

MSU Weed Science Research Program

Weed control programs with Anthem and Anthem ATZ in corn

Trial ID: C07-14 Study Dir.: Sprague and Powell
 Conducted: Campus T-17 Investigator: Christy Sprague

Date Planted: May/08/2014 Row Spacing: 30 IN
 Variety: DKC 48-12 No. of Reps: 4
 Population: 32,000 seeds/A % OM: 3.6
 Soil Type: Loam pH: 6.2
 Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow, spring soil finish
 Fertilizer: 300 lb urea broadcast, 150 lb 19-9-19 starter

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ANGR	mainly foxtail species	SETARIA SP.
2.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
3.	AMAPO	AMARANTH, POWELL	AMARANTHUS POWELLII S.WATS.
4.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
5.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	ZEAMX	CORN, FIELD	

Application Description

	A	B	C
Application Timing:	PRE	EPOS	POST
Date Treated:	May/09/2014	Jun/01/2014	Jun/09/2014
Time Treated:	7:15 AM	11:00 AM	10:40 AM
% Cloud Cover:	100	60	10
Air Temp., Unit:	68 F	78 F	75 F
% Relative Humidity:	70.7	47	60
Wind Speed/Unit/Dir:	5 mph S	6 mph SW	3 mph E
Soil Temp., Unit:	58 F	62 F	61 F
Soil/Leaf Surface M:	5 -	5 5	5 5
Soil Moist (1=w 5=d):	5	5	5

Crop Stage at Each Application

	A	B	C
Crop Name:	ZEAMX	ZEAMX	ZEAMX
Height (In.):	-	6"	13"
Stage (L):	-	V3-V4	V5-V6

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height (In.):	-	2.5"	4.5"
Stage (L):	-	3-4	4
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height (In.):	-	1.5"	1.75"
Stage (L):	-	4-6	8
Weed 3 Name:	AMAPO	AMAPO	AMAPO
Height (In.):	-	0.75"	-
Stage (L):	-	4	-
Weed 4 Name:	AMBEL	AMBEL	AMBEL
Height (In.):	-	1"	2"
Stage (L):	-	4-6	6
Weed 5 Name:	ABUTH	ABUTH	ABUTH
Height (In.):	-	1.5"	2.5"
Stage (L):	-	2	4

Weed Density (plants/sq. ft.)

	1	2	3	4	5
Date:	Jul/17/2014	Jul/17/2014	Jul/17/2014	Jul/17/2014	Jul/17/2014
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	1	2	<1	3	<1

Application Equipment

Appl	Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GPA	Carrier	PSI
A	Cub	3.8	AIXR	11003	21"	20"	100"	19	Water	30
B	Cub	3.8	AIXR	11003	25"	20"	100"	19	Water	30
C	Cub	3.8	AIXR	11003	25"	20"	100"	19	Water	30

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Weed control programs with Anthem and Anthem ATZ in corn

