

MSU Weed Science Research Program

CORN TOLERANCE TO WARRANT HERBICIDE, 2011

Trial ID: C0711 Study Dir.: Andy Chomas
Conducted: CAMPUS Investigator: Christy Sprague

Date Planted: 5/10/2011 Row Spacing: 30 IN
Variety: DKC 46-61 No. of Reps: 4
Population: 31,500 S/A % OM: 3.1
Soil Type: LOAM pH: 6.0
Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall Chisel, Spring Field Cultivated X2
Fertilizer: 300 lbs/A 46-0-0 Broadcast. 125 lbs/A 19-19-19 in Row at Planting.

Application Description

Table with 4 columns: Application Description, A, B, C. Rows include Application Timing, Date Treated, Time Treated, % Cloud Cover, Air Temp., % Relative Humidity, Wind Speed/Unit/Dir, Soil Temp., Soil/Leaf Surface M, and Soil Moist.

Crop Stage at Each Application

Table with 4 columns: Crop Stage at Each Application, A, B, C. Rows include Height (In.) and Stage (L).

Application Equipment

Table with 11 columns: Appl, Sprayer, Speed, Nozzle, Nozzle, Nozzle, Nozzle, Boom, Width, GPA, Carrier, PSI. Rows A, B, and C.

Comments: TREATMENTS 7&8 utilized 28% nitrogen as a carrier.
Harness Xtra 5.6 was applied to entire study at 2 qts/A on May 10, 2011.

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Trt-Eval Interval

Subsamples, Dec.

ZEAMX chlorosis percent	ZEAMX necrosis percent	ZEAMX stunting percent	ZEAMX chlorosis percent	ZEAMX necrosis percent	ZEAMX stunting percent
7 DAT	7 DAT	7 DAT	21 DAT	21 DAT	21 DAT
0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A	0	0	0	0	0	0
1	Warrant	3	L	3	pt/a	V2 ZE	A						
1	Ammonium Sulfate	100	DF	17	lb/100 gal	V2 ZE	A						
2	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	0	0	0	0	0	0
2	Warrant	3	L	3	pt/a	V6 ZE	B						
2	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B						
3	Roundup WeatherMax	4.5	L	22	fl oz/a	30 IN ZE	C	4	0	4	0	0	4
3	Warrant	3	L	3	pt/a	30 IN ZE	C						
3	Ammonium Sulfate	100	DF	17	lb/100 gal	30 IN ZE	C						
4	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A	0	0	0	0	0	0
4	Warrant	3	L	6	pt/a	V2 ZE	A						
4	Ammonium Sulfate	100	DF	17	lb/100 gal	V2 ZE	A						
5	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	0	0	0	0	0	0
5	Warrant	3	L	6	pt/a	V6 ZE	B						
5	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B						
6	Roundup WeatherMax	4.5	L	22	fl oz/a	30 IN ZE	C	3	0	3	0	0	0
6	Warrant	3	L	6	pt/a	30 IN ZE	C						
6	Ammonium Sulfate	100	DF	17	lb/100 gal	30 IN ZE	C						
7	IN 28% NITROGEN					V2 ZE	A	0	14	5	0	0	6
7	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A						
7	Warrant	3	L	3	pt/a	V2 ZE	A						
8	IN 28% NITROGEN					V2 ZE	A	0	15	6	0	0	6
8	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A						
9	Halex GT	4.39	L	3.6	pt/a	V6 ZE	B	0	0	0	0	0	0
9	Activator 90		L	0.25	% v/v	V6 ZE	B						
9	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B						
10	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	0	0	0	0	0	0
10	Warrant	3	L	3	pt/a	V6 ZE	B						
10	Callisto	4	SC	3	fl oz/a	V6 ZE	B						
10	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B						
11	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	0	0	0	0	0	0
11	Warrant	3	L	3	pt/a	V6 ZE	B						
11	Impact	2.8	SC	0.75	fl oz/a	V6 ZE	B						
11	MSO		L	0.5	% v/v	V6 ZE	B						
11	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B						
12	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	0	0	0	0	0	0
12	Warrant	3	L	3	pt/a	V6 ZE	B						
12	Laudis	3.5	SC	3	fl oz/a	V6 ZE	B						
12	MSO		L	0.5	% v/v	V6 ZE	B						
12	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B						
13	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	0	0	0	0	0	0
13	Warrant	3	L	3	pt/a	V6 ZE	B						
13	Status	56	DF	3.6	oz/a	V6 ZE	B						
13	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B						

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Subsamples, Dec.

