

MSU Weed Science Research Program

Comparison of commercial herbicide programs in corn

Trial ID: C04-12 Study Dir.: Sprague, Powell
 Conducted: T-17 Campus Investigator: Christy Sprague

Date Planted: May/21/2012 **Row Spacing:** 30 IN
Variety: Pioneer 9855HR **No. of Reps:** 4
Population: 31,000 seeds/acre **% OM:** 3.6
Soil Type: Loam **pH:** 6.1
Plot Size: 10 X 40 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow, spring soil finish
Fertilizer: 300 lb/acre urea broadcast, 125 lb/acre 19-19-19 with planter

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	

Application Description

	A	B	C
Application Timing:	PRE	EPOS	POST
Date Treated:	May/22/2012	Jun/14/2012	Jun/19/2012
Time Treated:	3:20 PM	4:15 PM	9:45 AM
% Cloud Cover:	25	20	0
Air Temp., Unit:	75 F	83 F	77 F
% Relative Humidity:	41	30	63
Wind Speed/Unit/Dir:	4 mph N	8 mph E	6 mph S
Soil Temp., Unit:	72 F	79 F	79 F
Soil/Leaf Surface M:	4 -	5 5	4 5
Soil Moist (1=w 5=d):	3	5	3

Crop Stage at Each Application

	A	B	C
Crop Name:	ZEAMX	ZEAMX	ZEAMX
Height (In.):	-	8"	14"
Stage (L):	-	V4	V4-V5

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height (In.):	-	3"	10"
Stage (L):	-	4	4
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height (In.):	-	2"	3"
Stage (L):	-	4	10-15
Weed 3 Name:	AMAPO	AMAPO	AMAPO
Height (In.):	-	2"	4
Stage (L):	-	4	14
Weed 4 Name:	AMBEL	AMBEL	AMBEL
Height (In.):	-	2"	2-3"
Stage (L):	-	4	9
Weed 5 Name:	ABUTH	ABUTH	ABUTH
Height (In.):	-	2"	2-5"
Stage (L):	-	4	5-7

Weed Density (plants/sq. ft.)

1	
Date:	Jul/09/2012
Weed Name:	ANGR
Density:	4
Date:	Jul/09/2012
Weed Name:	CHEAL
Density:	13
Date:	Jul/09/2012
Weed Name:	AMAPO
Density:	1
Date:	Jul/09/2012
Weed Name:	AMBEL
Density:	6
Date:	Jul/09/2012
Weed Name:	ABUTH
Density:	1

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Appl	Sprayer	Speed	Nozzle	Application Equipment				GPA	Carrier	PSI
				Nozzle	Nozzle	Nozzle	Boom			
A	Type	MPH	Type	Size	Height	Spacing	Width			
A	Cub	3.8	AIXR	11003	22"	20"	100"	19	Water	28
B	Cub	3.8	AIXR	11003	25"	20"	100"	19	Water	28
C	Cub	3.8	AIXR	11003	25"	20"	100"	19	Water	28

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Comparison of commercial herbicide programs in corn

Trial ID: C04-12
 Conducted: T-17 Campus

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Weed Code									ANGR	CHEAL	AMAPO
Crop Code											
Rating Data Type											
Rating Unit											
Rating Date											
Trt-Eval Interval											
ARM Action Codes											
# Subsamples, Dec.									0	0	0
Trt Treatment	Form	Form	Rate	Grow	Appl						
No. Name	Conc	Type	Rate Unit	Stg	Code						
1 Lexar EZ	3.7	L	3.5 qt/a	PRE	A	1		97	99	99	
2 Keystone	5.25	L	2.4 qt/a	PRE	A	0		94	99	99	
Hornet WDG	68.5	WG	3 oz/a	PRE	A						
3 Breakfree ATZ	5.25	L	2.2 qt/a	PRE	A	0		99	99	99	
Resolve Q (1.25 oz)	22.4	WG									
Rimsulfuron (Premix)	25	WG	1 oz/a	PRE	A						
Harmony SG (Premix)	50	DF	0.1 oz/a	PRE	A						
Isoxadifen-ethyl (Premix)	50	WG	0.3 oz/a	PRE	A						
4 TripleFlex	4.16	L	1.75 pt/a	PRE	A	0		93	99	99	
AAtrex	4	L	1 qt/a	PRE	A						
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C						
AMS		WG	17 lb/100 gal	POST	C						
5 Harness Xtra	5.6	L	3 pt/a	PRE	A	0		95	97	99	
Impact	2.8	L	0.75 fl oz/a	POST	C						
AAtrex	4	L	1 pt/a	POST	C						
MSO		L	1 % v/v	POST	C						
28% UAN		L	2.5 % v/v	POST	C						
6 Verdict	5.57	L	15 fl oz/a	PRE	A	0		89	95	99	
Armezon	2.8	L	0.75 fl oz/a	POST	C						
AAtrex	4	L	1 pt/a	POST	C						
MSO		L	1 % v/v	POST	C						
AMS		WG	17 lb/100 gal	POST	C						
7 Capreno	3.45	L	3 fl oz/a	EPOS	B	5		86	94	98	
AAtrex	4	L	1 qt/a	EPOS	B						
Crop oil concentrate		L	1 % v/v	EPOS	B						
8 Untreated						0		0	0	0	
9 Degree Xtra	4	L	2 qt/a	EPOS	B	0		98	93	99	
Roundup PowerMax	4.5	SL	22 fl oz/a	EPOS	B						
AMS		WG	17 lb/100 gal	EPOS	B						
10 SureStart	4.16	L	2 pt/a	EPOS	B	1		99	88	99	
Durango DMA	4	SL	24 fl oz/a	EPOS	B						
AMS		WG	17 lb/100 gal	EPOS	B						
11 Capreno	3.45	L	3 fl oz/a	EPOS	B	3		99	83	99	
Roundup PowerMax	4.5	SL	22 fl oz/a	EPOS	B						
AMS		WG	17 lb/100 gal	EPOS	B						
12 Realm Q	38.7	WG	4 oz/a	EPOS	B	0		99	99	99	
AAtrex	4	L	1 qt/a	EPOS	B						
Abundit Extra	3	L	1 qt/a	EPOS	B						
AMS		WG	17 lb/100 gal	EPOS	B						
13 Halex GT	4.38	L	3.6 pt/a	EPOS	B	0		99	98	99	
AAtrex	4	L	1 pt/a	EPOS	B						
NIS		L	0.25 % v/v	EPOS	B						
AMS		WG	8.5 lb/100 gal	EPOS	B						
14 Guardsman Max	5	L	3 pt/a	EPOS	B	1		99	99	99	
Armezon	2.8	L	0.75 fl oz/a	EPOS	B						
AAtrex	4	L	1 pt/a	EPOS	B						
Roundup PowerMax	4.5	SL	22 fl oz/a	EPOS	B						
MSO		L	1 % v/v	EPOS	B						
AMS		WG	17 lb/100 gal	EPOS	B						