Trial ID: C07-14
 Conducted: Campus T-17

Study Dir.: Sprague and Powell
 Investigator: Christy Sprague

Weed Code								ZEAMX	ANGR	CHEAL	AMAPO
Crop Code								injury	control	control	control
Rating Data Type								percent	percent	percent	percent
Rating Unit								Jun/06/2014	Jun/06/2014	Jun/06/2014	Jun/06/2014
Rating Date								28 DA-A	28 DA-A	28 DA-A	28 DA-A
Trt-Eval Interval								0	0	0	0
# Subsamples, Dec.											
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Anthem	2.15	L	8	fl oz/a	PRE	A	0	99	93	99
1	Cadet	0.91	L	0.9	fl oz/a	POST	C				
1	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
1	AMS		WG	17	lb/100 gal	POST	C				
2	Anthem ATZ	4.5	L	1	qt/a	PRE	A	0	99	99	99
2	Cadet	0.91	L	0.9	fl oz/a	POST	C				
2	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
2	AMS		WG	17	lb/100 gal	POST	C				
3	Anthem	2.15	L	8	fl oz/a	PRE	A	0	99	98	99
3	Stanza	68.5	WG	3	oz/a	POST	C				
3	Cadet	0.91	L	0.9	fl oz/a	POST	C				
3	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
3	AMS		WG	17	lb/100 gal	POST	C				
4	Anthem ATZ	4.5	L	1	qt/a	PRE	A	0	99	99	99
4	Solstice	4	L	3	fl oz/a	POST	C				
4	Cadet	0.91	L	0.9	fl oz/a	POST	C				
4	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
4	AMS		WG	17	lb/100 gal	POST	C				
5	Untreated							0	0	0	0
6	Anthem	2.15	L	8	fl oz/a	EPOS	B	5	98	90	99
6	Stanza	68.5	WG	3	oz/a	EPOS	B				
6	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
6	AMS		WG	17	lb/100 gal	EPOS	B				
7	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	3	99	99	99
7	Stanza	68.5	WG	3	oz/a	EPOS	B				
7	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
7	AMS		WG	17	lb/100 gal	EPOS	B				
8	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	7	95	99	99
8	Solstice	4	L	3	fl oz/a	EPOS	B				
8	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
8	AMS		WG	17	lb/100 gal	EPOS	B				
9	AAAtrex	90	WG	0.56	lb/a	EPOS	B	4	98	99	99
9	Solstice	4	L	3	fl oz/a	EPOS	B				
9	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
9	AMS		WG	17	lb/100 gal	EPOS	B				
10	Solstice	4	L	3	fl oz/a	EPOS	B	5	95	94	99
10	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
10	AMS		WG	17	lb/100 gal	EPOS	B				
11	Armezon	2.8	L	0.75	fl oz/a	EPOS	B	0	98	85	99
11	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
11	AMS		WG	17	lb/100 gal	EPOS	B				
12	Realm Q	40	WG	4	oz/a	EPOS	B	3	97	77	99
12	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
12	AMS		WG	17	lb/100 gal	EPOS	B				

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Trial ID: C07-14 Study Dir.: Sprague and Powell
 Conducted: Campus T-17 Investigator: Christy Sprague

								ZEAMX	ANGR	CHEAL	AMAPO
								injury	control	control	control
								percent	percent	percent	percent
								Jun/06/2014	Jun/06/2014	Jun/06/2014	Jun/06/2014
								28 DA-A	28 DA-A	28 DA-A	28 DA-A
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Unit	Stg	Code					
13	Corvus	2.63	L	5.6	fl oz/a	EPOS B	2	99	99	99	
13	AAtrex	90	WG	1.1	lb/a	EPOS B					
13	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B					
13	AMS		WG	17	lb/100 gal	EPOS B					
14	Lumax EZ	3.67	L	2.7	qt/a	EPOS B	0	96	99	99	
14	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B					
14	AMS		WG	17	lb/100 gal	EPOS B					
LSD (P=.05)								1.7	2.6	6.3	0.0
CV								62.33	1.97	5.01	0.0

Means followed by same letter do not significantly differ (P=.05, LSD)

