

# Ohio State University Horticulture and Crop Science

CONTROL OF ROUNDUP READY VOLUNTEER CORN IN ROUNDUP READY SOYBEAN

Trial ID: 07VOLCRN1  
Location: WESTERN BRANCH F-10

Study Dir.: Anthony F. Dobbels  
Investigator: Dr. Mark M. Loux

## GENERAL TRIAL INFORMATION

**Study Director:** Anthony F. Dobbels  
**Affiliation:** OSU  
**Investigator:** Dr. Mark M. Loux  
**Affiliation:** OSU

## TRIAL LOCATION

**State/Prov.:** Ohio **Trial Status:** Yield  
**Country:** Clark **Initiation Date:** Apr/01/2007  
**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. ZEAMX	Corn	Zea mays
3. CHEAL	Common lambsquarters	Chenopodium album
4. AMARE	Redroot pigweed	Amaranthus retroflexus
5. AMBTR	Giant ragweed	Ambrosia trifida

**Crop 1:** GLXMA SOYBEAN **Variety:** PIONER 93M43  
**Planting Date:** May/01/2007 **Planting Method:** KINZE 2000  
**Rate:** 100000 SEED/A **Depth:** 0.5 IN  
**Row Spacing:** 30 IN **Seed Bed:** NO-TILL

## SITE AND DESIGN

**Plot Width, Unit:** 10 FT **Plot Length, Unit:** 40 FT **Reps:** 4  
**Tillage Type:** NO-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

## SOIL DESCRIPTION

<b>% OM:</b> 2.2	<b>Texture:</b> SILTY CLAY LOAM
<b>pH:</b> 5.9	<b>Soil Name:</b> KOKOMO
<b>CEC:</b> 22.1	

**Overall Moisture Conditions:** POOR

## APPLICATION DESCRIPTION

A

**Application Date:** Jun/01/2007  
**Time of Day:** 7:30 AM  
**Application Method:** SPRAY  
**Application Timing:** POST  
**Applic. Placement:** BROADCAST  
**Air Temp., Unit:** 71 F  
**% Relative Humidity:** 68  
**Wind Velocity, Unit:** 2 S  
**Soil Temp., Unit:** 72 F  
**Soil Moisture:** MOIST MOI  
**% Cloud Cover:** 100

## CROP STAGE AT EACH APPLICATION

A

**Crop 1 Code, Stage:** GLXMA .  
**Stage Scale:** 2 TRI  
**Height, Unit:** 5 IN

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## WEED STAGE AT EACH APPLICATION

A

Weed 1 Code, Stage: SETFA 6-8"  
Stage Scale: 3-5 LVS  
Density, Unit: 127 M2  
Weed 2 Code, Stage: ZEAMX 12"  
Stage Scale: 4 COLLAR  
Density, Unit: 8 M2  
Weed 3 Code, Stage: CHEAL 4"  
Stage Scale: 10 LVS  
Density, Unit: 12 M2  
Weed 4 Code, Stage: AMARE 4"  
Stage Scale: 8 LVS  
Density, Unit: 1 M2  
Weed 5 Code, Stage: AMBTR 12"  
Stage Scale: >12 LVS  
Density, Unit: 4 M2

## APPLICATION EQUIPMENT

A

Appl. Equipment: BACKPACK  
Operating Pressure: 50  
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			
Crop Code	GLXMA	GLXMA	GLXMA
Rating Data Type	YIELD	MOISTURE	YIELD
Rating Unit	LBS	PERCENT	BU
Rating Date	Oct/04/2007	Oct/04/2007	Oct/04/2007
Trt-Eval Interval	HARVEST	HARVEST	HARVEST
ARM Action Codes			TY1
# Subsamples, Dec.	1	1	1

Trt No.	Treatment Name	Rate	Unit	Product Rate	Product Unit	Appl Code	15	16	17
1	TARGA	0.0344	lb ai/a	5	oz/a	A	15.3 a	16.2 a	53.5 a
1	DURANGO	0.56	lb ae/a	24	oz/a				
1	NIS	0.125	% v/v	3.2	oz/a				
1	AMS	3.75	% v/v	3	qt/a				
2	TARGA	0.0275	lb ai/a	4	oz/a	A	15.7 a	16.0 a	55.0 a
2	DURANGO	0.56	lb ae/a	24	oz/a				
2	NIS	0.125	% v/v	3.2	oz/a				
2	AMS	3.75	% v/v	3	qt/a				
3	SELECT	0.0625	lb ai/a	4	oz/a		16.8 a	16.1 a	58.6 a
3	DURANGO	0.56	lb ae/a	24	oz/a				
3	NIS	0.125	% v/v	3.2	oz/a				
3	AMS	3.75	% v/v	3	qt/a				
4	SELECT MAX	0.047	lb ai/a	6	oz/a	A	16.8 a	16.3 a	58.7 a
4	DURANGO	0.56	lb ae/a	24	oz/a				
4	NIS	0.125	% v/v	3.2	oz/a				
4	AMS	3.75	% v/v	3	qt/a				
5	FUSION	0.083	lb ai/a	4	oz/a	A	15.7 a	16.4 a	54.6 a
5	DURANGO	0.56	lb ae/a	24	oz/a				
5	NIS	0.125	% v/v	3.2	oz/a				
5	AMS	3.75	% v/v	3	qt/a				
6	UTC						1.9 b	17.6 a	6.5 b
	LSD (P=.05)						1.98	1.02	6.78
	Standard Deviation						1.31	0.68	4.50
	CV						9.59	4.13	9.4
	Bartlett's X2						3.408	1.822	3.8
	P(Bartlett's X2)						0.637	0.873	0.579
	Replicate F						2.140	0.767	2.167
	Replicate Prob(F)						0.1380	0.5302	0.1345
	Treatment F						78.338	2.876	81.826
	Treatment Prob(F)						0.0001	0.0514	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.

#### ARM Action Codes

TY1 = 3.63\*[15]\*(100-[16])/87