

Commercial programs for weed control in corn

Trial ID: C01-19 Study Dir.: Burns, Craft
 Conducted: Campus C-28 Investigator: Erin Burns

Planting Date: May-15-2019 **Row Spacing:** 30 IN
Variety: DKC 48-56-RIB **No. of Reps:** 4
Population: 31500 S/A **% OM:** 2.9
Soil Type: SL sandy loam **pH:** 5.9
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed: spring soil finished twice
Fertilizer: 300 lbs/A urea incorporated
 157 lbs/A 19-19-19 starter

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grass
2	CHEAL	common lambsquarters	Chenopodium album
3	AMAPO	Powell amaranth	Amaranthus powellii
4	AMBEL	Common ragweed	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	ZEAMX	Corn	

Application Description

	A	B	C
Application Timing:	PRE	EPOS	POST
Date Treated:	May-16-2019	Jun-12-2019	Jun-23-2019
Time Treated:	11:00 AM	12:00 PM	3:45 PM
% Cloud Cover:	80	30	40
Air Temp., Unit:	74.2 F	74.8 F	86 F
% Relative Humidity:	49	41.2	43.6
Wind Speed/Unit/Dir:	2.3 MPH S	8.5 MPH SW	5.2 MPH SW
Soil Temp, Unit:	60 F	64.8 F	80 F
Leaf Moist/Dew Presence (Y/N):		N	N
Soil Moist:	3	2	2

Crop Stage at Each Application

	A	B	C
Crop 1 Name:	ZEAMX	ZEAMX	ZEAMX
Height:			
Stage:	PRE	V2-3	V5

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height:	4 IN	4 IN	5 IN
Stage:	4 L	4 L	5 L
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height:	1 IN	1 IN	2 IN
Stage:	6 L	6 L	7 L
Weed 3 Name:	AMAPO	AMAPO	AMAPO
Height:	1 IN	1 IN	1 IN
Stage:	6 L	6 L	5 L
Weed 4 Name:	AMBEL	AMBEL	AMBEL
Height:	2 IN	2 IN	3 IN
Stage:	6 L	6 L	9 L
Weed 5 Name:	ABUTH	ABUTH	ABUTH
Height:	2 IN	2 IN	4 IN
Stage:	4 L	4 L	4 L

Weed Density

	1	2	3	4	5
Date:	Jun-12-2019	Jun-12-2019	Jun-12-2019	Jun-12-2019	Jun-12-2019
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	16 FT2	8 FT2	1 FT2	3 FT2	1 FT2

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR	11003	22 "	20 "	100 "	19 GPA	WATER	30 PSI
B	BKPK	3.0 MPH	AIXR	11003	24 "	20 "	100 "	19 GPA	WATER	32 PSI
C	BKPK	3.0 MPH	AIXR	11003	24 "	20 "	100 "	19 GPA	WATER	32 PSI

Comments:

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Pest Code			ZEAMX	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	ZEAMX	
Crop Type, Code			Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-27-2019	
Rating Date			injury	Control	Control	Control	Control	Control	injury	
Rating Type			percent	percent	percent	percent	percent	percent	percent	
Rating Unit			33 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A	15 DA-B	
Trt-Eval Interval										
Trt No.	Treatment Name	Rate Rate Unit	Appl Code							
1	Corvus	3.3 fl oz/a	A	0.0	100.0	100.0	100.0	100.0	97.5	0.0
	1 Harness Xtra 5.6L	1.8 qt/a	A							
2	Acuron	3 qt/a	A	0.0	100.0	100.0	100.0	100.0	100.0	0.0
3	Armezon PRO	16 fl oz/a	B							0.0
	3 Atrazine	1.1 lb/a	B							
	3 Roundup PowerMax	16 fl oz/a	B							
	3 Surfactant	0.25 % v/v	B							
	3 AMS	8.5 lb/100 gal	B							
4	Degree Xtra	2 qt/a	B							0.0
	4 Laudis	3 fl oz/a	B							
	4 Roundup PowerMax	32 fl oz/a	B							
	4 AMS	8.5 lb/100 gal	B							
5	Capreno	3 fl oz/a	B							0.0
	5 Atrazine	1.1 lb/a	B							
	5 Roundup PowerMax	22 fl oz/a	B							
	5 AMS	8.5 lb/100 gal	B							
6	Warrant	3 pt/a	B							0.0
	6 Atrazine	0.55 lb/a	B							
	6 Roundup PowerMax	22 fl oz/a	B							
	6 AMS	8.5 lb/100 gal	B							
	6 Roundup PowerMax (IFN)	22 fl oz/a								
	6 AMS (IFN)	8.5 lb/100 gal								
7	Harness Maxx	64 fl oz/a	B							0.0
	7 Atrazine	1.1 lb/a	B							
	7 Roundup PowerMax	22 fl oz/a	B							
	7 AMS	8.5 lb/100 gal	B							
8	Halex GT	4 pt/a	B							0.0
	8 Atrazine	0.55 lb/a	B							
	8 Surfactant	0.25 % v/v	B							
	8 AMS	8.5 lb/100 gal	B							
9	Anthem Maxx	4 fl oz/a	B							0.8
	9 Balance Flexx	3 fl oz/a	B							
	9 Atrazine	2.2 lb/a	B							
	9 Roundup PowerMax	22 fl oz/a	B							
	9 AMS	8.5 lb/100 gal	B							
10	Armezon PRO	16 fl oz/a	A	0.0	100.0	100.0	100.0	100.0	99.5	0.0
	10 Callisto	3 fl oz/a	A							
	10 Atrazine	1.1 lb/a	A							
	10 Roundup PowerMax	32 fl oz/a	C							
	10 AMS	8.5 lb/100 gal	C							
11	Bicep II Magnum	1.3 qt/a	A	0.0	98.8	100.0	100.0	78.5	97.5	0.0
	11 Halex GT	3.6 pt/a	C							
	11 Atrazine	0.55 lb/a	C							
	11 Surfactant	0.25 % v/v	C							
	11 AMS	8.5 lb/100 gal	C							

