

WEED CONTROL SYSTEMS IN ROUNDUP READY CORN

Trial ID: 04RRC1 Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH F-7 Investigator: Dr. Mark M. Loux

GENERAL TRIAL INFORMATION

Study Director: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux

Conducted Under GLP (Y/N): N Conducted Under GEP (Y/N): N

CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1. SETFA	Giant foxtail	Setaria faberi
2. AMBTR	Ragweed, giant	Ambrosia trifida
3. AMBEL	Ragweed, common	Ambrosia artemisiifolia
4. CHEAL	Lambsquarters, common	Chenopodium album
5. POLPY	Pennsylvania smartweed	Polygonum pennsylvanicum
6. ABUTH	Velvetleaf	Abutilon theophrasti

Crop 1: ZEAMX CORN, FIELD Variety: DEKALB DKC 60-09 RR
Planting Date: 4-24-04 Planting Method: JOHN DEERE 7200
Rate: 32097 SEED/A Depth: 1.5 IN
Row Spacing: 30 IN Seed Bed: CONVENTIONAL

SITE AND DESIGN

Plot Width, Unit: 10 FT Plot Length, Unit: 40 FT Reps: 4
Tillage Type: CONVENTIONAL Study Design: RANDOMIZED COMPLETE BLOCK

APPLICATION DESCRIPTION

	A	B	C
Application Date:	4-29-04	5-24-04	6-3-04
Time of Day:	7:30 A.M.	7:00 A.M.	9:00 A.M.
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	EPO	POST
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	54 F	76 F	59 F
% Relative Humidity:	52	42	77
Wind Velocity, Unit:	2 S	6 W	2 W
Soil Temp., Unit:	51 F	74 F	59 F
Soil Moisture:	DRY/MOIST	DRY/MOIST	DRY/MOIST
% Cloud Cover:	0	10	25

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX	ZEAMX	ZEAMX
Stage Scale:		3 COLLARS	6 COLLARS
Height, Unit:		8 IN	15 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	SETFA	SETFA 4-6"	SETFA 6-8"
Stage Scale:		4 LVS	4 LVS
Density, Unit:		55 M2	55 M2
Weed 2 Code, Stage:	AMBTR	AMBTR 6-8"	AMBTR 8-12"
Stage Scale:		10 LVS	12 LVS
Density, Unit:		2.3 M2	2.3 M2
Weed 3 Code, Stage:	AMBEL	AMBEL 1-2"	AMBEL 3-5"
Stage Scale:		6 LVS	6 LVS
Density, Unit:		1.3 M2	1.3 M2
Weed 4 Code, Stage:	CHEAL	CHEAL 1-2"	CHEAL 2-4"
Stage Scale:		4 LVS	8 LVS
Density, Unit:		18 M2	18 M2
Weed 5 Code, Stage:	POLPY	POLPY 3-4"	POLPY 6-8"
Stage Scale:		8 LVS	12 LVS
Density, Unit:		6 M2	6 M2
Weed 6 Code, Stage:	ABUTH	ABUTH 1-2"	ABUTH 3-5"
Stage Scale:		4 LVS	4 LVS
Density, Unit:		3.3 M2	3.3 M2

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	BACKPACK	BACKPACK	BACKPACK
Operating Pressure:	50	50	50
Nozzle Type:	DG	DG	DG
Nozzle Size:	11002	11002	11002
Nozzle Spacing, Unit:	18 IN	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA
Propellant:	CO2	CO2	CO2