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								AMBEL	ABUTH	ZEAMX	ANGR
Weed Code								control	control	injury	control
Crop Code								percent	percent	percent	percent
Rating Data Type								Jun/06/2014	Jun/06/2014	Jun/16/2014	Jun/16/2014
Rating Unit								28 DA-A	28 DA-A	7 DA-C	7 DA-C
Rating Date								0	0	0	0
Trt-Eval Interval											
# Subsamples, Dec.											
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Grow Stg	Appl Code				
1	Anthem	2.15	L	8	fl oz/a	PRE	A	74	99	5	99
1	Cadet	0.91	L	0.9	fl oz/a	POST	C				
1	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
1	AMS		WG	17	lb/100 gal	POST	C				
2	Anthem ATZ	4.5	L	1	qt/a	PRE	A	98	98	5	99
2	Cadet	0.91	L	0.9	fl oz/a	POST	C				
2	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
2	AMS		WG	17	lb/100 gal	POST	C				
3	Anthem	2.15	L	8	fl oz/a	PRE	A	81	99	4	99
3	Stanza	68.5	WG	3	oz/a	POST	C				
3	Cadet	0.91	L	0.9	fl oz/a	POST	C				
3	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
3	AMS		WG	17	lb/100 gal	POST	C				
4	Anthem ATZ	4.5	L	1	qt/a	PRE	A	97	99	5	99
4	Solstice	4	L	3	fl oz/a	POST	C				
4	Cadet	0.91	L	0.9	fl oz/a	POST	C				
4	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
4	AMS		WG	17	lb/100 gal	POST	C				
5	Untreated							0	0	0	0
6	Anthem	2.15	L	8	fl oz/a	EPOS	B	91	99	2	99
6	Stanza	68.5	WG	3	oz/a	EPOS	B				
6	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
6	AMS		WG	17	lb/100 gal	EPOS	B				
7	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	99	99	2	99
7	Stanza	68.5	WG	3	oz/a	EPOS	B				
7	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
7	AMS		WG	17	lb/100 gal	EPOS	B				
8	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	99	99	2	99
8	Solstice	4	L	3	fl oz/a	EPOS	B				
8	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
8	AMS		WG	17	lb/100 gal	EPOS	B				
9	AAAtrex	90	WG	0.56	lb/a	EPOS	B	98	99	2	99
9	Solstice	4	L	3	fl oz/a	EPOS	B				
9	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
9	AMS		WG	17	lb/100 gal	EPOS	B				
10	Solstice	4	L	3	fl oz/a	EPOS	B	82	99	2	98
10	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
10	AMS		WG	17	lb/100 gal	EPOS	B				
11	Armezon	2.8	L	0.75	fl oz/a	EPOS	B	97	95	0	99
11	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
11	AMS		WG	17	lb/100 gal	EPOS	B				
12	Realm Q	40	WG	4	oz/a	EPOS	B	93	99	0	99
12	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
12	AMS		WG	17	lb/100 gal	EPOS	B				

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								AMBEL	ABUTH	ZEAMX	ANGR
								control	control	injury	control
								percent	percent	percent	percent
								Jun/06/2014	Jun/06/2014	Jun/16/2014	Jun/16/2014
								28 DA-A	28 DA-A	7 DA-C	7 DA-C
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Rate	Stg	Code					
13	Corvus	2.63	L	5.6	fl oz/a	EPOS B	97	99	0	99	
13	AAtrex	90	WG	1.1	lb/a	EPOS B					
13	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B					
13	AMS		WG	17	lb/100 gal	EPOS B					
14	Lumax EZ	3.67	L	2.7	qt/a	EPOS B	99	97	0	99	
14	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B					
14	AMS		WG	17	lb/100 gal	EPOS B					
LSD (P=.05)								5.6	2.3	0.9	0.8
CV								4.55	1.74	30.58	0.63

Means followed by same letter do not significantly differ (P=.05, LSD)

