

Weed control programs with Acuron GT in Corn

Trial ID: C05-21 Study Dir.: Burns
 Conducted: Campus C-27 Investigator: Burns

Planting Date: May-11-2021 **Row Spacing:** 30 IN
Variety: DKC 49-44 **No. of Reps:** 4
Population: 31500 S/A **% OM:** 2.5
Soil Type: SL sandy loam **pH:** 6.1
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
 12 G/A 19-19-19 starter

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grasses
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
Application Timing:	PRE	POST
Date Treated:	May-12-2021	Jun-15-2021
Time Treated:	2:45 PM	10:31 AM
% Cloud Cover:	30	10
Air Temp., Unit:	71.2 F	65.9 F
% Relative Humidity:	20.1	70.5
Wind Speed/Unit/Dir:	2.4 MPH NW	4.1 MPH N
Soil Temp, Unit:	70 F	71 F
Leaf Moist/Dew Presence (Y/N):		
Soil Moist:	4	4

Crop Stage at Each Application

	A	B
Crop 1 Name:	ZEAMX	ZEAMX
Height:		7.5 IN
Stage:		V4-5

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		4 IN
Stage:		8 L
Weed 2 Name:	CHEAL	CHEAL
Height:		3.5 IN
Stage:		12 L
Weed 3 Name:	AMAPO	AMAPO
Height:		3 IN
Stage:		12 L
Weed 4 Name:	AMBEL	AMBEL
Height:		4 IN
Stage:		18 L
Weed 5 Name:	ABUTH	ABUTH
Height:		3 IN
Stage:		8 L

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	BKPK	3 MPH	AIXR	11003	22.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	32 PSI
B	BKPK	3 MPH	AIXR	11003	24.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	32 PSI

Comments:

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Pest Code		ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Pest Name		annual grasses	common lambsquarters	Powell amaranth	Common ragweed	velvetleaf
Crop Type, Code	ZEAMX					
Crop Name	Corn					
Rating Date	Jun-15-2021	Jun-15-2021	Jun-15-2021	Jun-15-2021	Jun-15-2021	Jun-15-2021
Rating Type	Injury	Control	Control	Control	Control	Control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B

Trt No.	Treatment Name	Rate	Appl Code						
		Rate Unit							
1	Bicep Lite II Magnum	1 qt/a	A	0.0	95.8	53.8	53.8	57.5	57.5
1	AMSOL	2.5 % v/v	B						
1	Surfactant	0.25 % v/v	B						
1	Acuron GT	3.75 pt/a	B						
2	Lumax	1.5 qt/a	A	0.0	91.3	52.5	52.5	68.8	68.8
2	AMSOL	2.5 % v/v	B						
2	Surfactant	0.25 % v/v	B						
2	Acuron GT	3.75 pt/a	B						
3	Surstart II	1.75 pt/a	A	0.0	95.0	61.3	53.8	100.0	96.3
3	AMSOL	2.5 % v/v	B						
3	Surfactant	0.25 % v/v	B						
3	Acuron GT	3.75 pt/a	B						
4	Harness	1.5 pt/a	A	0.0	93.8	71.3	98.8	98.8	75.0
4	AMSOL	2.5 % v/v	B						
4	Surfactant	0.25 % v/v	B						
4	Acuron GT	3.75 pt/a	B						
5	Verdict	14 fl oz/a	A	0.0	95.0	71.3	96.3	100.0	77.5
5	AMSOL	2.5 % v/v	B						
5	Surfactant	0.25 % v/v	B						
5	Acuron GT	3.75 pt/a	B						
6	Surstart II	1.75 pt/a	A	0.0	93.8	71.3	71.3	99.5	96.3
6	AMSOL	2.5 % v/v	B						
6	Resicore	1.25 qt/a	B						
6	Roundup PowerMax	26.6 fl oz/a	B						
7	Untreated			0.0	0.0	0.0	0.0	0.0	0.0
8	Harness	1.5 pt/a	A	0.0	95.0	72.5	100.0	100.0	78.8
8	AMSOL	2.5 % v/v	B						
8	Laudis	3 fl oz/a	B						
8	Roundup PowerMax	26.6 fl oz/a	B						
8	Superb HC	0.5 % v/v	B						
9	Verdict	10 fl oz/a	A	0.0	95.8	71.3	96.3	100.0	76.3
9	AMSOL	2.5 % v/v	B						
9	Armezon PRO	18 fl oz/a	B						
9	Roundup PowerMax	26.6 fl oz/a	B						
10	Acuron Flexi XR	3 qt/a	A	0.0	95.8	99.0	98.5	99.5	99.0
11	Acuron XR	3 qt/a	A	0.0	99.0	100.0	100.0	100.0	100.0
12	Harness Max	75 fl oz/a	A	0.0	99.5	100.0	100.0	100.0	100.0
13	Acuron	3 qt/a	A	0.0	95.8	98.0	100.0	100.0	100.0
14	Acuron	1.5 qt/a	A	0.0	95.8	96.5	100.0	100.0	100.0
14	AMSOL	2.5 % v/v	B						
14	Acuron	1.5 qt/a	B						
14	Roundup PowerMax	26.6 fl oz/a	B						