MSU Weed Science Research Program

Weed Code							ZEAMX	ANGR	CHEAL	AMAPO
Crop Code							injury	control	control	control
Rating Data Type							percent	percent	percent	percent
Rating Unit							Jun/19/2012	Jun/19/2012	Jun/19/2012	Jun/19/2012
Rating Date							5 DA-B	5 DA-B	5 DA-B	5 DA-B
Trt-Eval Interval										
ARM Action Codes										
# Subsamples, Dec.							0	0	0	0
Trt Treatment	Form	Form	Rate	Grow	Appl					
No. Name	Conc	Type	Rate	Unit	Stg	Code				
15 Capreno	3.45	L	3	fl oz/a	EPOS	B	5	99	95	99
Liberty	2.34	L	22	fl oz/a	EPOS	B				
AMS		WG	17	lb/100 gal	EPOS	B				
16 Degree Xtra	4	L	2.5	qt/a	EPOS	B	0	99	99	99
Liberty	2.34	L	22	fl oz/a	EPOS	B				
AMS		WG	17	lb/100 gal	EPOS	B				
17 Harness Xtra	5.6	L	1.5	qt/a	PRE	A	0	99	98	99
Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
AMS		WG	17	lb/100 gal	POST	C				
18 Linex	4	L	1.5	pt/a	PRE	A	0	98	73	99
Dual II Magnum	7.64	L	1.33	pt/a	PRE	A				
Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
AMS		WG	17	lb/100 gal	POST	C				
19 TripleFlex	4.16	L	1.75	pt/a	PRE	A	1	98	97	99
Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
AMS		WG	17	lb/100 gal	POST	C				
20 SureStart	4.16	L	2	pt/a	PRE	A	0	97	99	99
Durango DMA	4	SL	24	fl oz/a	POST	C				
AMS		WG	17	lb/100 gal	POST	C				
21 Bicep II Magnum	5.5	L	1.4	qt/a	PRE	A	0	95	92	99
Halex GT	4.38	L	3.6	pt/a	POST	C				
AAtrex	4	L	1	pt/a	POST	C				
NIS		L	0.25	% v/v	POST	C				
AMS		WG	8.5	lb/100 gal	POST	C				
22 Breakfree ATZ	5.25	L	1	qt/a	PRE	A	0	96	93	97
Resolve Q (1.25 oz)	22.4	WG								
Rimsulfuron (Premix)	25	WG	1	oz/a	POST	C				
Harmony SG (Premix)	50	DF	0.1	oz/a	POST	C				
Isoxadifen-ethyl (Premix)	50	WG	0.3	oz/a	POST	C				
Abundit Extra	3	L	1	qt/a	POST	C				
AMS		WG	17	lb/100 gal	POST	C				
23 Verdict	5.57	L	15	fl oz/a	PRE	A	0	98	98	99
Status	56	WG	2.5	oz/a	POST	C				
Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
AMS		WG	17	lb/100 gal	POST	C				
24 Verdict	5.57	L	15	fl oz/a	PRE	A	0	94	99	99
Armezon	2.8	L	0.75	fl oz/a	POST	C				
AAtrex	4	L	1	pt/a	POST	C				
Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
MSO		L	1	% v/v	POST	C				
AMS		WG	17	lb/100 gal	POST	C				
25 Harness Xtra	5.6	L	3	pt/a	PRE	A	0	98	97	99
Impact	2.8	L	0.75	fl oz/a	POST	C				
AAtrex	4	L	1	pt/a	POST	C				
Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
MSO		L	0.5	% v/v	POST	C				
N-Pak AMS		L	3	pt/a	POST	C				
26 Lexar EZ	3.7	L	1.75	qt/a	PRE	A	0	95	99	99
Halex GT	4.38	L	3.6	pt/a	POST	C				
AAtrex	4	L	1	pt/a	POST	C				
NIS		L	0.25	% v/v	POST	C				
AMS		WG	8.5	lb/100 gal	POST	C				
27 Weed-free							0	99	99	99
LSD (P=.05)							1.8	6.5	6.2	1.4
CV							205.24	4.92	4.78	1.01

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

MSU Weed Science Research Program

Weed Code								AMBEL	ABUTH		ANGR
Crop Code								control	control	ZEAMX	control
Rating Data Type								percent	percent	injury	percent
Rating Unit								Jun/19/2012	Jun/19/2012	Jun/26/2012	Jun/26/2012
Rating Date								5 DA-B	5 DA-B	7 DA-C	7 DA-C
Trt-Eval Interval											
ARM Action Codes											
# Subsamples, Dec.								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Lexar EZ	3.7	L	3.5	qt/a	PRE	A	99	99	0	95
2	Keystone	5.25	L	2.4	qt/a	PRE	A	99	96	0	96
	Hornet WDG	68.5	WG	3	oz/a	PRE	A				
3	Breakfree ATZ	5.25	L	2.2	qt/a	PRE	A	97	89	0	94
	Resolve Q (1.25 oz)	22.4	WG								
	Rimsulfuron (Premix)	25	WG	1	oz/a	PRE	A				
	Harmony SG (Premix)	50	DF	0.1	oz/a	PRE	A				
	Isoxadifen-ethyl (Premix)	50	WG	0.3	oz/a	PRE	A				
4	TripleFlex	4.16	L	1.75	pt/a	PRE	A	98	92	0	99
	AAtrex	4	L	1	qt/a	PRE	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
5	Harness Xtra	5.6	L	3	pt/a	PRE	A	89	76	5	99
	Impact	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	28% UAN		L	2.5	% v/v	POST	C				
6	Verdict	5.57	L	15	fl oz/a	PRE	A	98	91	4	99
	Armezon	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
7	Capreno	3.45	L	3	fl oz/a	EPOS	B	99	96	0	93
	AAtrex	4	L	1	qt/a	EPOS	B				
	Crop oil concentrate		L	1	% v/v	EPOS	B				
8	Untreated							0	0	0	0
9	Degree Xtra	4	L	2	qt/a	EPOS	B	96	95	0	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
10	SureStart	4.16	L	2	pt/a	EPOS	B	96	93	0	99
	Durango DMA	4	SL	24	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
11	Capreno	3.45	L	3	fl oz/a	EPOS	B	93	89	0	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
12	Realm Q	38.7	WG	4	oz/a	EPOS	B	97	96	0	99
	AAtrex	4	L	1	qt/a	EPOS	B				
	Abundit Extra	3	L	1	qt/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
13	Halex GT	4.38	L	3.6	pt/a	EPOS	B	97	98	0	99
	AAtrex	4	L	1	pt/a	EPOS	B				
	NIS		L	0.25	% v/v	EPOS	B				
	AMS		WG	8.5	lb/100 gal	EPOS	B				
14	Guardsman Max	5	L	3	pt/a	EPOS	B	98	98	0	99
	Armezon	2.8	L	0.75	fl oz/a	EPOS	B				
	AAtrex	4	L	1	pt/a	EPOS	B				
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	MSO		L	1	% v/v	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
15	Capreno	3.45	L	3	fl oz/a	EPOS	B	99	99	0	99
	Liberty	2.34	L	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				

