	8	13	2
	AMMONIUM SULFATE	9	lb/100 gal	D									
6	SURESTART	2	pt/a	A	avg	100	96	94	95	81	100	100	91
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	8	13	7	17	0	0	4
	AMMONIUM SULFATE	9	lb/100 gal	D									
7	ZEMAX	2	qt/a	A	avg	100	98	100	100	100	100	93	95
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	5	0	0	0	0	12	4
	AMMONIUM SULFATE	9	lb/100 gal	D									
8	VERDICT	16	oz/a	A	avg	100	100	96	100	98	100	100	91
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	0	8	0	5	0	0	2
	AMMONIUM SULFATE	9	lb/100 gal	D									
9	ANTHEM MAXX	4	oz/a	B	avg	100	100	100	99	100	100	100	100
	ROUNDUP POWERMAX	32	oz/a	B	stdev	0	0	0	2	0	0	0	0
	AMMONIUM SULFATE	9	lb/100 gal	B									
10	NONTREATED CHECK				avg	0	0	0	0	0	0	0	
					stdev								

						Lambsquarters	Common ragweed	Giant foxtail	E. black nightshade	Lady's thumb	Velvetleaf	Common dandelion
Rating Date						7/15	7/15	7/15	7/15	7/15	7/15	7/15
Rating Type						% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl
Days After First/Last Applic.						75 29	75 29	75 29	75 29	75 29	75 29	75 29
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code								
1	ANTHEM MAXX	4	oz/a	A	avg	100	100	100	100	100	100	100
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	0	0	0	0	0	0
	AMMONIUM SULFATE	9	lb/100 gal	D								
2	ANTHEM MAXX	4	oz/a	A	avg	100	100	100	100	100	100	100
	HORNET	3	oz/a	A	stdev	0	0	0	0	0	0	0
	ROUNDUP POWERMAX	32	oz/a	D								
	AMMONIUM SULFATE	9	lb/100 gal	D								
3	ANTHEM MAXX	4	oz/a	A	avg	100	100	100	100	100	100	100
	SHARPEN	3	oz/a	D	stdev	0	0	1	0	0	0	0
	ROUNDUP POWERMAX	32	oz/a	D								
	AMMONIUM SULFATE	9	lb/100 gal	D								
4	ANTHEM MAXX	4	oz/a	A	avg	100	100	99	100	100	100	100
	SOLSTICE	3	oz/a	C	stdev	0	0	2	0	0	0	0
	ROUNDUP POWERMAX	32	oz/a	C								
	CROP OIL CONCENTRATE	1	% v/v	C								
	AMMONIUM SULFATE	9	lb/100 gal	C								
5	DUAL II MAGNUM	1	pt/a	A	avg	100	100	100	100	100	100	100
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	0	0	0	0	0	0
	AMMONIUM SULFATE	9	lb/100 gal	D								
6	SURESTART	2	pt/a	A	avg	100	100	98	100	100	100	100
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	0	4	0	0	0	0
	AMMONIUM SULFATE	9	lb/100 gal	D								
7	ZEMAX	2	qt/a	A	avg	100	100	100	100	100	100	100
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	0	0	0	0	0	0
	AMMONIUM SULFATE	9	lb/100 gal	D								
8	VERDICT	16	oz/a	A	avg	100	100	100	100	100	100	100
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	0	1	0	0	0	0
	AMMONIUM SULFATE	9	lb/100 gal	D								
9	ANTHEM MAXX	4	oz/a	B	avg	99	100	99	100	100	100	100
	ROUNDUP POWERMAX	32	oz/a	B	stdev	2	0	2	0	1	0	0
	AMMONIUM SULFATE	9	lb/100 gal	B								
10	NONTREATED CHECK				avg	0	0	0	0	0	0	0
					stdev							

