

Ohio State University
Horticulture and Crop Science

POST WEED CONTROL IN CORN WITH CAPRENO
HP08NARDLL

Trial ID: 08POC1 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. ABUTH	Velvetleaf	Abutilon theophrasti
3. CHEAL	Common lambsquarters	Chenopodium album
4. POLPY	Pennsylvania smartweed	Polygonum pennsylvanicum
5. AMBTR	Giant ragweed	Ambrosia trifida
6. AMBEL	Common ragweed	Ambrosia artemisiifolia

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: 6.67 FT Plot Length, Unit: 30 FT Reps: 3
Tillage Type: CONVENTIONAL Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% OM: 1.8 Texture: SILT LOAM
pH: 6.1 Soil Name: CROSBY
CEC: 15.8 Fert. Level: GOOD

APPLICATION DESCRIPTION

	A	B	C
Application Date:	Apr/24/2008	May/29/2008	Jun/12/2008
Time of Day:	11:00 A.M.	9:30 A.M.	11:00 A.M.
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	EPO	MPO
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	62 F	63 F	79 F
% Relative Humidity:	39	52	57
Wind Velocity, Unit:	8 E	3 E	6 S
Soil Temp., Unit:	54 F	58 F	71 F
Soil Moisture:	DRY/MOIST	DRY/MOIST	DRY/MOIST
% Cloud Cover:	1	0	33

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX V3	ZEAMX V3	ZEAMX V7
Stage Scale:	DESC	DESC	
Height, Unit:	6 IN	22 IN	IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	SETFA 5"	SETFA 5"	SETFA 3-5"
Stage Scale:	3 LVS		4 LVS
Density, Unit:	226 M2		226 M2
Weed 2 Code, Stage:	ABUTH 1	ABUTH 1	ABUTH 1-2"
Stage Scale:	2 LVS		4 LVS
Density, Unit:	13 M2		13 M2
Weed 3 Code, Stage:	CHEAL .25-1"	CHEAL	
Stage Scale:	2-4 LVS		
Density, Unit:	69 M2		
Weed 4 Code, Stage:	POLPY 2"	POLPY	
Stage Scale:	3 LVS		
Density, Unit:	8 M2		
Weed 5 Code, Stage:	AMBTR 3-8"	AMBTR 6-10"	
Stage Scale:	4 LVS	8-12 LVS	
Density, Unit:	13 M2	13 M2	
Weed 6 Code, Stage:	AMBEL 2"	AMBEL	
Stage Scale:	4 LVS		
Density, Unit:	13 M2		

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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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Trial ID: 08POC1

