

Ohio State University
Horticulture and Crop Science

PRE WEED MANAGEMENT STRATEGIES FOR ROUNDUP READY SOYBEANS

Trial ID: 08MONGRWPREBLUCK Study Dir.: Anthony F. Dobbels
 Location: CLARKSBURG, OHIO 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. AMBTR	Giant ragweed	Ambrosia trifida
2. CHEAL	Common lambsquarters	Chenopodium album
3. SETFA	Giant foxtail	Setaria faberi
4. HIBTR	Venice mallow	Hibiscus trionum

Crop 1: GLXMA SOYBEAN Variety: ASGROW AG3705
 Planting Date: May/06/2008 Planting Method: JOHN DEERE 7200
 Rate: 175000 SEED/A Depth: 1 IN
 Row Spacing: 15 IN Seed Bed: CONVENTIONAL

SITE AND DESIGN

Plot Width, Unit: 10 FT Plot Length, Unit: 30 FT Reps: 3
 Tillage Type: CONVENTIONAL Study Design: RANDOMIZED COMPLETE BLOCK

MAINTENANCE

Field Prep./Maintenance: APPLIED BURNDOWN OF GRAMOXONE INTEON AT 3 PT/A + NIS 0.25% V/V ON 5-6-08

SOIL DESCRIPTION

% Sand: 24.5	% OM: 2.9	Texture: SILTY CLAY LOAM
% Silt: 48.9	pH: 6.8	Soil Name: KOKOMO
% Clay: 26.6	CEC: 11.7	Fert. Level: GOOD

APPLICATION DESCRIPTION

A

Application Date: May/06/2008
 Time of Day: 6:00 P.M.
 Application Method: SPRAY
 Application Timing: PRE
 Applic. Placement: BROADCAST
 Air Temp., Unit: 74 F
 % Relative Humidity: 50
 Wind Velocity, Unit: 5 S
 Soil Temp., Unit: 69 F
 Soil Moisture: DRY/DRY
 % Cloud Cover: 25

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: GLXMA

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code, Stage: AMBTR
 Weed 2 Code, Stage: CHEAL
 Weed 3 Code, Stage: SETFA
 Weed 4 Code, Stage: HIBTR

APPLICATION EQUIPMENT

A

Appl. Equipment: BACKPACK
 Operating Pressure: 53
 Nozzle Type: DG
 Nozzle Size: 11002
 Nozzle Spacing, Unit: 18 IN
 Ground Speed, Unit: 3 MPH
 Carrier: WATER
 Spray Volume, Unit: 20 GPA
 Propellant: CO2