Missing data estimates are included in columns: Average=1,2,3,4,5,6,25
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Pest Code	Crop Type, Code	Rating Date	Rating Type	Rating Unit	Trt-Eval Interval	ANGR		CHEAL	AMAPO	AMBEL	ABUTH	ZEAMX
						Jun-18-2019 injury percent	Jun-18-2019 Control percent	Jun-18-2019 Control percent	Jun-18-2019 Control percent	Jun-18-2019 Control percent	Jun-18-2019 Control percent	Jun-27-2019 injury percent
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code		33 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A	15 DA-B
12	Verdict	12 fl oz/a		A		0.0	100.0	100.0	100.0	100.0	100.0	0.0
12	Atrazine	1.1 lb/a		A								
12	Roundup PowerMax	32 fl oz/a		C								
12	AMS	8.5 lb/100 gal		C								
13	Untreated					0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Zidua SC	3.2 fl oz/a		A		0.0	100.0	100.0	100.0	100.0	100.0	0.0
14	Sharpen	2 fl oz/a		A								
14	Atrazine	1.1 lb/a		A								
14	Roundup PowerMax	32 fl oz/a		C								
14	AMS	8.5 lb/100 gal		C								
15	Zidua SC	3.2 fl oz/a		A		0.0	99.0	100.0	100.0	99.5	99.0	0.0
15	Atrazine	1.1 lb/a		A								
15	Roundup PowerMax	32 fl oz/a		C								
15	AMS	8.5 lb/100 gal		C								
16	Anthem Maxx	4 fl oz/a		A		0.0	100.0	100.0	100.0	100.0	100.0	0.0
16	Balance Flexx	3 fl oz/a		A								
16	Atrazine	1.65 lb/a		A								
16	Status	4 oz/a		C								
16	Roundup PowerMax	22 fl oz/a		C								
16	AMS	8.5 lb/100 gal		C								
17	Balance Flexx	4 fl oz/a		A		0.0	100.0	100.0	100.0	100.0	100.0	0.0
17	DiFlexx DUO	24 fl oz/a		C								
17	Roundup PowerMax	22 fl oz/a		C								
17	AMS	8.5 lb/100 gal		C								
18	Degree Xtra	2 qt/a		A		0.0	100.0	100.0	100.0	83.3	95.8	0.0
18	DiFlexx	8 fl oz/a		C								
18	Roundup PowerMax	22 fl oz/a		C								
18	AMS	8.5 lb/100 gal		C								
19	TripleFLEX II	1 qt/a		A		0.0	100.0	100.0	100.0	99.3	98.7	0.0
19	Degree Xtra	1.5 qt/a		A								
19	Roundup PowerMax	22 fl oz/a		C								
19	AMS	8.5 lb/100 gal		C								
20	Acuron	1.5 qt/a		A		0.0	100.0	100.0	100.0	100.0	100.0	0.0
20	Halex GT	3.6 pt/a		C								
20	Atrazine	0.55 lb/a		C								
20	Surfactant	0.25 % v/v		C								
20	AMS	8.5 lb/100 gal		C								
21	Resicore	2.5 qt/a		A		0.0	99.5	100.0	100.0	100.0	100.0	0.0
21	Atrazine	1.1 lb/a		A								
21	Durango DMA	32 fl oz/a		C								
21	AMS	8.5 lb/100 gal		C								
22	SureStart II	3 pt/a		A		0.0	100.0	100.0	100.0	100.0	99.5	0.0
22	Atrazine	1.65 lb/a		A								
22	Durango DMA	32 fl oz/a		C								
22	AMS	8.5 lb/100 gal		C								

