

MSU Weed Science Research Program

Sequential weed control programs in corn

Trial ID: C04-14 Study Dir.: Sprague and Powell  
 Conducted: Campus T-17 Investigator: Christy Sprague

Date Planted: May/08/2014 Row Spacing: 30 IN  
 Variety: P9807 AM 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 19-19-19 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
Application Timing:	PRE	POST
Date Treated:	May/08/2014	Jun/14/2014
Time Treated:	8:40 PM	9:40 AM
% Cloud Cover:	10	0
Air Temp., Unit:	85 F	64 F
% Relative Humidity:	48.9	61
Wind Speed/Unit/Dir:	5 mph S	2 mph NW
Soil Temp., Unit:	60 F	58 F
Soil/Leaf Surface M:	4 -	4 5
Soil Moist (1=w 5=d):	4	4

Crop Stage at Each Application

	A	B
Crop Name:	ZEAMX	ZEAMX
Height (In.):	-	20"
Stage (L):	-	V5

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height (In.):	-	3-6"
Stage (L):	-	3-6
Weed 2 Name:	CHEAL	CHEAL
Height (In.):	-	2-4"
Stage (L):	-	6-14
Weed 3 Name:	AMAPO	AMAPO
Height (In.):	-	3"
Stage (L):	-	7
Weed 4 Name:	AMBEL	AMBEL
Height (In.):	-	2-6"
Stage (L):	-	4-10
Weed 5 Name:	ABUTH	ABUTH
Height (In.):	-	4"
Stage (L):	-	5

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	5	<1	4	1

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AIXR	11003	21"	20"	100"	19	Water	30
B	Cub	3.8	AIXR	11003	36"	20"	100"	19	Water	30

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								ZEAMX	ANGR	CHEAL	AMAPO
								injury	control	control	control
								percent	percent	percent	percent
								Jun/13/2014	Jun/13/2014	Jun/13/2014	Jun/13/2014
								36 DA-A	36 DA-A	36 DA-A	36 DA-A
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Unit	Stg	Code					
1	Harness Xtra	5.6	L	2 qt/a	PRE	A	0	99	99	99	
1	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
1	AMS		WG	17 lb/100 gal	POST	B					
2	Degree Xtra	4.04	L	3 qt/a	PRE	A	0	99	99	99	
2	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
2	AMS		WG	17 lb/100 gal	POST	B					
3	TripleFLEX	4.16	L	2 pt/a	PRE	A	0	98	99	99	
3	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
3	AMS		WG	17 lb/100 gal	POST	B					
4	Verdict	5.57	L	15 fl oz/a	PRE	A	0	99	96	98	
4	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
4	AMS		WG	17 lb/100 gal	POST	B					
5	Corvus	2.63	L	5.6 fl oz/a	PRE	A	0	99	99	99	
5	AAtrex	90	WG	0.83 lb/a	PRE	A					
5	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
5	AMS		WG	17 lb/100 gal	POST	B					
6	Lumax EZ	3.67	L	2.7 qt/a	PRE	A	0	99	99	99	
6	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
6	AMS		WG	17 lb/100 gal	POST	B					
7	Instigate	45.8	WG	6 oz/a	PRE	A	0	99	99	99	
7	Breakfree NXT Lite	6	L	1.3 qt/a	PRE	A					
7	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
7	AMS		WG	17 lb/100 gal	POST	B					
8	Instigate	45.8	WG	6 oz/a	PRE	A	0	99	99	99	
8	Breakfree NXT Lite	6	L	1.3 qt/a	PRE	A					
8	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
8	AAtrex	90	WG	0.56 lb/a	POST	B					
8	AMS		WG	17 lb/100 gal	POST	B					
9	Instigate	45.8	WG	6 oz/a	PRE	A	0	99	99	99	
9	Breakfree NXT	7	L	1.4 pt/a	PRE	A					
9	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
9	AMS		WG	17 lb/100 gal	POST	B					
10	Instigate	45.8	WG	6 oz/a	PRE	A	0	99	99	99	
10	Breakfree NXT	7	L	1.4 pt/a	PRE	A					
10	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
10	AAtrex	90	WG	0.56 lb/a	POST	B					
10	AMS		WG	17 lb/100 gal	POST	B					
11	Untreated						0	0	0	0	
12	Balance Flexx	2	L	4 fl oz/a	PRE	A	0	99	99	99	
12	AAtrex	90	WG	1.1 lb/a	PRE	A					
12	Liberty	2.34	L	22 fl oz/a	POST	B					
12	TripleFlex	4.16	L	1.5 pt/a	POST	B					
12	AMS		WG	8.5 lb/100 gal	POST	B					

