MSU Weed Science Research Program

Weed control with SA-0660001 programs in corn

Trial ID: C10-18 Study Dir.: Burns, Stiles, Powell, Craft
Conducted: Campus T-17 Investigator: Erin Burns

Planting Date: May-29-2018
Variety: DKC 48-56 SS
Population: 34600 seeds/A
Soil Type: LOAM
Plot Size: 10 X 35 FT
Row Spacing: 30 IN
No. of Reps: 4
% OM: 2.7
pH: 5.8
Study Design: Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed; spring soil finished twice
Fertilizer: 300lbs/A urea incorporated
150lbs/A 19-19-19 starter

Crop and Weed Description

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

Crop	Code	Common Name
1	ZEAMX	Corn

Application Description

	A
Application Timing:	PRE
Date Treated:	Jun-1-2018
Time Treated:	8:45 AM
% Cloud Cover:	80
Air Temp., Unit:	76 F
% Relative Humidity:	57
Wind Speed/Unit/Dir:	2.1 MPH SW
Soil Temp, Unit:	72 F
Leaf Moist/Dew Presence (Y/N):	4
Soil Moist:	2

Crop Stage at Each Application

	A
Crop 1 Name:	ZEAMX
Height:	
Stage:	

Weed Stage at Each Application

	A
Weed 1 Name:	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:	

Weed Density

	1	2	3	4	5
Date:	Jun-1-2018	Jun-1-2018	Jun-1-2018	Jun-1-2018	Jun-1-2018
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	1 FT2	1 FT2	1 FT2	1 FT2	2 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

Comments:

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	ZEAMX	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	ZEAMX	ANGR
	Pest Code											
	Crop Code											
	Rating Date				Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-26-2018	Jun-26-2018
	Rating Type				injury	control	control	control	control	control	injury	control
	Rating Unit				percent	percent	percent	percent	percent	percent	percent	percent
	Trt-Eval Interval				11 DA-A	11 DA-A	11 DA-A	11 DA-A	11 DA-A	11 DA-A	25 DA-A	25 DA-A
1	SA-0660001	0.96	pt/a	A	0	76	100	100	88	99	0	76
2	SA-0660001	1.44	pt/a	A	0	85	100	100	90	99	0	86
3	SA-0660001	1.92	pt/a	A	0	95	100	100	93	96	0	86
4	SA-0660001	2.88	pt/a	A	0	95	100	100	97	100	0	90
5	SA-0660001	1.44	pt/a	A	0	99	100	100	99	99	0	100
5	Stalwart C	1.67	pt/a	A								
6	Atrazine	0.55	lb/a	A	0	98	100	100	93	96	0	88
7	Atrazine	0.825	lb/a	A	0	85	100	100	78	99	0	80
8	Untreated				0	0	0	0	0	0	0	0
9	Atrazine	1.1	lb/a	A	0	98	100	100	87	99	0	95
10	Atrazine	1.65	lb/a	A	0	98	100	100	97	100	0	93
11	Atrazine	1.65	lb/a	A	0	100	100	100	95	100	0	100
11	Stalwart C	1.67	pt/a	A								
12	Stalwart 3W	3	qt/a	A	0	100	100	100	99	100	0	100
13	SA-0070128	3	qt/a	A	0	100	100	100	100	100	0	100
14	SA-0070129	3	qt/a	A	0	100	100	100	100	100	0	100
	LSD P=.05				.	18.4	.	.	16.6	3.6	.	12.3
	Standard Deviation				0.0	12.9	0.0	0.0	11.6	2.5	0.0	8.6
	CV				0.0	14.68	0.0	0.0	13.33	2.74	0.0	10.06

Could not calculate LSD (% mean diff) for columns 1,3,4,7,10,13 because error mean square = 0.

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	CHEAL	AMAPO	AMBEL	ABUTH	ZEAMX	ANGR	CHEAL	AMAPO	AMBEL
	Pest Code				CHEAL	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	AMAPO	AMBEL
	Crop Code								ZEAMX				
	Rating Date				Jun-26-2018	Jun-26-2018	Jun-26-2018	Jun-26-2018	Jul-9-2018	Jul-9-2018	Jul-9-2018	Jul-9-2018	Jul-9-2018
	Rating Type				control	control	control	control	injury	control	control	control	control
	Rating Unit				percent	percent	percent	percent	percent	percent	percent	percent	percent
	Trt-Eval Interval				25 DA-A	25 DA-A	25 DA-A	25 DA-A	38 DA-A	38 DA-A	38 DA-A	38 DA-A	38 DA-A
1	SA-0660001	0.96	pt/a	A	100	100	83	91	0	50	94	100	73
2	SA-0660001	1.44	pt/a	A	100	100	88	95	0	81	98	100	80
3	SA-0660001	1.92	pt/a	A	100	100	90	95	0	81	100	100	81
4	SA-0660001	2.88	pt/a	A	100	100	96	96	0	86	100	100	100
5	SA-0660001	1.44	pt/a	A	100	100	98	95	0	100	100	100	99
5	Stalwart C	1.67	pt/a	A									
6	Atrazine	0.55	lb/a	A	100	100	86	91	0	85	94	96	78
7	Atrazine	0.825	lb/a	A	98	100	75	88	0	69	95	94	78
8	Untreated				0	0	0	0	0	0	0	0	0
9	Atrazine	1.1	lb/a	A	99	100	80	89	0	80	95	95	78
10	Atrazine	1.65	lb/a	A	98	100	91	94	0	93	91	95	89
11	Atrazine	1.65	lb/a	A	100	100	89	96	0	100	100	100	85
11	Stalwart C	1.67	pt/a	A									
12	Stalwart 3W	3	qt/a	A	100	100	100	100	0	100	100	100	100
13	SA-0070128	3	qt/a	A	100	100	100	100	0	100	100	100	100
14	SA-0070129	3	qt/a	A	100	100	100	100	0	100	100	100	100
	LSD P=.05				2.9	.	17.3	7.2	.	20.0	9.2	6.8	19.1
	Standard Deviation				2.1	0.0	12.1	5.1	0.0	14.0	6.5	4.8	13.4
	CV				2.23	0.0	14.46	5.76	0.0	17.38	7.15	5.23	16.43

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Pest Code	ABUTH
Crop Code	
Rating Date	Jul-9-2018
Rating Type	control
Rating Unit	percent
Trt-Eval Interval	38 DA-A

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	
1	SA-0660001	0.96	pt/a	A	75
2	SA-0660001	1.44	pt/a	A	90
3	SA-0660001	1.92	pt/a	A	88
4	SA-0660001	2.88	pt/a	A	78
5	SA-0660001	1.44	pt/a	A	90
5	Stalwart C	1.67	pt/a	A	
6	Atrazine	0.55	lb/a	A	83
7	Atrazine	0.825	lb/a	A	73
8	Untreated				0
9	Atrazine	1.1	lb/a	A	80
10	Atrazine	1.65	lb/a	A	90
11	Atrazine	1.65	lb/a	A	94
11	Stalwart C	1.67	pt/a	A	
12	Stalwart 3W	3	qt/a	A	100
13	SA-0070128	3	qt/a	A	100
14	SA-0070129	3	qt/a	A	100

LSD P=.05	16.2
Standard Deviation	11.4
CV	13.96

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