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Crop Type, Code			Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-27-2019	
Rating Date			injury	Control	Control	Control	Control	Control	injury	
Rating Type			percent	percent	percent	percent	percent	percent	percent	
Rating Unit			33 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A	15 DA-B	
Trt-Eval Interval										
Trt No.	Treatment Name	Rate Unit	Appl Code							
23	Resicore	1.25 qt/a	A	0.0	99.5	100.0	100.0	100.0	100.0	0.0
23	Atrazine	1.1 lb/a	A							
23	Resicore	1.25 qt/a	C							
23	Durango DMA	32 fl oz/a	C							
23	AMS	8.5 lb/100 gal	C							
24	Cinch ATZ	2.1 qt/a	A	0.0	100.0	100.0	100.0	88.8	92.5	0.0
24	Realm Q	4 oz/a	C							
24	Atrazine	0.55 lb/a	C							
24	Durango DMA	32 fl oz/a	C							
24	AMS	8.5 lb/100 gal	C							
LSD	P=.05			.	1.10	.	.	7.55	4.59	0.43
	Standard Deviation			0.00	0.78	0.00	0.00	5.31	3.23	0.31
	CV			0.0	0.83	0.0	0.0	5.83	3.48	979.8

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Crop Type, Code			Jun-27-2019	Jun-27-2019	Jun-27-2019	Jun-27-2019	Jun-27-2019	Jul-12-2019	Jul-12-2019	
Rating Date			Control	Control	Control	Control	Control	injury	Control	
Rating Type			percent	percent	percent	percent	percent	percent	percent	
Rating Unit			15 DA-B	15 DA-B	15 DA-B	15 DA-B	15 DA-B	19 DA-C	19 DA-C	
Trt-Eval Interval										
Trt No.	Treatment Name	Rate Rate Unit	Appl Code							
1	Corvus	3.3 fl oz/a	A	98.8	100.0	100.0	100.0	100.0	0.0	94.5
	1 Harness Xtra 5.6L	1.8 qt/a	A							
2	Acuron	3 qt/a	A	98.8	100.0	100.0	100.0	100.0	0.0	99.5
3	Armezon PRO	16 fl oz/a	B	100.0	100.0	100.0	100.0	100.0	0.0	96.0
	3 Atrazine	1.1 lb/a	B							
	3 Roundup PowerMax	16 fl oz/a	B							
	3 Surfactant	0.25 % v/v	B							
	3 AMS	8.5 lb/100 gal	B							
4	Degree Xtra	2 qt/a	B	100.0	100.0	100.0	100.0	100.0	0.0	98.3
	4 Laudis	3 fl oz/a	B							
	4 Roundup PowerMax	32 fl oz/a	B							
	4 AMS	8.5 lb/100 gal	B							
5	Capreno	3 fl oz/a	B	100.0	100.0	100.0	100.0	100.0	0.0	96.5
	5 Atrazine	1.1 lb/a	B							
	5 Roundup PowerMax	22 fl oz/a	B							
	5 AMS	8.5 lb/100 gal	B							
6	Warrant	3 pt/a	B	98.8	100.0	100.0	100.0	100.0	0.0	95.0
	6 Atrazine	0.55 lb/a	B							
	6 Roundup PowerMax	22 fl oz/a	B							
	6 AMS	8.5 lb/100 gal	B							
	6 Roundup PowerMax (IFN)	22 fl oz/a								
	6 AMS (IFN)	8.5 lb/100 gal								
7	Harness Max	64 fl oz/a	B	98.8	100.0	100.0	100.0	100.0	0.0	93.3
	7 Atrazine	1.1 lb/a	B							
	7 Roundup PowerMax	22 fl oz/a	B							
	7 AMS	8.5 lb/100 gal	B							
8	Halex GT	4 pt/a	B	98.8	100.0	100.0	100.0	100.0	0.0	96.3
	8 Atrazine	0.55 lb/a	B							
	8 Surfactant	0.25 % v/v	B							
	8 AMS	8.5 lb/100 gal	B							
9	Anthem Maxx	4 fl oz/a	B	100.0	100.0	100.0	100.0	100.0	0.0	99.5
	9 Balance Flexx	3 fl oz/a	B							
	9 Atrazine	2.2 lb/a	B							
	9 Roundup PowerMax	22 fl oz/a	B							
	9 AMS	8.5 lb/100 gal	B							
10	Armezon PRO	16 fl oz/a	A	100.0	100.0	100.0	99.5	100.0	0.0	96.5
	10 Callisto	3 fl oz/a	A							
	10 Atrazine	1.1 lb/a	A							
	10 Roundup PowerMax	32 fl oz/a	C							
	10 AMS	8.5 lb/100 gal	C							
11	Bicep II Magnum	1.3 qt/a	A	99.5	100.0	100.0	93.8	100.0	0.0	100.0
	11 Halex GT	3.6 pt/a	C							
	11 Atrazine	0.55 lb/a	C							
	11 Surfactant	0.25 % v/v	C							
	11 AMS	8.5 lb/100 gal	C							

