

Ohio State University
Horticulture and Crop Science

PRE AND EPO WEED CONTROL IN CORN WITH CORVUS AND BALANCE FLEXX
HP08NARJJA

Trial ID: 08PREPOC2 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. AMBEL	Common ragweed	Ambrosia artemisiifolia
4. AMBTR	Giant ragweed	Ambrosia trifida
5. POLPY	Pennsylvania smartweed	Polygonum pennsylvanicum

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: 2.7 Texture: SILTY CLAY LOAM
pH: 6.1 Soil Name: KOKOMO
CEC: 18.4 Fert. Level: GOOD

APPLICATION DESCRIPTION

	A	B
Application Date:	Apr/24/2008	May/13/2008
Time of Day:	11:00 A.M	5:00 P.M.
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	EPO
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	62 F	68 F
% Relative Humidity:	39	54
Wind Velocity, Unit:	8 E	9 SE
Soil Temp., Unit:	54 F	62 F
Soil Moisture:	DRY/MOIST	DRY/MOIST
% Cloud Cover:	1	20

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX	ZEAMX V2
Stage Scale:	DESC	
Height, Unit:	2	IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	SETFA	SETFA 1/4-1/2"
Stage Scale:	1	LV
Density, Unit:	122	M2
Weed 2 Code, Stage:	CHEAL	CHEAL 1/2-1"
Stage Scale:	4	LVS
Density, Unit:	24	M2
Weed 3 Code, Stage:	AMBEL	AMBEL 1"
Stage Scale:	4	LVS
Density, Unit:	5	M2
Weed 4 Code, Stage:	AMBTR	AMBTR 1"
Stage Scale:	2	LVS
Density, Unit:	7	M2
Weed 5 Code, Stage:	POLPY	POLPY 1/2-3/4"
Stage Scale:	3	LVS
Density, Unit:	0.33	M2

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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HP08NARJJA

Trial ID: 08PREPOC2

Study Dir.: Anthony F. Dobbels

Location: WESTERN BRANCH F-7

Investigator: Dr. Mark M. Loux

Weed Code						SETFA	AMBTR	AMBEL				
Crop Code		ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Rating Data Type		PHYTO	CHLOROSIS	NECROSIS	NECROSIS	CONTROL	CONTROL	CONTROL				
Rating Unit		PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT				
Rating Date		May/13/2008	May/20/2008	May/20/2008	Jun/02/2008	Jun/02/2008	Jun/02/2008	Jun/02/2008				
Trt-Eval Interval		10 DAE	7 DA-B	7 DA-B	30 DA EM	30 DA EM	30 DA EM	30 DA EM				
# Subsamples, Dec.		0	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	7
1	CORVUS	5.6 oz/a		PRE	A	0 a	3 bc	0 b	1 b	99 a	92 a	100 a
1	ATRAZINE	1.5 qt/a		PRE								
2	BALANCE FLEXX	4 oz/a		PRE	A	0 a	1 c	0 b	0 b	99 a	87 a	100 a
2	ATRAZINE	1.5 qt/a		PRE								
3	BALANCE FLEXX	5 oz/a		PRE	A	0 a	0 c	0 b	0 b	100 a	98 a	100 a
3	ATRAZINE	1.5 qt/a		PRE								
4	BALANCE FLEXX	6 oz/a		PRE	A	0 a	1 c	0 b	0 b	100 a	92 a	100 a
4	ATRAZINE	1.5 qt/a		PRE								
5	LUMAX	3 qt/a		PRE	A	0 a	4 bc	0 b	0 b	100 a	99 a	100 a
6	CORVUS	5.6 oz/a		EPO	B	0 a	12 a	3 b	1 b	100 a	99 a	100 a
6	ATRAZINE	1.5 qt/a		EPO								
7	CORVUS	5.6 oz/a		EPO	B	0 a	7 ab	13 a	8 a	100 a	100 a	100 a
7	ATRAZINE	1.5 qt/a		EPO								
7	COC	0.8 qt/a		EPO								
8	BALANCE FLEXX	4 oz/a		EPO	B	0 a	8 ab	3 b	1 b	100 a	96 a	100 a
8	ATRAZINE	1.5 qt/a		EPO								
9	BALANCE FLEXX	5 oz/a		EPO	B	0 a	8 ab	5 b	4 b	100 a	99 a	100 a
9	ATRAZINE	1.5 qt/a		EPO								
10	BALANCE FLEXX	6 oz/a		EPO	B	0 a	8 ab	7 ab	3 b	100 a	99 a	100 a
10	ATRAZINE	1.5 qt/a		EPO								
11	BALANCE FLEXX	6 oz/a		EPO	B	0 a	8 ab	8 ab	3 b	100 a	99 a	100 a
11	ATRAZINE	1.5 qt/a		EPO								
12	LUMAX	3 qt/a		EPO	B	0 a	5 bc	0 b	1 b	99 a	100 a	100 a
LSD (P=.05)						0.0	3.5	5.2	3.5	1.4	9.6	0.0
Standard Deviation						0.0	2.1	3.1	2.0	0.8	5.6	0.0
CV						0.0	38.16	91.16	111.24	0.8	5.85	0.0
Bartlett's X2						0.0	10.366	2.228	10.4	2.312	28.969	0.0
P(Bartlett's X2)						.	0.498	0.694	0.167	0.51	0.001*	.
Replicate F						0.000	4.911	2.588	0.862	0.906	0.763	0.000
Replicate Prob(F)						1.0000	0.0172	0.0979	0.4363	0.4187	0.4781	1.0000
Treatment F						0.000	9.596	6.013	4.379	0.765	1.725	0.000
Treatment Prob(F)						1.0000	0.0001	0.0002	0.0016	0.6697	0.1332	1.0000

