

Ohio State University  
Horticulture and Crop Science

To evaluate different rates of F-9324 premix prototype tank mixed with glyphosate for bio efficacy and crop safety of RR soybean

Title No. 2:  
 Trial ID: 12 SOYYLD3 Protocol ID: 12 SOYYLD 3  
 Location: Western Branch Study Director: Bryan Reeb  
 Project ID: NA12-0897B-01 Investigator: Dr. Mark M. Loux  
 Sponsor Contact: Joe Reed FMC

General Trial Information

Study Director: Bryan Reeb Title: Research Technician  
 Investigator: Dr. Mark M. Loux Title: Professor

Planned Completion Date: Sep-30-2012

Trial Location

City: South Charleston Latitude of LL Corner °: 39.85944 N  
 State/Prov.: Ohio Longitude of LL Corner °: 83.67461 W  
 Postal Code: 45368  
 Country: USA

Keywords: Weed control, crop safety, fluthiacet methyl, fomesafen

Objectives:

1. To evaluate bioefficacy of F9324 tank mixing with glyphosate on glyphosate resistant waterhemp, common and giant ragweed and other broadleaf weeds of 4 to 6 inch in height.
2. To examine crop safety of soybean and compare with Flexstar

Crop Description

Crop 1: GLXMA Glycine max Soybean  
 Variety: SC 9349 RR Description: Round Up Ready  
 BBCH Scale: BSOY Planting Date: May-18-2012  
 Planting Method: PLNTD Rate, Unit: 155000 S/A  
 Depth, Unit: 0.75 IN  
 Row Spacing, Unit: 15 IN  
 Seed Bed: MEDIUM medium Soil Temperature, Unit: 79 F  
 Soil Moisture: DRY dry Emergence Date: May-27-2012

Pest Description

- Pest 1 Type: W Code: AMARE Amaranthus retroflexus  
 Common Name: Redroot pigweed
- Pest 2 Type: W Code: CHEAL Chenopodium album  
 Common Name: Common lambsquarters
- Pest 3 Type: W Code: AMBTR Ambrosia trifida  
 Common Name: Giant ragweed
- Pest 4 Type: W Code: ABUTH Abutilon theophrasti  
 Common Name: velvetleaf
- Pest 5 Type: W Code: IPOHE Ipomoea hederacea  
 Common Name: Ivyleaf morningglory
- Pest 6 Type: W Code: SETFA Setaria faberi  
 Common Name: Giant foxtail

Site and Design

Plot Width, Unit: 9.5 FT Site Type: FIELD field  
 Plot Length, Unit: 40 FT Experimental Unit: 5 PLANT plant  
 Plot Area, Unit: 380 FT2 Tillage Type: CONTIL conventional-till  
 Replications: 4 Study Design: RACOB� Randomized Complete Block (RCB)  
 Untreated Arrangement: INCLUDED single control randomized in each block

No. Previous Crop Year  
 1. CORN 2011

Soil Description

Description Name: G-6  
 % OM: 2.2 Texture: SIL silt loam  
 pH: 6.3 Soil Name: Crosby Silt Loam  
 CEC: 13.6 Fert. Level: G good  
 Soil Drainage: G good

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Application Description

	A	B	C	D
Application Date:	Jun-20-2012	Jun-26-2012	Jul-12-2012	Jul-19-2012
Time of Day:	8:00AM	8:30 AM	8:45AM	7:40 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	POST	EPO	VLPO/21DAA	21 DAB
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Air Temperature, Unit:	76 F	63.7 F	78 F	72.5 F
% Relative Humidity:	79	58.4	71	73
Wind Velocity, Unit:	2 MPH	5 MPH	2 MPH	1 MPH
Wind Direction:	N	NE	E	SSW
Dew Presence (Y/N):	Y yes	N no	N no	Y yes
Soil Temperature, Unit:	72 F	68 F	75 F	71 F
Soil Moisture:	MOIST	DRY	DRY	WET
% Cloud Cover:	0	0	0	95
Next Rain Occurred On:	Jun-29-2012	Jun-29-2012	Jul-15-2012	Jul-19-2012