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Pest Code			ANGR	CHEAL	AMAPO	AMBEL	ABUTH	ZEAMX	ANGR	
Crop Type, Code			Jun-27-2019	Jun-27-2019	Jun-27-2019	Jun-27-2019	Jun-27-2019	Jul-12-2019	Jul-12-2019	
Rating Date			Control	Control	Control	Control	Control	injury	Control	
Rating Type			percent	percent	percent	percent	percent	percent	percent	
Rating Unit			15 DA-B	15 DA-B	15 DA-B	15 DA-B	15 DA-B	19 DA-C	19 DA-C	
Trt-Eval Interval										
Trt No.	Treatment Name	Rate Rate Unit	Appl Code							
12	Verdict	12 fl oz/a	A	100.0	100.0	100.0	99.5	100.0	0.0	97.8
12	Atrazine	1.1 lb/a	A							
12	Roundup PowerMax	32 fl oz/a	C							
12	AMS	8.5 lb/100 gal	C							
13	Untreated			0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Zidua SC	3.2 fl oz/a	A	100.0	100.0	100.0	100.0	100.0	0.0	99.0
14	Sharpen	2 fl oz/a	A							
14	Atrazine	1.1 lb/a	A							
14	Roundup PowerMax	32 fl oz/a	C							
14	AMS	8.5 lb/100 gal	C							
15	Zidua SC	3.2 fl oz/a	A	100.0	100.0	100.0	98.8	100.0	0.0	98.8
15	Atrazine	1.1 lb/a	A							
15	Roundup PowerMax	32 fl oz/a	C							
15	AMS	8.5 lb/100 gal	C							
16	Anthem Maxx	4 fl oz/a	A	100.0	100.0	100.0	100.0	99.5	0.0	100.0
16	Balance Flexx	3 fl oz/a	A							
16	Atrazine	1.65 lb/a	A							
16	Status	4 oz/a	C							
16	Roundup PowerMax	22 fl oz/a	C							
16	AMS	8.5 lb/100 gal	C							
17	Balance Flexx	4 fl oz/a	A	97.5	100.0	100.0	100.0	100.0	0.0	97.8
17	DiFlexx DUO	24 fl oz/a	C							
17	Roundup PowerMax	22 fl oz/a	C							
17	AMS	8.5 lb/100 gal	C							
18	Degree Xtra	2 qt/a	A	100.0	100.0	100.0	96.3	100.0	0.0	99.5
18	DiFlexx	8 fl oz/a	C							
18	Roundup PowerMax	22 fl oz/a	C							
18	AMS	8.5 lb/100 gal	C							
19	TripleFLEX II	1 qt/a	A	100.0	100.0	100.0	100.0	99.5	0.0	99.5
19	Degree Xtra	1.5 qt/a	A							
19	Roundup PowerMax	22 fl oz/a	C							
19	AMS	8.5 lb/100 gal	C							
20	Acuron	1.5 qt/a	A	100.0	100.0	100.0	100.0	100.0	0.0	100.0
20	Halex GT	3.6 pt/a	C							
20	Atrazine	0.55 lb/a	C							
20	Surfactant	0.25 % v/v	C							
20	AMS	8.5 lb/100 gal	C							
21	Resicore	2.5 qt/a	A	100.0	100.0	100.0	100.0	100.0	0.0	97.3
21	Atrazine	1.1 lb/a	A							
21	Durango DMA	32 fl oz/a	C							
21	AMS	8.5 lb/100 gal	C							
22	SureStart II	3 pt/a	A	100.0	100.0	100.0	100.0	100.0	0.0	91.3
22	Atrazine	1.65 lb/a	A							
22	Durango DMA	32 fl oz/a	C							
22	AMS	8.5 lb/100 gal	C							

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Crop Type, Code										
Rating Date			Jun-27-2019	Jun-27-2019	Jun-27-2019	Jun-27-2019	Jun-27-2019	Jul-12-2019	Jul-12-2019	
Rating Type			Control	Control	Control	Control	Control	injury	Control	
Rating Unit			percent	percent	percent	percent	percent	percent	percent	
Trt-Eval Interval			15 DA-B	15 DA-B	15 DA-B	15 DA-B	15 DA-B	19 DA-C	19 DA-C	
Trt No.	Treatment Name	Rate Unit	Appl Code							
23	Resicore	1.25 qt/a	A	99.5	100.0	100.0	100.0	100.0	0.0	100.0
23	Atrazine	1.1 lb/a	A							
23	Resicore	1.25 qt/a	C							
23	Durango DMA	32 fl oz/a	C							
23	AMS	8.5 lb/100 gal	C							
24	Cinch ATZ	2.1 qt/a	A	100.0	100.0	100.0	97.5	99.5	0.0	100.0
24	Realm Q	4 oz/a	C							
24	Atrazine	0.55 lb/a	C							
24	Durango DMA	32 fl oz/a	C							
24	AMS	8.5 lb/100 gal	C							
LSD P=.05				2.20	.	.	1.53	0.48	.	4.48
Standard Deviation				1.56	0.00	0.00	1.08	0.34	0.00	3.17
CV				1.64	0.0	0.0	1.14	0.35	0.0	3.39