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Weed Code	SETFA	AMBEL	CHEAL	ABUTH	POLPY	AMARE	ZEAMX
Crop Code	ZEAMX						ZEAMX
Rating Data Type	PHYTO	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	PHYTO
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	6-1-04	6-1-04	6-1-04	6-1-04	6-1-04	6-1-04	6-9-04
Trt-Eval Interval	AT POST	AT POST	AT POST	AT POST	AT POST	AT POST	6 DA-C
# Subsamples, Dec.	0	0	0	0	0	0	0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6	7	8
1	BICEP II MAGNUM	1.6 qt/a		PRE	A	0	100	100	63	90	100	100	0
1	TOUCHDOWN TOTAL	24 oz/a		POST	C								
1	AMS	4 qt/a		POST									
2	STALWART XTRA	1.3 qt/a		PRE	A	0	100	100	58	85	100	100	0
2	ROUNDUP WEATHERMAX	22 oz/a		POST	C								
2	AMS	4 qt/a		POST									
3	KEYSTONE	1.35 qt/a		PRE	A	0	100	98	93	85	100	100	0
3	GF-1279	24 oz/a		POST	C								
3	AMS	4 qt/a		POST									
4	HARNESS XTRA 5.6	1.2 qt/a		PRE	A	0	100	100	83	80	100	100	0
4	ROUNDUP WEATHERMAX	22 oz/a		POST	C								
4	AMS	4 qt/a		POST									
5	BALANCE PRO	1.5 oz/a		PRE	A	0	89	100	90	100	100	100	0
5	ROUNDUP WEATHERMAX	22 oz/a		POST	C								
5	AMS	4 qt/a		POST									
6	ATRAZINE	1 qt/a		PRE	A	0	55	100	23	78	100	100	0
6	ROUNDUP WEATHERMAX	22 oz/a		POST	C								
6	AMS	4 qt/a		POST									
7	DEGREE XTRA	2 qt/a		EPO	B	0	100	100	100	100	100	100	0
7	ROUNDUP WEATHERMAX	22 oz/a		EPO									
7	AMS	4 qt/a		EPO									
8	ATRAZINE	1.5 qt/a		EPO	B	0	100	100	100	100	100	100	0
8	ROUNDUP WEATHERMAX	22 oz/a		EPO									
8	AMS	4 qt/a		EPO									
9	ROUNDUP WEATHERMAX	22 oz/a		POST	C	0	0	0	0	0	0	0	0
9	AMS	4 qt/a		POST									
10	UTC					0	0	0	0	0	0	0	0
LSD (P=.05)						0.0	13.1	2.3	16.6	17.8	0.0	0.0	0.0
Standard Deviation						0.0	9.1	1.6	11.5	12.3	0.0	0.0	0.0
CV						0.0	12.17	1.98	18.87	17.11	0.0	0.0	0.0
Replicate F						0.000	0.842	1.000	1.592	3.999	0.000	0.000	0.000
Replicate Prob(F)						1.0000	0.4830	0.4079	0.2144	0.0177	1.0000	1.0000	1.0000
Treatment F						0.000	84.554	2827.667	48.290	39.756	0.000	0.000	0.000
Treatment Prob(F)						1.0000	0.0001	0.0001	0.0001	0.0001	1.0000	1.0000	1.0000

