

Ohio State University
Horticulture and Crop Science

WEED CONTROL IN CORN WITH BAS 800

Trial ID: 08BAS800CORN Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH F-7 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. ABUTH	Velvetleaf	Abutilon theophrasti
5. AMBEL	Common ragweed	Ambrosia artemisiifolia

Crop 1: ZEAMX CORN, FIELD Variety: DEKALB DKC 63-42
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: 6.67 FT Plot Length, Unit: 30 FT Reps: 3
Tillage Type: CONVENTIONAL Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% OM: 3 Texture: SILTY CLAY LOAM
pH: 6.7 Soil Name: KOKOMO
CEC: 24.6 Fert. Level: GOOD

APPLICATION DESCRIPTION

	A	B
Application Date:	Apr/24/2008	Jun/12/2008
Time of Day:	11:00 A.M	11:00 A.M
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	62 F	79 F
% Relative Humidity:	39	57
Wind Velocity, Unit:	8 E	6 S
Soil Temp., Unit:	54 F	54 F
Soil Moisture:	DRY/MOIST	DRY/MOIST
% Cloud Cover:	1	33

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX	ZEAMX V6
Stage Scale:	DESC	
Height, Unit:	19 IN	

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	SETFA	SETFA 2-4"
Stage Scale:	6 LVS	
Density, Unit:	110 M2	
Weed 2 Code, Stage:	CHEAL	CHEAL 1-2"
Stage Scale:	8 LVS	
Density, Unit:	74 M2	
Weed 3 Code, Stage:	AMBTR	AMBTR 4-6"
Stage Scale:	8 LVS	
Density, Unit:	1 M2	
Weed 4 Code, Stage:	ABUTH	ABUTH 3"
Stage Scale:	7 LVS	
Density, Unit:	4 M2	
Weed 5 Code, Stage:	AMBEL	AMBEL 2-3"
Stage Scale:	4-6 LVS	
Density, Unit:	22 M2	

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APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	BACKPACK	BACKPACK
Operating Pressure:	53	53
Nozzle Type:	DG	DG
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	20 GPA	20 GPA
Propellant:	CO2	CO2

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WEED CONTROL IN CORN WITH BAS 800

Trial ID: 08BAS800CORN Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH F-7 Investigator: Dr. Mark M. Loux

Weed Code				SETFA	AMBTR	AMBEL	CHEAL
Crop Code							
Rating Data Type				CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit				PERCENT	PERCENT	PERCENT	PERCENT
Rating Date				May/08/2008	May/27/2008	May/27/2008	May/27/2008
Crop Stage				V-1			
Trt-Eval Interval				14 DA-A	33 DA-A	33 DA-A	33 DA-A
# Subsamples, Dec.				0			

Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	1	2	3	4	5	6
1	UTC					0 a	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b
2	KIXOR+DMTA	20 oz/a		PRE	A	0 a	0.7 ab	97.7 a	88.3 a	95.7 a	99.0 a
3	KIXOR	3 oz/a		PRE	A	0 a	0.7 ab	99.0 a	79.1 a	96.7 a	100.0 a
3	GUARDSMAN MAX	56 oz/a		PRE							
4	LUMAX	2.52 qt/a		PRE	A	0 a	2.3 a	99.3 a	76.7 a	93.3 a	100.0 a
5	KIXOR+MTA	13 oz/a		PRE	A	0 a	2.3 a	89.3 a	91.7 a	87.7 a	98.3 a
5	ROUNDUP POWERMAX	22 oz/a		POST	B						
5	NIS	6.4 oz/a		POST							
5	AMS	4 qt/a		POST							
6	KIXOR	2.5 oz/a		PRE	A	0 a	2.3 a	94.7 a	80.0 a	96.7 a	99.0 a
6	GUARDSMAN MAX	40 oz/a		PRE							
6	ROUNDUP POWERMAX	22 oz/a		POST	B						
6	NIS	6.4 oz/a		POST							
6	AMS	4 qt/a		POST							
7	HARNESS XTRA 5.6	38.4 oz/a		PRE	A	0 a	2.3 a	95.3 a	63.3 a	96.3 a	100.0 a
7	ROUNDUP POWERMAX	22 oz/a		POST	B						
7	NIS	6.4 oz/a		POST							
7	AMS	4 qt/a		POST							
8	KIXOR+DMTA	13 oz/a		PRE	A	0 a	1.7 ab	94.7 a	87.3 a	98.3 a	100.0 a
8	ROUNDUP POWERMAX	22 oz/a		POST	B						
8	STATUS	2.5 oz/a		POST							
8	NIS	6.4 oz/a		POST							
8	AMS	4 qt/a		POST							
	LSD (P=.05)					0.0	1.41	7.56	27.94	9.87	2.32
	Standard Deviation					0.0	0.81	4.32	15.84	5.63	1.33
	CV					0.0	52.25	5.15	22.38	6.78	1.52
	Bartlett's X2					0.0	3.975	9.668	2.27	9.415	0.709
	P(Bartlett's X2)					.	0.68	0.139	0.893	0.152	0.701
	Replicate F					0.000	2.761	3.148	2.410	0.635	1.163
	Replicate Prob(F)					1.0000	0.0975	0.0743	0.1287	0.5443	0.3411
	Treatment F					0.000	4.248	186.082	10.708	107.546	2113.977
	Treatment Prob(F)					1.0000	0.0103	0.0001	0.0002	0.0001	0.0001

