

(04RRC1)

Ohio State University
Horticulture and Crop Science

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

SOIL DESCRIPTION

% OM: 5.2 Texture: silty clay loam
pH: 5.6 Soil Name: Kokomo
CEC: 25

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

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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

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

ARM Action Codes

Subsamples, Dec.

ZEAMX WEIGHT LBS 10-6-04 HARVEST	ZEAMX MOISTURE PERCENT 10-6-04 HARVEST	ZEAMX YIELD BU/ACRE 10-6-04 HARVEST
1	1	1

Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	29	30	31
1	BICEP II MAGNUM	1.6	qt/a	PRE	A	54.3 a	14.6 a	213.6 a
1	TOUCHDOWN TOTAL	24	oz/a	POST	C			
1	AMS	4	qt/a	POST				
2	STALWART XTRA	1.3	qt/a	PRE	A	52.7 a	14.1 a	208.4 a
2	ROUNDUP WEATHERMAX	22	oz/a	POST	C			
2	AMS	4	qt/a	POST				
3	KEYSTONE	1.35	qt/a	PRE	A	51.7 a	14.6 a	203.4 a
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	54.9 a	14.5 a	215.9 a
4	ROUNDUP WEATHERMAX	22	oz/a	POST	C			
4	AMS	4	qt/a	POST				
5	BALANCE PRO	1.5	oz/a	PRE	A	53.1 a	14.4 a	209.1 a
5	ROUNDUP WEATHERMAX	22	oz/a	POST	C			
5	AMS	4	qt/a	POST				
6	ATRAZINE	1	qt/a	PRE	A	54.9 a	14.4 a	216.0 a
6	ROUNDUP WEATHERMAX	22	oz/a	POST	C			
6	AMS	4	qt/a	POST				
7	DEGREE XTRA	2	qt/a	EPO	B	53.7 a	14.2 a	212.2 a
7	ROUNDUP WEATHERMAX	22	oz/a	EPO				
7	AMS	4	qt/a	EPO				
8	ATRAZINE	1.5	qt/a	EPO	B	51.7 a	14.3 a	203.9 a
8	ROUNDUP WEATHERMAX	22	oz/a	EPO				
8	AMS	4	qt/a	EPO				
9	ROUNDUP WEATHERMAX	22	oz/a	POST	C	51.3 a	14.0 a	203.1 a
9	AMS	4	qt/a	POST				
10	UTC					36.8 b	14.3 a	145.0 b

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Weed Code			
Crop Code	ZEAMX	ZEAMX	ZEAMX
Rating Data Type	WEIGHT	MOISTURE	YIELD
Rating Unit	LBS	PERCENT	BU/ACRE
Rating Date	10-6-04	10-6-04	10-6-04
Trt-Eval Interval	HARVEST	HARVEST	HARVEST
ARM Action Codes			TY1
# Subsamples, Dec.	1	1	1

Trt Treatment	Product	Product	Grow	Appl			
No. Name	Rate	Rate Unit	Stg	Code	29	30	31
LSD (P=.05)					7.87	1.12	30.69
Standard Deviation					5.43	0.77	21.15
CV					10.54	5.38	10.41
Replicate F					0.130	4.585	0.279
Replicate Prob(F)					0.9414	0.0101	0.8401
Treatment F					3.880	0.283	3.938
Treatment Prob(F)					0.0029	0.9737	0.0027

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.

Column 3: TY1 = $3.889286 * [29] * (100 - [30]) / 84.5$