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Crop Type, Code						ZEAMX				
Rating Date		Jul-12-2019	Jul-12-2019	Jul-12-2019	Jul-12-2019	Jul-27-2019	Jul-27-2019	Jul-27-2019		
Rating Type		Control	Control	Control	Control	injury	Control	Control		
Rating Unit		percent	percent	percent	percent	percent	percent	percent		
Trt-Eval Interval		19 DA-C	19 DA-C	19 DA-C	19 DA-C	34 DA-C	34 DA-C	34 DA-C		
Trt No.	Treatment Name	Rate	Appl Code							
		Rate Unit								
1	Corvus	3.3 fl oz/a	A	100.0	100.0	100.0	99.5	0.0	95.8	100.0
	1 Harness Xtra 5.6L	1.8 qt/a	A							
2	Acuron	3 qt/a	A	100.0	100.0	100.0	100.0	0.0	100.0	100.0
3	Armezon PRO	16 fl oz/a	B	99.5	100.0	100.0	100.0	0.0	95.3	99.5
	3 Atrazine	1.1 lb/a	B							
	3 Roundup PowerMax	16 fl oz/a	B							
	3 Surfactant	0.25 % v/v	B							
	3 AMS	8.5 lb/100 gal	B							
4	Degree Xtra	2 qt/a	B	100.0	100.0	100.0	100.0	0.0	99.0	100.0
	4 Laudis	3 fl oz/a	B							
	4 Roundup PowerMax	32 fl oz/a	B							
	4 AMS	8.5 lb/100 gal	B							
5	Capreno	3 fl oz/a	B	100.0	98.8	100.0	100.0	0.0	95.3	100.0
	5 Atrazine	1.1 lb/a	B							
	5 Roundup PowerMax	22 fl oz/a	B							
	5 AMS	8.5 lb/100 gal	B							
6	Warrant	3 pt/a	B	97.5	97.5	97.0	98.8	0.0	90.0	100.0
	6 Atrazine	0.55 lb/a	B							
	6 Roundup PowerMax	22 fl oz/a	B							
	6 AMS	8.5 lb/100 gal	B							
	6 Roundup PowerMax (IFN)	22 fl oz/a								
	6 AMS (IFN)	8.5 lb/100 gal								
7	Harness Max	64 fl oz/a	B	100.0	93.8	97.5	100.0	0.0	90.8	98.8
	7 Atrazine	1.1 lb/a	B							
	7 Roundup PowerMax	22 fl oz/a	B							
	7 AMS	8.5 lb/100 gal	B							
8	Halex GT	4 pt/a	B	100.0	100.0	99.5	100.0	0.0	92.0	100.0
	8 Atrazine	0.55 lb/a	B							
	8 Surfactant	0.25 % v/v	B							
	8 AMS	8.5 lb/100 gal	B							
9	Anthem Maxx	4 fl oz/a	B	100.0	100.0	100.0	100.0	0.0	100.0	100.0
	9 Balance Flexx	3 fl oz/a	B							
	9 Atrazine	2.2 lb/a	B							
	9 Roundup PowerMax	22 fl oz/a	B							
	9 AMS	8.5 lb/100 gal	B							
10	Armezon PRO	16 fl oz/a	A	100.0	99.5	100.0	100.0	0.0	93.3	100.0
	10 Callisto	3 fl oz/a	A							
	10 Atrazine	1.1 lb/a	A							
	10 Roundup PowerMax	32 fl oz/a	C							
	10 AMS	8.5 lb/100 gal	C							
11	Bicep II Magnum	1.3 qt/a	A	100.0	100.0	100.0	99.5	0.0	100.0	100.0
	11 Halex GT	3.6 pt/a	C							
	11 Atrazine	0.55 lb/a	C							
	11 Surfactant	0.25 % v/v	C							
	11 AMS	8.5 lb/100 gal	C							

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Michigan State University

Commercial programs for weed control in corn

Trial ID: C01-19 Location: Campus C-28 Trial Year: 2019
 Protocol ID: C01-19 Investigator: Erin Burns
 Project ID: Study Director: Burns, Craft
 Sponsor Contact:

Pest Code		CHEAL	AMAPO	AMBEL	ABUTH		ANGR	CHEAL		
Crop Type, Code						ZEAMX				
Rating Date		Jul-12-2019	Jul-12-2019	Jul-12-2019	Jul-12-2019	Jul-27-2019	Jul-27-2019	Jul-27-2019		
Rating Type		Control	Control	Control	Control	injury	Control	Control		
Rating Unit		percent	percent	percent	percent	percent	percent	percent		
Trt-Eval Interval		19 DA-C	19 DA-C	19 DA-C	19 DA-C	34 DA-C	34 DA-C	34 DA-C		
Trt No.	Treatment Name	Rate	Appl Code							
		Rate Unit								
12	Verdict	12 fl oz/a	A	99.5	98.3	99.5	99.5	0.0	96.0	99.0
12	Atrazine	1.1 lb/a	A							
12	Roundup PowerMax	32 fl oz/a	C							
12	AMS	8.5 lb/100 gal	C							
13	Untreated			0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Zidua SC	3.2 fl oz/a	A	99.5	98.8	100.0	100.0	0.0	99.0	99.5
14	Sharpen	2 fl oz/a	A							
14	Atrazine	1.1 lb/a	A							
14	Roundup PowerMax	32 fl oz/a	C							
14	AMS	8.5 lb/100 gal	C							
15	Zidua SC	3.2 fl oz/a	A	97.8	100.0	98.8	100.0	0.0	99.0	98.8
15	Atrazine	1.1 lb/a	A							
15	Roundup PowerMax	32 fl oz/a	C							
15	AMS	8.5 lb/100 gal	C							
16	Anthem Maxx	4 fl oz/a	A	100.0	100.0	100.0	100.0	0.0	100.0	100.0
16	Balance Flexx	3 fl oz/a	A							
16	Atrazine	1.65 lb/a	A							
16	Status	4 oz/a	C							
16	Roundup PowerMax	22 fl oz/a	C							
16	AMS	8.5 lb/100 gal	C							
17	Balance Flexx	4 fl oz/a	A	100.0	100.0	100.0	100.0	0.0	95.8	100.0
17	DiFlexx DUO	24 fl oz/a	C							
17	Roundup PowerMax	22 fl oz/a	C							
17	AMS	8.5 lb/100 gal	C							
18	Degree Xtra	2 qt/a	A	100.0	100.0	100.0	100.0	0.0	99.5	100.0
18	DiFlexx	8 fl oz/a	C							
18	Roundup PowerMax	22 fl oz/a	C							
18	AMS	8.5 lb/100 gal	C							
19	TripleFLEX II	1 qt/a	A	100.0	100.0	99.5	100.0	0.0	99.5	100.0
19	Degree Xtra	1.5 qt/a	A							
19	Roundup PowerMax	22 fl oz/a	C							
19	AMS	8.5 lb/100 gal	C							
20	Acuron	1.5 qt/a	A	100.0	100.0	100.0	100.0	0.0	100.0	100.0
20	Halex GT	3.6 pt/a	C							
20	Atrazine	0.55 lb/a	C							
20	Surfactant	0.25 % v/v	C							
20	AMS	8.5 lb/100 gal	C							
21	Resicore	2.5 qt/a	A	100.0	98.8	100.0	100.0	0.0	97.3	100.0
21	Atrazine	1.1 lb/a	A							
21	Durango DMA	32 fl oz/a	C							
21	AMS	8.5 lb/100 gal	C							
22	SureStart II	3 pt/a	A	100.0	100.0	100.0	100.0	0.0	90.0	100.0
22	Atrazine	1.65 lb/a	A							
22	Durango DMA	32 fl oz/a	C							
22	AMS	8.5 lb/100 gal	C							

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Michigan State University

Commercial programs for weed control in corn

Trial ID: C01-19 Location: Campus C-28 Trial Year: 2019
 Protocol ID: C01-19 Investigator: Erin Burns
 Project ID: Study Director: Burns, Craft
 Sponsor Contact:

Pest Code			CHEAL	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	
Crop Type, Code							ZEAMX			
Rating Date			Jul-12-2019	Jul-12-2019	Jul-12-2019	Jul-12-2019	Jul-27-2019	Jul-27-2019	Jul-27-2019	
Rating Type			Control	Control	Control	Control	injury	Control	Control	
Rating Unit			percent	percent	percent	percent	percent	percent	percent	
Trt-Eval Interval			19 DA-C	19 DA-C	19 DA-C	19 DA-C	34 DA-C	34 DA-C	34 DA-C	
Trt No.	Treatment Name	Rate Unit	Appl Code							
23	Resicore	1.25 qt/a	A	100.0	100.0	100.0	100.0	0.0	100.0	
23	Atrazine	1.1 lb/a	A							
23	Resicore	1.25 qt/a	C							
23	Durango DMA	32 fl oz/a	C							
23	AMS	8.5 lb/100 gal	C							
24	Cinch ATZ	2.1 qt/a	A	100.0	100.0	100.0	100.0	0.0	100.0	
24	Realm Q	4 oz/a	C							
24	Atrazine	0.55 lb/a	C							
24	Durango DMA	32 fl oz/a	C							
24	AMS	8.5 lb/100 gal	C							
LSD P=.05				1.13	3.90	1.83	0.86	.	5.91	1.14
Standard Deviation				0.80	2.76	1.30	0.61	0.00	4.19	0.81
CV				0.84	2.9	1.36	0.63	0.0	4.51	0.85