Crop Stage At Each Application

	A		B		C		D	
Crop 1 Code, BBCH Scale:	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Stage Scale Used:	BBCH		BBCH		BBCH		BBCH	
Stage Majority, Percent:	14	100	15	100	65	100	66	100
Height, Unit:	7	IN	9	IN	19	IN	25	IN
Height Minimum, Maximum:	7	8	8	10	18	20	23	28

Pest Stage At Each Application

	A		B		C		D	
Pest 1 Code, Type, Scale:	AMARE	W W	AMARE	W W	AMARE	W	AMARE	W
Stage Majority, Percent:	14	100	16	100	16	100	19	100
Height, Unit:	3	IN	6	IN	3.5	IN	7	IN
Height Minimum, Maximum:	2	5	2	8	3	4	6	8
Density, Unit:	12	M2	12	M2	12	M2	12	M2
Pest 2 Code, Type, Scale:	CHEAL	W W	CHEAL	W W	CHEAL	W	CHEAL	W
Stage Majority, Percent:	16	100	19	100				
Height, Unit:	3	IN	7	IN				
Height Minimum, Maximum:	2	5	4	10				
Density, Unit:	6	M2	6	M2				
Pest 3 Code, Type, Scale:	AMBTR	W W	AMBTR	W W	AMBTR	W	AMBTR	W
Stage Majority, Percent:	19	100	19	100	19	100	19	100
Height, Unit:	9	IN	14	IN	6	IN	24	IN
Height Minimum, Maximum:	7	11	10	18	4	8	20	25
Density, Unit:	4	M2	4	M2	4	M2	4	M2
Pest 4 Code, Type, Scale:	ABUTH	W W	ABUTH	W W	ABUTH	W	ABUTH	W
Stage Majority, Percent:			15	100			14	100
Height, Unit:			6	IN			7	IN
Height Minimum, Maximum:			4	8			6	8
Density, Unit:			4	M2			4	M2
Pest 5 Code, Type, Scale:	IPOHE	W W	IPOHE	W W	IPOHE	W	IPOHE	W
Stage Majority, Percent:	13	100	16	100	19	100	19	100
Height, Unit:	3	IN	6	IN	2.5	IN	6	IN
Height Minimum, Maximum:	2	4	5	7	2	3	3	9
Density, Unit:	4	M2	4	M2	4	M2	4	M2
Pest 6 Code, Type, Scale:	SETFA	W	SETFA	W	SETFA	W	SETFA	W
Stage Majority, Percent:			16	100				
Height, Unit:			10	IN				
Height Minimum, Maximum:			8	15				
Density, Unit:			18	M2				

Application Equipment

	A		B		C		D	
Appl. Equipment:	Backpack		Backpack		Backpack		Backpack	
Equipment Type:	SPRBAC		SPRBAC		SPRBAC		SPRBAC	
Operation Pressure, Unit:	44	PSI	44	PSI	44	PSI	44	PSI
Nozzle Type:	AIXR		AIXR		AIXR		AIXR	
Nozzle Size:	110015		110015		110015		110015	
Nozzle Spacing, Unit:	18	IN	18	IN	18	IN	18	IN
Boom Length, Unit:	6	FT	6	FT	6	FT	6	FT
Boom Height, 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:	15	gal/ac	15	gal/ac	15	gal/ac	15	gal/ac
Mix Size, Unit:	2	Liters	2	Liters	3	Gallons	3	Gallons
Propellant:	COMCO2		COMCO2		COMCO2		COMCO2	

Equipment Comment: Treatments will be applied by Backpack Knapsack Sprayer with CO2 pressurized tank

