

Ohio State University  
Horticulture and Crop Science

CORN COMPETITIVE HERBICIDE FOUNDATION TRIAL

2008-01-04-02

Trial ID: 08RRCYLD1

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. AMARE	Redroot pigweed	Amaranthus retroflexus

Crop 1: ZEAMX CORN, FIELD

Variety: DEKABL DKC 61-19

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	Jun/08/2008	Jul/01/2008
Time of Day:	3:00 P.M.	7:30 P.M.	2:00 P.M.
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	POST	LPO
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	76 F	73 F	78 F
% Relative Humidity:		81	57
Wind Velocity, Unit:	7 SE	7 SW	7 SW
Soil Temp., Unit:	74 F	69 F	71 F
Soil Moisture:	DRY/MOIST	MOIST/WET	MOIST/WET
% Cloud Cover:	70	7	5

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX	ZEAMX V6	ZEAMX V10
Stage Scale:	DESC	DESC	
Height, Unit:	22 IN	69 IN	

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	SETFA	SETFA 4-10"	SETFA 6-8"
Stage Scale:		3-6 LVS	5 LVS
Density, Unit:		260 M2	260 M2
Weed 2 Code, Stage:	CHEAL	CHEAL 1-10"	CHEAL 3-4"
Stage Scale:		2->12 LVS	>12 LVS
Density, Unit:		30 M2	30 M2
Weed 3 Code, Stage:	AMBTR	AMBTR 16-22"	AMBTR 3-4"
Stage Scale:		>12 LVS	8 LVS
Density, Unit:		34 M2	34 M2
Weed 4 Code, Stage:	AMARE	AMARE 1-4"	AMARE 2-3"
Stage Scale:		2-4 LVS	8-10 LVS
Density, Unit:		5 M2	5 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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Weed Code					SETFA	CHEAL	AMBTR	AMARE	SETFA	AMBTR	
Rating Data Type					CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit					PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	
Rating Date					Jun/07/2008	Jun/07/2008	Jun/07/2008	Jun/07/2008	Aug/05/2008	Aug/05/2008	
Trt-Eval Interval					AT POST	AT POST	AT POST	AT POST	58 DA-B	58 DA-B	
# Subsamples, Dec.					0	0	0	0	0	0	
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6
1	HARNESX XTRA 5.6	1.5	qt/a	PRE	A	99 a	89 a	74 b	100 a	96 a	84 a
1	ROUNDUP POWERMAX	21.3	oz/a	POST	B						
1	AMS	4	qt/a	POST							
2	DEGREE XTRA	2	qt/a	PRE	A	98 a	77 b	63 c	100 a	100 a	86 a
2	ROUNDUP POWERMAX	21.3	oz/a	POST	B						
2	AMS	4	qt/a	POST							
3	GUARDSMAN MAX	1.25	qt/a	PRE	A	95 a	74 b	60 c	100 a	98 a	84 a
3	ROUNDUP POWERMAX	21.3	oz/a	POST	B						
3	AMS	4	qt/a	POST							
4	LEXAR	2.01	qt/a	PRE	A	98 a	98 a	81 a	100 a	99 a	88 a
4	TOUCHDOWN TOTAL	24	oz/a	POST	B						
4	AMS	4	qt/a	POST							
5	BICEP II MAGNUM	1.45	qt/a	PRE	A	95 a	63 b	55 c	100 a	97 a	70 b
5	CALLISTO	3	oz/a	POST	B						
5	AMS	2	qt/a	POST							
6	ATRAZINE	1	qt/a	PRE	A	69 b	63 b	58 c	95 a	98 a	90 a
6	ROUNDUP POWERMAX	21.3	oz/a	POST	B						
6	AMS	4	qt/a	POST							
7	SURESTART	1.2	pt/a	PRE	A	95 a	74 b	70 b	96 a	97 a	90 a
7	ROUNDUP POWERMAX	21.3	oz/a	POST	B						
7	AMS	4	qt/a	POST							
8	ROUNDUP POWERMAX	21.3	oz/a	POST	B	0 c	0 c	0 d	0 b	97 a	89 a
8	AMS	4	qt/a	POST							
9	ROUNDUP POWERMAX	21.3	oz/a	POST	B	0 c	0 c	0 d	0 b	100 a	99 a
9	AMS	4	qt/a	POST							
9	ROUNDUP POWERMAX	21.3	oz/a	LPO	C						
9	AMS	4	qt/a	LPO							
10	DEFINE	8.3	oz/a	PRE	A	97 a	98 a	82 a	100 a	95 a	88 a
10	BALANCE PRO	2.02	oz/a	PRE							
10	ROUNDUP POWERMAX	21.3	oz/a	MPO	B						
10	AMS	4	qt/a	MPO							
LSD (P=.05)						6.3	11.1	6.4	5.9	5.9	10.1
Standard Deviation						4.4	7.7	4.4	4.0	4.1	7.0
CV						5.84	12.12	8.14	5.12	4.16	8.07
Bartlett's X2						29.474	4.888	5.351	21.438	11.844	10.292
P(Bartlett's X2)						0.001*	0.674	0.50	0.001*	0.106	0.245
Replicate F						0.918	1.731	0.549	0.608	4.496	1.510
Replicate Prob(F)						0.4454	0.1843	0.6534	0.6156	0.0110	0.2344
Treatment F						341.641	86.135	185.634	424.320	0.644	4.248
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001	0.7499	0.0016

