

(04PREC2)

Ohio State University  
Horticulture and Crop Science

PREEMERGENCE WEED CONTROL IN CORN II

Trial ID: 04PREC2                      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. AMBEL	Ragweed, common	Ambrosia artemisiifolia
3. CHEAL	Lambsquarters, common	Chenopodium album
4. ABUTH	Velvetleaf	Abutilon theophrasti
5. AMARE	Redroot pigweed	Amaranthus retroflexus
6. POLPY	Pennsylvania smartweed	Polygonum pensylvanicum

Crop 1: ZEAMX    CORN, FIELD                      Variety: PIONEER 34M94  
Planting Date: 4-28-04                      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

Application Date: 4-29-04  
Time of Day: 7:00 A.M.  
Application Method: SPRAY  
Application Timing: PRE  
Applic. Placement: BROADCAST  
Air Temp., Unit: 54    F  
% Relative Humidity: 52  
Wind Velocity, Unit: 1    S  
Soil Temp., Unit: 51    F  
Soil Moisture: DRY/MOIST  
% Cloud Cover: 0

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: ZEAMX

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WEED STAGE AT EACH APPLICATION

A

Weed 1 Code, Stage: SETFA  
Density, Unit: 65.3 M2  
Weed 2 Code, Stage: AMBEL  
Density, Unit: 5 M2  
Weed 3 Code, Stage: CHEAL  
Density, Unit: 14.3 M2  
Weed 4 Code, Stage: ABUTH  
Density, Unit: 3.3 M2  
Weed 5 Code, Stage: AMARE  
Density, Unit: 12 M2  
Weed 6 Code, Stage: POLPY  
Density, Unit: 1.3 M2

APPLICATION EQUIPMENT

A

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

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Location: WESTERN BRANCH F-7 Investigator: Dr. Mark M. Loux

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
Crop Stage			
Trt-Eval Interval	HARVEST	HARVEST	HARVEST
ARM Action Codes			TY1
# Subsamples, Dec.	1	1	1

Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	22	23	24
1	A14224	2.5	qt/a	PRE	A	57.8 a	14.9 a	226.4 a
2	A14224	3	qt/a	PRE	A	57.6 a	16.5 a	221.1 a
3	A14224	3.5	qt/a	PRE	A	59.8 a	15.8 a	231.6 a
4	A14224	3	qt/a	PRE	A	59.3 a	15.7 a	230.1 a
4	PRINCEP	1	qt/a	PRE				
5	LUMAX	3	qt/a	PRE	A	59.3 a	15.5 a	231.7 a
6	LUMAX	3	qt/a	PRE	A	58.6 a	16.6 a	225.0 a
6	ATRAZINE	1	qt/a	PRE				
7	BICEP II MAGNUM	2.6	qt/a	PRE	A	56.0 a	15.4 a	218.5 a
8	STALWART XTRA	2.6	qt/a	PRE	A	59.6 a	16.5 a	229.3 a
9	BALANCE PRO	2.25	oz/a	PRE	A	57.9 a	15.9 a	224.2 a
9	HARNESS XTRA 5.6	2.1	qt/a	PRE				
10	EPIC	12	oz/a	PRE	A	60.6 a	16.6 a	232.9 a
10	ATRAZINE	1.5	qt/a	PRE				
11	USA 2005	21	oz/a	PRE	A	56.1 a	15.9 a	217.1 a
11	ATRAZINE	1.5	qt/a	PRE				
12	USA 2005	24	oz/a	PRE	A	56.8 a	15.6 a	220.5 a
12	ATRAZINE	1.5	qt/a	PRE				
13	GUARDSMAN MAX	2.3	qt/a	PRE	A	57.2 a	16.3 a	221.7 a
14	HARNESS XTRA 5.6	2.4	qt/a	PRE	A	56.1 a	17.2 a	213.8 a
15	EPIC	12	oz/a	PRE	A	58.3 a	17.5 a	221.4 a

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Rating Unit	LBS	PERCENT	BU/ACRE
Rating Date	10-6-04	10-6-04	10-6-04
Crop Stage			
Trt-Eval Interval	HARVEST	HARVEST	HARVEST
ARM Action Codes			TY1
# Subsamples, Dec.	1	1	1

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	22	23	24
16	KEYSTONE	2.8	qt/a	PRE	A	57.0 a	15.5 a	221.7 a
17	STALWART XTRA	2.1	qt/a	PRE	A	59.4 a	15.1 a	232.1 a
17	BALANCE PRO	1.5	oz/a	PRE				
18	STALWART XTRA	2.6	qt/a	PRE	A	55.8 a	15.9 a	216.3 a
18	BALANCE PRO	1.5	oz/a	PRE				
19	STALWART XTRA	2.6	qt/a	PRE	A	57.4 a	15.3 a	223.7 a
19	SIM-TROL	1	qt/a	PRE				
20	BICEP II MAGNUM	2.6	qt/a	PRE	A	56.1 a	16.5 a	215.7 a
20	PRINCEP	1	qt/a	PRE				
21	UTC					33.8 b	13.6 a	133.5 b
	LSD (P=.05)					5.10	2.09	20.01
	Standard Deviation					3.61	1.48	14.15
	CV					6.36	9.31	6.45
	Replicate F					9.484	1.093	9.353
	Replicate Prob(F)					0.0001	0.3590	0.0001
	Treatment F					9.108	1.292	8.425
	Treatment Prob(F)					0.0001	0.2199	0.0001

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\*[22]\*(100-[23])/84.5