Study Dir.: Anthony F. Dobbels

Location: WESTERN BRANCH F-7

Investigator: Dr. Mark M. Loux

Weed Code					SETFA	AMBTR	AMBEL	CHEAL	ABUTH		
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		
Trt-Eval Interval					AT MPO	AT MPO	AT MPO	AT MPO	AT MPO		
# Subsamples, Dec.					0	0	0	0	0		
Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	1	2	3	4	5	6
1	UTC					0 a	0 c	0 c	0 c	0 c	0 c
2	BALANCE FLEXX	3 oz/a		PRE	A	0 a	87 a	47 b	97 a	100 a	100 a
	2 ATRAZINE	1 qt/a		PRE							
	2 CAPRENO	3 oz/a		MPO	C						
	2 ATRAZINE	1 pt/a		MPO							
	2 COC	0.8 qt/a		MPO							
	2 28%	1.5 qt/a		MPO							
3	BALANCE FLEXX	3 oz/a		PRE	A	0 a	60 b	43 b	100 a	95 a	100 a
	3 ATRAZINE	1 qt/a		PRE							
	3 CAPRENO	3 oz/a		MPO	C						
	3 ATRAZINE	1 pt/a		MPO							
	3 MSO	0.8 qt/a		MPO							
	3 28%	1.5 qt/a		MPO							
4	LEXAR	1.5 qt/a		PRE	A	0 a	58 b	53 b	83 a	93 a	100 a
	4 LEXAR	1.5 qt/a		MPO	C						
	4 NIS	6.4 oz/a		MPO							
5	HARNESS XTRA 5.6	1.5 qt/a		PRE	A	0 a	80 a	40 b	67 b	70 b	43 b
	5 ROUNDUP POWERMAX	22 oz/a		MPO	C						
	5 AMS	2 qt/a		MPO							
6	CAPRENO	3 oz/a		EPO	B	0 a	97 a	99 a	98 a	98 a	100 a
	6 ROUNDUP POWERMAX	22 oz/a		EPO							
	6 AMS	2 qt/a		EPO							
7	CAPRENO	3 oz/a		EPO	B	0 a	98 a	100 a	100 a	100 a	100 a
	7 ATRAZINE	1 pt/a		EPO							
	7 ROUNDUP POWERMAX	22 oz/a		EPO							
	7 AMS	2 qt/a		EPO							
8	CAPRENO	3 oz/a		EPO	B	0 a	78 a	95 a	100 a	100 a	100 a
	8 ATRAZINE	1 pt/a		EPO							
	8 COC	0.8 qt/a		EPO							
	8 28%	1.5 qt/a		EPO							
9	IMPACT	0.75 oz/a		EPO	B	0 a	79 a	99 a	100 a	100 a	100 a
	9 ATRAZINE	1 pt/a		EPO							
	9 COC	0.8 qt/a		EPO							
	9 28%	1.5 qt/a		EPO							
10	CAPRENO	3 oz/a		EPO	B	0 a	85 a	100 a	100 a	100 a	100 a
	10 ATRAZINE	1 pt/a		EPO							
	10 MSO	0.8 qt/a		EPO							
	10 28%	1.5 qt/a		EPO							
11	HALEX GT	3.6 qt/a		EPO	B	0 a	98 a	99 a	100 a	100 a	100 a
	11 NIS	6.4 oz/a		EPO							
	11 AMS	2 qt/a		EPO							
12	SURESTART	1.75 pt/a		EPO	B	0 a	95 a	94 a	100 a	87 a	100 a
	12 DURANGO	24 oz/a		EPO							
	12 AMS	2 qt/a		EPO							
	LSD (P=.05)					0.0	13.6	23.2	14.9	8.6	5.6
	Standard Deviation					0.0	8.0	13.7	8.8	5.1	3.3
	CV					0.0	10.53	18.94	10.11	5.87	3.83
	Bartlett's X2					0.0	13.601	33.437	11.106	3.731	0.0
	P(Bartlett's X2)					.	0.137	0.001*	0.011*	0.444	.