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Trial ID: 12 SOYYLD3      Protocol ID: 12 SOYYLD 3  
 Location: Western Branch      Study Director: Bryan Reeb  
 Project ID: NA12-0897B-01      Investigator: Dr. Mark M. Loux  
 Sponsor Contact: Joe Reed FMC

Pest Type		W Weed	W Weed	W Weed
Pest Code		SETFA	AMBTR	AMARE
Pest Scientific Name		Setaria faberi	Ambrosia trifi>	Amaranthus ret>
Pest Name		Giant foxtail	Giant ragweed	Redroot pigweed
Crop Code	GLXMA	GLXMA		
BBCH Scale	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max		
Crop Name	Soybean	Soybean		
Rating Date	Jun-27-2012	Jul-6-2012	Jul-6-2012	Jul-6-2012
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	7 1	16 10	16 10	16 10
Trt-Eval Interval	7 DA-A	16 DA-A	16 DA-A	16 DA-A
Plant-Eval Interval	40 DP-1	49 DP-1	49 DP-1	49 DP-1
Days After Emergence	31 DE-1	40 DE-1	40 DE-1	40 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Growth Stage	Appl Code	1	2	3	4	5
1	4-6 INCH WEED						2 fg	0 a	93 a	85 abc	76 d
1	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
1	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
1	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
1	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
2	F9324-9	5.0 fl oz/a	0.117 lb ai/a		MPO	A	5 cde	0 a	95 a	83 a-d	81 cd
2	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
2	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
2	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
2	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
3	F9324-9	6.0 fl oz/a	0.14 lb ai/a		MPO	A	5 cde	0 a	96 a	71 cde	75 d
3	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
3	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
3	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
3	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
4	F9324-9	7.25 fl oz/a	0.17 lb ai/a		MPO	A	7 bc	0 a	95 a	79 b-e	90 bc
4	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
4	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
4	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
4	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
5	FLEXSTAR	16 fl oz/a	0.235 lb ai/a		MPO	A	4 de	0 a	96 a	89 ab	84 cd
5	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
5	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
5	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
5	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
6	COBRA	12 fl oz/a	0.188 lb ai/a		MPO	A	8 ab	1 a	93 a	94 a	95 ab
6	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
6	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
6	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
6	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
7	8-10 INCH WEED				LPO	B	1 g	0 a	100 a	69 de	100 a
7	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					
7	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		LPO	B					
7	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	D					
7	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	D					
8	F9324-9	6.0 fl oz/a	0.14 lb ai/a		LPO	B	6 bcd	0 a	100 a	72 cde	100 a
8	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.



