

(04LONGTERM)

Ohio State University
Horticulture and Crop Science

LONG TERM CROPPING SYSTEMS

Trial ID: 04LONGTERM
Location: WESTERN D

Study Dir.: Anthony F. Dobbels
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	Lambsquarters, common	Chenopodium album
4. AMBTR	Ragweed, giant	Ambrosia trifida
5. AMARE	Pigweed, redroot	Amaranthus retroflexus
6. SIDSP	Teaweed	Sida spinosa
7. STEME	Common chickweed	Stellaria media

Crop 1: ZEAMX CORN, FIELD

Variety: DEKALB DKC64-11 RR/YGCB

Planting Date: 4-29-04

Planting Method: JOHN DEERE

Rate: 32097 SEED/A

Depth: 1.5 IN

Row Spacing: 30 IN

Seed Bed: CONVENTIONAL

SITE AND DESIGN

Plot Width, Unit: 20 FT

Plot Length, Unit: 1750 FT Reps: 3

Tillage Type: CONVENTIONAL

Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% OM:	2.5	Texture:	silt loam
pH:	6.2	Soil Name:	Crosby
CEC:	19.9		

APPLICATION DESCRIPTION

	A	B	C	D
Application Date:	4-29-04	5-29-04	6-3-04	6-16-04
Time of Day:	7:00 P.M.	8:00 A.M.	3:00 P.M.	6:00 P.M.
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	EPO	POST	LPO
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	72 F	54 F	75 F	78 F
% Relative Humidity:	54	73	50	84
Wind Velocity, Unit:	6 S	4 NE	6 N	8 SE
Soil Temp., Unit:	62 F	54 F	74 F	76 F
Soil Moisture:	DRY/MOIST	DRY/MOIST	DRY/MOIST	MOIST/WET
% Cloud Cover:	30	50	25	100

CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Stage Scale:	4 COLLAR	5 COLLAR	7 COLLAR	
Height, Unit:	9 IN	13 IN	30 IN	

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WEED STAGE AT EACH APPLICATION

	A	B	C	D
Weed 1 Code, Stage:	SETFA	SETFA 3-4"	SETFA 1-2"	SETFA 1"
Stage Scale:		3 LVS	3 LVS	1 LV
Weed 2 Code, Stage:	ABUTH	ABUTH 1-2"	ABUTH 1-2"	ABUTH
Stage Scale:		3 LVS	3 LVS	
Weed 3 Code, Stage:	CHEAL	CHEAL 1"	CHEAL 1"	CHEAL 1/4"
Stage Scale:		4 LVS	4 LVS	COTYLEDON
Weed 4 Code, Stage:	AMBTR	AMBTR 4-6"	AMBTR 6-8"	AMBTR 1"
Stage Scale:		4 LVS	10 LVS	COTYLEDON
Weed 5 Code, Stage:	AMARE	AMARE 1/2"	AMARE 1"	AMARE
Stage Scale:		2 LVS	2 LVS	
Weed 6 Code, Stage:	SIDSP	SIDSP 1/2"	SIDSP 3-4"	SIDSP 1/2"
Stage Scale:		2 LVS	3 LVS	COTYLEDON
Weed 7 Code, Stage:	STEME	STEME 4-6"	STEME 3"	STEME
Stage Scale:		>12 LVS	>12 LVS	

APPLICATION EQUIPMENT

	A	B	C	D
Appl. Equipment:	TRACTOR	TRACTOR	TRACTOR	TRACTOR
Operating Pressure:	40	40 PSI	40 PSI	40 PSI
Nozzle Type:	DG	AI	AI	AI
Nozzle Size:	11002	111002	111002	111002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN
Ground Speed, Unit:	5 MPH	3.5 MPH	3.5 MPH	3.5 MPH
Carrier:	WATER	WATER	WATER	WATER
Spray Volume, Unit:	10 GPA	15 GPA	15 GPA	15 GPA
Propellant:	PUMP	PUMP	PUMP	PUMP

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Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

ARM Action Codes

Subsamples, Dec.

ZEAMX WEIGHT	ZEAMX MOISTURE	ZEAMX YIELD
LBS	PERCENT	BU/ACRE
10-12-04	10-12-04	10-12-04
HARVEST	HARVEST	HARVEST
		TY1
1	1	1

Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	9	10	11
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1	ROUNDUP WEATHERMAX	22 oz/a		EPO	B	8111.7 a	16.0 a	179.3 a
1	AMS	2 qt/a		EPO				
1	ROUNDUP WEATHERMAX	22 oz/a		LPO	D			
1	AMS	2 qt/a		LPO				
2	ROUNDUP WEATHERMAX	16 oz/a		EPO	B	8055.0 a	16.1 a	177.7 a
2	AMS	2 qt/a		EPO				
2	ROUNDUP WEATHERMAX	16 oz/a		LPO	D			
2	AMS	2 qt/a		LPO				
3	DEGREE XTRA	1.65 qt/a		PRE	A	7891.7 a	15.9 a	174.5 ab
3	ROUNDUP WEATHERMAX	22 oz/a		POST	C			
3	AMS	2 qt/a		POST				
4	DEGREE XTRA	1.65 qt/a		PRE	A	7721.7 a	16.6 a	169.3 b
4	STEADFAST ATZ	14 oz/a		POST	C			
4	CALLISTO	2 oz/a		POST	C			
4	COC	0.4 qt/a		POST	C			
4	28%	1 qt/a		POST	C			
5	DEGREE XTRA	1.65 qt/a		PRE	A	7970.0 a	16.4 a	175.2 ab
5	STEADFAST ATZ	14 oz/a		POST	C			
5	CALLISTO	2 oz/a		POST	C			
5	COC	0.4 qt/a		POST	C			
5	28%	1 qt/a		POST	C			
6	DEGREE XTRA	1.65 qt/a		PRE	A	7821.7 a	17.1 a	170.6 b
6	STEADFAST ATZ	14 oz/a		POST	C			
6	CALLISTO	2 oz/a		POST	C			
6	COC	0.4 qt/a		POST	C			
6	28%	1 qt/a		POST	C			

LSD (P=.05)

Standard Deviation

CV

291.01	1.28	6.61
159.97	0.70	3.63
2.02	4.29	2.08

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Weed Code				
Crop Code		ZEAMX	ZEAMX	ZEAMX
Rating Data Type		WEIGHT	MOISTURE	YIELD
Rating Unit		LBS	PERCENT	BU/ACRE
Rating Date		10-12-04	10-12-04	10-12-04
Trt-Eval Interval		HARVEST	HARVEST	HARVEST
ARM Action Codes				TY1
# Subsamples, Dec.		1	1	1

Trt	Treatment	Product	Product	Grow	Appl				
No.	Name	Rate	Rate	Unit	Stg	Code	9	10	11
Replicate F							43.944	0.134	42.658
Replicate Prob(F)							0.0001	0.8761	0.0001
Treatment F							2.505	1.237	3.445
Treatment Prob(F)							0.1016	0.3611	0.0454

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Column 3: TY1 = $0.02222449 * [9] * (100 - [10]) / 84.5$