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Weed Code		SETFA	AMBTR	AMBEL	CHEAL	ABUTH					
Crop Code	ZEAMX										
Rating Data Type	PHYTO	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL					
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT					
Rating Date	Jun/13/2008	Jun/13/2008	Jun/13/2008	Jun/13/2008	Jun/13/2008	Jun/13/2008					
Trt-Eval Interval	AT MPO	AT MPO	AT MPO	AT MPO	AT MPO	AT MPO					
# 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
Replicate F						0.000	0.351	2.776	0.726	2.534	1.000
Replicate Prob(F)						1.0000	0.7079	0.0841	0.4950	0.1023	0.3840
Treatment F						0.000	35.271	18.535	33.098	95.198	274.068
Treatment Prob(F)						1.0000	0.0001	0.0001	0.0001	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	POLPY						AMARE						ZEAMX						SETFA						AMBTR						AMBEL					
Crop Code	CONTROL						CONTROL						PHYTO						CONTROL						CONTROL						CONTROL					
Rating Data Type	PERCENT						PERCENT						PERCENT						PERCENT						PERCENT						PERCENT					
Rating Unit	Jun/13/2008						Jun/13/2008						Jun/19/2008						Jul/09/2008						Jul/09/2008						Jul/09/2008					
Rating Date	AT MPO						AT MPO						7 DA-C						27 DA-C						27 DA-C						27 DA-C					
Trt-Eval Interval	0						0						0						0						0						0					
# Subsamples, Dec.																																				
Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	7	8	9	10	11	12																									
1	UTC					0 b	0 b	0 a	0 b	0 b	0 b																									
2	BALANCE FLEXX	3 oz/a		PRE	A	100 a	100 a	1 a	93 a	99 a	100 a																									
2	ATRAZINE	1 qt/a		PRE																																
2	CAPRENO	3 oz/a		MPO	C																															
2	ATRAZINE	1 pt/a		MPO																																
2	COC	0.8 qt/a		MPO																																
2	28%	1.5 qt/a		MPO																																
3	BALANCE FLEXX	3 oz/a		PRE	A	100 a	100 a	1 a	80 a	98 a	100 a																									
3	ATRAZINE	1 qt/a		PRE																																
3	CAPRENO	3 oz/a		MPO	C																															
3	ATRAZINE	1 pt/a		MPO																																
3	MSO	0.8 qt/a		MPO																																
3	28%	1.5 qt/a		MPO																																
4	LEXAR	1.5 qt/a		PRE	A	90 a	100 a	0 a	63 a	93 a	100 a																									
4	LEXAR	1.5 qt/a		MPO	C																															
4	NIS	6.4 oz/a		MPO																																
5	HARNESS XTRA 5.6	1.5 qt/a		PRE	A	90 a	100 a	2 a	84 a	91 a	97 a																									
5	ROUNDUP POWERMAX	22 oz/a		MPO	C																															
5	AMS	2 qt/a		MPO																																
6	CAPRENO	3 oz/a		EPO	B	99 a	100 a	0 a	83 a	77 a	98 a																									
6	ROUNDUP POWERMAX	22 oz/a		EPO																																
6	AMS	2 qt/a		EPO																																
7	CAPRENO	3 oz/a		EPO	B	100 a	100 a	5 a	84 a	83 a	100 a																									
7	ATRAZINE	1 pt/a		EPO																																
7	ROUNDUP POWERMAX	22 oz/a		EPO																																
7	AMS	2 qt/a		EPO																																
8	CAPRENO	3 oz/a		EPO	B	100 a	100 a	5 a	69 a	87 a	100 a																									
8	ATRAZINE	1 pt/a		EPO																																
8	COC	0.8 qt/a		EPO																																
8	28%	1.5 qt/a		EPO																																
9	IMPACT	0.75 oz/a		EPO	B	90 a	100 a	3 a	72 a	88 a	100 a																									
9	ATRAZINE	1 pt/a		EPO																																
9	COC	0.8 qt/a		EPO																																
9	28%	1.5 qt/a		EPO																																
10	CAPRENO	3 oz/a		EPO	B	100 a	100 a	2 a	85 a	96 a	100 a																									
10	ATRAZINE	1 pt/a		EPO																																
10	MSO	0.8 qt/a		EPO																																
10	28%	1.5 qt/a		EPO																																
11	HALEX GT	3.6 qt/a		EPO	B	96 a	100 a	2 a	93 a	91 a	100 a																									
11	NIS	6.4 oz/a		EPO																																
11	AMS	2 qt/a		EPO																																
12	SURESTART	1.75 pt/a		EPO	B	100 a	100 a	3 a	75 a	83 a	100 a																									
12	DURANGO	24 oz/a		EPO																																
12	AMS	2 qt/a		EPO																																
LSD (P=.05)						14.7	0.0	4.4	18.1	16.7	3.0																									
Standard Deviation						8.7	0.0	2.6	10.7	9.9	1.8																									
CV						9.8	0.0	136.23	14.54	11.99	1.97																									
Bartlett's X2						7.799	0.0	7.586	13.368	17.299	0.874																									
P(Bartlett's X2)						0.099	.	0.475	0.204	0.068	0.35																									
Replicate F						1.570	0.000	6.502	0.615	1.896	1.941																									
Replicate Prob(F)						0.2306	1.0000	0.0060	0.5495	0.1740	0.1673																									
Treatment F						31.715	0.000	1.494	16.257	22.088	770.412																									
Treatment Prob(F)						0.0001	1.0000	0.2031	0.0001	0.0001	0.0001																									

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Weed Code	POLPY	AMARE	ZEAMX	SETFA	AMBTR	AMBEL
Crop Code			PHYTO			
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Jun/13/2008	Jun/13/2008	Jun/19/2008	Jul/09/2008	Jul/09/2008	Jul/09/2008
Trt-Eval Interval	AT MPO	AT MPO	7 DA-C	27 DA-C	27 DA-C	27 DA-C
# Subsamples, Dec.	0	0	0	0	0	0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	7	8	9	10	11	12

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
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Weed Code	CHEAL	POLPY	AMARE	ABUTH	SETFA	AMBTR
Crop Code						
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Jul/09/2008	Jul/09/2008	Jul/09/2008	Jul/09/2008	Aug/05/2008	Aug/05/2008
Trt-Eval Interval	27 DA-C	27 DA-C	27 DA-C	27 DA-C	54 DA-C	54 DA-C
# Subsamples, Dec.	0	0	0	0	0	0
Trt No.	13	14	15	16	17	18
Treatment Name						
Product Rate						
Product Rate Unit						
Grow Stg						
Appl Code						