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	SETFA	AMBTR	AMBEL	CHEAL	POLPY
Crop Code	ZEAMX				
Rating Data Type	PHYTO	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Jun/13/2008	Jun/13/2008	Jun/13/2008	Jun/13/2008	Jun/13/2008
Crop Stage					
Trt-Eval Interval	AT POST	AT POST	AT POST	AT POST	AT POST
# Subsamples, Dec.					

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10	11	12
1	UTC					0.0 a	0.0 d	0.0 b	0.0 c	0.0 b	0.0 b
2	KIXOR+DMTA	20 oz/a		PRE	A	0.0 a	80.7 bc	76.7 a	85.0 ab	91.7 a	100.0 a
3	KIXOR	3 oz/a		PRE	A	0.0 a	85.0 b	66.7 a	81.7 ab	90.0 a	100.0 a
3	GUARDSMAN MAX	56 oz/a		PRE							
4	LUMAX	2.52 qt/a		PRE	A	0.0 a	97.7 a	85.7 a	81.7 ab	96.7 a	100.0 a
5	KIXOR+MTA	13 oz/a		PRE	A	0.0 a	66.7 c	83.3 a	66.7 b	86.7 a	100.0 a
5	ROUNDUP POWERMAX	22 oz/a		POST	B						
5	NIS	6.4 oz/a		POST							
5	AMS	4 qt/a		POST							
6	KIXOR	2.5 oz/a		PRE	A	0.0 a	78.3 bc	63.3 a	88.3 ab	86.7 a	100.0 a
6	GUARDSMAN MAX	40 oz/a		PRE							
6	ROUNDUP POWERMAX	22 oz/a		POST	B						
6	NIS	6.4 oz/a		POST							
6	AMS	4 qt/a		POST							
7	HARNESS XTRA 5.6	38.4 oz/a		PRE	A	0.0 a	81.7 bc	50.0 a	81.7 ab	78.3 a	100.0 a
7	ROUNDUP POWERMAX	22 oz/a		POST	B						
7	NIS	6.4 oz/a		POST							
7	AMS	4 qt/a		POST							
8	KIXOR+DMTA	13 oz/a		PRE	A	0.0 a	76.7 bc	78.3 a	96.0 a	95.0 a	100.0 a
8	ROUNDUP POWERMAX	22 oz/a		POST	B						
8	STATUS	2.5 oz/a		POST							
8	NIS	6.4 oz/a		POST							
8	AMS	4 qt/a		POST							
LSD (P=.05)						0.00	10.38	27.71	15.39	12.18	0.00
Standard Deviation						0.00	5.93	15.82	8.79	6.95	0.00
CV						0.0	8.37	25.11	12.1	8.9	0.0
Bartlett's X2						0.0	8.633	1.35	4.014	3.183	0.0
P(Bartlett's X2)						.	0.195	0.969	0.675	0.786	.
Replicate F						0.000	2.226	0.743	4.521	6.268	0.000
Replicate Prob(F)						1.0000	0.1448	0.4935	0.0306	0.0114	1.0000
Treatment F						0.000	76.391	9.419	36.083	63.825	0.000
Treatment Prob(F)						1.0000	0.0001	0.0002	0.0001	0.0001	1.0000

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Weed Code		SETFA	AMBTR	AMBEL	CHEAL	SETFA
Crop Code		ZEAMX				
Rating Data Type		PHYTO	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit		PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date		Jun/23/2008	Jun/23/2008	Jun/23/2008	Jun/23/2008	Jul/09/2008
Crop Stage						
Trt-Eval Interval		60 DA-A	60 DA-A	60 DA-A	60 DA-A	27 DA-B
# Subsamples, Dec.						