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 Protocol ID: C05-21 Investigator (Creator): Erin Burns
 Project ID: Study Director: Burns
 Sponsor Contact:

Pest Code		ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Pest Name		annual grasses	common lambsquarters	Powell amaranth	Common ragweed	velvetleaf
Crop Type, Code	ZEAMX					
Crop Name	Corn					
Rating Date	Jun-15-2021	Jun-15-2021	Jun-15-2021	Jun-15-2021	Jun-15-2021	Jun-15-2021
Rating Type	Injury	Control	Control	Control	Control	Control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B
Trt No.	Treatment Name	Rate	Appl			
		Rate	Unit	Code		
15	Harness Max	37.5 fl oz/a	A		0.0	95.0
15	AMSOL	2.5 % v/v	B			95.8
15	Harness Max	37.5 fl oz/a	B			100.0
15	Roundup PowerMax	26.6 fl oz/a	B			98.5
						100.0
LSD P=.05		.			2.09	2.79
Standard Deviation		0.00			1.47	1.95
CV		0.0			1.65	2.63
						3.06
						1.81
						2.15
						1.27
						2.14
						2.62

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 Sponsor Contact:

Pest Code			ANGR	CHEAL	AMAPO	AMBEL
Pest Name			annual grasses	common lambsquarters	Powell amaranth	Common ragweed
Crop Type, Code	ZEAMX	ZEAMX				
Crop Name	Corn	Corn				
Rating Date	Jun-23-2021	Jul-9-2021	Jul-9-2021	Jul-9-2021	Jul-9-2021	Jul-9-2021
Rating Type	Injury	Injury	Control	Control	Control	Control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	8 DA-B	24 DA-B	24 DA-B	24 DA-B	24 DA-B	24 DA-B