ZEAMX chlorosis percent	ZEAMX necrosis percent	ZEAMX stunting percent	ZEAMX chlorosis percent	ZEAMX necrosis percent	ZEAMX stunting percent
7 DAT	7 DAT	7 DAT	21 DAT	21 DAT	21 DAT
0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	ZEAMX chlorosis percent	ZEAMX necrosis percent	ZEAMX stunting percent	ZEAMX chlorosis percent	ZEAMX necrosis percent	ZEAMX stunting percent
14	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	0	0	20	0	0	4
14	Warrant	3	L	3	pt/a	V6 ZE	B						
14	Callisto	4	SC	3	fl oz/a	V6 ZE	B						
14	Resolve	25	DF	1.2	oz/a	V6 ZE	B						
14	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B						
15	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A	0	0	0	0	0	0
15	Ammonium Sulfate	100	DF	17	lb/100 gal	V2 ZE	A						
16	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	0	0	0	0	0	0
16	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B						
17	Roundup WeatherMax	4.5	L	22	fl oz/a	30 IN ZE	C	3	0	4	0	0	0
17	Ammonium Sulfate	100	DF	17	lb/100 gal	30 IN ZE	C						
18	Untreated						C	0	0	0	0	0	0
LSD (P=.05)								1.5	0.8	1.7	0.0	0.0	3.1
Standard Deviation								1.1	0.6	1.2	0.0	0.0	2.2
CV								221.96	36.89	51.8	0.0	0.0	199.26

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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 # Subsamples, Dec.

ZEAMX
 yield
 bu/ac
 10/18/2011
 HARVEST
 0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A	243
1	Warrant	3	L	3	pt/a	V2 ZE	A	
1	Ammonium Sulfate	100	DF	17	lb/100 gal	V2 ZE	A	
2	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	244
2	Warrant	3	L	3	pt/a	V6 ZE	B	
2	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B	
3	Roundup WeatherMax	4.5	L	22	fl oz/a	30 IN ZE	C	228
3	Warrant	3	L	3	pt/a	30 IN ZE	C	
3	Ammonium Sulfate	100	DF	17	lb/100 gal	30 IN ZE	C	
4	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A	232
4	Warrant	3	L	6	pt/a	V2 ZE	A	
4	Ammonium Sulfate	100	DF	17	lb/100 gal	V2 ZE	A	
5	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	219
5	Warrant	3	L	6	pt/a	V6 ZE	B	
5	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B	
6	Roundup WeatherMax	4.5	L	22	fl oz/a	30 IN ZE	C	223
6	Warrant	3	L	6	pt/a	30 IN ZE	C	
6	Ammonium Sulfate	100	DF	17	lb/100 gal	30 IN ZE	C	
7	IN 28% NITROGEN					V2 ZE	A	238
7	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A	
7	Warrant	3	L	3	pt/a	V2 ZE	A	
8	IN 28% NITROGEN					V2 ZE	A	239
8	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A	
9	Halex GT	4.39	L	3.6	pt/a	V6 ZE	B	232
9	Activator 90		L	0.25	% v/v	V6 ZE	B	
9	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B	
10	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	238
10	Warrant	3	L	3	pt/a	V6 ZE	B	
10	Callisto	4	SC	3	fl oz/a	V6 ZE	B	
10	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B	
11	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	232
11	Warrant	3	L	3	pt/a	V6 ZE	B	
11	Impact	2.8	SC	0.75	fl oz/a	V6 ZE	B	
11	MSO		L	0.5	% v/v	V6 ZE	B	
11	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B	
12	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	216
12	Warrant	3	L	3	pt/a	V6 ZE	B	
12	Laudis	3.5	SC	3	fl oz/a	V6 ZE	B	
12	MSO		L	0.5	% v/v	V6 ZE	B	
12	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B	
13	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	239
13	Warrant	3	L	3	pt/a	V6 ZE	B	
13	Status	56	DF	3.6	oz/a	V6 ZE	B	
13	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B	

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ZEAMX

yield

bu/ac

10/18/2011

HARVEST

0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
14	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	213
14	Warrant	3	L	3	pt/a	V6 ZE	B	
14	Callisto	4	SC	3	fl oz/a	V6 ZE	B	
14	Resolve	25	DF	1.2	oz/a	V6 ZE	B	
14	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B	
15	Roundup WeatherMax	4.5	L	22	fl oz/a	V2 ZE	A	230
15	Ammonium Sulfate	100	DF	17	lb/100 gal	V2 ZE	A	
16	Roundup WeatherMax	4.5	L	22	fl oz/a	V6 ZE	B	235
16	Ammonium Sulfate	100	DF	17	lb/100 gal	V6 ZE	B	
17	Roundup WeatherMax	4.5	L	22	fl oz/a	30 IN ZE	C	230
17	Ammonium Sulfate	100	DF	17	lb/100 gal	30 IN ZE	C	
18	Untreated						C	227
LSD (P=.05)								18.9
Standard Deviation								13.2
CV								5.73

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.