MSU Weed Science Research Program

Weed Code						AMBEL	ABUTH	ZEAMX	ANGR
Crop Code									
Rating Data Type						control	control	injury	control
Rating Unit						percent	percent	percent	percent
Rating Date						Jun/19/2012	Jun/19/2012	Jun/26/2012	Jun/26/2012
Trt-Eval Interval						5 DA-B	5 DA-B	7 DA-C	7 DA-C
ARM Action Codes									
# Subsamples, Dec.						0	0	0	0
Trt Treatment	Form	Form	Rate	Grow	Appl				
No. Name	Conc	Type	Unit	Stg	Code				
16 Degree Xtra	4	L	2.5 qt/a	EPOS	B	98	99	0	99
Liberty	2.34	L	22 fl oz/a	EPOS	B				
AMS		WG	17 lb/100 gal	EPOS	B				
17 Harness Xtra	5.6	L	1.5 qt/a	PRE	A	86	84	0	99
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
18 Linex	4	L	1.5 pt/a	PRE	A	65	74	0	99
Dual II Magnum	7.64	L	1.33 pt/a	PRE	A				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
19 TripleFlex	4.16	L	1.75 pt/a	PRE	A	98	98	0	99
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
20 SureStart	4.16	L	2 pt/a	PRE	A	98	97	0	99
Durango DMA	4	SL	24 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
21 Bicep II Magnum	5.5	L	1.4 qt/a	PRE	A	83	85	2	99
Halex GT	4.38	L	3.6 pt/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
NIS		L	0.25 % v/v	POST	C				
AMS		WG	8.5 lb/100 gal	POST	C				
22 Breakfree ATZ	5.25	L	1 qt/a	PRE	A	80	78	0	99
Resolve Q (1.25 oz)	22.4	WG							
Rimsulfuron (Premix)	25	WG	1 oz/a	POST	C				
Harmony SG (Premix)	50	DF	0.1 oz/a	POST	C				
Isoxadifen-ethyl (Premix)	50	WG	0.3 oz/a	POST	C				
Abundit Extra	3	L	1 qt/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
23 Verdict	5.57	L	15 fl oz/a	PRE	A	99	98	0	99
Status	56	WG	2.5 oz/a	POST	C				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
24 Verdict	5.57	L	15 fl oz/a	PRE	A	96	98	6	99
Armezon	2.8	L	0.75 fl oz/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
MSO		L	1 % v/v	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
25 Harness Xtra	5.6	L	3 pt/a	PRE	A	95	81	4	99
Impact	2.8	L	0.75 fl oz/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
MSO		L	0.5 % v/v	POST	C				
N-Pak AMS		L	3 pt/a	POST	C				
26 Lexar EZ	3.7	L	1.75 qt/a	PRE	A	97	99	4	99
Halex GT	4.38	L	3.6 pt/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
NIS		L	0.25 % v/v	POST	C				
AMS		WG	8.5 lb/100 gal	POST	C				
27 Weed-free						98	93	0	99
LSD (P=.05)						6.5	10.7	1.3	3.7
CV						5.11	8.54	98.79	2.78

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

MSU Weed Science Research Program

Weed Code		CHEAL	AMAPO	AMBEL	ABUTH						
Crop Code											
Rating Data Type		control	control	control	control						
Rating Unit		percent	percent	percent	percent						
Rating Date		Jun/26/2012	Jun/26/2012	Jun/26/2012	Jun/26/2012						
Trt-Eval Interval		7 DA-C	7 DA-C	7 DA-C	7 DA-C						
ARM Action Codes											
# Subsamples, Dec.		0	0	0	0						
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Lexar EZ	3.7	L	3.5	qt/a	PRE	A	99	99	99	99
2	Keystone	5.25	L	2.4	qt/a	PRE	A	99	99	99	96
	Hornet WDG	68.5	WG	3	oz/a	PRE	A				
3	Breakfree ATZ	5.25	L	2.2	qt/a	PRE	A	97	99	88	71
	Resolve Q (1.25 oz)	22.4	WG								
	Rimsulfuron (Premix)	25	WG	1	oz/a	PRE	A				
	Harmony SG (Premix)	50	DF	0.1	oz/a	PRE	A				
	Isoxadifen-ethyl (Premix)	50	WG	0.3	oz/a	PRE	A				
4	TripleFlex	4.16	L	1.75	pt/a	PRE	A	99	99	99	99
	AAtrex	4	L	1	qt/a	PRE	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
5	Harness Xtra	5.6	L	3	pt/a	PRE	A	99	99	99	99
	Impact	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	28% UAN		L	2.5	% v/v	POST	C				
6	Verdict	5.57	L	15	fl oz/a	PRE	A	99	99	99	99
	Armezon	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
7	Capreno	3.45	L	3	fl oz/a	EPOS	B	99	99	99	99
	AAtrex	4	L	1	qt/a	EPOS	B				
	Crop oil concentrate		L	1	% v/v	EPOS	B				
8	Untreated							0	0	0	0
9	Degree Xtra	4	L	2	qt/a	EPOS	B	99	99	98	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
10	SureStart	4.16	L	2	pt/a	EPOS	B	97	99	97	99
	Durango DMA	4	SL	24	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
11	Capreno	3.45	L	3	fl oz/a	EPOS	B	99	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
12	Realm Q	38.7	WG	4	oz/a	EPOS	B	99	99	99	99
	AAtrex	4	L	1	qt/a	EPOS	B				
	Abundit Extra	3	L	1	qt/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
13	Halex GT	4.38	L	3.6	pt/a	EPOS	B	99	99	99	99
	AAtrex	4	L	1	pt/a	EPOS	B				
	NIS		L	0.25	% v/v	EPOS	B				
	AMS		WG	8.5	lb/100 gal	EPOS	B				
14	Guardsman Max	5	L	3	pt/a	EPOS	B	99	99	99	99
	Armezon	2.8	L	0.75	fl oz/a	EPOS	B				
	AAtrex	4	L	1	pt/a	EPOS	B				
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	MSO		L	1	% v/v	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
15	Capreno	3.45	L	3	fl oz/a	EPOS	B	99	99	99	99
	Liberty	2.34	L	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				