Trt No.	Treatment Name	Rate	Appl Code						
		Rate Unit							
1	Bicep Lite II Magnum	1 qt/a	A	0.0	0.0	100.0	82.5	100.0	100.0
1	AMSOL	2.5 % v/v	B						
1	Surfactant	0.25 % v/v	B						
1	Acuron GT	3.75 pt/a	B						
2	Lumax	1.5 qt/a	A	0.0	0.0	100.0	82.5	100.0	100.0
2	AMSOL	2.5 % v/v	B						
2	Surfactant	0.25 % v/v	B						
2	Acuron GT	3.75 pt/a	B						
3	Surstart II	1.75 pt/a	A	0.0	0.0	100.0	86.3	100.0	100.0
3	AMSOL	2.5 % v/v	B						
3	Surfactant	0.25 % v/v	B						
3	Acuron GT	3.75 pt/a	B						
4	Harness	1.5 pt/a	A	0.0	0.0	100.0	87.5	100.0	100.0
4	AMSOL	2.5 % v/v	B						
4	Surfactant	0.25 % v/v	B						
4	Acuron GT	3.75 pt/a	B						
5	Verdict	14 fl oz/a	A	0.0	0.0	100.0	92.5	100.0	100.0
5	AMSOL	2.5 % v/v	B						
5	Surfactant	0.25 % v/v	B						
5	Acuron GT	3.75 pt/a	B						
6	Surstart II	1.75 pt/a	A	0.0	0.0	100.0	91.3	100.0	100.0
6	AMSOL	2.5 % v/v	B						
6	Resicore	1.25 qt/a	B						
6	Roundup PowerMax	26.6 fl oz/a	B						
7	Untreated			0.0	0.0	0.0	0.0	0.0	0.0
8	Harness	1.5 pt/a	A	0.0	0.0	100.0	95.8	100.0	100.0
8	AMSOL	2.5 % v/v	B						
8	Laudis	3 fl oz/a	B						
8	Roundup PowerMax	26.6 fl oz/a	B						
8	Superb HC	0.5 % v/v	B						
9	Verdict	10 fl oz/a	A	0.0	0.0	100.0	100.0	100.0	100.0
9	AMSOL	2.5 % v/v	B						
9	Armezon PRO	18 fl oz/a	B						
9	Roundup PowerMax	26.6 fl oz/a	B						
10	Acuron Flexi XR	3 qt/a	A	0.0	0.0	91.3	95.0	93.8	93.8
11	Acuron XR	3 qt/a	A	0.0	0.0	98.5	100.0	100.0	98.5
12	Harness Max	75 fl oz/a	A	0.0	0.0	100.0	100.0	100.0	100.0
13	Acuron	3 qt/a	A	0.0	0.0	95.8	100.0	100.0	100.0
14	Acuron	1.5 qt/a	A	0.0	0.0	100.0	100.0	100.0	100.0
14	AMSOL	2.5 % v/v	B						
14	Acuron	1.5 qt/a	B						
14	Roundup PowerMax	26.6 fl oz/a	B						

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 Project ID: Study Director: Burns
 Sponsor Contact:

Pest Code				ANGR	CHEAL	AMAPO	AMBEL
Pest Name				annual grasses	common lambsquarters	Powell amaranth	Common ragweed
Crop Type, Code	ZEAMX	ZEAMX					
Crop Name	Corn	Corn					
Rating Date	Jun-23-2021	Jul-9-2021		Jul-9-2021	Jul-9-2021	Jul-9-2021	Jul-9-2021
Rating Type	Injury	Injury		Control	Control	Control	Control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	8	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	DA-B	24 DA-B		24 DA-B	24 DA-B	24 DA-B	24 DA-B
Trt No.	Treatment Name	Rate	Appl Code				
15	Harness Max	37.5 fl oz/a	A	0.0	0.0	100.0	100.0
15	AMSOL	2.5 % v/v	B				
15	Harness Max	37.5 fl oz/a	B				
15	Roundup PowerMax	26.6 fl oz/a	B				
	LSD P=.05	.	.	1.07	2.55	0.92	0.98
	Standard Deviation	0.00	0.00	0.75	1.79	0.65	0.69
	CV	0.0	0.0	0.81	2.04	0.69	0.74

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 Sponsor Contact:

Pest Code	ABUTH	ANGR	CHEAL	AMAPO	AMBEL
Pest Name	velvetleaf	annual grasses	common lambsquarters	Powell amaranth	Common ragweed
Crop Type, Code	ZEAMX				
Crop Name	Corn				
Rating Date	Jul-9-2021	Aug-6-2021	Aug-6-2021	Aug-6-2021	Aug-6-2021
Rating Type	Control	Injury	Control	Control	Control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	24 DA-B	52 DA-B	52 DA-B	52 DA-B	52 DA-B

