

New premix for preemergent grass and broadleaf control in corn

Trial ID: C02-21 Study Dir.: Burns
 Conducted: Campus C-28 Investigator: Burns

Planting Date: May-11-2021 **Row Spacing:** 30 IN
Variety: DKC 49-44 **No. of Reps:** 4
Population: 31500 S/A **% OM:** 2.9
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
 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

Application Timing: A
 PRE
Date Treated: May-12-2021
Time Treated: 11:18 AM
% Cloud Cover: 15
Air Temp., Unit: 60.2 F
% Relative Humidity: 37
Wind Speed/Unit/Dir: 3.7 MPH NW
Soil Temp, Unit: 55 F
Leaf Moist/Dew Presence (Y/N):
Soil Moist: 4

Crop Stage at Each Application

Crop 1 Name: A
 ZEAMX
Height:
Stage:

Weed Stage at Each Application

Weed 1 Name: A
 ANGR
Height:
Stage:
Weed 2 Name: CHEAL
Height:
Stage:
Weed 3 Name: AMAPO
Height:
Stage:
Weed 4 Name: AMBEL
Height:
Stage:
Weed 5 Name: ABUTH
Height:
Stage:

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

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	May-26-2021	May-26-2021	May-26-2021	May-26-2021	May-26-2021	May-26-2021
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	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A

Trt No.	Treatment Name	Rate	Unit	Appl Code						
1	TriVolt	15 fl oz/a	A		0.0	93.3	93.8	100.0	96.3	95.8
1	Atrazine	1.1 lb/a	A							
2	Corvus	4.5 fl oz/a	A		0.0	94.5	96.5	100.0	98.3	95.8
2	Atrazine	1.1 lb/a	A							
3	Acuron	2.25 qt/a	A		0.0	91.5	93.3	100.0	97.0	98.3
4	Resicore	2.25 qt/a	A		0.0	97.0	98.3	100.0	100.0	99.0
4	Atrazine	1.1 lb/a	A							
5	Armezon PRO	20 fl oz/a	A		0.0	94.5	94.5	100.0	95.0	94.5
5	Atrazine	1.1 lb/a	A							
6	TriVolt	18.75 fl oz/a	A		0.0	90.3	97.0	100.0	97.8	98.3
6	Atrazine	1.1 lb/a	A							
7	Untreated				0.0	0.0	0.0	0.0	0.0	0.0
8	TriVolt	20.0 fl oz/a	A		0.0	97.5	98.8	100.0	100.0	99.0
8	Atrazine	1.1 lb/a	A							
9	Corvus	5.6 fl oz/a	A		0.0	96.3	97.5	77.5	100.0	97.0
9	Atrazine	1.1 lb/a	A							
10	Acuron	3.0 qt/a	A		0.0	95.8	94.5	100.0	98.8	97.8
11	Resicore	3.0 qt/a	A		0.0	98.5	98.5	100.0	99.5	98.5
11	Atrazine	1.1 lb/a	A							
12	Armezon PRO	24 fl oz/a	A		0.0	90.8	93.8	100.0	93.8	94.0
12	Atrazine	1.1 lb/a	A							
	LSD P=.05					6.86	5.48	18.69	4.77	3.48
	Standard Deviation				0.00	4.77	3.81	12.99	3.31	2.42
	CV				0.0	5.5	4.33	14.47	3.69	2.72

Could not calculate LSD (% mean diff) for columns 1,7,13,19 because error mean square = 0.
 ^Calculated from residual.

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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	C, ZEAMX								ZEAMX		
Crop Name	Corn								Corn		
Rating Date	Jun-4-2021		Jun-4-2021	Jun-4-2021	Jun-4-2021	Jun-4-2021	Jun-4-2021	Jun-4-2021	Jun-14-2021		
Rating Type	Injury		Control	Control	Control	Control	Control	Control	Injury		
Rating Unit/Min/Max	%, 0, 100		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Trt-Eval Interval	23 DA-A		23 DA-A	23 DA-A	23 DA-A	23 DA-A	23 DA-A	23 DA-A	33 DA-A		
Trt No.	Treatment Name	Rate	Appl Unit	Code							
1	TriVolt	15 fl oz/a	A		0.0	95.3	100.0	97.5	100.0	97.8	0.0
	1 Atrazine	1.1 lb/a	A								
2	Corvus	4.5 fl oz/a	A		0.0	95.3	99.0	100.0	100.0	99.5	0.0
	2 Atrazine	1.1 lb/a	A								
3	Acuron	2.25 qt/a	A		0.0	95.8	95.8	99.5	100.0	100.0	0.0
4	Resicore	2.25 qt/a	A		0.0	99.5	100.0	100.0	100.0	99.5	0.0
	4 Atrazine	1.1 lb/a	A								
5	Armezon PRO	20 fl oz/a	A		0.0	96.5	99.0	100.0	99.5	99.5	0.0
	5 Atrazine	1.1 lb/a	A								
6	TriVolt	18.75 fl oz/a	A		0.0	97.0	99.5	100.0	100.0	100.0	0.0
	6 Atrazine	1.1 lb/a	A								
7	Untreated				0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	TriVolt	20.0 fl oz/a	A		0.0	96.5	100.0	100.0	100.0	100.0	0.0
	8 Atrazine	1.1 lb/a	A								
9	Corvus	5.6 fl oz/a	A		0.0	99.0	99.0	99.0	99.5	99.5	0.0
	9 Atrazine	1.1 lb/a	A								
10	Acuron	3.0 qt/a	A		0.0	97.3	99.0	99.0	100.0	100.0	0.0
11	Resicore	3.0 qt/a	A		0.0	98.3	100.0	99.5	100.0	100.0	0.0
	11 Atrazine	1.1 lb/a	A								
12	Armezon PRO	24 fl oz/a	A		0.0	95.8	97.5	99.0	95.8	96.5	0.0
	12 Atrazine	1.1 lb/a	A								
	LSD P=.05				.	2.86	1.77	1.43	1.91	1.41	.
	Standard Deviation				0.00	1.99	1.23	0.99	1.33	0.98	0.00
	CV				0.0	2.24	1.35	1.09	1.46	1.08	0.0

