

WEED CONTROL SYSTEMS IN LIBERTY LINK CORN

Trial ID: 04LLC1 Study Dir.: Anthony F. Dobbels
Location: WESTERN BRANCH F-7 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. CHEAL	Lambsquarters, common	Chenopodium album
3. POLPY	Pennsylvania smartweed	Polygonum pensylvanicum
4. AMBEL	Ragweed, common	Ambrosia artemisiifolia
5. ABUTH	Velvetleaf	Abutilon theophrasti
6. AMARE	Redroot pigweed	Amaranthus retroflexus

Crop 1: ZEAMX CORN, FIELD Variety: PIONEER 34M92 LL
Planting Date: 4-28-04 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: 5.2 Texture: silty clay loam
pH: 5.6 Soil Name: Kokomo
CEC: 25

APPLICATION DESCRIPTION

	A	B	C	D
Application Date:	4-29-04	5-24-04	5-28-04	6-3-04
Time of Day:	7:00 A.M.	7:00 P.M.	9:00 A.M.	9:00 A.M.
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	EPO	MPO	POST
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	54 F	76 F	65 F	59 F
% Relative Humidity:	52	42	96	77
Wind Velocity, Unit:	2 S	6 W	6 S	2 W
Soil Temp., Unit:	51 F	74 F	63 F	59 F
Soil Moisture:	DRY/MOIST	DRY/MOIST	WET/WET	DRY/MOIST
% Cloud Cover:	0	10	100	25

CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Stage Scale:	4 COLLAR	5 COLLAR	6 COLLAR	
Height, Unit:	10 IN	12 IN	17 IN	

WEED STAGE AT EACH APPLICATION

	A	B	C	D
Weed 1 Code, Stage:	SETFA	SETFA 4-6"	SETFA 4-8"	SETFA 6-8"
Stage Scale:		5 LVS	6 LVS	6 LVS
Density, Unit:		55 M2	55 M2	55 M2
Weed 2 Code, Stage:	CHEAL	CHEAL 1-2"	CHEAL 1-3"	CHEAL 2-4"
Stage Scale:		4 LVS	4 LVS	8 LVS
Density, Unit:		18.3 M2	18.3 M2	18.3 M2
Weed 3 Code, Stage:	POLPY	POLPY 3-4"	POLPY 3-4"	POLPY 6-8"
Stage Scale:		8 LVS	8 LVS	12 LVS
Density, Unit:		2.3 M2	2.3 M2	2.3 M2
Weed 4 Code, Stage:	AMBEL	AMBEL 3-4"	AMBEL 4-6"	AMBEL 3-5"
Stage Scale:		8 LVS	8 LVS	6 LVS
Density, Unit:		2.3 M2	2.3 M2	2.3 M2
Weed 5 Code, Stage:	ABUTH	ABUTH 2-3"	ABUTH 3-4"	ABUTH 3-5"
Stage Scale:		4 LVS	5 LVS	4 LVS
Density, Unit:		.3 M2	.3 M2	.3 M2
Weed 6 Code, Stage:	AMARE	AMARE 2-3"	AMARE 2-4"	AMARE 2"
Stage Scale:		4 LVS	4 LVS	4 LVS
Density, Unit:		3.3 M2	3.3 M2	3.3 M2

APPLICATION EQUIPMENT

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

(04LLC1)

Ohio State University
Horticulture and Crop Science

Weed Code	AMBEL	TR	CHEAL	ABUTH	POLPY	AMARE
Crop Code						
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	
Rating Date	7-28-04	7-28-04	7-28-04	7-28-04	7-28-04	
Crop Stage						
Trt-Eval Interval	55 DA-D	55 DA-D	55 DA-D	55 DA-D	55 DA-D	
# Subsamples, Dec.	0	0	0	0	0	

Trt No.	Treatment Name	Product Rate	Product Unit	Grow Stg	Appl Code	25	26	27	28	29
1	BALANCE PRO	1.5 oz/a		PRE	A	100	100	100	100	100
1	LIBERTY	32 oz/a		POST	D					
1	ATRAZINE	1 qt/a		POST						
1	AMS	4 qt/a		POST						
2	BALANCE PRO	1.5 oz/a		PRE	A	100	100	100	98	100
2	OPTION	1.5 oz/a		POST	D					
2	DISTINCT	2 oz/a		POST						
2	MSO	1.5 pt/a		POST						
2	28 %	1.5 qt/a		POST						
3	ATRAZINE	2 qt/a		PRE	A	100	95	100	100	100
3	LIBERTY	28 oz/a		POST	D					
3	AMS	4 qt/a		POST						
4	BALANCE PRO	2 oz/a		PRE	A	100	100	100	100	100
4	LIBERTY	28 oz/a		POST	D					
4	CALLISTO	1 oz/a		POST						
4	AMS	4 qt/a		POST						
5	DEFINE SC	21 oz/a		PRE	A	100	100	100	100	100
5	ATRAZINE	1 qt/a		PRE						
5	BUCTRIL+ATRAZINE	2 pt/a		POST	D					
5	CALLISTO	1 oz/a		POST						
6	BALANCE PRO	1.5 oz/a		PRE	A	100	100	100	100	100
6	LIBERTY	32 oz/a		POST	D					
6	AMS	4 qt/a		POST						
7	USA 2005	20 oz/a		PRE	A	100	100	100	100	100
7	LIBERTY	32 oz/a		POST	D					
7	AMS	4 qt/a		POST						
8	DEFINE SC	10 oz/a		PRE	A	100	99	97	100	100
8	ATRAZINE	1 qt/a		PRE						
8	LIBERTY	32 oz/a		POST	D					
8	AMS	4 qt/a		POST						
9	BALANCE PRO	1.5 oz/a		PRE	A	100	100	100	100	100
9	EQUIP	1.5 oz/a		POST	D					
9	MSO	1.5 pt/a		POST						
9	28 %	1.5 qt/a		POST						
10	DEFINE SC	12 oz/a		EPO	B	100	100	100	100	100
10	ATRAZINE	1 qt/a		EPO						
10	LIBERTY	32 oz/a		EPO						
10	CALLISTO	1 oz/a		EPO						
10	AMS	4 qt/a		EPO						
11	EQUIP	1.5 oz/a		MPO	C	100	100	96	92	100
11	ATRAZINE	1 qt/a		MPO						
11	MSO	1.5 pt/a		MPO						
11	28 %	1.5 qt/a		MPO						
12	LIBERTY	32 oz/a		MPO	C	100	85	91	100	95
12	ATRAZINE	1 qt/a		MPO						
12	AMS	4 qt/a		MPO						
13	STEADFAST ATZ	14 oz/a		MPO	C	100	100	99	96	100
13	DISTINCT	4 oz/a		MPO						
13	COC	0.8 qt/a		MPO						
13	28 %	2 qt/a		MPO						
14	UTC					0	0	0	0	0
LSD (P=.05)						0.4	3.3	5.1	5.4	2.1
Standard Deviation						0.3	2.3	3.6	3.8	1.5
CV						0.29	2.54	3.88	4.11	1.62
Replicate F						1.000	2.141	2.205	0.971	1.490
Replicate Prob(F)						0.4031	0.1106	0.1029	0.4161	0.2322
Treatment F						39970.234	524.754	221.897	197.313	1259.805
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001	0.0001