Trt No.	Treatment Name	Rate	Appl Code	ABUTH	ANGR	CHEAL	AMAPO	AMBEL
		Rate Unit						
1	Bicep Lite II Magnum	1 qt/a	A	100.0	0.0	98.5	100.0	98.5
1	AMSOL	2.5 % v/v	B					
1	Surfactant	0.25 % v/v	B					
1	Acuron GT	3.75 pt/a	B					
2	Lumax	1.5 qt/a	A	100.0	0.0	100.0	99.0	100.0
2	AMSOL	2.5 % v/v	B					
2	Surfactant	0.25 % v/v	B					
2	Acuron GT	3.75 pt/a	B					
3	Surstart II	1.75 pt/a	A	100.0	0.0	100.0	100.0	100.0
3	AMSOL	2.5 % v/v	B					
3	Surfactant	0.25 % v/v	B					
3	Acuron GT	3.75 pt/a	B					
4	Harness	1.5 pt/a	A	100.0	0.0	100.0	98.5	100.0
4	AMSOL	2.5 % v/v	B					
4	Surfactant	0.25 % v/v	B					
4	Acuron GT	3.75 pt/a	B					
5	Verdict	14 fl oz/a	A	100.0	0.0	100.0	100.0	100.0
5	AMSOL	2.5 % v/v	B					
5	Surfactant	0.25 % v/v	B					
5	Acuron GT	3.75 pt/a	B					
6	Surstart II	1.75 pt/a	A	100.0	0.0	100.0	100.0	100.0
6	AMSOL	2.5 % v/v	B					
6	Resicore	1.25 qt/a	B					
6	Roundup PowerMax	26.6 fl oz/a	B					
7	Untreated			0.0	0.0	0.0	0.0	0.0
8	Harness	1.5 pt/a	A	100.0	0.0	100.0	100.0	100.0
8	AMSOL	2.5 % v/v	B					
8	Laudis	3 fl oz/a	B					
8	Roundup PowerMax	26.6 fl oz/a	B					
8	Superb HC	0.5 % v/v	B					
9	Verdict	10 fl oz/a	A	100.0	0.0	100.0	100.0	100.0
9	AMSOL	2.5 % v/v	B					
9	Armezon PRO	18 fl oz/a	B					
9	Roundup PowerMax	26.6 fl oz/a	B					
10	Acuron Flexi XR	3 qt/a	A	93.8	0.0	82.5	100.0	100.0
11	Acuron XR	3 qt/a	A	100.0	0.0	100.0	100.0	100.0
12	Harness Max	75 fl oz/a	A	100.0	0.0	100.0	100.0	100.0
13	Acuron	3 qt/a	A	100.0	0.0	92.5	97.3	100.0
14	Acuron	1.5 qt/a	A	100.0	0.0	100.0	100.0	100.0
14	AMSOL	2.5 % v/v	B					
14	Acuron	1.5 qt/a	B					
14	Roundup PowerMax	26.6 fl oz/a	B					

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Pest Code	ABUTH		ANGR	CHEAL	AMAPO	AMBEL	
Pest Name	velvetleaf		annual grasses	common lambsquarters	Powell amaranth	Common ragweed	
Crop Type, Code		ZEAMX					
Crop Name		Corn					
Rating Date	Jul-9-2021	Aug-6-2021	Aug-6-2021	Aug-6-2021	Aug-6-2021	Aug-6-2021	
Rating Type	Control	Injury	Control	Control	Control	Control	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Trt-Eval Interval	24 DA-B	52 DA-B	52 DA-B	52 DA-B	52 DA-B	52 DA-B	
Trt No.	Treatment Name	Rate	Appl Code				
		Rate Unit					
15	Harness Max	37.5 fl oz/a	A	100.0	0.0	100.0	100.0
15	AMSOL	2.5 % v/v	B				
15	Harness Max	37.5 fl oz/a	B				
15	Roundup PowerMax	26.6 fl oz/a	B				
LSD P=.05		0.92	.	1.47		0.80	0.37
Standard Deviation		0.65	0.00	1.03		0.56	0.26
CV		0.69	0.0	1.13		0.61	0.28

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Pest Code	ABUTH			
Pest Name	velvetleaf			
Crop Type, Code	ZEAMX	ZEAMX	ZEAMX	
Crop Name	Corn	Corn	Corn	
Rating Date	Aug-6-2021	Oct-20-2021	Oct-20-2021	Oct-20-2021
Rating Type	Control	Test weight	Moisture	YIELD
Rating Unit/Min/Max	%, 0, 100	lbs/bu, -, -	%, 0, 100	BU, -, -
Trt-Eval Interval	52 DA-B	127 DA-B	127 DA-B	at 15% M