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Trial ID: C07-14

Study Dir.: Sprague and Powell

Conducted: Campus T-17

Investigator: Christy Sprague

Weed Code								CHEAL	AMAPO	AMBEL	ABUTH
Crop Code											
Rating Data Type								control	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								Jun/16/2014	Jun/16/2014	Jun/16/2014	Jun/16/2014
Trt-Eval Interval								7 DA-C	7 DA-C	7 DA-C	7 DA-C
# Subsamples, Dec.								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Anthem	2.15	L	8	fl oz/a	PRE	A	99	99	96	99
1	Cadet	0.91	L	0.9	fl oz/a	POST	C				
1	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
1	AMS		WG	17	lb/100 gal	POST	C				
2	Anthem ATZ	4.5	L	1	qt/a	PRE	A	99	99	99	99
2	Cadet	0.91	L	0.9	fl oz/a	POST	C				
2	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
2	AMS		WG	17	lb/100 gal	POST	C				
3	Anthem	2.15	L	8	fl oz/a	PRE	A	99	99	99	99
3	Stanza	68.5	WG	3	oz/a	POST	C				
3	Cadet	0.91	L	0.9	fl oz/a	POST	C				
3	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
3	AMS		WG	17	lb/100 gal	POST	C				
4	Anthem ATZ	4.5	L	1	qt/a	PRE	A	99	99	99	99
4	Solstice	4	L	3	fl oz/a	POST	C				
4	Cadet	0.91	L	0.9	fl oz/a	POST	C				
4	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
4	AMS		WG	17	lb/100 gal	POST	C				
5	Untreated							0	0	0	0
6	Anthem	2.15	L	8	fl oz/a	EPOS	B	96	99	98	99
6	Stanza	68.5	WG	3	oz/a	EPOS	B				
6	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
6	AMS		WG	17	lb/100 gal	EPOS	B				
7	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	99	99	99	99
7	Stanza	68.5	WG	3	oz/a	EPOS	B				
7	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
7	AMS		WG	17	lb/100 gal	EPOS	B				
8	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	99	99	99	99
8	Solstice	4	L	3	fl oz/a	EPOS	B				
8	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
8	AMS		WG	17	lb/100 gal	EPOS	B				
9	AAAtrex	90	WG	0.56	lb/a	EPOS	B	99	99	99	99
9	Solstice	4	L	3	fl oz/a	EPOS	B				
9	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
9	AMS		WG	17	lb/100 gal	EPOS	B				
10	Solstice	4	L	3	fl oz/a	EPOS	B	99	99	80	99
10	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
10	AMS		WG	17	lb/100 gal	EPOS	B				
11	Armezon	2.8	L	0.75	fl oz/a	EPOS	B	97	99	99	99
11	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
11	AMS		WG	17	lb/100 gal	EPOS	B				
12	Realm Q	40	WG	4	oz/a	EPOS	B	99	99	99	99
12	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
12	AMS		WG	17	lb/100 gal	EPOS	B				

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								CHEAL	AMAPO	AMBEL	ABUTH
Weed Code											
Crop Code											
Rating Data Type								control	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								Jun/16/2014	Jun/16/2014	Jun/16/2014	Jun/16/2014
Trt-Eval Interval								7 DA-C	7 DA-C	7 DA-C	7 DA-C