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Weed Code								ANGR	CHEAL	AMAPO	
Crop Code								ZEAMX			
Rating Data Type								injury	control	control	
Rating Unit								percent	percent	percent	
Rating Date								Jun/13/2014	Jun/13/2014	Jun/13/2014	
Trt-Eval Interval								36 DA-A	36 DA-A	36 DA-A	
# Subsamples, Dec.								0	0	0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
13	Corvus	2.63	L	4	fl oz/a	PRE	A	0	99	99	99
13	AAtrex	90	WG	1.1	lb/a	PRE	A				
13	Liberty	2.34	L	22	fl oz/a	POST	B				
13	DiFlexx	4.2	L	8	fl oz/a	POST	B				
13	AMS		WG	17	lb/100 gal	POST	B				
14	Corvus	2.63	L	4	fl oz/a	PRE	A	0	98	99	99
14	AAtrex	90	WG	1.1	lb/a	PRE	A				
14	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
14	DiFlexx	4.2	L	8	fl oz/a	POST	B				
14	AMS		WG	17	lb/100 gal	POST	B				
15	Acuron	3.44	L	3	qt/a	PRE	A	0	99	99	99
15	Status	56	WG	5	oz/a	POST	B				
15	Touchdown Total	4.17	SL	30	fl oz/a	POST	B				
15	AMS		WG	17	lb/100 gal	POST	B				
16	Bicep II Magnum	5.5	L	1.1	qt/a	PRE	A	0	98	99	99
16	Halex GT	4.38	L	3.6	pt/a	POST	B				
16	Surfactant		L	0.25	% v/v	POST	B				
16	AMS		WG	17	lb/100 gal	POST	B				
17	Degree Xtra	4	L	3.2	qt/a	PRE	A	0	99	99	99
17	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
17	Laudis	3.5	L	3	fl oz/a	POST	B				
17	AMS		WG	17	lb/100 gal	POST	B				
18	Degree Xtra	4	L	3.2	qt/a	PRE	A	0	99	99	99
18	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
18	Laudis	3.5	L	3	fl oz/a	POST	B				
18	Stratego YLD	4.18	L	2	fl oz/a	POST	B				
18	AMS		WG	17	lb/100 gal	POST	B				
LSD (P=.05)								0.0	1.0	0.7	0.7
CV								0.0	0.74	0.55	0.5

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

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								AMBEL	ABUTH	ZEAMX	ANGR
								control	control	injury	control
								percent	percent	percent	percent
								Jun/13/2014	Jun/13/2014	Jun/20/2014	Jun/20/2014
								36 DA-A	36 DA-A	6 DA-B	6 DA-B
								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Harness Xtra	5.6	L	2	qt/a	PRE	A	92	86	0	99
1	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
1	AMS		WG	17	lb/100 gal	POST	B				
2	Degree Xtra	4.04	L	3	qt/a	PRE	A	89	92	0	99
2	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
2	AMS		WG	17	lb/100 gal	POST	B				
3	TripleFLEX	4.16	L	2	pt/a	PRE	A	90	98	0	99
3	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
3	AMS		WG	17	lb/100 gal	POST	B				
4	Verdict	5.57	L	15	fl oz/a	PRE	A	96	98	0	99
4	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
4	AMS		WG	17	lb/100 gal	POST	B				
5	Corvus	2.63	L	5.6	fl oz/a	PRE	A	99	99	0	99
5	AAtrex	90	WG	0.83	lb/a	PRE	A				
5	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
5	AMS		WG	17	lb/100 gal	POST	B				
6	Lumax EZ	3.67	L	2.7	qt/a	PRE	A	99	99	0	99
6	Abundit Extra	4.5	SL	32	fl oz/a	POST	B				
6	AMS		WG	17	lb/100 gal	POST	B				
7	Instigate	45.8	WG	6	oz/a	PRE	A	99	99	0	99
7	Breakfree NXT Lite	6	L	1.3	qt/a	PRE	A				
7	Abundit Extra	4.5	SL	32	fl oz/a	POST	B				
7	AMS		WG	17	lb/100 gal	POST	B				
8	Instigate	45.8	WG	6	oz/a	PRE	A	99	99	0	99
8	Breakfree NXT Lite	6	L	1.3	qt/a	PRE	A				
8	Abundit Extra	4.5	SL	32	fl oz/a	POST	B				
8	AAtrex	90	WG	0.56	lb/a	POST	B				
8	AMS		WG	17	lb/100 gal	POST	B				
9	Instigate	45.8	WG	6	oz/a	PRE	A	99	99	0	99
9	Breakfree NXT	7	L	1.4	pt/a	PRE	A				
9	Abundit Extra	4.5	SL	32	fl oz/a	POST	B				
9	AMS		WG	17	lb/100 gal	POST	B				
10	Instigate	45.8	WG	6	oz/a	PRE	A	99	99	0	99
10	Breakfree NXT	7	L	1.4	pt/a	PRE	A				
10	Abundit Extra	4.5	SL	32	fl oz/a	POST	B				
10	AAtrex	90	WG	0.56	lb/a	POST	B				
10	AMS		WG	17	lb/100 gal	POST	B				
11	Untreated							0	0	0	0
12	Balance Flexx	2	L	4	fl oz/a	PRE	A	99	99	4	99
12	AAtrex	90	WG	1.1	lb/a	PRE	A				
12	Liberty	2.34	L	22	fl oz/a	POST	B				
12	TripleFlex	4.16	L	1.5	pt/a	POST	B				
12	AMS		WG	8.5	lb/100 gal	POST	B				