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Pest Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	ZEAMX
Pest Name	annual grasses	common lambsquarters	Powell amaranth	Common ragweed	velvetleaf	Corn
Crop Type, Code						
Crop Name						
Rating Date	Jun-14-2021	Jun-14-2021	Jun-14-2021	Jun-14-2021	Jun-14-2021	Jul-1-2021
Rating Type	Control	Control	Control	Control	Control	Injury
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	33 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A	50 DA-A

Trt No.	Treatment Name	Rate	Unit	Appl Code						
1	TriVolt	15 fl oz/a	A		91.3	91.3	95.0	95.8	91.3	0.0
1	Atrazine	1.1 lb/a	A							
2	Corvus	4.5 fl oz/a	A		83.8	100.0	100.0	100.0	100.0	0.0
2	Atrazine	1.1 lb/a	A							
3	Acuron	2.25 qt/a	A		86.3	91.3	99.5	99.5	100.0	0.0
4	Resicore	2.25 qt/a	A		91.3	100.0	99.5	100.0	100.0	0.0
4	Atrazine	1.1 lb/a	A							
5	Armezon PRO	20 fl oz/a	A		93.8	95.8	100.0	100.0	95.8	0.0
5	Atrazine	1.1 lb/a	A							
6	TriVolt	18.75 fl oz/a	A		93.8	100.0	100.0	100.0	100.0	0.0
6	Atrazine	1.1 lb/a	A							
7	Untreated				0.0	0.0	0.0	0.0	0.0	0.0
8	TriVolt	20.0 fl oz/a	A		97.3	100.0	100.0	100.0	100.0	0.0
8	Atrazine	1.1 lb/a	A							
9	Corvus	5.6 fl oz/a	A		98.5	100.0	98.5	100.0	100.0	0.0
9	Atrazine	1.1 lb/a	A							
10	Acuron	3.0 qt/a	A		95.8	98.5	100.0	100.0	100.0	0.0
11	Resicore	3.0 qt/a	A		95.8	98.0	100.0	100.0	100.0	0.0
11	Atrazine	1.1 lb/a	A							
12	Armezon PRO	24 fl oz/a	A		95.8	98.5	100.0	100.0	98.5	0.0
12	Atrazine	1.1 lb/a	A							
LSD P=.05					2.97	1.57	0.71	0.78	1.29	.
Standard Deviation					2.06	1.09	0.49	0.54	0.89	0.00
CV					2.42	1.22	0.54	0.59	0.99	0.0

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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					
Crop Name					
Rating Date	Jul-1-2021	Jul-1-2021	Jul-1-2021	Jul-1-2021	Jul-1-2021
Rating Type	Control	Control	Control	Control	Control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	50 DA-A	50 DA-A	50 DA-A	50 DA-A	50 DA-A

Trt No.	Treatment Name	Rate	Unit	Appl Code					
1	TriVolt	15 fl oz/a	A		78.8	95.0	95.0	93.8	95.0
1	Atrazine	1.1 lb/a	A						
2	Corvus	4.5 fl oz/a	A		83.8	99.5	100.0	99.5	100.0
2	Atrazine	1.1 lb/a	A						
3	Acuron	2.25 qt/a	A		83.8	91.3	100.0	100.0	100.0
4	Resicore	2.25 qt/a	A		88.8	97.3	98.0	97.3	98.0
4	Atrazine	1.1 lb/a	A						
5	Armezon PRO	20 fl oz/a	A		83.8	93.8	93.8	95.8	95.0
5	Atrazine	1.1 lb/a	A						
6	TriVolt	18.75 fl oz/a	A		93.8	100.0	100.0	100.0	99.5
6	Atrazine	1.1 lb/a	A						
7	Untreated				0.0	0.0	0.0	0.0	0.0
8	TriVolt	20.0 fl oz/a	A		93.8	95.0	100.0	99.5	99.5
8	Atrazine	1.1 lb/a	A						
9	Corvus	5.6 fl oz/a	A		97.3	95.8	95.8	100.0	99.5
9	Atrazine	1.1 lb/a	A						
10	Acuron	3.0 qt/a	A		97.3	97.3	95.8	100.0	100.0
11	Resicore	3.0 qt/a	A		91.3	100.0	100.0	100.0	100.0
11	Atrazine	1.1 lb/a	A						
12	Armezon PRO	24 fl oz/a	A		91.3	95.0	95.8	96.5	95.8
12	Atrazine	1.1 lb/a	A						
LSD P=.05					3.14	1.91	1.45	1.61	0.95
Standard Deviation					2.18	1.33	1.01	1.12	0.66
CV					2.66	1.5	1.13	1.24	0.74

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