MSU Weed Science Research Program

Weed Code		CHEAL	AMAPO	AMBEL	ABUTH
Crop Code					
Rating Data Type		control	control	control	control
Rating Unit		percent	percent	percent	percent
Rating Date		Jun/26/2012	Jun/26/2012	Jun/26/2012	Jun/26/2012
Trt-Eval Interval		7 DA-C	7 DA-C	7 DA-C	7 DA-C
ARM Action Codes					
# Subsamples, Dec.		0	0	0	0
Trt Treatment	Form Form	Rate	Grow	Appl	
No. Name	Conc Type	Rate Unit	Stg	Code	
16 Degree Xtra	4 L	2.5 qt/a	EPOS	B	99
Liberty	2.34 L	22 fl oz/a	EPOS	B	
AMS	WG	17 lb/100 gal	EPOS	B	
17 Harness Xtra	5.6 L	1.5 qt/a	PRE	A	99
Roundup PowerMax	4.5 SL	22 fl oz/a	POST	C	
AMS	WG	17 lb/100 gal	POST	C	
18 Linex	4 L	1.5 pt/a	PRE	A	99
Dual II Magnum	7.64 L	1.33 pt/a	PRE	A	
Roundup PowerMax	4.5 SL	22 fl oz/a	POST	C	
AMS	WG	17 lb/100 gal	POST	C	
19 TripleFlex	4.16 L	1.75 pt/a	PRE	A	99
Roundup PowerMax	4.5 SL	22 fl oz/a	POST	C	
AMS	WG	17 lb/100 gal	POST	C	
20 SureStart	4.16 L	2 pt/a	PRE	A	99
Durango DMA	4 SL	24 fl oz/a	POST	C	
AMS	WG	17 lb/100 gal	POST	C	
21 Bicep II Magnum	5.5 L	1.4 qt/a	PRE	A	99
Halex GT	4.38 L	3.6 pt/a	POST	C	
AAtrex	4 L	1 pt/a	POST	C	
NIS	L	0.25 % v/v	POST	C	
AMS	WG	8.5 lb/100 gal	POST	C	
22 Breakfree ATZ	5.25 L	1 qt/a	PRE	A	99
Resolve Q (1.25 oz)	22.4 WG				
Rimsulfuron (Premix)	25 WG	1 oz/a	POST	C	
Harmony SG (Premix)	50 DF	0.1 oz/a	POST	C	
Isoxadifen-ethyl (Premix)	50 WG	0.3 oz/a	POST	C	
Abundit Extra	3 L	1 qt/a	POST	C	
AMS	WG	17 lb/100 gal	POST	C	
23 Verdict	5.57 L	15 fl oz/a	PRE	A	99
Status	56 WG	2.5 oz/a	POST	C	
Roundup PowerMax	4.5 SL	22 fl oz/a	POST	C	
AMS	WG	17 lb/100 gal	POST	C	
24 Verdict	5.57 L	15 fl oz/a	PRE	A	99
Armezon	2.8 L	0.75 fl oz/a	POST	C	
AAtrex	4 L	1 pt/a	POST	C	
Roundup PowerMax	4.5 SL	22 fl oz/a	POST	C	
MSO	L	1 % v/v	POST	C	
AMS	WG	17 lb/100 gal	POST	C	
25 Harness Xtra	5.6 L	3 pt/a	PRE	A	99
Impact	2.8 L	0.75 fl oz/a	POST	C	
AAtrex	4 L	1 pt/a	POST	C	
Roundup PowerMax	4.5 SL	22 fl oz/a	POST	C	
MSO	L	0.5 % v/v	POST	C	
N-Pak AMS	L	3 pt/a	POST	C	
26 Lexar EZ	3.7 L	1.75 qt/a	PRE	A	99
Halex GT	4.38 L	3.6 pt/a	POST	C	
AAtrex	4 L	1 pt/a	POST	C	
NIS	L	0.25 % v/v	POST	C	
AMS	WG	8.5 lb/100 gal	POST	C	
27 Weed-free					99
LSD (P=.05)			1.7	0.0	3.1
CV			1.3	0.0	2.32