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								AMBEL	ABUTH	ZEAMX	ANGR
								control	control	injury	control
								percent	percent	percent	percent
								Jun/13/2014	Jun/13/2014	Jun/20/2014	Jun/20/2014
								36 DA-A	36 DA-A	6 DA-B	6 DA-B
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Unit	Stg	Code					
13	Corvus	2.63	L	4 fl oz/a	PRE	A	99	99	6	99	
13	AAtrex	90	WG	1.1 lb/a	PRE	A					
13	Liberty	2.34	L	22 fl oz/a	POST	B					
13	DiFlexx	4.2	L	8 fl oz/a	POST	B					
13	AMS		WG	17 lb/100 gal	POST	B					
14	Corvus	2.63	L	4 fl oz/a	PRE	A	99	99	9	99	
14	AAtrex	90	WG	1.1 lb/a	PRE	A					
14	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
14	DiFlexx	4.2	L	8 fl oz/a	POST	B					
14	AMS		WG	17 lb/100 gal	POST	B					
15	Acuron	3.44	L	3 qt/a	PRE	A	99	99	0	99	
15	Status	56	WG	5 oz/a	POST	B					
15	Touchdown Total	4.17	SL	30 fl oz/a	POST	B					
15	AMS		WG	17 lb/100 gal	POST	B					
16	Bicep II Magnum	5.5	L	1.1 qt/a	PRE	A	81	81	0	99	
16	Halex GT	4.38	L	3.6 pt/a	POST	B					
16	Surfactant		L	0.25 % v/v	POST	B					
16	AMS		WG	17 lb/100 gal	POST	B					
17	Degree Xtra	4	L	3.2 qt/a	PRE	A	91	92	0	99	
17	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
17	Laudis	3.5	L	3 fl oz/a	POST	B					
17	AMS		WG	17 lb/100 gal	POST	B					
18	Degree Xtra	4	L	3.2 qt/a	PRE	A	89	86	0	99	
18	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
18	Laudis	3.5	L	3 fl oz/a	POST	B					
18	Stratego YLD	4.18	L	2 fl oz/a	POST	B					
18	AMS		WG	17 lb/100 gal	POST	B					
LSD (P=.05)								4.1	5.7	0.7	0.0
CV								3.24	4.5	52.19	0.0