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Michigan State University

Commercial programs for weed control in corn

Trial ID: C01-19 Location: Campus C-28 Trial Year: 2019
 Protocol ID: C01-19 Investigator: Erin Burns
 Project ID: Study Director: Burns, Craft
 Sponsor Contact:

Pest Code			AMAPO	AMBEL	ABUTH	ZEAMX	ZEAMX	ZEAMX	
Crop Type, Code									
Rating Date			Jul-27-2019	Jul-27-2019	Jul-27-2019	Oct-15-2019	Oct-15-2019	Oct-15-2019	
Rating Type			Control	Control	Control	test weight	moisture	YIELD	
Rating Unit			percent	percent	percent	lbs/bu	percent	BU	
Trt-Eval Interval			34 DA-C	34 DA-C	34 DA-C	114 DA-C	114 DA-C	at 15% M	
Trt No.	Treatment Name	Rate Rate Unit	Appl Code						
1	Corvus	3.3 fl oz/a	A	100.0	99.5	100.0	54.00	25.08	222.8
1	Harness Xtra 5.6L	1.8 qt/a	A						
2	Acuron	3 qt/a	A	100.0	100.0	100.0	54.15	25.33	210.5
3	Armezon PRO	16 fl oz/a	B	100.0	100.0	99.5	53.93	24.68	233.1
3	Atrazine	1.1 lb/a	B						
3	Roundup PowerMax	16 fl oz/a	B						
3	Surfactant	0.25 % v/v	B						
3	AMS	8.5 lb/100 gal	B						
4	Degree Xtra	2 qt/a	B	100.0	100.0	100.0	53.80	24.28	228.4
4	Laudis	3 fl oz/a	B						
4	Roundup PowerMax	32 fl oz/a	B						
4	AMS	8.5 lb/100 gal	B						
5	Capreno	3 fl oz/a	B	100.0	99.5	100.0	53.90	23.95	217.3
5	Atrazine	1.1 lb/a	B						
5	Roundup PowerMax	22 fl oz/a	B						
5	AMS	8.5 lb/100 gal	B						
6	Warrant	3 pt/a	B	100.0	92.5	97.5	53.23	24.43	219.3
6	Atrazine	0.55 lb/a	B						
6	Roundup PowerMax	22 fl oz/a	B						
6	AMS	8.5 lb/100 gal	B						
6	Roundup PowerMax (IFN)	22 fl oz/a							
6	AMS (IFN)	8.5 lb/100 gal							
7	Harness Max	64 fl oz/a	B	92.5	98.8	98.8	54.13	23.28	221.8
7	Atrazine	1.1 lb/a	B						
7	Roundup PowerMax	22 fl oz/a	B						
7	AMS	8.5 lb/100 gal	B						
8	Halex GT	4 pt/a	B	100.0	99.5	100.0	54.00	24.13	226.7
8	Atrazine	0.55 lb/a	B						
8	Surfactant	0.25 % v/v	B						
8	AMS	8.5 lb/100 gal	B						
9	Anthem Maxx	4 fl oz/a	B	100.0	100.0	100.0	54.60	23.33	223.4
9	Balance Flexx	3 fl oz/a	B						
9	Atrazine	2.2 lb/a	B						
9	Roundup PowerMax	22 fl oz/a	B						
9	AMS	8.5 lb/100 gal	B						
10	Armezon PRO	16 fl oz/a	A	98.8	98.3	98.8	53.83	25.05	210.4
10	Callisto	3 fl oz/a	A						
10	Atrazine	1.1 lb/a	A						
10	Roundup PowerMax	32 fl oz/a	C						
10	AMS	8.5 lb/100 gal	C						
11	Bicep II Magnum	1.3 qt/a	A	100.0	99.5	99.5	53.70	23.73	230.5
11	Halex GT	3.6 pt/a	C						
11	Atrazine	0.55 lb/a	C						
11	Surfactant	0.25 % v/v	C						
11	AMS	8.5 lb/100 gal	C						

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Michigan State University

Commercial programs for weed control in corn

Trial ID: C01-19 Location: Campus C-28 Trial Year: 2019
 Protocol ID: C01-19 Investigator: Erin Burns
 Project ID: Study Director: Burns, Craft
 Sponsor Contact:

Pest Code			AMAPO	AMBEL	ABUTH	ZEAMX	ZEAMX	ZEAMX	
Crop Type, Code									
Rating Date			Jul-27-2019	Jul-27-2019	Jul-27-2019	Oct-15-2019	Oct-15-2019	Oct-15-2019	
Rating Type			Control	Control	Control	test weight	moisture	YIELD	
Rating Unit			percent	percent	percent	lbs/bu	percent	BU	
Trt-Eval Interval			34 DA-C	34 DA-C	34 DA-C	114 DA-C	114 DA-C	at 15% M	
Trt No.	Treatment Name	Rate Rate Unit	Appl Code						
12	Verdict	12 fl oz/a	A	97.0	99.5	99.5	53.53	25.38	222.5
12	Atrazine	1.1 lb/a	A						
12	Roundup PowerMax	32 fl oz/a	C						
12	AMS	8.5 lb/100 gal	C						
13	Untreated			0.0	0.0	0.0	54.18	25.73	83.2
14	Zidua SC	3.2 fl oz/a	A	100.0	100.0	100.0	53.50	24.50	217.3
14	Sharpen	2 fl oz/a	A						
14	Atrazine	1.1 lb/a	A						
14	Roundup PowerMax	32 fl oz/a	C						
14	AMS	8.5 lb/100 gal	C						
15	Zidua SC	3.2 fl oz/a	A	100.0	99.0	99.5	53.55	25.60	210.9
15	Atrazine	1.1 lb/a	A						
15	Roundup PowerMax	32 fl oz/a	C						
15	AMS	8.5 lb/100 gal	C						
16	Anthem Maxx	4 fl oz/a	A	100.0	100.0	100.0	52.93	25.10	228.0
16	Balance Flexx	3 fl oz/a	A						
16	Atrazine	1.65 lb/a	A						
16	Status	4 oz/a	C						
16	Roundup PowerMax	22 fl oz/a	C						
16	AMS	8.5 lb/100 gal	C						
17	Balance Flexx	4 fl oz/a	A	100.0	100.0	100.0	54.47	23.68	224.6
17	DiFlexx DUO	24 fl oz/a	C						
17	Roundup PowerMax	22 fl oz/a	C						
17	AMS	8.5 lb/100 gal	C						
18	Degree Xtra	2 qt/a	A	100.0	100.0	100.0	53.53	24.23	218.3
18	DiFlexx	8 fl oz/a	C						
18	Roundup PowerMax	22 fl oz/a	C						
18	AMS	8.5 lb/100 gal	C						
19	TripleFLEX II	1 qt/a	A	100.0	99.5	100.0	53.70	25.08	219.7
19	Degree Xtra	1.5 qt/a	A						
19	Roundup PowerMax	22 fl oz/a	C						
19	AMS	8.5 lb/100 gal	C						
20	Acuron	1.5 qt/a	A	100.0	100.0	100.0	53.30	24.10	227.3
20	Halex GT	3.6 pt/a	C						
20	Atrazine	0.55 lb/a	C						
20	Surfactant	0.25 % v/v	C						
20	AMS	8.5 lb/100 gal	C						
21	Resicore	2.5 qt/a	A	100.0	100.0	100.0	54.38	24.00	221.6
21	Atrazine	1.1 lb/a	A						
21	Durango DMA	32 fl oz/a	C						
21	AMS	8.5 lb/100 gal	C						
22	SureStart II	3 pt/a	A	100.0	99.0	100.0	46.68	23.15	218.9
22	Atrazine	1.65 lb/a	A						
22	Durango DMA	32 fl oz/a	C						
22	AMS	8.5 lb/100 gal	C						

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Trial ID: C01-19 Location: Campus C-28 Trial Year: 2019
 Protocol ID: C01-19 Investigator: Erin Burns
 Project ID: Study Director: Burns, Craft
 Sponsor Contact:

Pest Code			AMAPO	AMBEL	ABUTH	ZEAMX	ZEAMX	ZEAMX	
Crop Type, Code			Jul-27-2019	Jul-27-2019	Jul-27-2019	Oct-15-2019	Oct-15-2019	Oct-15-2019	
Rating Date			Control	Control	Control	test weight	moisture	YIELD	
Rating Type			percent	percent	percent	lbs/bu	percent	BU	
Rating Unit			34 DA-C	34 DA-C	34 DA-C	114 DA-C	114 DA-C	at 15% M	
Trt-Eval Interval									
Trt No.	Treatment Name	Rate Unit	Appl Code						
23	Resicore	1.25 qt/a	A	100.0	100.0	100.0	53.60	25.23	224.1
23	Atrazine	1.1 lb/a	A						
23	Resicore	1.25 qt/a	C						
23	Durango DMA	32 fl oz/a	C						
23	AMS	8.5 lb/100 gal	C						
24	Cinch ATZ	2.1 qt/a	A	100.0	100.0	100.0	53.43	24.43	223.6
24	Realm Q	4 oz/a	C						
24	Atrazine	0.55 lb/a	C						
24	Durango DMA	32 fl oz/a	C						
24	AMS	8.5 lb/100 gal	C						
LSD P=.05				4.55	1.98	1.46	3.779	2.567	23.56
Standard Deviation				3.22	1.40	1.03	2.678	1.820	16.70
CV				3.38	1.47	1.08	5.01	7.44	7.73

Missing data estimates are included in columns: Average=1,2,3,4,5,6,25
 Could not calculate LSD (% mean diff) for columns 1,3,4,9,10,13,19 because error mean square = 0.