# Subsamples, Dec.								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code				
13	Corvus	2.63	L	5.6	fl oz/a	EPOS	B	99	99	99	99
13	AAtrex	90	WG	1.1	lb/a	EPOS	B				
13	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
13	AMS		WG	17	lb/100 gal	EPOS	B				
14	Lumax EZ	3.67	L	2.7	qt/a	EPOS	B	99	99	99	99
14	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
14	AMS		WG	17	lb/100 gal	EPOS	B				
LSD (P=.05)								1.8	0.0	4.4	0.3
CV								1.36	0.0	3.42	0.2

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code								ZEAMX	ANGR	CHEAL	AMAPO
Crop Code								injury	control	control	control
Rating Data Type								percent	percent	percent	percent
Rating Unit								Jun/23/2014	Jun/23/2014	Jun/23/2014	Jun/23/2014
Rating Date								14 DA-C	14 DA-C	14 DA-C	14 DA-C
Trt-Eval Interval								0	0	0	0
# Subsamples, Dec.											
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Anthem	2.15	L	8	fl oz/a	PRE	A	0	99	99	99
1	Cadet	0.91	L	0.9	fl oz/a	POST	C				
1	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
1	AMS		WG	17	lb/100 gal	POST	C				
2	Anthem ATZ	4.5	L	1	qt/a	PRE	A	0	99	99	99
2	Cadet	0.91	L	0.9	fl oz/a	POST	C				
2	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
2	AMS		WG	17	lb/100 gal	POST	C				
3	Anthem	2.15	L	8	fl oz/a	PRE	A	0	99	99	99
3	Stanza	68.5	WG	3	oz/a	POST	C				
3	Cadet	0.91	L	0.9	fl oz/a	POST	C				
3	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
3	AMS		WG	17	lb/100 gal	POST	C				
4	Anthem ATZ	4.5	L	1	qt/a	PRE	A	0	99	99	99
4	Solstice	4	L	3	fl oz/a	POST	C				
4	Cadet	0.91	L	0.9	fl oz/a	POST	C				
4	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C				
4	AMS		WG	17	lb/100 gal	POST	C				
5	Untreated							0	0	0	0
6	Anthem	2.15	L	8	fl oz/a	EPOS	B	0	99	98	99
6	Stanza	68.5	WG	3	oz/a	EPOS	B				
6	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
6	AMS		WG	17	lb/100 gal	EPOS	B				
7	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	0	99	99	99
7	Stanza	68.5	WG	3	oz/a	EPOS	B				
7	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
7	AMS		WG	17	lb/100 gal	EPOS	B				
8	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	0	99	99	99
8	Solstice	4	L	3	fl oz/a	EPOS	B				
8	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
8	AMS		WG	17	lb/100 gal	EPOS	B				
9	AAtrex	90	WG	0.56	lb/a	EPOS	B	0	98	99	99
9	Solstice	4	L	3	fl oz/a	EPOS	B				
9	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
9	AMS		WG	17	lb/100 gal	EPOS	B				
10	Solstice	4	L	3	fl oz/a	EPOS	B	0	97	99	99
10	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
10	AMS		WG	17	lb/100 gal	EPOS	B				
11	Armezon	2.8	L	0.75	fl oz/a	EPOS	B	0	99	98	99
11	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
11	AMS		WG	17	lb/100 gal	EPOS	B				
12	Realm Q	40	WG	4	oz/a	EPOS	B	0	99	99	99
12	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B				
12	AMS		WG	17	lb/100 gal	EPOS	B				