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

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								CHEAL	AMAPO	AMBEL	ABUTH
								control	control	control	control
								percent	percent	percent	percent
								Jun/20/2014	Jun/20/2014	Jun/20/2014	Jun/20/2014
								6 DA-B	6 DA-B	6 DA-B	6 DA-B
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Unit	Stg	Code					
1	Harness Xtra	5.6	L	2 qt/a	PRE	A	99	99	99	99	
1	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
1	AMS		WG	17 lb/100 gal	POST	B					
2	Degree Xtra	4.04	L	3 qt/a	PRE	A	99	99	99	99	
2	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
2	AMS		WG	17 lb/100 gal	POST	B					
3	TripleFLEX	4.16	L	2 pt/a	PRE	A	99	99	99	99	
3	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
3	AMS		WG	17 lb/100 gal	POST	B					
4	Verdict	5.57	L	15 fl oz/a	PRE	A	99	99	99	99	
4	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
4	AMS		WG	17 lb/100 gal	POST	B					
5	Corvus	2.63	L	5.6 fl oz/a	PRE	A	99	99	99	99	
5	AAtrex	90	WG	0.83 lb/a	PRE	A					
5	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
5	AMS		WG	17 lb/100 gal	POST	B					
6	Lumax EZ	3.67	L	2.7 qt/a	PRE	A	99	99	99	99	
6	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
6	AMS		WG	17 lb/100 gal	POST	B					
7	Instigate	45.8	WG	6 oz/a	PRE	A	99	99	99	99	
7	Breakfree NXT Lite	6	L	1.3 qt/a	PRE	A					
7	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
7	AMS		WG	17 lb/100 gal	POST	B					
8	Instigate	45.8	WG	6 oz/a	PRE	A	99	99	99	99	
8	Breakfree NXT Lite	6	L	1.3 qt/a	PRE	A					
8	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
8	AAtrex	90	WG	0.56 lb/a	POST	B					
8	AMS		WG	17 lb/100 gal	POST	B					
9	Instigate	45.8	WG	6 oz/a	PRE	A	99	99	99	99	
9	Breakfree NXT	7	L	1.4 pt/a	PRE	A					
9	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
9	AMS		WG	17 lb/100 gal	POST	B					
10	Instigate	45.8	WG	6 oz/a	PRE	A	99	99	99	99	
10	Breakfree NXT	7	L	1.4 pt/a	PRE	A					
10	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
10	AAtrex	90	WG	0.56 lb/a	POST	B					
10	AMS		WG	17 lb/100 gal	POST	B					
11	Untreated						0	0	0	0	
12	Balance Flexx	2	L	4 fl oz/a	PRE	A	99	99	99	99	
12	AAtrex	90	WG	1.1 lb/a	PRE	A					
12	Liberty	2.34	L	22 fl oz/a	POST	B					
12	TripleFlex	4.16	L	1.5 pt/a	POST	B					
12	AMS		WG	8.5 lb/100 gal	POST	B					

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Weed Code								CHEAL	AMAPO	AMBEL	ABUTH
Crop Code											
Rating Data Type								control	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								Jun/20/2014	Jun/20/2014	Jun/20/2014	Jun/20/2014
Trt-Eval Interval								6 DA-B	6 DA-B	6 DA-B	6 DA-B
# Subsamples, Dec.								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
13	Corvus	2.63	L	4	fl oz/a	PRE	A	99	99	99	99
13	AAtrex	90	WG	1.1	lb/a	PRE	A				
13	Liberty	2.34	L	22	fl oz/a	POST	B				
13	DiFlexx	4.2	L	8	fl oz/a	POST	B				
13	AMS		WG	17	lb/100 gal	POST	B				
14	Corvus	2.63	L	4	fl oz/a	PRE	A	99	99	99	99
14	AAtrex	90	WG	1.1	lb/a	PRE	A				
14	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
14	DiFlexx	4.2	L	8	fl oz/a	POST	B				
14	AMS		WG	17	lb/100 gal	POST	B				
15	Acuron	3.44	L	3	qt/a	PRE	A	99	99	99	99
15	Status	56	WG	5	oz/a	POST	B				
15	Touchdown Total	4.17	SL	30	fl oz/a	POST	B				
15	AMS		WG	17	lb/100 gal	POST	B				
16	Bicep II Magnum	5.5	L	1.1	qt/a	PRE	A	99	99	94	99
16	Halex GT	4.38	L	3.6	pt/a	POST	B				
16	Surfactant		L	0.25	% v/v	POST	B				
16	AMS		WG	17	lb/100 gal	POST	B				
17	Degree Xtra	4	L	3.2	qt/a	PRE	A	99	99	99	99
17	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
17	Laudis	3.5	L	3	fl oz/a	POST	B				
17	AMS		WG	17	lb/100 gal	POST	B				
18	Degree Xtra	4	L	3.2	qt/a	PRE	A	99	99	99	99
18	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
18	Laudis	3.5	L	3	fl oz/a	POST	B				
18	Stratego YLD	4.18	L	2	fl oz/a	POST	B				
18	AMS		WG	17	lb/100 gal	POST	B				
LSD (P=.05)								0.2	0.0	2.1	0.0
CV								0.13	0.0	1.58	0.0

