

Ohio State University Horticulture and Crop Science

POSTEMERGENCE GRASS CONTROL IN CORN
HZEAMXNIC00701

Trial ID: 07POC1
Location: WESTERN BRANCH G-6

Study Dir.: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux

GENERAL TRIAL INFORMATION

Study Director: Anthony F. Dobbels
Affiliation: OSU
Investigator: Dr. Mark M. Loux
Affiliation: OSU

TRIAL LOCATION

State/Prov.: Ohio **Trial Status:** Complete
Country: US **Initiation Date:** Apr/01/2007
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. SETFA	Giant foxtail	Setaria faberi

Crop 1: ZEAMX CORN, FIELD **Variety:** PIONEER 34D68
Planting Date: May/02/2007 **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: 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: 14.9	

Overall Moisture Conditions: POOR

APPLICATION DESCRIPTION

A

Application Date: Jun/01/2007
Time of Day: 7:30 AM
Application Method: SPRAY
Application Timing: POST
Applic. Placement: BROADCAST
Air Temp., Unit: 71 F
% Relative Humidity: 68
Wind Velocity, Unit: 2 S
Soil Temp., Unit: 72 F
Soil Moisture: MOIST MOI
% Cloud Cover: 100

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: ZEAMX .
Stage Scale: 5 collar
Height, Unit: 15 IN

Ohio State University Horticulture and Crop Science

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code, Stage: CHEAL 2"
Stage Scale: 6 LVS
Density, Unit: 4.5 M2
Weed 2 Code, Stage: ABUTH 6"
Stage Scale: 5 LVS
Density, Unit: 3 M2
Weed 3 Code, Stage: AMBTR 6-8"
Stage Scale: 8-10 LVS
Density, Unit: 10.5 M2
Weed 4 Code, Stage: SETFA 4-7"
Stage Scale: 3-5 LVS
Density, Unit: 44.2 M2

APPLICATION EQUIPMENT

A

Appl. Equipment: BACKPACK
Operating Pressure: 50
Nozzle Type: DG
Nozzle Size: 11002
Nozzle Spacing, Unit: 18 IN
Ground Speed, Unit: 3 MPH
Carrier: WATER
Spray Volume, Unit: 20 GPA
Propellant: CO2

Ohio State University Horticulture and Crop Science

POSTEMERGENCE GRASS CONTROL IN CORN

HZEAMXNIC00701

Trial ID: 07POC1

Study Dir.: Anthony F. Dobbels

Location: WESTERN BRANCH G-6

Investigator: Dr. Mark M. Loux

Weed Code	ZEAMX	ZEAMX	SETFA	CHEAL	ABUTH	AMBTR	SETFA
Crop Code	PHYTO	PHYTO	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Data Type	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Unit	Jun/08/2007	Jun/14/2007	Jun/14/2007	Jun/14/2007	Jun/14/2007	Jun/14/2007	Jun/29/2007
Rating Date	7 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A	28 DA-A
Trt-Eval Interval	0	0	0	0	0	0	0
# Subsamples, Dec.	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Product Unit	Product Rate	Product Unit	Appl Code	1	2	3	4	5	6	7
1	CHA 7950	0.0117	lb ai/a	0.75	oz/a	A	0 a	0 a	75 ab	30 c	30 b	0 c	82 a
1	COC	1	% v/v	0.8	qt/a								
1	28%	3	% v/v	2.4	qt/a								
2	CHA 7950	0.0234	lb ai/a	1.5	oz/a	A	0 a	0 a	80 a	37 bc	37 b	0 c	82 a
2	COC	1	% v/v	0.8	qt/a								
2	28%	3	% v/v	2.4	qt/a								
3	CHA 7950	0.047	lb ai/a	3	oz/a	A	0 a	0 a	75 ab	33 bc	40 b	0 c	83 a
3	COC	1	% v/v	0.8	qt/a								
3	28%	3	% v/v	2.4	qt/a								
4	ACCENT	0.0117	lb ai/a	0.25	oz/a	A	0 a	0 a	67 b	33 bc	37 b	0 c	80 a
4	COC	1	% v/v	0.8	qt/a								
4	28%	3	% v/v	2.4	qt/a								
5	ACCENT	0.0234	lb ai/a	0.5	oz/a	A	0 a	0 a	82 a	37 bc	37 b	0 c	82 a
5	COC	1	% v/v	0.8	qt/a								
5	28%	3	% v/v	2.4	qt/a								
6	ACCENT	0.047	lb ai/a	1	oz/a	A	0 a	0 a	85 a	43 b	43 b	0 c	80 a
6	COC	1	% v/v	0.8	qt/a								
6	28%	3	% v/v	2.4	qt/a								
7	LAUDIS	0.082	lb ai/a	3	oz/a	A	0 a	0 a	78 ab	100 a	100 a	100 a	73 a
7	ATRAZINE	0.5	lb ai/a	1	pt/a								
7	COC	1	% v/v	0.8	qt/a								
7	28%	3	% v/v	2.4	qt/a								
8	LAUDIS	0.082	lb ai/a	3	oz/a	A	0 a	0 a	78 ab	100 a	100 a	100 a	83 a
8	ATRAZINE	0.5	lb ai/a	1	pt/a								
8	MSO	1	% v/v	0.8	qt/a								
8	28%	3	% v/v	2.4	qt/a								
9	IMPACT	0.0164	lb ai/a	0.75	oz/a	A	0 a	0 a	75 ab	100 a	100 a	87 b	75 a
9	ATRAZINE	0.5	lb ai/a	1	pt/a								
9	COC	1	% v/v	0.8	qt/a								
9	28%	3	% v/v	2.4	qt/a								
10	UTC						0 a	0 a	0 c	0 d	0 c	0 c	0 b
LSD (P=.05)							0.0	0.0	8.1	7.5	9.6	6.3	9.1
Standard Deviation							0.0	0.0	4.7	4.4	5.6	3.7	5.3
CV							0.0	0.0	6.8	8.55	10.66	12.74	7.39
Bartlett's X2							0.0	0.0	1.609	1.144	1.816	0.0	3.843
P(Bartlett's X2)							.	.	0.952	0.95	0.769	.	0.798
Replicate F							0.000	0.000	0.336	4.846	1.714	1.000	2.471
Replicate Prob(F)							1.0000	1.0000	0.7189	0.0207	0.2082	0.3874	0.1127
Treatment F							0.000	0.000	83.407	196.231	118.107	482.333	68.941
Treatment Prob(F)							1.0000	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.