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

MSU Weed Science Research Program

Weed Code									ANGR	CHEAL	AMAPO
Crop Code									ZEAMX		
Rating Data Type									injury	control	control
Rating Unit									percent	percent	percent
Rating Date									Jul/03/2012	Jul/03/2012	Jul/03/2012
Trt-Eval Interval									14 DA-C	14 DA-C	14 DA-C
ARM Action Codes											
# Subsamples, Dec.									0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Lexar EZ	3.7	L	3.5	qt/a	PRE	A	0	85	99	99
2	Keystone	5.25	L	2.4	qt/a	PRE	A	0	92	99	99
	Hornet WDG	68.5	WG	3	oz/a	PRE	A				
3	Breakfree ATZ	5.25	L	2.2	qt/a	PRE	A	0	88	98	99
	Resolve Q (1.25 oz)	22.4	WG								
	Rimsulfuron (Premix)	25	WG	1	oz/a	PRE	A				
	Harmony SG (Premix)	50	DF	0.1	oz/a	PRE	A				
	Isoxadifen-ethyl (Premix)	50	WG	0.3	oz/a	PRE	A				
4	TripleFlex	4.16	L	1.75	pt/a	PRE	A	0	99	99	99
	AAtrex	4	L	1	qt/a	PRE	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
5	Harness Xtra	5.6	L	3	pt/a	PRE	A	7	99	99	99
	Impact	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	28% UAN		L	2.5	% v/v	POST	C				
6	Verdict	5.57	L	15	fl oz/a	PRE	A	7	99	99	99
	Armezon	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
7	Capreno	3.45	L	3	fl oz/a	EPOS	B	0	79	99	99
	AAtrex	4	L	1	qt/a	EPOS	B				
	Crop oil concentrate		L	1	% v/v	EPOS	B				
8	Untreated							0	0	0	0
9	Degree Xtra	4	L	2	qt/a	EPOS	B	0	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
10	SureStart	4.16	L	2	pt/a	EPOS	B	0	99	98	99
	Durango DMA	4	SL	24	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
11	Capreno	3.45	L	3	fl oz/a	EPOS	B	0	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
12	Realm Q	38.7	WG	4	oz/a	EPOS	B	0	99	99	99
	AAtrex	4	L	1	qt/a	EPOS	B				
	Abundit Extra	3	L	1	qt/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
13	Halex GT	4.38	L	3.6	pt/a	EPOS	B	0	99	99	99
	AAtrex	4	L	1	pt/a	EPOS	B				
	NIS		L	0.25	% v/v	EPOS	B				
	AMS		WG	8.5	lb/100 gal	EPOS	B				
14	Guardsman Max	5	L	3	pt/a	EPOS	B	0	99	99	99
	Armezon	2.8	L	0.75	fl oz/a	EPOS	B				
	AAtrex	4	L	1	pt/a	EPOS	B				
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	MSO		L	1	% v/v	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
15	Capreno	3.45	L	3	fl oz/a	EPOS	B	0	99	99	99
	Liberty	2.34	L	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				

MSU Weed Science Research Program

Weed Code							ANGR	CHEAL	AMAPO
Crop Code							ZEAMX		
Rating Data Type							injury	control	control
Rating Unit							percent	percent	percent
Rating Date							Jul/03/2012	Jul/03/2012	Jul/03/2012
Trt-Eval Interval							14 DA-C	14 DA-C	14 DA-C
ARM Action Codes									
# Subsamples, Dec.							0	0	0
Trt Treatment	Form	Form	Rate	Grow	Appl				
No. Name	Conc	Type	Unit	Stg	Code				
16 Degree Xtra	4	L	2.5 qt/a	EPOS	B	0	99	99	99
Liberty	2.34	L	22 fl oz/a	EPOS	B				
AMS		WG	17 lb/100 gal	EPOS	B				
17 Harness Xtra	5.6	L	1.5 qt/a	PRE	A	0	99	99	99
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
18 Linex	4	L	1.5 pt/a	PRE	A	0	99	99	99
Dual II Magnum	7.64	L	1.33 pt/a	PRE	A				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
19 TripleFlex	4.16	L	1.75 pt/a	PRE	A	0	99	99	99
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
20 SureStart	4.16	L	2 pt/a	PRE	A	0	99	99	99
Durango DMA	4	SL	24 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
21 Bicep II Magnum	5.5	L	1.4 qt/a	PRE	A	2	99	99	99
Halex GT	4.38	L	3.6 pt/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
NIS		L	0.25 % v/v	POST	C				
AMS		WG	8.5 lb/100 gal	POST	C				
22 Breakfree ATZ	5.25	L	1 qt/a	PRE	A	0	99	99	99
Resolve Q (1.25 oz)	22.4	WG							
Rimsulfuron (Premix)	25	WG	1 oz/a	POST	C				
Harmony SG (Premix)	50	DF	0.1 oz/a	POST	C				
Isoxadifen-ethyl (Premix)	50	WG	0.3 oz/a	POST	C				
Abundit Extra	3	L	1 qt/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
23 Verdict	5.57	L	15 fl oz/a	PRE	A	0	99	99	99
Status	56	WG	2.5 oz/a	POST	C				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
24 Verdict	5.57	L	15 fl oz/a	PRE	A	6	99	99	99
Armezon	2.8	L	0.75 fl oz/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
MSO		L	1 % v/v	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
25 Harness Xtra	5.6	L	3 pt/a	PRE	A	3	99	99	99
Impact	2.8	L	0.75 fl oz/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
MSO		L	0.5 % v/v	POST	C				
N-Pak AMS		L	3 pt/a	POST	C				
26 Lexar EZ	3.7	L	1.75 qt/a	PRE	A	6	99	99	99
Halex GT	4.38	L	3.6 pt/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
NIS		L	0.25 % v/v	POST	C				
AMS		WG	8.5 lb/100 gal	POST	C				
27 Weed-free						0	99	99	99
LSD (P=.05)						1.3	6.8	1.0	0.0
CV						83.77	5.16	0.76	0.0

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

MSU Weed Science Research Program

Weed Code		AMBEL	ABUTH		ZEAMX	ANGR					
Crop Code											
Rating Data Type		control	control		injury	control					
Rating Unit		percent	percent		percent	percent					
Rating Date		Jul/03/2012	Jul/03/2012		Jul/19/2012	Jul/19/2012					
Trt-Eval Interval		14 DA-C	14 DA-C		30 DA-C	30 DA-C					
ARM Action Codes											
# Subsamples, Dec.		0	0		0	0					
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Lexar EZ	3.7	L	3.5	qt/a	PRE	A	98	99	0	87
2	Keystone	5.25	L	2.4	qt/a	PRE	A	99	96	0	88
	Hornet WDG	68.5	WG	3	oz/a	PRE	A				
3	Breakfree ATZ	5.25	L	2.2	qt/a	PRE	A	86	53	0	89
	Resolve Q (1.25 oz)	22.4	WG								
	Rimsulfuron (Premix)	25	WG	1	oz/a	PRE	A				
	Harmony SG (Premix)	50	DF	0.1	oz/a	PRE	A				
	Isoxadifen-ethyl (Premix)	50	WG	0.3	oz/a	PRE	A				
4	TripleFlex	4.16	L	1.75	pt/a	PRE	A	99	99	0	99
	AAtrex	4	L	1	qt/a	PRE	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
5	Harness Xtra	5.6	L	3	pt/a	PRE	A	99	99	0	99
	Impact	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	28% UAN		L	2.5	% v/v	POST	C				
6	Verdict	5.57	L	15	fl oz/a	PRE	A	99	98	0	97
	Armezon	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
7	Capreno	3.45	L	3	fl oz/a	EPOS	B	99	99	0	85
	AAtrex	4	L	1	qt/a	EPOS	B				
	Crop oil concentrate		L	1	% v/v	EPOS	B				
8	Untreated							0	0	0	0
9	Degree Xtra	4	L	2	qt/a	EPOS	B	99	99	0	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
10	SureStart	4.16	L	2	pt/a	EPOS	B	99	99	0	99
	Durango DMA	4	SL	24	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
11	Capreno	3.45	L	3	fl oz/a	EPOS	B	99	99	0	98
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
12	Realm Q	38.7	WG	4	oz/a	EPOS	B	99	99	0	97
	AAtrex	4	L	1	qt/a	EPOS	B				
	Abundit Extra	3	L	1	qt/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
13	Halex GT	4.38	L	3.6	pt/a	EPOS	B	99	99	0	99
	AAtrex	4	L	1	pt/a	EPOS	B				
	NIS		L	0.25	% v/v	EPOS	B				
	AMS		WG	8.5	lb/100 gal	EPOS	B				
14	Guardsman Max	5	L	3	pt/a	EPOS	B	99	99	0	99
	Armezon	2.8	L	0.75	fl oz/a	EPOS	B				
	AAtrex	4	L	1	pt/a	EPOS	B				
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	MSO		L	1	% v/v	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
15	Capreno	3.45	L	3	fl oz/a	EPOS	B	99	99	0	98
	Liberty	2.34	L	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				