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

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								ZEAMX	ANGR	CHEAL	AMAPO
								injury	control	control	control
								percent	percent	percent	percent
								Jun/27/2014	Jun/27/2014	Jun/27/2014	Jun/27/2014
								13 DA-B	13 DA-B	13 DA-B	13 DA-B
								0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Unit	Stg	Code					
1	Harness Xtra	5.6	L	2 qt/a	PRE	A	0	99	99	99	
1	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
1	AMS		WG	17 lb/100 gal	POST	B					
2	Degree Xtra	4.04	L	3 qt/a	PRE	A	0	99	99	99	
2	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
2	AMS		WG	17 lb/100 gal	POST	B					
3	TripleFLEX	4.16	L	2 pt/a	PRE	A	0	99	99	99	
3	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
3	AMS		WG	17 lb/100 gal	POST	B					
4	Verdict	5.57	L	15 fl oz/a	PRE	A	0	99	99	99	
4	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
4	AMS		WG	17 lb/100 gal	POST	B					
5	Corvus	2.63	L	5.6 fl oz/a	PRE	A	0	99	99	99	
5	AAtrex	90	WG	0.83 lb/a	PRE	A					
5	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	B					
5	AMS		WG	17 lb/100 gal	POST	B					
6	Lumax EZ	3.67	L	2.7 qt/a	PRE	A	0	99	99	99	
6	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
6	AMS		WG	17 lb/100 gal	POST	B					
7	Instigate	45.8	WG	6 oz/a	PRE	A	0	99	99	99	
7	Breakfree NXT Lite	6	L	1.3 qt/a	PRE	A					
7	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
7	AMS		WG	17 lb/100 gal	POST	B					
8	Instigate	45.8	WG	6 oz/a	PRE	A	0	99	99	99	
8	Breakfree NXT Lite	6	L	1.3 qt/a	PRE	A					
8	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
8	AAtrex	90	WG	0.56 lb/a	POST	B					
8	AMS		WG	17 lb/100 gal	POST	B					
9	Instigate	45.8	WG	6 oz/a	PRE	A	0	99	99	99	
9	Breakfree NXT	7	L	1.4 pt/a	PRE	A					
9	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
9	AMS		WG	17 lb/100 gal	POST	B					
10	Instigate	45.8	WG	6 oz/a	PRE	A	0	99	99	99	
10	Breakfree NXT	7	L	1.4 pt/a	PRE	A					
10	Abundit Extra	4.5	SL	32 fl oz/a	POST	B					
10	AAtrex	90	WG	0.56 lb/a	POST	B					
10	AMS		WG	17 lb/100 gal	POST	B					
11	Untreated						0	0	0	0	
12	Balance Flexx	2	L	4 fl oz/a	PRE	A	3	99	99	99	
12	AAtrex	90	WG	1.1 lb/a	PRE	A					
12	Liberty	2.34	L	22 fl oz/a	POST	B					
12	TripleFlex	4.16	L	1.5 pt/a	POST	B					
12	AMS		WG	8.5 lb/100 gal	POST	B					



MSU Weed Science Research Program

Sequential weed control programs in corn

Trial ID: C04-14 Study Dir.: Sprague and Powell  
 Conducted: Campus T-17 Investigator: Christy Sprague

Weed Code								ANGR	CHEAL	AMAPO	
Crop Code								ZEAMX			
Rating Data Type								injury	control	control	
Rating Unit								percent	percent	percent	
Rating Date								Jun/27/2014	Jun/27/2014	Jun/27/2014	
Trt-Eval Interval								13 DA-B	13 DA-B	13 DA-B	
# Subsamples, Dec.								0	0	0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
13	Corvus	2.63	L	4	fl oz/a	PRE	A	7	99	99	99
13	AAtrex	90	WG	1.1	lb/a	PRE	A				
13	Liberty	2.34	L	22	fl oz/a	POST	B				
13	DiFlexx	4.2	L	8	fl oz/a	POST	B				
13	AMS		WG	17	lb/100 gal	POST	B				
14	Corvus	2.63	L	4	fl oz/a	PRE	A	7	99	99	99
14	AAtrex	90	WG	1.1	lb/a	PRE	A				
14	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
14	DiFlexx	4.2	L	8	fl oz/a	POST	B				
14	AMS		WG	17	lb/100 gal	POST	B				
15	Acuron	3.44	L	3	qt/a	PRE	A	0	99	99	99
15	Status	56	WG	5	oz/a	POST	B				
15	Touchdown Total	4.17	SL	30	fl oz/a	POST	B				
15	AMS		WG	17	lb/100 gal	POST	B				
16	Bicep II Magnum	5.5	L	1.1	qt/a	PRE	A	0	99	99	99
16	Halex GT	4.38	L	3.6	pt/a	POST	B				
16	Surfactant		L	0.25	% v/v	POST	B				
16	AMS		WG	17	lb/100 gal	POST	B				
17	Degree Xtra	4	L	3.2	qt/a	PRE	A	0	99	99	99
17	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
17	Laudis	3.5	L	3	fl oz/a	POST	B				
17	AMS		WG	17	lb/100 gal	POST	B				
18	Degree Xtra	4	L	3.2	qt/a	PRE	A	0	99	99	99
18	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B				
18	Laudis	3.5	L	3	fl oz/a	POST	B				
18	Stratego YLD	4.18	L	2	fl oz/a	POST	B				
18	AMS		WG	17	lb/100 gal	POST	B				
LSD (P=.05)								0.7	0.0	0.0	0.0
CV								50.7	0.0	0.0	0.0