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Weed Code				AMBTR		PHYTO		AMBTR		CHEAL		HIBTR	
Crop Code				GLXMA		GLXMA							
Rating Data Type				PHYTO		PHYTO		CONTROL		CONTROL		CONTROL	
Rating Unit				PERCENT		PERCENT		PERCENT		PERCENT		PERCENT	
Rating Date				Jun/08/2008		Jun/08/2008		Jun/24/2008		Jun/24/2008		Jun/24/2008	
Trt-Eval Interval				33 DA-A		33 DA-A		49 DA-A		49 DA-A		49 DA-A	
# Subsamples, Dec.				0		0		0		0		0	
Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6		
1	ROUNDUP POWERMAX	21.3 oz/a		PRE	A	0 c	20 ab	1 c	13 abc	37 bc	30 bc		
2	GRAMOXONE INTEON	48 oz/a		PRE	A	0 c	10 b	0 c	17 abc	17 c	7 c		
3	FIRSTRATE	0.305 oz/a		PRE	A	0 c	63 a	2 c	33 abc	100 a	100 a		
4	VALOR SX	2 oz/a		PRE	A	0 c	57 ab	2 c	33 abc	100 a	100 a		
5	VALOR SX	3 oz/a		PRE	A	3 c	70 a	2 c	43 abc	100 a	100 a		
6	EXTREME	48.4 oz/a		PRE	A	2 c	48 ab	1 c	30 abc	100 a	100 a		
7	INTRRO	64 oz/a		PRE	A	0 c	27 ab	0 c	10 bc	83 a	60 ab		
8	INTRRO	48 oz/a		PRE	A	17 c	66 a	9 c	53 a	100 a	100 a		
8	VALOR SX	2 oz/a		PRE									
9	PROWL H20	32 oz/a		PRE	A	0 c	43 ab	0 c	23 abc	100 a	63 ab		
10	CANOPY EX 1.1 OZ	1.1 oz/a		PRE	A	3 c	47 ab	2 c	37 abc	100 a	100 a		
10	CLASSIC	1 oz/a		PRE									
10	EXPRESS	0.1 oz/a		PRE									
11	SYNCHRONY XP	1 oz/a		PRE	A	2 c	40 ab	1 c	23 abc	100 a	97 a		
11	CLASSIC	0.853 oz/a		PRE									
11	HARMONY GT	0.092 oz/a		PRE									
12	AUTHORITY FIRST	3.22 oz/a		PRE	A	3 c	47 ab	3 c	27 abc	100 a	100 a		
13	SENCOR DF	5.33 oz/a		PRE	A	2 c	20 ab	0 c	7 c	83 a	90 a		
14	AUTHORITY MTZ	11 oz/a		PRE	A	3 c	37 ab	2 c	18 abc	100 a	87 a		
15	VALOR XLT	2.98 oz/a		PRE	A	3 c	58 ab	3 c	40 abc	100 a	100 a		
15	VALOR SX	1.76 oz/a		PRE									
15	CLASSIC	1.24 oz/a		PRE									
16	CLARITY	16 oz/a		PRE	A	88 a	62 ab	97 a	43 abc	57 ab	47 b		
17	SENCOR DF	5.33 oz/a		PRE	A	2 c	23 ab	1 c	13 abc	83 a	100 a		
18	GANGSTER	1.62 oz/a		PRE	A	3 c	60 ab	1 c	50 ab	100 a	100 a		
18	VALOR SX	1.5 oz/a		PRE									
18	FIRSTRATE	0.3 oz/a		PRE									
19	ENVIVE 3.5 OZ					3 c	60 ab	2 c	40 abc	100 a	100 a		
19	VALOR SX	2 oz/a		PRE	A								
19	CLASSIC	1.28 oz/a		PRE									
19	HARMONY GT	0.104 oz/a		PRE									
20	ENLITE 2.8 OZ					3 c	47 ab	3 c	30 abc	100 a	100 a		
20	VALOR SX	2 oz/a		PRE	A								
20	CLASSIC	0.32 oz/a		PRE									
20	HARMONY GT	0.49 oz/a		PRE									
21	CLARITY	8 oz/a		PRE	A	63 b	50 ab	62 b	23 abc	53 ab	33 bc		
22	CLARITY	32 oz/a		PRE	A	92 a	63 a	99 a	43 abc	60 ab	57 ab		

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Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT					
Rating Date	Jun/08/2008	Jun/08/2008	Jun/24/2008	Jun/24/2008	Jun/24/2008	Jun/24/2008					
Trt-Eval Interval	33 DA-A	33 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A					
# Subsamples, Dec.	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
LSD (P=.05)						20.6	28.2	17.9	21.8	29.2	24.9
Standard Deviation						12.5	17.1	10.8	13.2	17.7	15.1
CV						93.88	37.01	81.47	44.65	20.75	18.73
Bartlett's X2						68.58	17.396	94.339	14.213	6.379	8.267
P(Bartlett's X2)						0.001*	0.627	0.001*	0.771	0.496	0.507
Replicate F						3.855	2.318	2.281	1.054	1.534	2.482
Replicate Prob(F)						0.0290	0.1109	0.1153	0.3574	0.2275	0.0958
Treatment F						15.270	3.002	23.481	3.021	5.764	11.074
Treatment Prob(F)						0.0001	0.0012	0.0001	0.0011	0.0001	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.