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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	IPOHE	SETFA	AMBTR	AMARE	IPOHE					
Pest Scientific Name	Ipomoea hederata>	Setaria faberi	Ambrosia trifida>	Amaranthus retrofractus>	Ipomoea hederata>					
Pest Name	Ivyleaf mornin>	Giant foxtail	Giant ragweed	Redroot pigweed	Ivyleaf mornin>					
Crop Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Rating Date	Jul-6-2012	Jul-20-2012	Jul-20-2012	Jul-20-2012	Jul-20-2012					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	16 10	30 1	30 1	30 1	30 1					
Trt-Eval Interval	16 DA-A	24 DA-B	24 DA-B	24 DA-B	24 DA-B					
Plant-Eval Interval	49 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1					
Days After Emergence	40 DE-1	54 DE-1	54 DE-1	54 DE-1	54 DE-1					
Number of Decimals	0	0	0	0	0					
Trt Treatment No. Name	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	6	7	8	9	10
1 4-6 INCH WEED						65 a	100 a	100 a	100 a	100 a
1 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
1 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
1 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
1 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
2 F9324-9	5.0 fl oz/a	0.117 lb ai/a		MPO	A	68 a	100 a	100 a	100 a	99 a
2 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
2 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
2 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
2 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
3 F9324-9	6.0 fl oz/a	0.14 lb ai/a		MPO	A	70 a	100 a	98 ab	100 a	100 a
3 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
3 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
3 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
3 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
4 F9324-9	7.25 fl oz/a	0.17 lb ai/a		MPO	A	70 a	100 a	99 ab	100 a	100 a
4 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
4 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
4 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
4 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
5 FLEXSTAR	16 fl oz/a	0.235 lb ai/a		MPO	A	58 a	100 a	100 a	100 a	96 a
5 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
5 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
5 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
5 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
6 COBRA	12 fl oz/a	0.188 lb ai/a		MPO	A	76 a	100 a	99 ab	100 a	100 a
6 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
6 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
6 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
6 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
7 8-10 INCH WEED				LPO	B	56 a	100 a	79 cd	96 a	316 a
7 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					
7 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		LPO	B					
7 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	D					
7 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	D					
8 F9324-9	6.0 fl oz/a	0.14 lb ai/a		LPO	B	70 a	100 a	86 bc	100 a	95 a
8 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	IPOHE	SETFA	AMBTR	AMARE	IPOHE						
Pest Scientific Name	Ipomoea hederata>	Setaria faberi>	Ambrosia trifida>	Amaranthus ret>	Ipomoea hederata>						
Pest Name	Ivyleaf mornin>	Giant foxtail	Giant ragweed	Redroot pigweed	Ivyleaf mornin>						
Crop Code											
BBCH Scale											
Crop Scientific Name											
Crop Name											
Rating Date	Jul-6-2012	Jul-20-2012	Jul-20-2012	Jul-20-2012	Jul-20-2012						
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Rating Unit	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1						
Days After First/Last Applic.	16 10	30 1	30 1	30 1	30 1						
Trt-Eval Interval	16 DA-A	24 DA-B	24 DA-B	24 DA-B	24 DA-B						
Plant-Eval Interval	49 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1						
Days After Emergence	40 DE-1	54 DE-1	54 DE-1	54 DE-1	54 DE-1						
Number of Decimals	0	0	0	0	0						
Trt No.	Treatment Name	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	6	7	8	9	10
8	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		LPO	B					
8	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	D					
8	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	D					
9	F9324-9	7.25 fl oz/a	0.17 lb ai/a		LPO	B	68 a	100 a	75 cd	96 a	90 a
9	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					
9	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		LPO	B					
9	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	D					
9	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	D					
10	FLEXSTAR	16 fl oz/a	0.235 lb ai/a		LPO	B	70 a	100 a	81 cd	98 a	94 a
10	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					
10	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		LPO	B					
10	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	D					
10	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	D					
11	FLEXSTAR	24 fl oz/a	0.353 lb ai/a		LPO	B	66 a	100 a	68 d	90 a	85 a
11	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					
11	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		LPO	B					
11	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	D					
11	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	D					
12	COBRA	12 fl oz/a	0.188 lb ai/a		LPO	B	65 a	100 a	75 cd	93 a	88 a
12	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					
12	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		LPO	B					
12	ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	D					
12	AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	D					
	LSD (P=.05)		22.0	0.0					13.4	8.7	189.2
	Standard Deviation		15.2	0.0					9.3	6.1	131.0
	CV		22.74	0.0					10.49	6.2	115.38
	Replicate F		4.751	0.000					2.917	3.427	1.155
	Replicate Prob(F)		0.0084	1.0000					0.0491	0.0282	0.3417
	Treatment F		0.512	0.000					6.805	1.265	0.956
	Treatment Prob(F)		0.8792	1.0000					0.0001	0.2867	0.5028