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

## MSU Weed Science Research Program

Sequential weed control programs in corn

Trial ID: C04-14 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/27/2014	Jun/27/2014	Jul/11/2014	Jul/11/2014	Jul/11/2014
								13 DA-B	13 DA-B	27 DA-B	27 DA-B	27 DA-B
								0	0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl						
No.	Name	Conc	Type	Unit	Stg	Code						
1	Harness Xtra	5.6	L	2	qt/a	PRE A	99	99	0	99	99	
1	Roundup PowerMax	4.5	SL	32	fl oz/a	POST B						
1	AMS		WG	17	lb/100 gal	POST B						
2	Degree Xtra	4.04	L	3	qt/a	PRE A	99	99	0	99	99	
2	Roundup PowerMax	4.5	SL	32	fl oz/a	POST B						
2	AMS		WG	17	lb/100 gal	POST B						
3	TripleFLEX	4.16	L	2	pt/a	PRE A	99	99	0	99	99	
3	Roundup PowerMax	4.5	SL	32	fl oz/a	POST B						
3	AMS		WG	17	lb/100 gal	POST B						
4	Verdict	5.57	L	15	fl oz/a	PRE A	99	99	0	99	99	
4	Roundup PowerMax	4.5	SL	32	fl oz/a	POST B						
4	AMS		WG	17	lb/100 gal	POST B						
5	Corvus	2.63	L	5.6	fl oz/a	PRE A	99	99	0	99	99	
5	AAtrex	90	WG	0.83	lb/a	PRE A						
5	Roundup PowerMax	4.5	SL	32	fl oz/a	POST B						
5	AMS		WG	17	lb/100 gal	POST B						
6	Lumax EZ	3.67	L	2.7	qt/a	PRE A	99	99	0	99	99	
6	Abundit Extra	4.5	SL	32	fl oz/a	POST B						
6	AMS		WG	17	lb/100 gal	POST B						
7	Instigate	45.8	WG	6	oz/a	PRE A	99	99	0	99	99	
7	Breakfree NXT Lite	6	L	1.3	qt/a	PRE A						
7	Abundit Extra	4.5	SL	32	fl oz/a	POST B						
7	AMS		WG	17	lb/100 gal	POST B						
8	Instigate	45.8	WG	6	oz/a	PRE A	99	99	0	99	99	
8	Breakfree NXT Lite	6	L	1.3	qt/a	PRE A						
8	Abundit Extra	4.5	SL	32	fl oz/a	POST B						
8	AAtrex	90	WG	0.56	lb/a	POST B						
8	AMS		WG	17	lb/100 gal	POST B						
9	Instigate	45.8	WG	6	oz/a	PRE A	99	99	0	99	99	
9	Breakfree NXT	7	L	1.4	pt/a	PRE A						
9	Abundit Extra	4.5	SL	32	fl oz/a	POST B						
9	AMS		WG	17	lb/100 gal	POST B						
10	Instigate	45.8	WG	6	oz/a	PRE A	99	99	0	99	99	
10	Breakfree NXT	7	L	1.4	pt/a	PRE A						
10	Abundit Extra	4.5	SL	32	fl oz/a	POST B						
10	AAtrex	90	WG	0.56	lb/a	POST B						
10	AMS		WG	17	lb/100 gal	POST B						
11	Untreated						0	0	0	0	0	
12	Balance Flexx	2	L	4	fl oz/a	PRE A	99	99	0	99	99	
12	AAtrex	90	WG	1.1	lb/a	PRE A						
12	Liberty	2.34	L	22	fl oz/a	POST B						
12	TripleFlex	4.16	L	1.5	pt/a	POST B						
12	AMS		WG	8.5	lb/100 gal	POST B						

