

Ohio State University
Horticulture and Crop Science

VALUE OF RESIDUAL WEED CONTROL IN ROUNDUP READY CORN

Trial ID: 08RRCYLD2 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
7. ABUTH	Velvetleaf	Abutilon theophrasti

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/06/2008
Time of Day:	3:00 P.M.	9:30 A.M.	8:30 A.M.
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	EPO	POST
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	76 F	63 F	81 F
% Relative Humidity:		45	71
Wind Velocity, Unit:	7 SE	3 E	7 S
Soil Temp., Unit:	74 F	58 F	69 F
Soil Moisture:	DRY/MOIST	DRY/MOIST	WET/WET
% Cloud Cover:	70	0	0

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	17 IN	

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	SETFA SETFA 3"	SETFA 3"	
Stage Scale:	3 LVS	3 LVS	
Density, Unit:	336 M2	336 M2	
Weed 2 Code, Stage:	CHEAL CHEAL 1-2"	CHEAL 2"	
Stage Scale:	4-6 LVS	4 LVS	
Density, Unit:	8 M2	8 M2	
Weed 3 Code, Stage:	AMBTR AMBTR 4-12"	AMBTR 2-16"	
Stage Scale:	6-12 LVS	2-20 LVS	
Density, Unit:	61 M2	61 M2	
Weed 4 Code, Stage:	IPOHE IPOHE 1"	IPOHE	
Stage Scale:	2 LVS		
Density, Unit:	12 M2		
Weed 5 Code, Stage:	SOLPT SOLPT .5"	SOLPT	
Stage Scale:	4 LVS		
Density, Unit:	0.22 M2		
Weed 6 Code, Stage:	POLPY POLPY 2-3"	POLPY	
Stage Scale:	2-3 LVS		
Density, Unit:	1.3 M2		
Weed 7 Code, Stage:	ABUTH ABUTH	ABUTH 3"	
Stage Scale:		5 LVS	
Density, Unit:		3 M2	

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								
Crop Code				ZEAMX		ZEAMX		
Rating Data Type				YIELD		MOISTURE		
Rating Unit				LBS		PERCENT		
Rating Date				Oct/13/2008		Oct/13/2008		
Trt-Eval Interval				HARVEST		HARVEST		
ARM Action Codes						TY1		
# Subsamples, Dec.				2		2		
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	9	10	
1	ROUNDUP WEATHERMAX	22 oz/a		5-8" CRN	B	59.40 c	15.83 a	
1	AMS	2 qt/a		5-8" CRN			228.7 c	
2	ROUNDUP WEATHERMAX	22 oz/a		5-8" CRN	B	61.50 bc	15.88 a	
2	STATUS	2.5 oz/a		5-8" CRN			236.6 bc	
2	AMS	2 qt/a		5-8" CRN				
3	ROUNDUP WEATHERMAX	22 oz/a		5-8" CRN	B	63.12 ab	15.75 a	
3	STATUS	5 oz/a		5-8" CRN			243.3 ab	
3	AMS	2 qt/a		5-8" CRN				
4	GUARDSMAN MAX	2.5 pt/a		PRE	A	64.76 a	16.15 a	
4	ROUNDUP WEATHERMAX	22 oz/a		8-12" CR	C		248.4 a	
4	AMS	2 qt/a		8-12" CR				
5	GUARDSMAN MAX	2.5 pt/a		PRE	A	63.70 ab	16.51 a	
5	ROUNDUP WEATHERMAX	22 oz/a		8-12" CR	C		243.3 ab	
5	STATUS	2.5 oz/a		8-12" CR				
5	AMS	2 qt/a		8-12" CR				
6	GUARDSMAN MAX	2.5 pt/a		PRE	A	64.07 a	16.11 a	
6	ROUNDUP WEATHERMAX	22 oz/a		8-12" CR	C		246.0 a	
6	STATUS	5 oz/a		8-12" CR				
6	AMS	2 qt/a		8-12" CR				
LSD (P=.05)						2.508	1.199	8.88
Standard Deviation						1.664	0.796	5.89
CV						2.65	4.96	2.45
Grand Mean						62.76	16.04	241.04
Bartlett's X2						2.78	6.626	5.055
P(Bartlett's X2)						0.734	0.25	0.409
Replicate F						6.995	4.292	4.502
Replicate Prob(F)						0.0036	0.0225	0.0192
Treatment F						5.663	0.493	5.973
Treatment Prob(F)						0.0040	0.7768	0.0031

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*[9]*(100-[10])/85