MSU Weed Science Research Program

Weed Code						AMBEL	ABUTH	ZEAMX	ANGR
Crop Code									
Rating Data Type						control	control	injury	control
Rating Unit						percent	percent	percent	percent
Rating Date						Jul/03/2012	Jul/03/2012	Jul/19/2012	Jul/19/2012
Trt-Eval Interval						14 DA-C	14 DA-C	30 DA-C	30 DA-C
ARM Action Codes									
# Subsamples, Dec.						0	0	0	0
Trt Treatment	Form	Form	Rate	Grow	Appl				
No. Name	Conc	Type	Unit	Stg	Code				
16 Degree Xtra	4	L	2.5 qt/a	EPOS	B	99	99	0	99
Liberty	2.34	L	22 fl oz/a	EPOS	B				
AMS		WG	17 lb/100 gal	EPOS	B				
17 Harness Xtra	5.6	L	1.5 qt/a	PRE	A	99	99	0	99
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
18 Linex	4	L	1.5 pt/a	PRE	A	98	99	0	99
Dual II Magnum	7.64	L	1.33 pt/a	PRE	A				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
19 TripleFlex	4.16	L	1.75 pt/a	PRE	A	99	99	0	99
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
20 SureStart	4.16	L	2 pt/a	PRE	A	99	99	0	99
Durango DMA	4	SL	24 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
21 Bicep II Magnum	5.5	L	1.4 qt/a	PRE	A	99	99	0	99
Halex GT	4.38	L	3.6 pt/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
NIS		L	0.25 % v/v	POST	C				
AMS		WG	8.5 lb/100 gal	POST	C				
22 Breakfree ATZ	5.25	L	1 qt/a	PRE	A	99	99	0	99
Resolve Q (1.25 oz)	22.4	WG							
Rimsulfuron (Premix)	25	WG	1 oz/a	POST	C				
Harmony SG (Premix)	50	DF	0.1 oz/a	POST	C				
Isoxadifen-ethyl (Premix)	50	WG	0.3 oz/a	POST	C				
Abundit Extra	3	L	1 qt/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
23 Verdict	5.57	L	15 fl oz/a	PRE	A	99	99	0	99
Status	56	WG	2.5 oz/a	POST	C				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
24 Verdict	5.57	L	15 fl oz/a	PRE	A	99	99	0	99
Armezon	2.8	L	0.75 fl oz/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
MSO		L	1 % v/v	POST	C				
AMS		WG	17 lb/100 gal	POST	C				
25 Harness Xtra	5.6	L	3 pt/a	PRE	A	99	99	0	99
Impact	2.8	L	0.75 fl oz/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
Roundup PowerMax	4.5	SL	22 fl oz/a	POST	C				
MSO		L	0.5 % v/v	POST	C				
N-Pak AMS		L	3 pt/a	POST	C				
26 Lexar EZ	3.7	L	1.75 qt/a	PRE	A	99	99	0	99
Halex GT	4.38	L	3.6 pt/a	POST	C				
AAtrex	4	L	1 pt/a	POST	C				
NIS		L	0.25 % v/v	POST	C				
AMS		WG	8.5 lb/100 gal	POST	C				
27 Weed-free						99	99	0	99
LSD (P=.05)						3.1	2.4	0.0	5.5
CV						2.34	1.79	0.0	4.14

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

MSU Weed Science Research Program

Weed Code	CHEAL	AMAPO	AMBEL	ABUTH							
Crop Code											
Rating Data Type	control	control	control	control							
Rating Unit	percent	percent	percent	percent							
Rating Date	Jul/19/2012	Jul/19/2012	Jul/19/2012	Jul/19/2012							
Trt-Eval Interval	30 DA-C	30 DA-C	30 DA-C	30 DA-C							
ARM Action Codes											
# Subsamples, Dec.	0	0	0	0							
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Lexar EZ	3.7	L	3.5	qt/a	PRE	A	96	99	97	99
2	Keystone	5.25	L	2.4	qt/a	PRE	A	98	99	97	95
	Hornet WDG	68.5	WG	3	oz/a	PRE	A				
3	Breakfree ATZ	5.25	L	2.2	qt/a	PRE	A	99	99	79	71
	Resolve Q (1.25 oz)	22.4	WG								
	Rimsulfuron (Premix)	25	WG	1	oz/a	PRE	A				
	Harmony SG (Premix)	50	DF	0.1	oz/a	PRE	A				
	Isoxadifen-ethyl (Premix)	50	WG	0.3	oz/a	PRE	A				
4	TripleFlex	4.16	L	1.75	pt/a	PRE	A	99	99	99	99
	AAtrex	4	L	1	qt/a	PRE	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
5	Harness Xtra	5.6	L	3	pt/a	PRE	A	99	99	99	99
	Impact	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	28% UAN		L	2.5	% v/v	POST	C				
6	Verdict	5.57	L	15	fl oz/a	PRE	A	99	99	99	99
	Armezon	2.8	L	0.75	fl oz/a	POST	C				
	AAtrex	4	L	1	pt/a	POST	C				
	MSO		L	1	% v/v	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
7	Capreno	3.45	L	3	fl oz/a	EPOS	B	96	99	99	99
	AAtrex	4	L	1	qt/a	EPOS	B				
	Crop oil concentrate		L	1	% v/v	EPOS	B				
8	Untreated							0	0	0	0
9	Degree Xtra	4	L	2	qt/a	EPOS	B	98	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
10	SureStart	4.16	L	2	pt/a	EPOS	B	93	99	95	99
	Durango DMA	4	SL	24	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
11	Capreno	3.45	L	3	fl oz/a	EPOS	B	96	99	98	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
12	Realm Q	38.7	WG	4	oz/a	EPOS	B	99	99	99	99
	AAtrex	4	L	1	qt/a	EPOS	B				
	Abundit Extra	3	L	1	qt/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
13	Halex GT	4.38	L	3.6	pt/a	EPOS	B	99	99	99	99
	AAtrex	4	L	1	pt/a	EPOS	B				
	NIS		L	0.25	% v/v	EPOS	B				
	AMS		WG	8.5	lb/100 gal	EPOS	B				
14	Guardsman Max	5	L	3	pt/a	EPOS	B	99	99	99	99
	Armezon	2.8	L	0.75	fl oz/a	EPOS	B				
	AAtrex	4	L	1	pt/a	EPOS	B				
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B				
	MSO		L	1	% v/v	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
15	Capreno	3.45	L	3	fl oz/a	EPOS	B	98	99	99	99
	Liberty	2.34	L	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				