MSU Weed Science Research Program

Sequential weed control programs in corn

Trial ID: C04-14 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/27/2014	Jun/27/2014	Jul/11/2014	Jul/11/2014	Jul/11/2014
								13 DA-B	13 DA-B	27 DA-B	27 DA-B	27 DA-B
								0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
13	Corvus	2.63	L	4	fl oz/a	PRE	A	99	99	0	99	99
13	AAatrex	90	WG	1.1	lb/a	PRE	A					
13	Liberty	2.34	L	22	fl oz/a	POST	B					
13	DiFlexx	4.2	L	8	fl oz/a	POST	B					
13	AMS		WG	17	lb/100 gal	POST	B					
14	Corvus	2.63	L	4	fl oz/a	PRE	A	99	99	0	99	99
14	AAatrex	90	WG	1.1	lb/a	PRE	A					
14	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
14	DiFlexx	4.2	L	8	fl oz/a	POST	B					
14	AMS		WG	17	lb/100 gal	POST	B					
15	Acuron	3.44	L	3	qt/a	PRE	A	99	99	0	99	99
15	Status	56	WG	5	oz/a	POST	B					
15	Touchdown Total	4.17	SL	30	fl oz/a	POST	B					
15	AMS		WG	17	lb/100 gal	POST	B					
16	Bicep II Magnum	5.5	L	1.1	qt/a	PRE	A	99	99	0	99	99
16	Halex GT	4.38	L	3.6	pt/a	POST	B					
16	Surfactant		L	0.25	% v/v	POST	B					
16	AMS		WG	17	lb/100 gal	POST	B					
17	Degree Xtra	4	L	3.2	qt/a	PRE	A	99	99	0	99	99
17	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
17	Laudis	3.5	L	3	fl oz/a	POST	B					
17	AMS		WG	17	lb/100 gal	POST	B					
18	Degree Xtra	4	L	3.2	qt/a	PRE	A	99	99	0	99	99
18	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
18	Laudis	3.5	L	3	fl oz/a	POST	B					
18	Stratego YLD	4.18	L	2	fl oz/a	POST	B					
18	AMS		WG	17	lb/100 gal	POST	B					
LSD (P=.05)								0.0	0.0	0.0	0.0	0.0
CV								0.0	0.0	0.0	0.0	0.0

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

MSU Weed Science Research Program

Sequential weed control programs in corn

Trial ID: C04-14 Study Dir.: Sprague and Powell  
 Conducted: Campus T-17 Investigator: Christy Sprague

Weed Code								AMAPO	AMBEL	ABUTH	ZEAMX	ZEAMX
Crop Code								control	control	control	moisture	yield
Rating Data Type								percent	percent	percent	percent	bu/acre
Rating Unit								Jul/11/2014	Jul/11/2014	Jul/11/2014	Nov/09/2014	Nov/09/2014
Rating Date								27 DA-B	27 DA-B	27 DA-B	148 DA-B	at 15% M
Trt-Eval Interval								0	0	0	1	0
# Subsamples, Dec.												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	Harness Xtra	5.6	L	2	qt/a	PRE	A	99	99	99	17.3	275
1	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
1	AMS		WG	17	lb/100 gal	POST	B					
2	Degree Xtra	4.04	L	3	qt/a	PRE	A	99	99	99	18.1	269
2	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
2	AMS		WG	17	lb/100 gal	POST	B					
3	TripleFLEX	4.16	L	2	pt/a	PRE	A	99	99	99	18.2	259
3	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
3	AMS		WG	17	lb/100 gal	POST	B					
4	Verdict	5.57	L	15	fl oz/a	PRE	A	99	99	99	18.7	267
4	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
4	AMS		WG	17	lb/100 gal	POST	B					
5	Corvus	2.63	L	5.6	fl oz/a	PRE	A	99	99	99	18.2	266
5	AAtrex	90	WG	0.83	lb/a	PRE	A					
5	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
5	AMS		WG	17	lb/100 gal	POST	B					
6	Lumax EZ	3.67	L	2.7	qt/a	PRE	A	99	99	99	18.7	258
6	Abundit Extra	4.5	SL	32	fl oz/a	POST	B					
6	AMS		WG	17	lb/100 gal	POST	B					
7	Instigate	45.8	WG	6	oz/a	PRE	A	99	99	99	18.4	267
7	Breakfree NXT Lite	6	L	1.3	qt/a	PRE	A					
7	Abundit Extra	4.5	SL	32	fl oz/a	POST	B					
7	AMS		WG	17	lb/100 gal	POST	B					
8	Instigate	45.8	WG	6	oz/a	PRE	A	99	99	99	18.5	266
8	Breakfree NXT Lite	6	L	1.3	qt/a	PRE	A					
8	Abundit Extra	4.5	SL	32	fl oz/a	POST	B					
8	AAtrex	90	WG	0.56	lb/a	POST	B					
8	AMS		WG	17	lb/100 gal	POST	B					
9	Instigate	45.8	WG	6	oz/a	PRE	A	99	99	99	18.1	267
9	Breakfree NXT	7	L	1.4	pt/a	PRE	A					
9	Abundit Extra	4.5	SL	32	fl oz/a	POST	B					
9	AMS		WG	17	lb/100 gal	POST	B					
10	Instigate	45.8	WG	6	oz/a	PRE	A	99	99	99	18.9	268
10	Breakfree NXT	7	L	1.4	pt/a	PRE	A					
10	Abundit Extra	4.5	SL	32	fl oz/a	POST	B					
10	AAtrex	90	WG	0.56	lb/a	POST	B					
10	AMS		WG	17	lb/100 gal	POST	B					
11	Untreated							0	0	0	18.9	144
12	Balance Flexx	2	L	4	fl oz/a	PRE	A	99	99	99	18.3	257
12	AAtrex	90	WG	1.1	lb/a	PRE	A					
12	Liberty	2.34	L	22	fl oz/a	POST	B					
12	TripleFlex	4.16	L	1.5	pt/a	POST	B					
12	AMS		WG	8.5	lb/100 gal	POST	B					

