

Ohio State University  
Horticulture and Crop Science

CONTROL OF VOLUNTEER ROUNDUP READY CORN IN ROUNDUP READY SOYBEAN

Trial ID: 08VOLCORN Study Dir.: Anthony F. Dobbels  
Location: WESTERN BRANCH F-8 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. AMBTR	Giant ragweed	Ambrosia trifida
4. AMARE	Redroot pigweed	Amaranthus retroflexus
5. CHEAL	Common lambsquarters	Chenopodium album
6. AMBEL	Common ragweed	Ambrosia artemisiifolia

Crop 1: GLXMA SOYBEAN Variety: ASGROW 3705  
Planting Date: May/25/2008 Planting Method: KINZE 2000  
Rate: 175386 SEED/A Depth: 0.75 IN  
Row Spacing: 15 IN Seed Bed: CONVENTIONAL

SITE AND DESIGN

Plot Width, Unit: 6.67 FT Plot Length, Unit: 30 FT Reps: 3  
Tillage Type: CONVENTIONAL Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% OM: 1.5 Texture: SILT LOAM  
pH: 6.6 Soil Name: CELINA  
CEC: 12.7 Fert. Level: GOOD

APPLICATION DESCRIPTION

	A	B
Application Date:	May/25/2008	Jun/25/2008
Time of Day:	2:30 P.M.	9:00 A.M.
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	76 F	76 F
% Relative Humidity:	34	58
Wind Velocity, Unit:	8 SW	7 NNW
Soil Temp., Unit:	64 F	65 F
Soil Moisture:	DRY/MOIST	DRY/MOIST
% Cloud Cover:	10	10

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GLXMA	GLXMA V6
Stage Scale:	DESC	
Height, Unit:	13	IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	SETFA	SETFA 7-9"
Stage Scale:	4-8	LVS
Density, Unit:	221	M2
Weed 2 Code, Stage:	ABUTH	ABUTH 4"
Stage Scale:	6	LVS
Density, Unit:	0.25	M2
Weed 3 Code, Stage:	AMBTR	AMBTR 9"
Stage Scale:	8	LVS
Density, Unit:	8	M2
Weed 4 Code, Stage:	AMARE	AMARE 4"
Stage Scale:	8	LVS
Density, Unit:	1.3	M2
Weed 5 Code, Stage:	CHEAL	CHEAL 4"
Stage Scale:	8	LVS
Density, Unit:	1	M2
Weed 6 Code, Stage:	AMBEL	AMBEL 4"
Stage Scale:	6	LVS
Density, Unit:	1.3	M2

## APPLICATION EQUIPMENT

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

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Trial ID: 08VOLCORN Study Dir.: Anthony F. Dobbels  
Location: WESTERN BRANCH F-8 Investigator: Dr. Mark M. Loux

Weed Code						ZEAMX	SETFA	ZEAMX	SETFA	ZEAMX	SETFA
Rating Data Type						CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date						Jul/07/2008	Jul/07/2008	Jul/21/2008	Jul/21/2008	Aug/19/2008	Aug/19/2008
Trt-Eval Interval						12 DA-B	12 DA-B	26 DA-B	26 DA-B	55 DA-B	55 DA-B
# 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
1	ROUNDUP POWERMAX	22 oz/a		POST	B	0 e	93 ab	0 e	94 a	0 d	100 a
1	ALLIANCE	1 qt/a		POST							
2	ROUNDUP POWERMAX	22 oz/a		POST	B	71 b	91 ab	70 b	95 a	87 ab	100 a
2	ALLIANCE	1 qt/a		POST							
2	SELECT	4 oz/a		POST							
3	ROUNDUP POWERMAX	22 oz/a		POST	B	77 b	89 ab	98 a	95 a	100 a	99 a
3	ALLIANCE	1 qt/a		POST							
3	SELECT	4 oz/a		POST							
3	SUPERB HC	0.4 qt/a		POST							
4	ROUNDUP POWERMAX	22 oz/a		POST	B	73 b	97 a	93 a	96 a	100 a	100 a
4	ALLIANCE	1 qt/a		POST							
4	SELECT	4 oz/a		POST							
4	DESTINY HC	0.4 qt/a		POST							
5	ROUNDUP POWERMAX	22 oz/a		POST	B	60 c	82 b	52 c	95 a	78 b	100 a
5	ALLIANCE	1 qt/a		POST							
5	SELECT	4 oz/a		POST							
5	PREFERENCE NIS	0.2 qt/a		POST							
6	ROUNDUP POWERMAX	22 oz/a		POST	B	70 b	99 a	88 a	95 a	99 a	100 a
6	ALLIANCE	1 qt/a		POST							
6	SELECT MAX	8 oz/a		POST							
7	TARGA	5 oz/a		POST	B	80 b	98 a	100 a	96 a	100 a	100 a
7	DURANGO	24 oz/a		POST							
7	NIS	3.2 oz/a		POST							
7	AMS	4 qt/a		POST							
8	SELECT MAX	8 oz/a		POST	B	74 b	99 a	78 b	96 a	98 a	99 a
8	DURANGO	24 oz/a		POST							
8	AMS	4 qt/a		POST							
9	ASSURE II	4 oz/a		POST	B	90 a	92 ab	100 a	95 a	100 a	100 a
9	ROUNDUP POWERMAX	22 oz/a		POST							
9	NIS	3.2 oz/a		POST							
9	AMS	4 qt/a		POST							
10	ASSURE II	5 oz/a		POST	B	92 a	89 ab	100 a	95 a	100 a	100 a
10	ROUNDUP POWERMAX	22 oz/a		POST							
10	NIS	3.2 oz/a		POST							
10	AMS	4 qt/a		POST							
11	FUSILADE DX	4 oz/a		POST	B	92 a	80 b	100 a	93 a	100 a	100 a
11	TOUCHDOWN TOTAL	24 oz/a		POST							
11	AMS	4 qt/a		POST							
12	VALOR SX	3 oz/a		PRE	A	76 b	99 a	70 b	97 a	88 ab	100 a
12	ROUNDUP POWERMAX	11 oz/a		POST	B						
12	SELECT MAX	6 oz/a		POST							
12	AMS	4 qt/a		POST							
13	SCEPTER	2.8 oz/a		PRE	A	22 d	88 ab	27 d	93 a	17 c	100 a
13	ROUNDUP POWERMAX	11 oz/a		POST	B						
13	AMS	4 qt/a		POST							
14	UTC					0 e	0 c	0 e	0 b	0 d	0 b

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Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	Jul/07/2008	Jul/07/2008	Jul/21/2008	Jul/21/2008	Aug/19/2008	Aug/19/2008
Trt-Eval Interval	12 DA-B	12 DA-B	26 DA-B	26 DA-B	55 DA-B	55 DA-B
# 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)					7.2	8.7	8.1	3.1	9.2	0.7
	Standard Deviation					4.3	5.2	4.8	1.9	5.5	0.4
	CV					6.84	6.1	6.91	2.1	7.19	0.45
	Bartlett's X2					11.863	29.492	7.077	2.953	10.966	0.0
	P(Bartlett's X2)					0.221	0.002*	0.314	0.815	0.052	.
	Replicate F					2.976	0.713	0.641	0.146	1.806	2.167
	Replicate Prob(F)					0.0686	0.4995	0.5349	0.8648	0.1843	0.1348
	Treatment F					163.905	70.882	172.443	566.754	152.352	12163.501
	Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	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.