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Weed Code					SETFA	AMBEL	CHEAL	ABUTH	POLPY	AMARE		ZEAMX	
Crop Code					ZEAMX							PHYTO	
Rating Data Type					PHYTO	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	PHYTO	
Rating Unit					PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	
Rating Date					6-16-04	6-16-04	6-16-04	6-16-04	6-16-04	6-16-04	6-16-04	6-29-04	
Trt-Eval Interval					13 DA-C	13 DA-C	13 DA-C	13 DA-C	13 DA-C	13 DA-C	13 DA-C	26 DA-C	
# Subsamples, Dec.					0	0	0	0	0	0	0	0	
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	9	10	11	12	13	14	15	16
1	BICEP II MAGNUM	1.6 qt/a		PRE	A	0	100	100	100	100	100	100	0
1	TOUCHDOWN TOTAL	24 oz/a		POST	C								
1	AMS	4 qt/a		POST									
2	STALWART XTRA	1.3 qt/a		PRE	A	0	100	100	100	100	100	100	0
2	ROUNDUP WEATHERMAX	22 oz/a		POST	C								
2	AMS	4 qt/a		POST									
3	KEYSTONE	1.35 qt/a		PRE	A	0	100	100	100	100	100	100	0
3	GF-1279	24 oz/a		POST	C								
3	AMS	4 qt/a		POST									
4	HARNESS XTRA 5.6	1.2 qt/a		PRE	A	0	100	100	100	100	100	100	0
4	ROUNDUP WEATHERMAX	22 oz/a		POST	C								
4	AMS	4 qt/a		POST									
5	BALANCE PRO	1.5 oz/a		PRE	A	0	100	100	100	100	99	100	0
5	ROUNDUP WEATHERMAX	22 oz/a		POST	C								
5	AMS	4 qt/a		POST									
6	ATRAZINE	1 qt/a		PRE	A	0	100	100	100	100	100	100	0
6	ROUNDUP WEATHERMAX	22 oz/a		POST	C								
6	AMS	4 qt/a		POST									
7	DEGREE XTRA	2 qt/a		EPO	B	0	100	100	99	100	100	100	0
7	ROUNDUP WEATHERMAX	22 oz/a		EPO									
7	AMS	4 qt/a		EPO									
8	ATRAZINE	1.5 qt/a		EPO	B	0	100	100	100	100	100	100	0
8	ROUNDUP WEATHERMAX	22 oz/a		EPO									
8	AMS	4 qt/a		EPO									
9	ROUNDUP WEATHERMAX	22 oz/a		POST	C	0	100	98	100	100	91	100	0
9	AMS	4 qt/a		POST									
10	UTC					0	0	0	0	0	0	0	0
LSD (P=.05)						0.0	0.3	2.3	0.6	0.5	4.7	0.0	0.0
Standard Deviation						0.0	0.2	1.6	0.4	0.3	3.2	0.0	0.0
CV						0.0	0.25	1.76	0.46	0.38	3.63	0.0	0.0
Replicate F						0.000	0.643	1.000	2.070	1.976	0.743	0.000	0.000
Replicate Prob(F)						1.0000	0.5941	0.4079	0.1278	0.1414	0.5357	1.0000	1.0000
Treatment F						0.000	77058.008	1592.111	23039.119	35064.418	377.013	0.000	0.000
Treatment Prob(F)						1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	1.0000

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Weed Code				SETFA	AMBEL	CHEAL	ABUTH	POLPY	AMARE	SETFA	AMBEL		
Crop Code				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Data Type				PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT		
Rating Unit				6-29-04	6-29-04	6-29-04	6-29-04	6-29-04	6-29-04	7-28-04	7-28-04		
Rating Date				26 DA-C	26 DA-C	26 DA-C	26 DA-C	26 DA-C	26 DA-C	55 DA-C	55 DA-C		
Trt-Eval Interval				0	0	0	0	0	0	0	0		
# Subsamples, Dec.													
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	17	18	19	20	21	22	23	24
1	BICEP II MAGNUM	1.6	qt/a	PRE	A	100	100	100	100	100	100	100	100
1	TOUCHDOWN TOTAL	24	oz/a	POST	C								
1	AMS	4	qt/a	POST									
2	STALWART XTRA	1.3	qt/a	PRE	A	100	100	100	100	100	100	99	100
2	ROUNDUP WEATHERMAX	22	oz/a	POST	C								
2	AMS	4	qt/a	POST									
3	KEYSTONE	1.35	qt/a	PRE	A	100	100	100	100	100	100	99	100
3	GF-1279	24	oz/a	POST	C								
3	AMS	4	qt/a	POST									
4	HARNESS XTRA 5.6	1.2	qt/a	PRE	A	100	100	100	100	100	100	99	100
4	ROUNDUP WEATHERMAX	22	oz/a	POST	C								
4	AMS	4	qt/a	POST									
5	BALANCE PRO	1.5	oz/a	PRE	A	100	100	100	100	100	100	100	100
5	ROUNDUP WEATHERMAX	22	oz/a	POST	C								
5	AMS	4	qt/a	POST									
6	ATRAZINE	1	qt/a	PRE	A	100	100	100	100	100	100	100	100
6	ROUNDUP WEATHERMAX	22	oz/a	POST	C								
6	AMS	4	qt/a	POST									
7	DEGREE XTRA	2	qt/a	EPO	B	100	100	100	100	100	100	100	100
7	ROUNDUP WEATHERMAX	22	oz/a	EPO									
7	AMS	4	qt/a	EPO									
8	ATRAZINE	1.5	qt/a	EPO	B	100	100	99	100	100	100	99	100
8	ROUNDUP WEATHERMAX	22	oz/a	EPO									
8	AMS	4	qt/a	EPO									
9	ROUNDUP WEATHERMAX	22	oz/a	POST	C	100	100	100	100	99	100	100	100
9	AMS	4	qt/a	POST									
10	UTC					0	0	0	0	0	0	0	0
LSD (P=.05)						0.6	0.0	0.5	0.0	1.1	0.0	0.9	0.2
Standard Deviation						0.4	0.0	0.3	0.0	0.8	0.0	0.6	0.2
CV						0.44	0.0	0.36	0.0	0.88	0.0	0.66	0.18
Replicate F						0.162	0.000	1.862	0.000	1.000	0.000	1.800	1.000
Replicate Prob(F)						0.9212	1.0000	0.1599	1.0000	0.4079	1.0000	0.1710	0.4079
Treatment F						25768.762	0.000	37160.797	0.000	6383.223	0.000	11374.889	159912.125
Treatment Prob(F)						0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001	0.0001