MSU Weed Science Research Program

Sequential weed control programs in corn

Trial ID: C04-14 Study Dir.: Sprague and Powell  
 Conducted: Campus T-17 Investigator: Christy Sprague

Weed Code								AMAPO	AMBEL	ABUTH	ZEAMX	ZEAMX
Crop Code								control	control	control	moisture	yield
Rating Data Type								percent	percent	percent	percent	bu/acre
Rating Unit								Jul/11/2014	Jul/11/2014	Jul/11/2014	Nov/09/2014	Nov/09/2014
Rating Date								27 DA-B	27 DA-B	27 DA-B	148 DA-B	at 15% M
Trt-Eval Interval								0	0	0	1	0
# Subsamples, Dec.												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
13	Corvus	2.63	L	4	fl oz/a	PRE	A	99	99	99	18.5	256
13	AAtrex	90	WG	1.1	lb/a	PRE	A					
13	Liberty	2.34	L	22	fl oz/a	POST	B					
13	DiFlexx	4.2	L	8	fl oz/a	POST	B					
13	AMS		WG	17	lb/100 gal	POST	B					
14	Corvus	2.63	L	4	fl oz/a	PRE	A	99	99	99	18.3	258
14	AAtrex	90	WG	1.1	lb/a	PRE	A					
14	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
14	DiFlexx	4.2	L	8	fl oz/a	POST	B					
14	AMS		WG	17	lb/100 gal	POST	B					
15	Acuron	3.44	L	3	qt/a	PRE	A	99	99	99	18.0	268
15	Status	56	WG	5	oz/a	POST	B					
15	Touchdown Total	4.17	SL	30	fl oz/a	POST	B					
15	AMS		WG	17	lb/100 gal	POST	B					
16	Bicep II Magnum	5.5	L	1.1	qt/a	PRE	A	99	99	99	18.2	268
16	Halex GT	4.38	L	3.6	pt/a	POST	B					
16	Surfactant		L	0.25	% v/v	POST	B					
16	AMS		WG	17	lb/100 gal	POST	B					
17	Degree Xtra	4	L	3.2	qt/a	PRE	A	99	99	99	17.5	267
17	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
17	Laudis	3.5	L	3	fl oz/a	POST	B					
17	AMS		WG	17	lb/100 gal	POST	B					
18	Degree Xtra	4	L	3.2	qt/a	PRE	A	99	99	99	17.9	273
18	Roundup PowerMax	4.5	SL	32	fl oz/a	POST	B					
18	Laudis	3.5	L	3	fl oz/a	POST	B					
18	Stratego YLD	4.18	L	2	fl oz/a	POST	B					
18	AMS		WG	17	lb/100 gal	POST	B					
LSD (P=.05)								0.0	0.3	0.0	0.91	13.0
CV								0.0	0.25	0.0	3.51	3.57

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