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Weed Code					AMBEL	CHEAL	ABUTH	POLPY	AMARE	
Crop Code					CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Data Type					PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	
Rating Unit					Aug/05/2008	Aug/05/2008	Aug/05/2008	Aug/05/2008	Aug/05/2008	
Rating Date					54 DA-C	54 DA-C	54 DA-C	54 DA-C	54 DA-C	
Trt-Eval Interval					0	0	0	0	0	
# Subsamples, Dec.										
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	19	20	21	22	23
1	UTC					0 b	0 d	0 b	0 b	0 c
2	BALANCE FLEXX	3 oz/a		PRE	A	100 a	100 a	100 a	100 a	100 a
2	ATRAZINE	1 qt/a		PRE						
2	CAPRENO	3 oz/a		MPO	C					
2	ATRAZINE	1 pt/a		MPO						
2	COC	0.8 qt/a		MPO						
2	28%	1.5 qt/a		MPO						
3	BALANCE FLEXX	3 oz/a		PRE	A	100 a	99 a	100 a	100 a	100 a
3	ATRAZINE	1 qt/a		PRE						
3	CAPRENO	3 oz/a		MPO	C					
3	ATRAZINE	1 pt/a		MPO						
3	MSO	0.8 qt/a		MPO						
3	28%	1.5 qt/a		MPO						
4	LEXAR	1.5 qt/a		PRE	A	100 a	100 a	100 a	100 a	100 a
4	LEXAR	1.5 qt/a		MPO	C					
4	NIS	6.4 oz/a		MPO						
5	HARNESS XTRA 5.6	1.5 qt/a		PRE	A	100 a	92 a	81 a	100 a	100 a
5	ROUNDUP POWERMAX	22 oz/a		MPO	C					
5	AMS	2 qt/a		MPO						
6	CAPRENO	3 oz/a		EPO	B	100 a	77 b	82 a	100 a	100 a
6	ROUNDUP POWERMAX	22 oz/a		EPO						
6	AMS	2 qt/a		EPO						
7	CAPRENO	3 oz/a		EPO	B	100 a	100 a	90 a	100 a	100 a
7	ATRAZINE	1 pt/a		EPO						
7	ROUNDUP POWERMAX	22 oz/a		EPO						
7	AMS	2 qt/a		EPO						
8	CAPRENO	3 oz/a		EPO	B	100 a	100 a	100 a	100 a	100 a
8	ATRAZINE	1 pt/a		EPO						
8	COC	0.8 qt/a		EPO						
8	28%	1.5 qt/a		EPO						
9	IMPACT	0.75 oz/a		EPO	B	97 a	85 ab	100 a	58 a	100 a
9	ATRAZINE	1 pt/a		EPO						
9	COC	0.8 qt/a		EPO						
9	28%	1.5 qt/a		EPO						
10	CAPRENO	3 oz/a		EPO	B	100 a	100 a	100 a	100 a	100 a
10	ATRAZINE	1 pt/a		EPO						
10	MSO	0.8 qt/a		EPO						
10	28%	1.5 qt/a		EPO						
11	HALEX GT	3.6 qt/a		EPO	B	100 a	100 a	100 a	93 a	100 a
11	NIS	6.4 oz/a		EPO						
11	AMS	2 qt/a		EPO						
12	SURESTART	1.75 pt/a		EPO	B	100 a	43 c	73 a	100 a	83 b
12	DURANGO	24 oz/a		EPO						
12	AMS	2 qt/a		EPO						
LSD (P=.05)						2.8	10.0	16.6	26.2	7.5
Standard Deviation						1.7	5.9	9.8	15.5	4.4
CV						1.82	7.08	11.48	17.65	4.88
Bartlett's X2						0.0	7.034	2.341	3.372	0.0
P(Bartlett's X2)						.	0.134	0.505	0.066	.
Replicate F						1.000	1.333	1.951	0.873	1.000
Replicate Prob(F)						0.3840	0.2841	0.1659	0.4315	0.3840
Treatment F						895.546	83.491	25.422	11.335	128.247
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001	0.0001

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Weed Code	AMBEL	CHEAL	ABUTH	POLPY	AMARE
Crop Code					
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Aug/05/2008	Aug/05/2008	Aug/05/2008	Aug/05/2008	Aug/05/2008
Trt-Eval Interval	54 DA-C	54 DA-C	54 DA-C	54 DA-C	54 DA-C
# Subsamples, Dec.	0	0	0	0	0
Trt No.	19	20	21	22	23
Treatment Name					
Product Rate					
Product Rate Unit					
Grow Stg					
Appl Code					

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
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