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	13	14	15	16	17	18
1	UTC					0.0 a	0.0 c	0.0 b	0.0 b	0.0 c	0.0 c
2	KIXOR+DMTA	20 oz/a		PRE	A	0.0 a	75.0 b	85.0 a	80.0 a	80.0 b	80.0 b
3	KIXOR	3 oz/a		PRE	A	0.0 a	75.0 b	80.0 a	81.7 a	76.7 b	76.7 b
3	GUARDSMAN MAX	56 oz/a		PRE							
4	LUMAX	2.52 qt/a		PRE	A	0.0 a	80.0 b	78.3 a	80.0 a	85.0 b	88.3 a
5	KIXOR+MTA	13 oz/a		PRE	A	0.0 a	97.0 a	98.3 a	100.0 a	100.0 a	86.7 a
5	ROUNDUP POWERMAX	22 oz/a		POST	B						
5	NIS	6.4 oz/a		POST							
5	AMS	4 qt/a		POST							
6	KIXOR	2.5 oz/a		PRE	A	0.0 a	98.0 a	97.7 a	99.7 a	99.7 a	91.7 a
6	GUARDSMAN MAX	40 oz/a		PRE							
6	ROUNDUP POWERMAX	22 oz/a		POST	B						
6	NIS	6.4 oz/a		POST							
6	AMS	4 qt/a		POST							
7	HARNESS XTRA 5.6	38.4 oz/a		PRE	A	0.0 a	98.0 a	98.0 a	99.7 a	99.3 a	90.0 a
7	ROUNDUP POWERMAX	22 oz/a		POST	B						
7	NIS	6.4 oz/a		POST							
7	AMS	4 qt/a		POST							
8	KIXOR+DMTA	13 oz/a		PRE	A	0.0 a	99.0 a	98.3 a	100.0 a	100.0 a	93.3 a
8	ROUNDUP POWERMAX	22 oz/a		POST	B						
8	STATUS	2.5 oz/a		POST							
8	NIS	6.4 oz/a		POST							
8	AMS	4 qt/a		POST							
LSD (P=.05)						0.00	4.38	13.44	16.78	7.19	6.52
Standard Deviation						0.00	2.50	7.67	9.58	4.10	3.72
CV						0.0	3.22	9.66	11.96	5.12	4.91
Bartlett's X2						0.0	2.044	13.376	21.6	15.89	2.172
P(Bartlett's X2)						.	0.36	0.02*	0.001*	0.003*	0.903
Replicate F						0.000	1.456	0.309	2.359	2.446	3.237
Replicate Prob(F)						1.0000	0.2664	0.7394	0.1310	0.1228	0.0699
Treatment F						0.000	527.009	56.291	37.243	203.591	210.581
Treatment Prob(F)						1.0000	0.0001	0.0001	0.0001	0.0001	0.0001

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Weed Code	AMBTR	AMBEL	CHEAL	POLPY
Crop Code				
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Jul/09/2008	Jul/09/2008	Jul/09/2008	Jul/09/2008
Crop Stage				
Trt-Eval Interval	27 DA-B	27 DA-B	27 DA-B	27 DA-B
# Subsamples, Dec.				

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	19	20	21	22
1	UTC					0.0 c	0.0 b	0.0 c	0.0 b
2	KIXOR+DMTA	20 oz/a		PRE	A	92.7 a	80.0 a	83.3 b	100.0 a
3	KIXOR	3 oz/a		PRE	A	88.3 a	81.7 a	81.7 b	100.0 a
3	GUARDSMAN MAX	56 oz/a		PRE					
4	LUMAX	2.52 qt/a		PRE	A	70.0 b	80.0 a	100.0 a	100.0 a
5	KIXOR+MTA	13 oz/a		PRE	A	96.7 a	100.0 a	98.3 a	100.0 a
5	ROUNDUP POWERMAX	22 oz/a		POST	B				
5	NIS	6.4 oz/a		POST					
5	AMS	4 qt/a		POST					
6	KIXOR	2.5 oz/a		PRE	A	98.3 a	99.3 a	100.0 a	100.0 a
6	GUARDSMAN MAX	40 oz/a		PRE					
6	ROUNDUP POWERMAX	22 oz/a		POST	B				
6	NIS	6.4 oz/a		POST					
6	AMS	4 qt/a		POST					
7	HARNESS XTRA 5.6	38.4 oz/a		PRE	A	95.0 a	100.0 a	98.3 a	100.0 a
7	ROUNDUP POWERMAX	22 oz/a		POST	B				
7	NIS	6.4 oz/a		POST					
7	AMS	4 qt/a		POST					
8	KIXOR+DMTA	13 oz/a		PRE	A	96.7 a	100.0 a	100.0 a	100.0 a
8	ROUNDUP POWERMAX	22 oz/a		POST	B				
8	STATUS	2.5 oz/a		POST					
8	NIS	6.4 oz/a		POST					
8	AMS	4 qt/a		POST					
LSD (P=.05)						14.47	20.53	3.76	0.00
Standard Deviation						8.26	11.72	2.15	0.00
CV						10.36	14.63	2.6	0.0
Bartlett's X2						9.464	14.009	0.0	0.0
P(Bartlett's X2)						0.092	0.003*	.	.
Replicate F						0.763	1.076	0.226	0.000
Replicate Prob(F)						0.4848	0.3675	0.8007	1.0000
Treatment F						49.281	24.880	764.355	0.000
Treatment Prob(F)						0.0001	0.0001	0.0001	1.0000

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