MSU Weed Science Research Program

Weed Code		CHEAL	AMAPO	AMBEL	ABUTH
Crop Code					
Rating Data Type		control	control	control	control
Rating Unit		percent	percent	percent	percent
Rating Date		Jul/19/2012	Jul/19/2012	Jul/19/2012	Jul/19/2012
Trt-Eval Interval		30 DA-C	30 DA-C	30 DA-C	30 DA-C
ARM Action Codes					
# Subsamples, Dec.		0	0	0	0
Trt Treatment	Form Form				
No. Name	Conc Type Rate Unit	Grow	Appl		
16 Degree Xtra	4 L 2.5 qt/a	EPOS B		98	99
Liberty	2.34 L 22 fl oz/a	EPOS B			
AMS	WG 17 lb/100 gal	EPOS B			
17 Harness Xtra	5.6 L 1.5 qt/a	PRE A		99	99
Roundup PowerMax	4.5 SL 22 fl oz/a	POST C			
AMS	WG 17 lb/100 gal	POST C			
18 Linex	4 L 1.5 pt/a	PRE A		99	99
Dual II Magnum	7.64 L 1.33 pt/a	PRE A			
Roundup PowerMax	4.5 SL 22 fl oz/a	POST C			
AMS	WG 17 lb/100 gal	POST C			
19 TripleFlex	4.16 L 1.75 pt/a	PRE A		99	99
Roundup PowerMax	4.5 SL 22 fl oz/a	POST C			
AMS	WG 17 lb/100 gal	POST C			
20 SureStart	4.16 L 2 pt/a	PRE A		99	99
Durango DMA	4 SL 24 fl oz/a	POST C			
AMS	WG 17 lb/100 gal	POST C			
21 Bicep II Magnum	5.5 L 1.4 qt/a	PRE A		99	99
Halex GT	4.38 L 3.6 pt/a	POST C			
AAtrex	4 L 1 pt/a	POST C			
NIS	L 0.25 % v/v	POST C			
AMS	WG 8.5 lb/100 gal	POST C			
22 Breakfree ATZ	5.25 L 1 qt/a	PRE A		99	99
Resolve Q (1.25 oz)	22.4 WG				
Rimsulfuron (Premix)	25 WG 1 oz/a	POST C			
Harmony SG (Premix)	50 DF 0.1 oz/a	POST C			
Isoxadifen-ethyl (Premix)	50 WG 0.3 oz/a	POST C			
Abundit Extra	3 L 1 qt/a	POST C			
AMS	WG 17 lb/100 gal	POST C			
23 Verdict	5.57 L 15 fl oz/a	PRE A		99	99
Status	56 WG 2.5 oz/a	POST C			
Roundup PowerMax	4.5 SL 22 fl oz/a	POST C			
AMS	WG 17 lb/100 gal	POST C			
24 Verdict	5.57 L 15 fl oz/a	PRE A		99	99
Armezon	2.8 L 0.75 fl oz/a	POST C			
AAtrex	4 L 1 pt/a	POST C			
Roundup PowerMax	4.5 SL 22 fl oz/a	POST C			
MSO	L 1 % v/v	POST C			
AMS	WG 17 lb/100 gal	POST C			
25 Harness Xtra	5.6 L 3 pt/a	PRE A		99	99
Impact	2.8 L 0.75 fl oz/a	POST C			
AAtrex	4 L 1 pt/a	POST C			
Roundup PowerMax	4.5 SL 22 fl oz/a	POST C			
MSO	L 0.5 % v/v	POST C			
N-Pak AMS	L 3 pt/a	POST C			
26 Lexar EZ	3.7 L 1.75 qt/a	PRE A		99	99
Halex GT	4.38 L 3.6 pt/a	POST C			
AAtrex	4 L 1 pt/a	POST C			
NIS	L 0.25 % v/v	POST C			
AMS	WG 8.5 lb/100 gal	POST C			
27 Weed-free				99	99
LSD (P=.05)		4.2	0.2	3.3	2.0
CV		3.13	0.14	2.49	1.48

