

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

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

(04SYSCORNW)

Ohio State University
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Location: WESTERN BRANCH G Investigator: Dr. Mark M. Loux

Weed Code					SETFA	AMBTR	ABUTH	CHEAL	POLPY	XANST		SETFA	
Crop Code											ZEAMX		
Rating Data Type					CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	PHYTO	CONTROL	
Rating Unit					PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	
Rating Date					5-26-04	5-26-04	5-26-04	5-26-04	5-26-04	5-26-04	6-8-04	6-8-04	
Trt-Eval Interval					AT POST	AT POST	AT POST	AT POST	AT POST	AT POST	11 DA-C	11 DA-C	
# Subsamples, Dec.					0	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	8
1	DEGREE XTRA	1.49	qt/a	PRE	A	83	55	64	81	64	68	0	100
1	ROUNDUP WEATHERMAX	21.3	oz/a	POST	C								
1	AMS	4	qt/a	POST									
2	GUARDSMAN	1	qt/a	PRE	A	85	55	75	76	73	73	0	100
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	71	55	68	65	60	60	0	100
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	85	65	58	80	65	55	0	100
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	100	13	0	0	0	0	0	100
5	MARKSMAN	3.5	pt/a	EPO	B								
6	BALANCE PRO	1.5	oz/a	PRE	A	65	73	100	100	58	70	0	100
6	LIBERTY	32	oz/a	POST	B								
6	ATRAZINE	1.5	qt/a	POST									
6	AMS	4	qt/a	POST									
LSD (P=.05)						18.6	17.8	18.0	20.0	31.1	14.4	0.0	0.0
Standard Deviation						12.4	11.8	11.9	13.2	20.6	9.5	0.0	0.0
CV						15.17	22.54	19.7	19.75	38.83	17.62	0.0	0.0
Replicate F						0.771	2.024	1.350	0.672	0.342	1.768	0.000	0.000
Replicate Prob(F)						0.5281	0.1538	0.2957	0.5821	0.7954	0.1963	1.0000	1.0000
Treatment F						3.903	12.429	30.828	27.522	6.614	32.780	0.000	0.000
Treatment Prob(F)						0.0182	0.0001	0.0001	0.0001	0.0019	0.0001	1.0000	1.0000

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					AMBTR	ABUTH	CHEAL	POLPY	XANST	SETFA	AMBTR	ABUTH	
Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	CONTROL PERCENT	CONTROL PERCENT	CONTROL PERCENT	CONTROL PERCENT	CONTROL PERCENT	CONTROL PERCENT	CONTROL PERCENT	CONTROL PERCENT	
Trt-Eval Interval	# Subsamples, Dec.				6-8-04	6-8-04	6-8-04	6-8-04	6-8-04	6-24-04	6-24-04	6-24-04	
					11 DA-C	11 DA-C	11 DA-C	11 DA-C	11 DA-C	27 DA-C	27 DA-C	27 DA-C	
					0	0	0	0	0	0	0	0	
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	9	10	11	12	13	14	15	16
1	DEGREE XTRA	1.49	qt/a	PRE	A	95	100	100	100	100	100	84	98
1	ROUNDUP WEATHERMAX	21.3	oz/a	POST	C								
1	AMS	4	qt/a	POST									
2	GUARDSMAN	1	qt/a	PRE	A	68	100	100	100	100	100	76	94
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	80	100	100	100	100	97	80	100
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	68	100	100	100	100	99	81	100
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	94	100	100	100	100	97	91	84
5	MARKSMAN	3.5	pt/a	EPO	B								
6	BALANCE PRO	1.5	oz/a	PRE	A	99	100	100	100	100	100	99	100
6	LIBERTY	32	oz/a	POST	B								
6	ATRAZINE	1.5	qt/a	POST									
6	AMS	4	qt/a	POST									
LSD (P=.05)						6.9	0.0	0.9	0.0	0.0	3.2	6.5	5.6
Standard Deviation						4.6	0.0	0.6	0.0	0.0	2.1	4.3	3.7
CV						5.43	0.0	0.6	0.0	0.0	2.15	5.06	3.91
Replicate F						0.807	0.000	0.625	0.000	0.000	2.875	1.144	1.321
Replicate Prob(F)						0.5095	1.0000	0.6098	1.0000	1.0000	0.0710	0.3635	0.3044
Treatment F						39.094	0.000	0.750	0.000	0.000	1.721	14.587	11.500
Treatment Prob(F)						0.0001	1.0000	0.5988	1.0000	1.0000	0.1904	0.0001	0.0001

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Weed Code	CHEAL	POLPY	XANST
Crop Code			
Rating Data Type	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT
Rating Date	6-24-04	6-24-04	6-24-04
Trt-Eval Interval	27 DA-C	27 DA-C	27 DA-C
# Subsamples, Dec.	0	0	0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	17	18	19
1	DEGREE XTRA	1.49	qt/a	PRE	A	100	100	100
1	ROUNDUP WEATHERMAX	21.3	oz/a	POST	C			
1	AMS	4	qt/a	POST				
2	GUARDSMAN	1	qt/a	PRE	A	100	100	100
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	100	100	100
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	100	100	100
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	100	95	100
5	MARKSMAN	3.5	pt/a	EPO	B			
6	BALANCE PRO	1.5	oz/a	PRE	A	100	100	99
6	LIBERTY	32	oz/a	POST	B			
6	ATRAZINE	1.5	qt/a	POST				
6	AMS	4	qt/a	POST				
LSD (P=.05)						0.0	6.2	1.6
Standard Deviation						0.0	4.1	1.1
CV						0.0	4.12	1.06
Replicate F						0.000	1.000	0.850
Replicate Prob(F)						1.0000	0.4199	0.4880
Treatment F						0.000	1.000	0.900
Treatment Prob(F)						1.0000	0.4509	0.5062