Ohio State University
Horticulture and Crop Science

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

Trial ID: 07POC2 Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH G-2 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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Trial ID: 07POC2 Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH G-2 Investigator: Dr. Mark M. Loux

Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Appl Code	1	2	3	4	5	6
	Weed Code							SETFA	CHEAL	AMBTR	POLPY	
	Crop Code						ZEAMX					ZEAMX
	Part Rated											
	Rating Data Type						PHYTO	CONTROL	CONTROL	CONTROL	CONTROL	PHYTO
	Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
	Rating Date						Jun/07/2007	Jun/07/2007	Jun/07/2007	Jun/07/2007	Jun/07/2007	Jun/08/2007
	Trt-Eval Interval						AT POST	AT POST	AT POST	AT POST	AT POST	7 DA-B
	ARM Action Codes											
	# Subsamples, Dec.						0	0	0	0	0	0
1	HARNESS XTRA 5.6	2.1	lb ai/a	1.5	qt/a	A	0 b	96 a	100 a	74 a	93 a	0 b
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	0 b	98 a	99 a	76 a	94 a	0 b
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	3 a	99 a	100 a	74 a	79 a	3 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	0 b	96 a	100 a	65 a	95 a	0 b
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	0 b	98 a	90 a	58 a	80 a	0 b
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	0 b	98 a	100 a	73 a	90 a	0 b
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	0 b	99 a	93 a	65 a	83 a	1 b
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	0 b	98 a	98 a	71 a	100 a	0 b
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	0 b	99 a	94 a	59 a	100 a	0 b
10	LEXAR	2.78	lb ai/a	3	qt/a	A	0 b	98 a	100 a	70 a	100 a	0 b
	LSD (P=.05)						0.0	3.9	12.1	15.0	19.2	0.7
	Standard Deviation						0.0	2.7	8.4	10.3	13.3	0.5
	CV						0.0	2.74	8.6	15.11	14.54	126.49
	Bartlett's X2						0.0	5.33	14.248	12.56	16.856	0.0
	P(Bartlett's X2)						.	0.805	0.007*	0.184	0.018*	.
	Replicate F						0.000	2.035	1.258	0.818	2.738	1.000
	Replicate Prob(F)						1.0000	0.1326	0.3084	0.4953	0.0630	0.4079
	Treatment F						0.000	0.541	0.858	1.588	1.527	16.111
	Treatment Prob(F)						1.0000	0.8319	0.5718	0.1690	0.1888	0.0001

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Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Appl Code	1	2	3	4	5	6
Weed Code								SETFA	CHEAL	AMBTR	POLPY	
Crop Code							ZEAMX					ZEAMX
Part Rated												
Rating Data Type							PHYTO	CONTROL	CONTROL	CONTROL	CONTROL	PHYTO
Rating Unit							PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date							Jun/07/2007	Jun/07/2007	Jun/07/2007	Jun/07/2007	Jun/07/2007	Jun/08/2007
Trt-Eval Interval							AT POST	AT POST	AT POST	AT POST	AT POST	7 DA-B
ARM Action Codes												
# Subsamples, Dec.							0	0	0	0	0	0

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.

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Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Appl Code	7	8	9	10	11	12
	Weed Code										SETFA	CHEAL
	Crop Code						ZEAMX	ZEAMX	ZEAMX	ZEAMX		
	Part Rated							MARGIN	MARGIN	MARGIN		
	Rating Data Type						SPECKLING	BROWNING	BROWNING	BROWNING	CONTROL	CONTROL
	Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
	Rating Date						Jun/15/2007	Jun/15/2007	Jun/18/2007	Jun/25/2007	Oct/01/2007	Oct/01/2007
	Trt-Eval Interval						14 DA-B	14 DA-B	7 DA-C	14 DA-C	HARVEST	HARVEST
	ARM Action Codes											
	# Subsamples, Dec.						0	0	0	0	0	0
1	HARNESS XTRA 5.6	2.1	lb ai/a	1.5	qt/a	A	0 b	0 b	0 b	0 b	78 a	100 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	0 b	0 b	0 b	0 b	100 a	100 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	3 a	0 b	0 b	0 b	100 a	100 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	0 b	5 a	3 a	3 a	100 a	100 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	0 b	3 ab	3 a	1 ab	100 a	100 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	0 b	0 b	0 b	0 b	100 a	100 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	1 b	0 b	0 b	0 b	100 a	100 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	0 b	0 b	0 b	0 b	100 a	99 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	0 b	0 b	0 b	0 b	98 a	99 a
10	LEXAR	2.78	lb ai/a	3	qt/a	A	0 b	0 b	0 b	0 b	95 a	98 a
	LSD (P=.05)						0.8	2.0	1.1	1.6	21.2	2.8
	Standard Deviation						0.5	1.4	0.8	1.1	14.6	1.9
	CV						140.31	182.71	128.7	268.31	15.09	1.96
	Bartlett's X2						0.154	2.971	5.333	0.109	14.303	2.02
	P(Bartlett's X2)						0.694	0.085	0.021*	0.741	0.001*	0.364
	Replicate F						0.331	1.473	0.783	0.116	0.801	0.878
	Replicate Prob(F)						0.8029	0.2440	0.5140	0.9501	0.5041	0.4647
	Treatment F						15.100	5.592	10.826	2.904	0.928	0.805
	Treatment Prob(F)						0.0001	0.0002	0.0001	0.0154	0.5168	0.6155

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Weed Code							AMBTR	POLPY
Crop Code								
Part Rated								
Rating Data Type							CONTROL	CONTROL
Rating Unit							PERCENT	PERCENT
Rating Date							Oct/01/2007	Oct/01/2007
Trt-Eval Interval							HARVEST	HARVEST
ARM Action Codes								
# Subsamples, Dec.							0	0

Trt No.	Treatment Name	Rate	Rate Unit	Product Rate	Product Rate Unit	Appl Code	13	14
1	HARNESS XTRA 5.6	2.1	lb ai/a	1.5	qt/a	A	93 a	100 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	91 a	78 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	86 a	100 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	93 a	100 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	90 a	100 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	98 a	100 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	99 a	100 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	93 a	100 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	58 b	96 a
10	LEXAR	2.78	lb ai/a	3	qt/a	A	68 b	100 a

LSD (P=.05)	12.5	20.6
Standard Deviation	8.6	14.2
CV	9.93	14.55
Bartlett's X2	17.034	6.645
P(Bartlett's X2)	0.048*	0.01*
Replicate F	1.635	1.374
Replicate Prob(F)	0.2047	0.2719
Treatment F	9.786	1.000
Treatment Prob(F)	0.0001	0.4635

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