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

MSU Weed Science Research Program

Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	ARM Action Codes	# Subsamples, Dec.	ZEAMX moisture percent	ZEAMX test weight lb/bu	ZEAMX yield bu/acre
								Nov/09/2012	Nov/09/2012	Nov/09/2012
								143 DA-C	143 DA-C	at 15% M
										TY1
								1	1	1
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	Lexar EZ	3.7	L	3.5	qt/a	PRE	A	19.4	59.7	209.8
2	Keystone	5.25	L	2.4	qt/a	PRE	A	20.0	59.3	213.2
	Hornet WDG	68.5	WG	3	oz/a	PRE	A			
3	Breakfree ATZ	5.25	L	2.2	qt/a	PRE	A	20.5	58.5	207.6
	Resolve Q (1.25 oz)	22.4	WG							
	Rimsulfuron (Premix)	25	WG	1	oz/a	PRE	A			
	Harmony SG (Premix)	50	DF	0.1	oz/a	PRE	A			
	Isoxadifen-ethyl (Premix)	50	WG	0.3	oz/a	PRE	A			
4	TripleFlex	4.16	L	1.75	pt/a	PRE	A	20.5	58.3	204.7
	AAtrex	4	L	1	qt/a	PRE	A			
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	C			
	AMS		WG	17	lb/100 gal	POST	C			
5	Harness Xtra	5.6	L	3	pt/a	PRE	A	20.3	58.7	198.6
	Impact	2.8	L	0.75	fl oz/a	POST	C			
	AAtrex	4	L	1	pt/a	POST	C			
	MSO		L	1	% v/v	POST	C			
	28% UAN		L	2.5	% v/v	POST	C			
6	Verdict	5.57	L	15	fl oz/a	PRE	A	20.6	58.7	204.0
	Armezon	2.8	L	0.75	fl oz/a	POST	C			
	AAtrex	4	L	1	pt/a	POST	C			
	MSO		L	1	% v/v	POST	C			
	AMS		WG	17	lb/100 gal	POST	C			
7	Capreno	3.45	L	3	fl oz/a	EPOS	B	19.3	59.1	208.2
	AAtrex	4	L	1	qt/a	EPOS	B			
	Crop oil concentrate		L	1	% v/v	EPOS	B			
8	Untreated							20.2	58.4	115.6
9	Degree Xtra	4	L	2	qt/a	EPOS	B	20.3	59.0	200.7
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B			
	AMS		WG	17	lb/100 gal	EPOS	B			
10	SureStart	4.16	L	2	pt/a	EPOS	B	20.5	58.7	209.3
	Durango DMA	4	SL	24	fl oz/a	EPOS	B			
	AMS		WG	17	lb/100 gal	EPOS	B			
11	Capreno	3.45	L	3	fl oz/a	EPOS	B	19.5	59.1	184.7
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B			
	AMS		WG	17	lb/100 gal	EPOS	B			
12	Realm Q	38.7	WG	4	oz/a	EPOS	B	20.1	58.4	205.1
	AAtrex	4	L	1	qt/a	EPOS	B			
	Abundit Extra	3	L	1	qt/a	EPOS	B			
	AMS		WG	17	lb/100 gal	EPOS	B			
13	Halex GT	4.38	L	3.6	pt/a	EPOS	B	18.8	60.1	194.5
	AAtrex	4	L	1	pt/a	EPOS	B			
	NIS		L	0.25	% v/v	EPOS	B			
	AMS		WG	8.5	lb/100 gal	EPOS	B			
14	Guardsman Max	5	L	3	pt/a	EPOS	B	20.8	58.3	203.2
	Armezon	2.8	L	0.75	fl oz/a	EPOS	B			
	AAtrex	4	L	1	pt/a	EPOS	B			
	Roundup PowerMax	4.5	SL	22	fl oz/a	EPOS	B			
	MSO		L	1	% v/v	EPOS	B			
	AMS		WG	17	lb/100 gal	EPOS	B			
15	Capreno	3.45	L	3	fl oz/a	EPOS	B	19.8	59.0	207.7
	Liberty	2.34	L	22	fl oz/a	EPOS	B			
	AMS		WG	17	lb/100 gal	EPOS	B			

MSU Weed Science Research Program

Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	ARM Action Codes	# Subsamples, Dec.	ZEAMX moisture percent	ZEAMX test weight lb/bu	ZEAMX yield bu/acre
								Nov/09/2012 143 DA-C	Nov/09/2012 143 DA-C	Nov/09/2012 at 15% M TY1
								1	1	1
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
16	Degree Xtra Liberty AMS	4 2.34	L L WG	2.5 22 17	qt/a fl oz/a lb/100 gal	EPOS EPOS	B B B	19.9	58.7	190.0
17	Harness Xtra Roundup PowerMax AMS	5.6 4.5	L SL WG	1.5 22 17	qt/a fl oz/a lb/100 gal	PRE POST POST	A C C	19.2	59.2	201.1
18	Linex Dual II Magnum Roundup PowerMax AMS	4 7.64 4.5	L L SL WG	1.5 1.33 22 17	pt/a pt/a fl oz/a lb/100 gal	PRE PRE POST POST	A A C C	19.6	59.3	192.8
19	TripleFlex Roundup PowerMax AMS	4.16 4.5	L SL WG	1.75 22 17	pt/a fl oz/a lb/100 gal	PRE POST POST	A C C	19.1	57.9	208.6
20	SureStart Durango DMA AMS	4.16 4	L SL WG	2 24 17	pt/a fl oz/a lb/100 gal	PRE POST POST	A C C	19.7	59.1	204.0
21	Bicep II Magnum Halex GT AAtrex NIS AMS	5.5 4.38 4	L L L L WG	1.4 3.6 1 0.25 8.5	qt/a pt/a pt/a % v/v lb/100 gal	PRE POST POST POST POST	A C C C C	19.6	58.4	196.1
22	Breakfree ATZ Resolve Q (1.25 oz) Rimsulfuron (Premix) Harmony SG (Premix) Isoxadifen-ethyl (Premix) Abundit Extra AMS	5.25 22.4 25 50 50 3	L WG WG DF WG L WG	1 1 1 0.1 0.3 1 17	qt/a oz/a oz/a oz/a oz/a qt/a lb/100 gal	PRE POST POST POST POST POST POST	A C C C C C C	20.4	58.4	211.3
23	Verdict Status Roundup PowerMax AMS	5.57 56 4.5	L WG SL WG	15 2.5 22 17	fl oz/a oz/a fl oz/a lb/100 gal	PRE POST POST POST	A C C C	19.4	59.9	210.8
24	Verdict Armezon AAtrex Roundup PowerMax MSO AMS	5.57 2.8 4 4.5	L L L SL L WG	15 0.75 1 22 1 17	fl oz/a fl oz/a pt/a fl oz/a % v/v lb/100 gal	PRE POST POST POST POST POST	A C C C C C	20.5	58.2	206.7
25	Harness Xtra Impact AAtrex Roundup PowerMax MSO N-Pak AMS	5.6 2.8 4 4.5	L L L SL L L	3 0.75 1 22 0.5 3	pt/a fl oz/a pt/a fl oz/a % v/v pt/a	PRE POST POST POST POST POST	A C C C C C	20.1	58.1	205.9
26	Lexar EZ Halex GT AAtrex NIS AMS	3.7 4.38 4	L L L L WG	1.75 3.6 1 0.25 8.5	qt/a pt/a pt/a % v/v lb/100 gal	PRE POST POST POST POST	A C C C C	19.9	59.3	199.7
27	Weed-free							19.8	58.0	206.1
LSD (P=.05)								1.60	1.66	27.03
CV								5.69	2.0	9.56

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