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 Conducted: Campus T-17 Investigator: Christy Sprague

								ZEAMX	ANGR	CHEAL	AMAPO
								injury	control	control	control
								percent	percent	percent	percent
								Jun/23/2014	Jun/23/2014	Jun/23/2014	Jun/23/2014
								14 DA-C	14 DA-C	14 DA-C	14 DA-C
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Rate	Stg	Code					
13	Corvus	2.63	L	5.6	fl oz/a	EPOS B	0	99	99	99	
13	AAtrex	90	WG	1.1	lb/a	EPOS B					
13	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B					
13	AMS		WG	17	lb/100 gal	EPOS B					
14	Lumax EZ	3.67	L	2.7	qt/a	EPOS B	0	99	99	99	
14	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B					
14	AMS		WG	17	lb/100 gal	EPOS B					
LSD (P=.05)								0.0	1.1	0.9	0.0
CV								0.0	0.84	0.66	0.0

Means followed by same letter do not significantly differ (P=.05, LSD)

MSU Weed Science Research Program

Weed control programs with Anthem and Anthem ATZ in corn

Trial ID: C07-14
 Conducted: Campus T-17

Study Dir.: Sprague and Powell
 Investigator: Christy Sprague

								AMBEL	ABUTH	ZEAMX	ANGR	CHEAL
								control	control	injury	control	control
								percent	percent	percent	percent	percent
								Jun/23/2014	Jun/23/2014	Jul/09/2014	Jul/09/2014	Jul/09/2014
								14 DA-C	14 DA-C	30 DA-C	30 DA-C	30 DA-C
								0	0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl						
No.	Name	Conc	Type	Unit	Stg	Code						
1	Anthem	2.15	L	8	fl oz/a	PRE A	98	99	0	99	99	
1	Cadet	0.91	L	0.9	fl oz/a	POST C						
1	Roundup PowerMax	4.5	L	32	fl oz/a	POST C						
1	AMS		WG	17	lb/100 gal	POST C						
2	Anthem ATZ	4.5	L	1	qt/a	PRE A	99	99	0	99	99	
2	Cadet	0.91	L	0.9	fl oz/a	POST C						
2	Roundup PowerMax	4.5	L	32	fl oz/a	POST C						
2	AMS		WG	17	lb/100 gal	POST C						
3	Anthem	2.15	L	8	fl oz/a	PRE A	99	99	0	99	99	
3	Stanza	68.5	WG	3	oz/a	POST C						
3	Cadet	0.91	L	0.9	fl oz/a	POST C						
3	Roundup PowerMax	4.5	L	32	fl oz/a	POST C						
3	AMS		WG	17	lb/100 gal	POST C						
4	Anthem ATZ	4.5	L	1	qt/a	PRE A	99	99	0	99	99	
4	Solstice	4	L	3	fl oz/a	POST C						
4	Cadet	0.91	L	0.9	fl oz/a	POST C						
4	Roundup PowerMax	4.5	L	32	fl oz/a	POST C						
4	AMS		WG	17	lb/100 gal	POST C						
5	Untreated						0	0	0	0	0	
6	Anthem	2.15	L	8	fl oz/a	EPOS B	99	99	0	99	96	
6	Stanza	68.5	WG	3	oz/a	EPOS B						
6	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
6	AMS		WG	17	lb/100 gal	EPOS B						
7	Anthem ATZ	4.5	L	1	qt/a	EPOS B	99	99	0	99	99	
7	Stanza	68.5	WG	3	oz/a	EPOS B						
7	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
7	AMS		WG	17	lb/100 gal	EPOS B						
8	Anthem ATZ	4.5	L	1	qt/a	EPOS B	99	99	0	99	99	
8	Solstice	4	L	3	fl oz/a	EPOS B						
8	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
8	AMS		WG	17	lb/100 gal	EPOS B						
9	AAAtrex	90	WG	0.56	lb/a	EPOS B	99	99	0	96	99	
9	Solstice	4	L	3	fl oz/a	EPOS B						
9	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
9	AMS		WG	17	lb/100 gal	EPOS B						
10	Solstice	4	L	3	fl oz/a	EPOS B	90	99	0	96	99	
10	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
10	AMS		WG	17	lb/100 gal	EPOS B						
11	Armezon	2.8	L	0.75	fl oz/a	EPOS B	99	99	0	98	98	
11	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
11	AMS		WG	17	lb/100 gal	EPOS B						
12	Realm Q	40	WG	4	oz/a	EPOS B	98	99	0	99	99	
12	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
12	AMS		WG	17	lb/100 gal	EPOS B						

MSU Weed Science Research Program

Weed control programs with Anthem and Anthem ATZ in corn

Trial ID: C07-14 Study Dir.: Sprague and Powell
 Conducted: Campus T-17 Investigator: Christy Sprague

								AMBEL	ABUTH	ZEAMX	ANGR	CHEAL
								control	control	injury	control	control
								percent	percent	percent	percent	percent
								Jun/23/2014	Jun/23/2014	Jul/09/2014	Jul/09/2014	Jul/09/2014
								14 DA-C	14 DA-C	30 DA-C	30 DA-C	30 DA-C
								0	0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl						
No.	Name	Conc	Type	Unit	Stg	Code						
13	Corvus	2.63	L	5.6	fl oz/a	EPOS B	99	99	0	99	99	
13	AAtrex	90	WG	1.1	lb/a	EPOS B						
13	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
13	AMS		WG	17	lb/100 gal	EPOS B						
14	Lumax EZ	3.67	L	2.7	qt/a	EPOS B	99	99	0	99	99	
14	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
14	AMS		WG	17	lb/100 gal	EPOS B						
LSD (P=.05)								3.4	0.0	0.0	2.6	1.0
CV								2.61	0.0	0.0	1.96	0.76

Means followed by same letter do not significantly differ (P=.05, LSD)