Rating Date						Common ragweed	Giant foxtail	Lambquarters	E. black nightshade	RR pigweed	Common dandelion
Rating Type						10/14	10/14	10/14	10/14	10/14	10/14
Days After First/Last Applic.						% cntrl	% cntrl	% cntrl	% cntrl	% cntrl	% cntrl
						166 120	166 120	166 120	166 120	166 120	166 120
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code							
1	ANTHEM MAXX	4	oz/a	A	avg	100	100	100	100	100	98
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	0	1	0	0	1
	AMMONIUM SULFATE	9	lb/100 gal	D							
2	ANTHEM MAXX	4	oz/a	A	avg	100	100	100	100	100	98
	HORNET	3	oz/a	A	stdev	0	0	0	0	0	1
	ROUNDUP POWERMAX	32	oz/a	D							
	AMMONIUM SULFATE	9	lb/100 gal	D							
3	ANTHEM MAXX	4	oz/a	A	avg	100	99	100	100	100	99
	SHARPEN	3	oz/a	D	stdev	0	1	0	0	0	1
	ROUNDUP POWERMAX	32	oz/a	D							
	AMMONIUM SULFATE	9	lb/100 gal	D							
4	ANTHEM MAXX	4	oz/a	A	avg	100	99	100	100	100	100
	SOLSTICE	3	oz/a	C	stdev	1	2	0	0	0	1
	ROUNDUP POWERMAX	32	oz/a	C							
	CROP OIL CONCENTRATE	1	% v/v	C							
	AMMONIUM SULFATE	9	lb/100 gal	C							
5	DUAL II MAGNUM	1	pt/a	A	avg	100	100	100	100	100	94
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	1	1	0	0	2
	AMMONIUM SULFATE	9	lb/100 gal	D							
6	SURESTART	2	pt/a	A	avg	99	96	95	99	100	98
	ROUNDUP POWERMAX	32	oz/a	D	stdev	3	4	7	2	0	2
	AMMONIUM SULFATE	9	lb/100 gal	D							
7	ZEMAX	2	qt/a	A	avg	100	99	100	100	100	99
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	1	1	0	0	1
	AMMONIUM SULFATE	9	lb/100 gal	D							
8	VERDICT	16	oz/a	A	avg	100	97	100	99	100	98
	ROUNDUP POWERMAX	32	oz/a	D	stdev	0	4	0	2	1	2
	AMMONIUM SULFATE	9	lb/100 gal	D							
9	ANTHEM MAXX	4	oz/a	B	avg	90	97	92	100	100	93
	ROUNDUP POWERMAX	32	oz/a	B	stdev	14	4	6	0	0	3
	AMMONIUM SULFATE	9	lb/100 gal	B							
10	NONTREATED CHECK				avg	0	0	0	0	0	0
					stdev						

Rating Date						Yield
Rating Type						11/9
Days After First/Last Applic.						YIELD Bu/A
						192 146
Trt No.	Treatment Name	Rate	Rate Unit	Appl. Code		
1	ANTHEM MAXX	4	oz/a	A	avg	177
	ROUNDUP POWERMAX	32	oz/a	D	stdev	6
	AMMONIUM SULFATE	9	lb/100 gal	D		
2	ANTHEM MAXX	4	oz/a	A	avg	201
	HORNET	3	oz/a	A	stdev	35
	ROUNDUP POWERMAX	32	oz/a	D		
	AMMONIUM SULFATE	9	lb/100 gal	D		
3	ANTHEM MAXX	4	oz/a	A	avg	181
	SHARPEN	3	oz/a	D	stdev	9
	ROUNDUP POWERMAX	32	oz/a	D		
	AMMONIUM SULFATE	9	lb/100 gal	D		
4	ANTHEM MAXX	4	oz/a	A	avg	191
	SOLSTICE	3	oz/a	C	stdev	16
	ROUNDUP POWERMAX	32	oz/a	C		
	CROP OIL CONCENTRATE	1	% v/v	C		
	AMMONIUM SULFATE	9	lb/100 gal	C		
5	DUAL II MAGNUM	1	pt/a	A	avg	181
	ROUNDUP POWERMAX	32	oz/a	D	stdev	10
	AMMONIUM SULFATE	9	lb/100 gal	D		
6	SURESTART	2	pt/a	A	avg	187
	ROUNDUP POWERMAX	32	oz/a	D	stdev	10
	AMMONIUM SULFATE	9	lb/100 gal	D		
7	ZEMAX	2	qt/a	A	avg	187
	ROUNDUP POWERMAX	32	oz/a	D	stdev	7
	AMMONIUM SULFATE	9	lb/100 gal	D		
8	VERDICT	16	oz/a	A	avg	211
	ROUNDUP POWERMAX	32	oz/a	D	stdev	40
	AMMONIUM SULFATE	9	lb/100 gal	D		
9	ANTHEM MAXX	4	oz/a	B	avg	182
	ROUNDUP POWERMAX	32	oz/a	B	stdev	12
	AMMONIUM SULFATE	9	lb/100 gal	B		
10	NONTREATED CHECK				avg	115
					stdev	11