

Ohio State University Horticulture and Crop Science

IMPACT PROGRAMS IN FIELD CORN

Trial ID: 07PRPOC4
Location: WESTERN BRANCH BIG E

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
Country: USA
Trial Status: yield
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. SETFA	Giant foxtail	Setaria faberi
2. CHEAL	Common lambsquarters	Chenopodium album
3. ABUTH	Velvetleaf	Abutilon theophrasti
4. AMARE	Redroot pigweed	Amaranthus retroflexus
5. AMBEL	Common ragweed	Ambrosia artemisiifolia
6. AMBTR	Giant ragweed	Ambrosia trifida
7. POLPY	Pennsylvania smartweed	Polygonum pennsylvanicum

Crop 1: ZEAMX CORN, FIELD
Planting Date: May/02/2007
Rate: 42000 SEED/A
Row Spacing: 30 IN
Variety: PIONEER 34A17
Planting Method: JOHN DEERE 7200
Depth: 1.5 IN
Seed Bed: CONVENTIONAL

SITE AND DESIGN

Plot Width, Unit: 10 FT
Tillage Type: CONVENTIONAL
Plot Length, Unit: 30 FT
Study Design: RANDOMIZED COMPLETE BLOCK
Reps: 4

SOIL DESCRIPTION

% OM: 2.2
pH: 6.1
CEC: 13.8
Texture: SILTY CLAY LOAM
Soil Name: KOKOMO

Overall Moisture Conditions: POOR

APPLICATION DESCRIPTION

	A	B
Application Date:	May/02/2007	May/30/2007
Time of Day:	4:00 PM	9:00 AM
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	74 F	71 F
% Relative Humidity:	57	73
Wind Velocity, Unit:	7 N	3 S
Soil Temp., Unit:	66 F	62 F
Soil Moisture:	DRY MOIST	DRY DRY
% Cloud Cover:	20	75

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX .	ZEAMX .
Stage Scale:	.	5 collar
Height, Unit:		13 IN

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WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	SETFA .	SETFA 6"
Stage Scale:	.	4LVS
Density, Unit:	. .	60.7 M2
Weed 2 Code, Stage:	CHEAL .	CHEAL 2-4"
Stage Scale:	.	8-10LVS
Density, Unit:	. .	26 M2
Weed 3 Code, Stage:	ABUTH .	ABUTH 2-5"
Stage Scale:	.	2-5LVS
Density, Unit:	. .	3.75 M2
Weed 4 Code, Stage:	AMARE .	AMARE 2"
Stage Scale:	.	6LVS
Density, Unit:	. .	1 M2
Weed 5 Code, Stage:	AMBEL .	AMBEL 2-4"
Stage Scale:	.	6-10LVS
Density, Unit:	. .	0.33 M2
Weed 6 Code, Stage:	AMBTR .	AMBTR 8-10"
Stage Scale:	.	8-12LVS
Density, Unit:	. .	2.25 M2
Weed 7 Code, Stage:	POLPY .	POLPY 2"
Stage Scale:	.	6LVS
Density, Unit:	. .	0.1 M2

APPLICATION EQUIPMENT

	A		B
Appl. Equipment:	BACKPACK		BACKPACK
Operating Pressure:	50		50
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 Code	ZEAMX	ZEAMX	ZEAMX
Crop Code	WEIGHT	MOISTURE	YIELD
Rating Data Type	LBS	PERCENT	BU
Rating Unit	Oct/15/2007	Oct/15/2007	Oct/15/2007
Rating Date	HARVEST	HARVEST	HARVEST
Trt-Eval Interval			TY1
ARM Action Codes			
# Subsamples, Dec.	1	1	1

Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Unit	Appl Code	28	29	30
1	UTC						12.0 b	11.0 a	64.5 b
2	BICEP II MAGNUM	1.44	lb ai/a	1.05	qt/a	A	18.8 b	11.7 a	100.6 b
3	BICEP II MAGNUM	1.44	lb ai/a	1.05	qt/a	A	37.3 a	12.9 a	197.8 a
3	IMPACT	0.016	lb ai/a	0.73	oz/a	B			
3	ATRAZINE	0.5	lb ai/a	1	pt/a				
3	MSO	1	% v/v	0.8	qt/a				
3	28%	2.5	% v/v	2	qt/a				
4	BICEP II MAGNUM	1.44	lb ai/a	1.05	qt/a	A	33.8 a	12.5 a	179.6 a
4	CALLISTO	0.094	lb ai/a	3	oz/a	B			
4	ATRAZINE	0.5	lb ai/a	1	pt/a				
4	COC	1	% v/v	0.8	qt/a				
4	28%	2.5	% v/v	2	qt/a				
5	BICEP II MAGNUM	1.44	lb ai/a	1.05	qt/a	A	35.8 a	12.6 a	190.2 a
5	LAUDIS	0.082	lb ai/a	3	oz/a	B			
5	ATRAZINE	0.5	lb ai/a	1	pt/a				
5	COC	1	% v/v	0.8	qt/a				
5	28%	2.5	% v/v	2	qt/a				
6	STEADFAST	0.035	lb ai/a	0.75	oz/a	B	29.8 a	11.9 a	159.6 a
6	ATRAZINE	0.5	lb ai/a	1	pt/a				
6	MSO	1	% v/v	0.8	qt/a				
6	28%	2.5	% v/v	2	qt/a				
7	IMPACT	0.011	lb ai/a	0.503	oz/a	B	36.3 a	12.2 a	193.9 a
7	STEADFAST	0.035	lb ai/a	0.75	oz/a				
7	ATRAZINE	0.5	lb ai/a	1	pt/a				
7	MSO	1	% v/v	0.8	qt/a				
7	28%	2.5	% v/v	2	qt/a				
8	CALLISTO	0.063	lb ai/a	2	oz/a	B	36.0 a	12.7 a	190.9 a
8	STEADFAST	0.035	lb ai/a	0.75	oz/a				
8	ATRAZINE	0.5	lb ai/a	1	pt/a				
8	COC	1	% v/v	0.8	qt/a				
8	28%	2.5	% v/v	2	qt/a				
9	LAUDIS	0.055	lb ai/a	2	oz/a	B	31.8 a	12.5 a	169.1 a
9	OPTION	0.033	lb ai/a	0.75	oz/a				
9	ATRAZINE	0.5	lb ai/a	1	pt/a				
9	MSO	1	% v/v	0.8	qt/a				
9	28%	2.5	% v/v	2	qt/a				
10	DUAL II MAGNUM	0.76	lb ai/a	0.8	pt/a	A	33.5 a	11.8 a	179.6 a
10	IMPACT	0.011	lb ai/a	0.503	oz/a	C			
10	ROUNDUP WEATHERMAX	0.77	lb ae/a	22	oz/a				
10	AMS	2.5	% v/v	2	qt/a				

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Rating Date	HARVEST	HARVEST	HARVEST
Trt-Eval Interval			TY1
ARM Action Codes			
# Subsamples, Dec.	1	1	1

Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Unit	Appl Code	28	29	30
11	DUAL II MAGNUM	0.76	lb ai/a	0.8	pt/a	A	34.4 a	12.9 a	182.5 a
11	IMPACT	0.011	lb ai/a	0.503	oz/a	C			
11	ROUNDUP WEATHERMAX	0.77	lb ae/a	22	oz/a				
11	ATRAZINE	0.5	lb ai/a	1	pt/a				
11	AMS	2.5	% v/v	2	qt/a				
12	DUAL II MAGNUM	0.76	lb ai/a	0.8	pt/a	A	34.3 a	12.3 a	183.0 a
12	ROUNDUP WEATHERMAX	0.77	lb ae/a	22	oz/a	C			
12	AMS	2.5	% v/v	2	qt/a				
13	BICEP II MAGNUM	2.9	lb ai/a	2.1	qt/a	A	35.3 a	12.5 a	188.0 a
13	CALLISTO	0.094	lb ai/a	3	oz/a	C			
13	ATRAZINE	0.5	lb ai/a	1	pt/a				
13	COC	1	% v/v	0.8	qt/a				
13	28%	2.5	% v/v	2	qt/a				
14	BICEP II MAGNUM	1.44	lb ai/a	1.05	qt/a	A	34.9 a	12.1 a	186.9 a
14	STATUS	0.175	lb ai/a	5	oz/a	C			
14	NIS	0.25	% v/v	6.4	oz/a				
14	28 %	2.5	% v/v	2	qt/a				
15	BICEP II MAGNUM	1.44	lb ai/a	1.05	qt/a	A	32.5 a	12.4 a	172.9 a
15	STATUS	0.175	lb ai/a	5	oz/a	C			
15	ATRAZINE	0.5	lb ai/a	0.5	qt/a				
15	NIS	0.25	% v/v	6.4	oz/a				
15	28 %	2.5	% v/v	2	qt/a				
16	DUAL II MAGNUM	0.764	lb ai/a	0.8	pt/a	A	36.5 a	12.6 a	194.3 a
16	STATUS	0.0875	lb ai/a	2.5	oz/a	C			
16	ROUNDUP WEATHERMAX	0.77	lb ae/a	22	oz/a				
16	AMS	2.5	% v/v	2	qt/a				
LSD (P=.05)							7.41	1.17	38.44
Standard Deviation							5.18	0.82	26.90
CV							16.17	6.66	15.74
Bartlett's X2							4.036	10.6	4.2
P(Bartlett's X2)							0.998	0.78	0.997
Replicate F							41.719	22.643	41.111
Replicate Prob(F)							0.0001	0.0001	0.0001
Treatment F							7.060	1.510	7.357
Treatment Prob(F)							0.0001	0.1423	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.

ARM Action Codes

TY1 = 5.185714*[28]*(100-[29])/85