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		Crop Code		Rating Data Type		Rating Unit		Rating Date		Trt-Eval Interval		# Subsamples, Dec.	
		CHEAL	POLPY	ABUTH	AMARE	ZEAMX	SETFA	AMBTR					
		CONTROL	CONTROL	CONTROL	CONTROL	PHYTO	CONTROL	CONTROL					
		PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT					
		Jun/02/2008	Jun/02/2008	Jun/02/2008	Jun/02/2008	Jul/03/2008	Jul/03/2008	Jul/03/2008					
		30 DA EM	30 DA EM	30 DA EM	30 DA EM	60 DA EM	60 DA EM	60 DA EM					
		0	0	0	0	0	0	0					
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	8	9	10	11	12	13	14	
1	CORVUS	5.6 oz/a		PRE	A	100 a	100 a	100 a	100 a	0 a	94 ab	94 a	
1	ATRAZINE	1.5 qt/a		PRE									
2	BALANCE FLEXX	4 oz/a		PRE	A	100 a	100 a	100 a	100 a	0 a	86 b	86 a	
2	ATRAZINE	1.5 qt/a		PRE									
3	BALANCE FLEXX	5 oz/a		PRE	A	100 a	100 a	100 a	100 a	0 a	89 ab	89 a	
3	ATRAZINE	1.5 qt/a		PRE									
4	BALANCE FLEXX	6 oz/a		PRE	A	100 a	100 a	100 a	100 a	0 a	89 ab	85 a	
4	ATRAZINE	1.5 qt/a		PRE									
5	LUMAX	3 qt/a		PRE	A	100 a	100 a	100 a	100 a	0 a	100 a	95 a	
6	CORVUS	5.6 oz/a		EPO	B	100 a	100 a	100 a	100 a	0 a	99 a	98 a	
6	ATRAZINE	1.5 qt/a		EPO									
7	CORVUS	5.6 oz/a		EPO	B	100 a	100 a	100 a	100 a	0 a	94 ab	91 a	
7	ATRAZINE	1.5 qt/a		EPO									
7	COC	0.8 qt/a		EPO									
8	BALANCE FLEXX	4 oz/a		EPO	B	100 a	100 a	100 a	100 a	0 a	95 ab	91 a	
8	ATRAZINE	1.5 qt/a		EPO									
9	BALANCE FLEXX	5 oz/a		EPO	B	100 a	100 a	100 a	100 a	0 a	98 a	96 a	
9	ATRAZINE	1.5 qt/a		EPO									
10	BALANCE FLEXX	6 oz/a		EPO	B	100 a	100 a	100 a	100 a	0 a	98 a	92 a	
10	ATRAZINE	1.5 qt/a		EPO									
11	BALANCE FLEXX	6 oz/a		EPO	B	100 a	100 a	100 a	100 a	0 a	98 a	96 a	
11	ATRAZINE	1.5 qt/a		EPO									
12	LUMAX	3 qt/a		EPO	B	100 a	100 a	100 a	100 a	0 a	99 a	94 a	
LSD (P=.05)						0.0	0.0	0.0	0.0	0.0	6.6	7.8	
Standard Deviation						0.0	0.0	0.0	0.0	0.0	3.9	4.6	
CV						0.0	0.0	0.0	0.0	0.0	4.1	4.97	
Bartlett's X2						0.0	0.0	0.0	0.0	0.0	28.098	12.547	
P(Bartlett's X2)						.	.	.	.	.	0.003*	0.324
Replicate F						0.000	0.000	0.000	0.000	0.000	0.796	0.398	
Replicate Prob(F)						1.0000	1.0000	1.0000	1.0000	1.0000	0.4639	0.6766	
Treatment F						0.000	0.000	0.000	0.000	0.000	4.287	2.483	
Treatment Prob(F)						1.0000	1.0000	1.0000	1.0000	1.0000	0.0018	0.0334	