MSU Weed Science Research Program

Weed control programs with Anthem and Anthem ATZ in corn

Trial ID: C07-14
 Conducted: Campus T-17

Study Dir.: Sprague and Powell
 Investigator: Christy Sprague

Weed Code								AMAPO	AMBEL	ABUTH	ZEAMX	ZEAMX
Crop Code											moisture	yield
Rating Data Type								control	control	control	percent	bu/acre
Rating Unit								percent	percent	percent		
Rating Date								Jul/09/2014	Jul/09/2014	Jul/09/2014	Nov/09/2014	Nov/09/2014
Trt-Eval Interval								30 DA-C	30 DA-C	30 DA-C	153 DA-C	at 15% M
# Subsamples, Dec.								0	0	0	1	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	Anthem	2.15	L	8	fl oz/a	PRE	A	99	98	99	16.8	243
1	Cadet	0.91	L	0.9	fl oz/a	POST	C					
1	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C					
1	AMS		WG	17	lb/100 gal	POST	C					
2	Anthem ATZ	4.5	L	1	qt/a	PRE	A	99	99	99	16.4	238
2	Cadet	0.91	L	0.9	fl oz/a	POST	C					
2	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C					
2	AMS		WG	17	lb/100 gal	POST	C					
3	Anthem	2.15	L	8	fl oz/a	PRE	A	99	99	99	16.5	243
3	Stanza	68.5	WG	3	oz/a	POST	C					
3	Cadet	0.91	L	0.9	fl oz/a	POST	C					
3	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C					
3	AMS		WG	17	lb/100 gal	POST	C					
4	Anthem ATZ	4.5	L	1	qt/a	PRE	A	99	99	99	16.3	238
4	Solstice	4	L	3	fl oz/a	POST	C					
4	Cadet	0.91	L	0.9	fl oz/a	POST	C					
4	Roundup PowerMax	4.5	L	32	fl oz/a	POST	C					
4	AMS		WG	17	lb/100 gal	POST	C					
5	Untreated							0	0	0	17.9	160
6	Anthem	2.15	L	8	fl oz/a	EPOS	B	99	99	99	16.3	241
6	Stanza	68.5	WG	3	oz/a	EPOS	B					
6	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B					
6	AMS		WG	17	lb/100 gal	EPOS	B					
7	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	99	99	99	16.4	244
7	Stanza	68.5	WG	3	oz/a	EPOS	B					
7	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B					
7	AMS		WG	17	lb/100 gal	EPOS	B					
8	Anthem ATZ	4.5	L	1	qt/a	EPOS	B	99	99	99	16.3	237
8	Solstice	4	L	3	fl oz/a	EPOS	B					
8	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B					
8	AMS		WG	17	lb/100 gal	EPOS	B					
9	AAtrex	90	WG	0.56	lb/a	EPOS	B	99	99	99	16.3	248
9	Solstice	4	L	3	fl oz/a	EPOS	B					
9	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B					
9	AMS		WG	17	lb/100 gal	EPOS	B					
10	Solstice	4	L	3	fl oz/a	EPOS	B	99	91	99	16.7	242
10	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B					
10	AMS		WG	17	lb/100 gal	EPOS	B					
11	Armezon	2.8	L	0.75	fl oz/a	EPOS	B	99	99	98	16.9	234
11	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B					
11	AMS		WG	17	lb/100 gal	EPOS	B					
12	Realm Q	40	WG	4	oz/a	EPOS	B	99	99	99	16.2	237
12	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS	B					
12	AMS		WG	17	lb/100 gal	EPOS	B					

MSU Weed Science Research Program

Weed control programs with Anthem and Anthem ATZ in corn

Trial ID: C07-14 Study Dir.: Sprague and Powell
 Conducted: Campus T-17 Investigator: Christy Sprague

								AMAPO	AMBEL	ABUTH	ZEAMX	ZEAMX
								control	control	control	moisture	yield
								percent	percent	percent	percent	bu/acre
								Jul/09/2014	Jul/09/2014	Jul/09/2014	Nov/09/2014	Nov/09/2014
								30 DA-C	30 DA-C	30 DA-C	153 DA-C	at 15% M
								0	0	0	1	0
Trt	Treatment	Form	Form	Rate	Grow	Appl						
No.	Name	Conc	Type	Unit	Stg	Code						
13	Corvus	2.63	L	5.6	fl oz/a	EPOS B	99	99	99	16.6	245	
13	AAtrex	90	WG	1.1	lb/a	EPOS B						
13	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
13	AMS		WG	17	lb/100 gal	EPOS B						
14	Lumax EZ	3.67	L	2.7	qt/a	EPOS B	99	99	99	16.4	231	
14	Roundup PowerMax	4.5	L	32	fl oz/a	EPOS B						
14	AMS		WG	17	lb/100 gal	EPOS B						
LSD (P=.05)								0.0	3.9	0.7	1.07	16.2
CV								0.0	2.99	0.56	4.53	4.84

Means followed by same letter do not significantly differ (P=.05, LSD)