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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Weed Code	CHEAL	AMARE
Rating Data Type	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT
Rating Date	Aug/05/2008	Aug/05/2008
Trt-Eval Interval	58 DA-B	58 DA-B
# Subsamples, Dec.	0	0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8
1	HARNESS XTRA 5.6	1.5	qt/a	PRE	A	98 ab	86 a
1	ROUNDUP POWERMAX	21.3	oz/a	POST	B		
1	AMS	4	qt/a	POST			
2	DEGREE XTRA	2	qt/a	PRE	A	100 a	93 a
2	ROUNDUP POWERMAX	21.3	oz/a	POST	B		
2	AMS	4	qt/a	POST			
3	GUARDSMAN MAX	1.25	qt/a	PRE	A	94 ab	86 a
3	ROUNDUP POWERMAX	21.3	oz/a	POST	B		
3	AMS	4	qt/a	POST			
4	LEXAR	2.01	qt/a	PRE	A	98 a	91 a
4	TOUCHDOWN TOTAL	24	oz/a	POST	B		
4	AMS	4	qt/a	POST			
5	BICEP II MAGNUM	1.45	qt/a	PRE	A	100 a	100 a
5	CALLISTO	3	oz/a	POST	B		
5	AMS	2	qt/a	POST			
6	ATRAZINE	1	qt/a	PRE	A	100 a	98 a
6	ROUNDUP POWERMAX	21.3	oz/a	POST	B		
6	AMS	4	qt/a	POST			
7	SURESTART	1.2	pt/a	PRE	A	96 ab	94 a
7	ROUNDUP POWERMAX	21.3	oz/a	POST	B		
7	AMS	4	qt/a	POST			
8	ROUNDUP POWERMAX	21.3	oz/a	POST	B	85 b	95 a
8	AMS	4	qt/a	POST			
9	ROUNDUP POWERMAX	21.3	oz/a	POST	B	90 ab	99 a
9	AMS	4	qt/a	POST			
9	ROUNDUP POWERMAX	21.3	oz/a	LPO	C		
9	AMS	4	qt/a	LPO			
10	DEFINE	8.3	oz/a	PRE	A	100 a	86 a
10	BALANCE PRO	2.02	oz/a	PRE			
10	ROUNDUP POWERMAX	21.3	oz/a	MPO	B		
10	AMS	4	qt/a	MPO			
LSD (P=.05)						8.8	9.0
Standard Deviation						6.1	6.2
CV						6.34	6.7
Bartlett's X2						12.035	10.328
P(Bartlett's X2)						0.034*	0.243
Replicate F						5.066	4.357
Replicate Prob(F)						0.0065	0.0126
Treatment F						2.793	2.900
Treatment Prob(F)						0.0187	0.0155

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.