

Ohio State University
Horticulture and Crop Science

PRE POST WEED CONTROL IN ROUNDUP READY CORN WITH YUKON AND PERMIT

Trial ID: 08PRPORRC1 Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH E-2 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. CHEAL	Common lambsquarters	Chenopodium album
3. AMBTR	Giant ragweed	Ambrosia trifida
4. IPOHE	Ivyleaf morningglory	Ipomoea hederacea
5. SOLPT	Eastern black nightshade	Solanum ptycanthum
6. POLPY	Pennsylvania smartweed	Polygonum pensylvanicum

Crop 1: ZEAMX CORN, FIELD Variety: SEED CONSULTANTS SC11BR16
Planting Date: Apr/24/2008 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: 2.7 Texture: SILTY CLAY LOAM
pH: 6.1 Soil Name: KOKOMO
CEC: 21.6 Fert. Level: EXCELLENT

APPLICATION DESCRIPTION

	A	B	C
Application Date:	Apr/24/2008	May/29/2008	Jun/08/2008
Time of Day:	3:00 P.M.	9:30 A.M.	7:30 A.M.
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	EPO	20" CORN
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	76 F	63 F	73 F
% Relative Humidity:		45	81
Wind Velocity, Unit:	7 SE	3 E	7 SW
Soil Temp., Unit:	74 F	58 F	69 F
Soil Moisture:	DRY/MOIST	DRY/MOIST	MOIST/WET
% Cloud Cover:	70	0	7

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX ZEAMX V4	ZEAMX V6	
Stage Scale:	DESC	DESC	
Height, Unit:	8 IN	22 IN	

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	SETFA SETFA 3"	SETFA 4-10"	
Stage Scale:	3 LVS	7 LVS	
Density, Unit:	236 M2	236 M2	
Weed 2 Code, Stage:	CHEAL CHEAL 1-2"	CHEAL 1-10"	
Stage Scale:	4-6 LVS	8-10 LVS	
Density, Unit:	30 M2	30 M2	
Weed 3 Code, Stage:	AMBTR AMBTR 4-12"	AMBTR 4-22"	
Stage Scale:	6-12 LVS	12-20 LVS	
Density, Unit:	34 M2	34 M2	
Weed 4 Code, Stage:	IPOHE IPOHE 1"	IPOHE 2"	
Stage Scale:	2 LVS	5 LVS	
Density, Unit:	1.3 M2	1.3 M2	
Weed 5 Code, Stage:	SOLPT SOLPT .5"	SOLPT 1"	
Stage Scale:	4 LVS	6 LVS	
Density, Unit:	0.3 M2	0.3 M2	
Weed 6 Code, Stage:	POLPY POLPY 2-3"	POLPY 4-6"	
Stage Scale:	2-3 LVS	8-10 LVS	
Density, Unit:	0.33 M2	0.33 M2	

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APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	BACKPACK	BACKPACK	BACKPACK
Operating Pressure:	53	53	53
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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Location: WESTERN BRANCH E-2 Investigator: Dr. Mark M. Loux

Weed Code						ZEAMX	ZEAMX	ZEAMX
Crop Code						YIELD	MOISTURE	YIELD
Rating Data Type						LBS	PERCENT	BU
Rating Unit						Oct/20/2008	Oct/20/2008	Oct/20/2008
Rating Date						HARVEST	HARVEST	HARVEST
Trt-Eval Interval								
ARM Action Codes								TY1
# Subsamples, Dec.						2	2	1
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	12	13	14
1	HARNESS XTRA 5.6	2.25	qt/a	PRE	A	60.59 ab	15.52 a	234.2 ab
1	YUKON	4	oz/a	12" CRN	B			
2	HARNESS XTRA 5.6	1.125	qt/a	PRE	A	60.80 ab	15.49 a	235.0 ab
2	YUKON	4	oz/a	12" CRN	B			
2	ROUNDUP WEATHERMAX	22	oz/a	12" CRN				
2	NIS	3.2	oz/a	12" CRN				
2	AMS	4	qt/a	12" CRN				
3	HARNESS XTRA 5.6	1.125	qt/a	PRE	A	60.48 ab	15.19 a	234.6 ab
3	PERMIT	0.66	oz/a	12" CRN	B			
3	ROUNDUP WEATHERMAX	22	oz/a	12" CRN				
3	NIS	3.2	oz/a	12" CRN				
3	AMS	4	qt/a	12" CRN				
4	HARNESS XTRA 5.6	1.125	qt/a	PRE	A	64.06 a	14.88 a	249.5 a
4	STATUS	5	oz/a	12" CRN	B			
4	ROUNDUP WEATHERMAX	22	oz/a	12" CRN				
4	NIS	3.2	oz/a	12" CRN				
4	AMS	4	qt/a	12" CRN				
5	HARNESS XTRA 5.6	1.125	qt/a	PRE	A	56.97 b	14.77 a	222.1 b
5	ROUNDUP WEATHERMAX	22	oz/a	12" CRN	B			
5	AMS	4	qt/a	12" CRN				
6	HARNESS XTRA 5.6	1.125	qt/a	PRE	A	59.23 ab	15.65 a	228.4 ab
6	YUKON	4	oz/a	20" CRN	C			
6	ROUNDUP WEATHERMAX	22	oz/a	20" CRN				
6	NIS	3.2	oz/a	20" CRN				
6	AMS	4	qt/a	20" CRN				
7	HARNESS XTRA 5.6	1.125	qt/a	PRE	A	61.70 ab	15.22 a	239.1 ab
7	ROUNDUP WEATHERMAX	22	oz/a	20" CRN	C			
7	AMS	4	qt/a	20" CRN				
8	SAMSON	12	oz/a	12" CRN	B	57.35 ab	14.87 a	223.4 b
8	IMPACT	0.75	oz/a	12" CRN				
8	AMS	2	qt/a	12" CRN				
9	SAMSON	12	oz/a	12" CRN	B	55.85 b	15.03 a	217.1 b
9	CALLISTO	3	oz/a	12" CRN				
9	AMS	2	qt/a	12" CRN				
10	SAMSON	12	oz/a	12" CRN	B	59.72 ab	14.97 a	232.3 ab
10	CLARITY	16	oz/a	12" CRN				
10	AMS	2	qt/a	12" CRN				
11	SAMSON	12	oz/a	12" CRN	B	38.65 c	13.20 a	153.4 c
11	AATREX	15	oz/a	12" CRN				
11	AMS	2	qt/a	12" CRN				
12	UTC					3.16 d	9.45 b	13.2 d
LSD (P=.05)						6.803	3.164	25.09
Standard Deviation						4.711	2.191	17.38
CV						8.85	15.09	8.4
Grand Mean						53.21	14.52	206.86
Bartlett's X2						23.059	39.755	24.129
P(Bartlett's X2)						0.017*	0.001*	0.012*

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Crop Code					ZEAMX	ZEAMX	ZEAMX
Rating Data Type					YIELD	MOISTURE	YIELD
Rating Unit					LBS	PERCENT	BU
Rating Date					Oct/20/2008	Oct/20/2008	Oct/20/2008
Trt-Eval Interval					HARVEST	HARVEST	HARVEST
ARM Action Codes							TY1
# Subsamples, Dec.					2	2	1
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code		
						12	13
							14
Replicate F						0.406	1.347
Replicate Prob(F)						0.7497	0.2760
Treatment F						52.229	2.453
Treatment Prob(F)						0.0001	0.0229

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.

ARM Action Codes

$$TY1 = 3.889286 * [12] * (100 - [13]) / 85$$