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Weed Code	AMBEL	CHEAL	POLPY	ABUTH	AMARE
Crop Code					
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Jul/03/2008	Jul/03/2008	Jul/03/2008	Jul/03/2008	Jul/03/2008
Trt-Eval Interval	60 DA EM	60 DA EM	60 DA EM	60 DA EM	60 DA EM
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	15	16	17	18	19
1	CORVUS	5.6 oz/a		PRE	A	100 a	100 a	100 a	100 a	100 a
1	ATRAZINE	1.5 qt/a		PRE						
2	BALANCE FLEXX	4 oz/a		PRE	A	100 a	100 a	100 a	100 a	91 b
2	ATRAZINE	1.5 qt/a		PRE						
3	BALANCE FLEXX	5 oz/a		PRE	A	100 a	100 a	100 a	100 a	94 ab
3	ATRAZINE	1.5 qt/a		PRE						
4	BALANCE FLEXX	6 oz/a		PRE	A	100 a	93 a	100 a	100 a	100 a
4	ATRAZINE	1.5 qt/a		PRE						
5	LUMAX	3 qt/a		PRE	A	100 a	100 a	100 a	100 a	100 a
6	CORVUS	5.6 oz/a		EPO	B	100 a	100 a	100 a	100 a	100 a
6	ATRAZINE	1.5 qt/a		EPO						
7	CORVUS	5.6 oz/a		EPO	B	100 a	100 a	100 a	100 a	100 a
7	ATRAZINE	1.5 qt/a		EPO						
7	COC	0.8 qt/a		EPO						
8	BALANCE FLEXX	4 oz/a		EPO	B	100 a	100 a	100 a	100 a	100 a
8	ATRAZINE	1.5 qt/a		EPO						
9	BALANCE FLEXX	5 oz/a		EPO	B	100 a	100 a	100 a	100 a	99 a
9	ATRAZINE	1.5 qt/a		EPO						
10	BALANCE FLEXX	6 oz/a		EPO	B	100 a	100 a	100 a	100 a	99 a
10	ATRAZINE	1.5 qt/a		EPO						
11	BALANCE FLEXX	6 oz/a		EPO	B	100 a	100 a	100 a	100 a	100 a
11	ATRAZINE	1.5 qt/a		EPO						
12	LUMAX	3 qt/a		EPO	B	100 a	100 a	100 a	100 a	100 a
LSD (P=.05)						0.0	5.6	0.0	0.0	4.5
Standard Deviation						0.0	3.3	0.0	0.0	2.7
CV						0.0	3.35	0.0	0.0	2.69
Bartlett's X2						0.0	0.0	0.0	0.0	11.944
P(Bartlett's X2)						.	.	.	.	0.018*
Replicate F						0.000	1.000	0.000	0.000	0.241
Replicate Prob(F)						1.0000	0.3840	1.0000	1.0000	0.7878
Treatment F						0.000	1.000	0.000	0.000	3.552
Treatment Prob(F)						1.0000	0.4767	1.0000	1.0000	0.0055

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