Ohio State University Horticulture and Crop Science

Weed Code	AMBTR	CHEAL	ABUTH	SETFA	CHEAL	ABUTH	AMBTR
Crop Code							
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Jun/29/2007	Jun/29/2007	Jun/29/2007	Jul/27/2007	Jul/27/2007	Jul/27/2007	Jul/27/2007
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A
# Subsamples, Dec.	0	0	0	0	0	0	0

Trt	Treatment	Rate	Product	Product	Appl	8	9	10	11	12	13	14	
No.	Name	Rate	Rate	Rate	Unit Code								
1	CHA 7950	0.0117	lb ai/a	0.75	oz/a	A	7 b	65 bc	43 b	90 ab	63 b	60 b	20 bc
1	COC	1	% v/v	0.8	qt/a								
1	28%	3	% v/v	2.4	qt/a								
2	CHA 7950	0.0234	lb ai/a	1.5	oz/a	A	3 b	53 c	50 b	95 a	72 b	67 b	0 c
2	COC	1	% v/v	0.8	qt/a								
2	28%	3	% v/v	2.4	qt/a								
3	CHA 7950	0.047	lb ai/a	3	oz/a	A	27 b	68 bc	67 b	94 a	68 b	70 b	23 bc
3	COC	1	% v/v	0.8	qt/a								
3	28%	3	% v/v	2.4	qt/a								
4	ACCENT	0.0117	lb ai/a	0.25	oz/a	A	20 b	72 bc	55 b	82 ab	73 b	57 b	23 bc
4	COC	1	% v/v	0.8	qt/a								
4	28%	3	% v/v	2.4	qt/a								
5	ACCENT	0.0234	lb ai/a	0.5	oz/a	A	18 b	77 b	70 b	90 ab	78 ab	75 b	20 bc
5	COC	1	% v/v	0.8	qt/a								
5	28%	3	% v/v	2.4	qt/a								
6	ACCENT	0.047	lb ai/a	1	oz/a	A	30 b	73 bc	67 b	83 ab	75 b	73 b	47 b
6	COC	1	% v/v	0.8	qt/a								
6	28%	3	% v/v	2.4	qt/a								
7	LAUDIS	0.082	lb ai/a	3	oz/a	A	100 a	100 a	100 a	75 b	100 a	100 a	100 a
7	ATRAZINE	0.5	lb ai/a	1	pt/a								
7	COC	1	% v/v	0.8	qt/a								
7	28%	3	% v/v	2.4	qt/a								
8	LAUDIS	0.082	lb ai/a	3	oz/a	A	97 a	100 a	98 a	80 ab	100 a	98 a	93 a
8	ATRAZINE	0.5	lb ai/a	1	pt/a								
8	MSO	1	% v/v	0.8	qt/a								
8	28%	3	% v/v	2.4	qt/a								
9	IMPACT	0.0164	lb ai/a	0.75	oz/a	A	90 a	100 a	95 a	77 b	100 a	93 a	93 a
9	ATRAZINE	0.5	lb ai/a	1	pt/a								
9	COC	1	% v/v	0.8	qt/a								
9	28%	3	% v/v	2.4	qt/a								
10	UTC						0 b	0 d	0 c	0 c	0 c	0 c	0 c
LSD (P=.05)							20.7	15.4	17.9	10.0	17.3	13.6	20.3
Standard Deviation							12.0	9.0	10.4	5.8	10.1	7.9	11.9
CV							30.75	12.67	16.14	7.61	13.81	11.41	28.27
Bartlett's X2							11.47	11.07	9.211	5.308	3.779	5.765	3.519
P(Bartlett's X2)							0.119	0.086	0.238	0.622	0.582	0.45	0.741
Replicate F							3.176	1.152	7.678	6.920	4.209	4.846	3.839
Replicate Prob(F)							0.0659	0.3383	0.0039	0.0059	0.0317	0.0207	0.0409
Treatment F							33.328	32.877	25.466	68.275	25.156	39.769	32.681
Treatment Prob(F)							0.0001	0.0001	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.