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Weed Code	CHEAL	ABUTH	POLPY	AMARE
Crop Code				
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	7-28-04	7-28-04	7-28-04	7-28-04
Trt-Eval Interval	55 DA-C	55 DA-C	55 DA-C	55 DA-C
# Subsamples, Dec.	0	0	0	0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	25	26	27	28
1	BICEP II MAGNUM	1.6	qt/a	PRE	A	100	100	100	100
1	TOUCHDOWN TOTAL	24	oz/a	POST	C				
1	AMS	4	qt/a	POST					
2	STALWART XTRA	1.3	qt/a	PRE	A	100	100	100	100
2	ROUNDUP WEATHERMAX	22	oz/a	POST	C				
2	AMS	4	qt/a	POST					
3	KEYSTONE	1.35	qt/a	PRE	A	100	100	100	100
3	GF-1279	24	oz/a	POST	C				
3	AMS	4	qt/a	POST					
4	HARNESS XTRA 5.6	1.2	qt/a	PRE	A	100	100	100	100
4	ROUNDUP WEATHERMAX	22	oz/a	POST	C				
4	AMS	4	qt/a	POST					
5	BALANCE PRO	1.5	oz/a	PRE	A	100	100	100	100
5	ROUNDUP WEATHERMAX	22	oz/a	POST	C				
5	AMS	4	qt/a	POST					
6	ATRAZINE	1	qt/a	PRE	A	100	100	100	100
6	ROUNDUP WEATHERMAX	22	oz/a	POST	C				
6	AMS	4	qt/a	POST					
7	DEGREE XTRA	2	qt/a	EPO	B	100	100	100	100
7	ROUNDUP WEATHERMAX	22	oz/a	EPO					
7	AMS	4	qt/a	EPO					
8	ATRAZINE	1.5	qt/a	EPO	B	99	100	100	100
8	ROUNDUP WEATHERMAX	22	oz/a	EPO					
8	AMS	4	qt/a	EPO					
9	ROUNDUP WEATHERMAX	22	oz/a	POST	C	100	100	100	100
9	AMS	4	qt/a	POST					
10	UTC					0	0	0	0
LSD (P=.05)						1.2	0.5	0.0	0.3
Standard Deviation						0.8	0.3	0.0	0.2
CV						0.89	0.39	0.0	0.23
Replicate F						0.971	3.273	0.000	2.250
Replicate Prob(F)						0.4207	0.0364	1.0000	0.1053
Treatment F						6186.083	32655.548	0.000	89901.009
Treatment Prob(F)						0.0001	0.0001	1.0000	0.0001