

Ohio State University Horticulture and Crop Science

PERFORMANCE OF HARNESS AND DEGREE APPLIED MPO TO CORN
2007-01-04-02

Trial ID: 07POC2
Location: WESTERN BRANCH G-2

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

GENERAL TRIAL INFORMATION

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

TRIAL LOCATION

Trial Status: CONTINUING

State/Prov.: OHIO
Country: CLARK

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

CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1. CHEAL	Common lambsquarters	Chenopodium album
2. ABUTH	Velvetleaf	Abutilon theophrasti
3. AMBTR	Giant ragweed	Ambrosia trifida
4. POLPY	Pennsylvania smartweed	Polygonum pensylvanicum
5. SETFA	Giant foxtail	Setaria faberi

Crop 1: ZEAMX CORN, FIELD Variety: DEKALB DKC 61-69
Planting Date: Apr/23/2007 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: 3.0 Texture: SILTY CLAY LOAM
pH: 5.7 Soil Name: KOKOMO
CEC: 23.5

Overall Moisture Conditions: POOR

APPLICATION DESCRIPTION

	A	B	C
Application Date:	Apr/24/2007	Jun/01/2007	Jun/11/2007
Time of Day:	11:00 A.M.	7:30 A.M.	9:15 A.M.
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	POST	LPO
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	62 F	71 F	73 F
% Relative Humidity:	61	68	47
Wind Velocity, Unit:	6 NE	2 S	4 E
Soil Temp., Unit:	60 F	72 F	66 F
Soil Moisture:	MOIST MOI	MOIST MOI	DRY DRY
% Cloud Cover:	30	100	0

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX .	ZEAMX .	ZEAMX .
Stage Scale:	.	6 collar	8 COLLAR
Height, Unit:	0. .	15 IN	30 IN

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WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	CHEAL .	CHEAL 2"	CHEAL .
Stage Scale:	.	4 LVS	.
Density, Unit:	4 M2	4 M2	.
Weed 2 Code, Stage:	ABUTH .	ABUTH 3-4"	ABUTH .
Stage Scale:	.	6-7 LVS	.
Density, Unit:	2 M2	2 M2	.
Weed 3 Code, Stage:	AMBTR .	AMBTR 8-14"	AMBTR 14-25"
Stage Scale:	.	8-16 LVS	>12 LVS
Density, Unit:	11.2 M2	11.2 M2	11.2 M2
Weed 4 Code, Stage:	POLPY .	POLPY 3"	POLPY .
Stage Scale:	.	3-5 LVS	.
Density, Unit:	2.25 M2	2.25 M2	.
Weed 5 Code, Stage:	SETFA .	SETFA .	SETFA .
Stage Scale:	.	.	.
Density, Unit:	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	ZEAMX	ZEAMX	ZEAMX
Crop Code			
Part Rated			
Rating Data Type	YIELD	MOISTURE	YIELD
Rating Unit	LBS	PERCENT	BU
Rating Date	Oct/29/2007	Oct/29/2007	Oct/29/2007
Trt-Eval Interval	HARVEST	HARVEST	HARVEST
ARM Action Codes			TY1
# Subsamples, Dec.	1	1	1

Trt No.	Treatment Name	Rate	Product Rate	Product Unit	Appl Code	15	16	17
1	HARNESS XTRA 5.6	2.1 lb ai/a	1.5 qt/a		A	59.1 a	13.0 a	235.5 a
1	ROUNDUP ORIGINAL MAX	0.75 lb ae/a	21.3 oz/a		B			
1	AMS	5 % v/v	4 qt/a					
2	HARNESS XTRA 5.6	2.1 lb ai/a	1.5 qt/a		A	58.9 a	13.4 a	233.6 a
2	HARNESS	1.31 lb ai/a	1.5 pt/a		B			
2	ROUNDUP ORIGINAL MAX	0.75 lb ae/a	21.3 oz/a					
2	AMS	5 % v/v	4 qt/a					
3	HARNESS XTRA 5.6	2.1 lb ai/a	1.5 qt/a		A	59.7 a	13.4 a	236.4 a
3	HARNESS	2.6 lb ai/a	3 pt/a		B			
3	ROUNDUP ORIGINAL MAX	0.75 lb ae/a	21.3 oz/a					
3	AMS	5 % v/v	4 qt/a					
4	HARNESS XTRA 5.6	2.1 lb ai/a	1.5 qt/a		A	57.7 a	13.6 a	228.3 a
4	HARNESS	1.31 lb ai/a	1.5 pt/a		C			
4	ROUNDUP ORIGINAL MAX	0.75 lb ae/a	21.3 oz/a					
4	AMS	5 % v/v	4 qt/a					
5	HARNESS XTRA 5.6	2.1 lb ai/a	1.5 qt/a		A	52.9 a	12.5 a	211.8 a
5	HARNESS	2.6 lb ai/a	3 pt/a		C			
5	ROUNDUP ORIGINAL MAX	0.75 lb ae/a	21.3 oz/a					
5	AMS	5 % v/v	4 qt/a					
6	HARNESS XTRA 5.6	2.1 lb ai/a	1.5 qt/a		A	60.0 a	13.5 a	237.5 a
6	CALLISTO	0.094 lb ai/a	3 oz/a		B			
6	ROUNDUP ORIGINAL MAX	0.75 lb ae/a	21.3 oz/a					
6	AMS	5 % v/v	4 qt/a					
7	HARNESS XTRA 5.6	2.1 lb ai/a	1.5 qt/a		A	58.8 a	13.4 a	232.8 a
7	STATUS	0.095 lb ai/a	2.5 oz/a		B			
7	ROUNDUP ORIGINAL MAX	0.75 lb ae/a	21.3 oz/a					
7	AMS	5 % v/v	4 qt/a					
8	HARNESS XTRA 5.6	2.1 lb ai/a	1.5 qt/a		A	60.8 a	13.1 a	241.7 a
8	IMPACT	0.011 lb ai/a	0.5 oz/a		B			
8	ROUNDUP ORIGINAL MAX	0.75 lb ae/a	21.3 oz/a					
8	AMS	5 % v/v	4 qt/a					
9	HARNESS XTRA 5.6	3.64 lb ai/a	2.6 qt/a		A	27.5 c	12.7 a	109.7 c
10	LEXAR	2.78 lb ai/a	3 qt/a		A	39.2 b	13.1 a	155.9 b
LSD (P=.05)						8.39	1.03	32.48
Standard Deviation						5.78	0.71	22.38
CV						10.82	5.39	10.54
Bartlett's X2						17.488	15.534	18.005
P(Bartlett's X2)						0.042*	0.077	0.035*
Replicate F						1.080	0.045	1.127
Replicate Prob(F)						0.3740	0.9872	0.3558
Treatment F						14.911	1.080	15.477
Treatment Prob(F)						0.0001	0.4086	0.0001

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Rating Date					Oct/29/2007	Oct/29/2007
Trt-Eval Interval					HARVEST	HARVEST
ARM Action Codes						TY1
# Subsamples, Dec.					1	1

Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Unit	Appl Code
15						
16						
17						

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

ARM Action Codes

TY1 = $3.889286 * [15] * (100 - [16]) / 85$