Trt No.	Treatment Name	Rate	Appl Code				
		Rate Unit					
1	Bicep Lite II Magnum	1 qt/a	A	100.0	56.43	18.75	176.8
1	AMSOL	2.5 % v/v	B				
1	Surfactant	0.25 % v/v	B				
1	Acuron GT	3.75 pt/a	B				
2	Lumax	1.5 qt/a	A	100.0	56.03	18.83	181.5
2	AMSOL	2.5 % v/v	B				
2	Surfactant	0.25 % v/v	B				
2	Acuron GT	3.75 pt/a	B				
3	Surstart II	1.75 pt/a	A	100.0	56.50	19.10	190.4
3	AMSOL	2.5 % v/v	B				
3	Surfactant	0.25 % v/v	B				
3	Acuron GT	3.75 pt/a	B				
4	Harness	1.5 pt/a	A	100.0	62.43	19.60	190.2
4	AMSOL	2.5 % v/v	B				
4	Surfactant	0.25 % v/v	B				
4	Acuron GT	3.75 pt/a	B				
5	Verdict	14 fl oz/a	A	100.0	56.00	19.00	176.9
5	AMSOL	2.5 % v/v	B				
5	Surfactant	0.25 % v/v	B				
5	Acuron GT	3.75 pt/a	B				
6	Surstart II	1.75 pt/a	A	100.0	55.98	18.95	170.0
6	AMSOL	2.5 % v/v	B				
6	Resicore	1.25 qt/a	B				
6	Roundup PowerMax	26.6 fl oz/a	B				
7	Untreated			0.0	55.80	18.43	129.4
8	Harness	1.5 pt/a	A	100.0	55.93	19.38	188.7
8	AMSOL	2.5 % v/v	B				
8	Laudis	3 fl oz/a	B				
8	Roundup PowerMax	26.6 fl oz/a	B				
8	Superb HC	0.5 % v/v	B				
9	Verdict	10 fl oz/a	A	100.0	55.78	18.93	173.0
9	AMSOL	2.5 % v/v	B				
9	Armezon PRO	18 fl oz/a	B				
9	Roundup PowerMax	26.6 fl oz/a	B				
10	Acuron Flexi XR	3 qt/a	A	100.0	56.15	19.03	182.5
11	Acuron XR	3 qt/a	A	100.0	55.80	18.83	184.1
12	Harness Max	75 fl oz/a	A	100.0	55.90	17.98	167.7
13	Acuron	3 qt/a	A	100.0	56.03	18.75	182.7
14	Acuron	1.5 qt/a	A	100.0	56.23	18.63	181.6
14	AMSOL	2.5 % v/v	B				
14	Acuron	1.5 qt/a	B				
14	Roundup PowerMax	26.6 fl oz/a	B				

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Pest Code	ABUTH			
Pest Name	velvetleaf			
Crop Type, Code		ZEAMX	ZEAMX	ZEAMX
Crop Name		Corn	Corn	Corn
Rating Date	Aug-6-2021	Oct-20-2021	Oct-20-2021	Oct-20-2021
Rating Type	Control	Test weight	Moisture	YIELD
Rating Unit/Min/Max	%, 0, 100	lbs/bu, -, -	%, 0, 100	BU, -, -
Trt-Eval Interval	52 DA-B	127 DA-B	127 DA-B	at 15% M

Trt No.	Treatment Name	Rate	Appl Unit	Code				
15	Harness Max	37.5 fl oz/a	A		100.0	55.58	18.18	169.0
15	AMSOL	2.5 % v/v	B					
15	Harness Max	37.5 fl oz/a	B					
15	Roundup PowerMax	26.6 fl oz/a	B					
LSD P=.05					.	5.139	2.165	18.18
Standard Deviation					0.00	3.601	1.517	12.74
CV					0.0	6.38	8.06	7.22

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