

(04SYSCORNW)

Ohio State University
Horticulture and Crop Science
SOYBEAN CORN SYSTEMS STUDY CORN TREATMENTS

Trial ID: 04SYSCORNW Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH G 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 FOXTAIL, GIANT	SETERIA FABERI
2.	AMBTR RAGWEED, GIANT	AMBROSIA TRIFIDA L.
3.	ABUTH VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
4.	AMBEL RAGWEED, COMMON	AMBROSIA ELATIOR L.
5.	POLPY SMARTWEED, PENNSYLVANIA	POLYGONUM PENSYLVANICUM L.
6.	XANST COCKLEBUR, COMMON	XANTHIUM STRUMARIUM L. SSP. STRUMARIUM
7.	CHEAL LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
8.	IPOHE MORNINGGLORY, IVYLEAF	IPOMOEA HEDERACEA (L.) JACQ.

Crop 1: ZEAMX ROUNDUP READY CORN **Variety:** DEKALB DKC 60-09 RR
Planting Date: 4-20-04 **Planting Method:** JOHN DEERE 7200
Rate: 32097 SEED/A **Depth:** 1.5 IN
Row Spacing: 30 IN **Seed Bed:** CONVENTIONAL

Crop 2: ZEAMX LIBERTY LINK CORN **Variety:** PIONEER 34M92 LL
Planting Date: 4-20-04 **Planting Method:** JOHN DEERE 7200
Rate: 32097 SEED/A **Depth:** 1.5 IN
Row Spacing: 30 IN **Seed Bed:** CONVENTIONAL

Crop 3: ZEAMX CLEARFIELD CORN **Variety:** SEED CONSULTANTS SC10C82
Planting Date: 4-20-04 **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: 10 FT **Plot Length, Unit:** 40 FT **Reps:** 4
Tillage Type: CONVENTIONAL **Study Design:** RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% OM: 3.9 **Texture:** silty clay loam
pH: 6.2 **Soil Name:** KOKOMO
CEC: 23

APPLICATION DESCRIPTION

	A	B	C
Application Date:	4-20-04	5-24-04	5-28-04
Time of Day:	3:00 P.M.	7:00 P.M.	9:00 A.M.
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	EPO	POST
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	60 F	76 F	65 F
% Relative Humidity:	92	42	96
Wind Velocity, Unit:	1 SE	6 W	6 S
Soil Temp., Unit:	63 F	74 F	63 F
Soil Moisture:	MOIST/DRY	DRY/MOIST	WET/WET
% Cloud Cover:	100	10	100

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CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX	ZEAMX	ZEAMX
Stage Scale:		5 COLLAR	5 COLLAR
Height, Unit:		12 IN	13 IN
Crop 2 Code, Stage:	ZEAMX	ZEAMX	ZEAMX
Stage Scale:		5 COLLAR	5 COLLAR
Height, Unit:		12 IN	13 IN
Crop 3 Code, Stage:	ZEAMX	ZEAMX	ZEAMX
Stage Scale:		5 COLLAR	5 COLLAR
Height, Unit:		12 IN	13 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	SETFA	SETFA 4-6"	SETFA 6-8"
Stage Scale:		4 LVS	5 LVS
Weed 2 Code, Stage:	AMBTR	AMBTR 4-10"	AMBTR 6-12"
Stage Scale:		12 LVS	>12 LVS
Weed 3 Code, Stage:	ABUTH	ABUTH 1-3"	ABUTH 2-4"
Stage Scale:		6 LVS	8 LVS
Weed 4 Code, Stage:	AMBEL	AMBEL	AMBEL 2-4"
Stage Scale:			8 LVS
Weed 5 Code, Stage:	POLPY	POLPY 1-2"	POLPY 2-4"
Stage Scale:		4 LVS	6-8 LVS
Weed 6 Code, Stage:	XANST	XANST	XANST 2-4"
Stage Scale:			4 LVS
Weed 7 Code, Stage:	CHEAL	CHEAL	CHEAL 1-2"
Stage Scale:			4 LVS
Weed 8 Code, Stage:	IPOHE	IPOHE 1-2"	IPOHE 1-2"
Stage Scale:		COTYLEDON	2 LVS

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	BACKPACK	BACKPACK	BACKPACK
Operating Pressure:	50	50	50
Nozzle Type:	DG 11002	DG	DG
Nozzle Size:		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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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
10-6-04	10-6-04	10-6-04
HARVEST	HARVEST	HARVEST
		TY1
1	1	1

Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	20	21	22
1	DEGREE XTRA	1.49	qt/a	PRE	A	60.7 a	14.9 b	237.6 a
1	ROUNDUP WEATHERMAX	21.3	oz/a	POST	C			
1	AMS	4	qt/a	POST				
2	GUARDSMAN	1	qt/a	PRE	A	59.0 a	14.8 b	231.2 ab
2	STEADFAST ATZ	14	oz/a	POST	C			
2	CLARITY	4	oz/a	POST				
2	COC	1	% v/v	POST				
2	28%	4	qt/a	POST				
3	ATRAZINE	1	qt/a	PRE	A	55.7 a	17.7 a	211.0 b
3	LIGHTNING	1.28	oz/a	EPO	B			
3	DISTINCT	2	oz/a	EPO				
3	NIS	0.25	% v/v	EPO				
3	28%	4	qt/a	EPO				
4	FULTIME	3.5	qt/a	PRE	A	60.7 a	15.1 b	237.2 a
4	ACCENT	0.66	oz/a	SCOUT	C			
4	HORNET	3	oz/a	SCOUT				
4	COC	1	% v/v	SCOUT				
4	28%	4	qt/a	SCOUT				
5	DUAL II MAGNUM	1.66	pt/a	PRE	A	59.6 a	14.7 b	234.2 ab
5	MARKSMAN	3.5	pt/a	EPO	B			
6	BALANCE PRO	1.5	oz/a	PRE	A	48.5 b	17.9 a	183.4 c
6	LIBERTY	32	oz/a	POST	B			
6	ATRAZINE	1.5	qt/a	POST				
6	AMS	4	qt/a	POST				
	LSD (P=.05)					7.01	0.86	25.92
	Standard Deviation					4.65	0.57	17.20
	CV					8.1	3.59	7.74

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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					10-6-04	10-6-04	10-6-04
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	20	21	22

Replicate F	0.123	3.327	0.238
Replicate Prob(F)	0.9448	0.0484	0.8687
Treatment F	4.116	28.371	6.273
Treatment Prob(F)	0.0149	0.0001	0.0025

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 = $3.889286 * [20] * (100 - [21]) / 84.5$