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	SETFA	AMBTR	CHEAL	AMARE	ABUTH					
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>	Abutilon theop>					
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	Redroot pigweed	velvetleaf					
Crop Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Rating Date	Jul-25-2012	Jul-25-2012	Jul-25-2012	Jul-25-2012	Jul-25-2012					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	35 6	35 6	35 6	35 6	35 6					
Trt-Eval Interval	13 DA-C	13 DA-C	13 DA-C	13 DA-C	13 DA-C					
Plant-Eval Interval	68 DP-1	68 DP-1	68 DP-1	68 DP-1	68 DP-1					
Days After Emergence	59 DE-1	59 DE-1	59 DE-1	59 DE-1	59 DE-1					
Number of Decimals	0	0	0	0	0					
Trt Treatment	Rate	Other	Other	Growth	Appl	11	12	13	14	15
No. Name	Rate Unit	Rate	Rate Unit	Stage	Code					
1 4-6 INCH WEED						100 a	100 a	100 a	100 a	100 a
1 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
1 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
1 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
1 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
2 F9324-9	5.0 fl oz/a	0.117 lb ai/a		MPO	A	100 a	100 a	100 a	100 a	100 a
2 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
2 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
2 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
2 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
3 F9324-9	6.0 fl oz/a	0.14 lb ai/a		MPO	A	100 a	99 a	100 a	100 a	100 a
3 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
3 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
3 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
3 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
4 F9324-9	7.25 fl oz/a	0.17 lb ai/a		MPO	A	100 a	100 a	100 a	100 a	100 a
4 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
4 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
4 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
4 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
5 FLEXSTAR	16 fl oz/a	0.235 lb ai/a		MPO	A	100 a	100 a	100 a	100 a	100 a
5 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
5 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
5 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
5 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
6 COBRA	12 fl oz/a	0.188 lb ai/a		MPO	A	100 a	100 a	100 a	100 a	100 a
6 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
6 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
6 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
6 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
7 8-10 INCH WEED				LPO	B	100 a	93 abc	100 a	100 a	100 a
7 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					
7 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		LPO	B					
7 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	D					
7 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	D					
8 F9324-9	6.0 fl oz/a	0.14 lb ai/a		LPO	B	100 a	95 ab	100 a	100 a	100 a
8 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	SETFA	AMBTR	CHEAL	AMARE	ABUTH					
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>	Abutilon theop>					
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	Redroot pigweed	velvetleaf					
Crop Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Rating Date	Jul-25-2012	Jul-25-2012	Jul-25-2012	Jul-25-2012	Jul-25-2012					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	35 6	35 6	35 6	35 6	35 6					
Trt-Eval Interval	13 DA-C	13 DA-C	13 DA-C	13 DA-C	13 DA-C					
Plant-Eval Interval	68 DP-1	68 DP-1	68 DP-1	68 DP-1	68 DP-1					
Days After Emergence	59 DE-1	59 DE-1	59 DE-1	59 DE-1	59 DE-1					
Number of Decimals	0	0	0	0	0					
Trt Treatment	Rate	Other	Other	Growth	Appl	11	12	13	14	15
No. Name	Rate Unit	Rate	Rate Unit	Stage	Code					
8 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
8 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
8 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
9 F9324-9	7.25 fl oz/a	0.17 lb ai/a	LPO	B	100 a	73 d	100 a	96 a	100 a	
9 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	LPO	B						
9 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
9 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
9 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
10 FLEXSTAR	16 fl oz/a	0.235 lb ai/a	LPO	B	100 a	83 bcd	100 a	100 a	100 a	
10 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	LPO	B						
10 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
10 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
10 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
11 FLEXSTAR	24 fl oz/a	0.353 lb ai/a	LPO	B	100 a	78 cd	100 a	90 a	100 a	
11 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	LPO	B						
11 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
11 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
11 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
12 COBRA	12 fl oz/a	0.188 lb ai/a	LPO	B	100 a	85 a-d	100 a	100 a	100 a	
12 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	LPO	B						
12 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
12 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
12 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
LSD (P=.05)					0.0	15.1	0.0	8.6	0.0	
Standard Deviation					0.0	10.4	0.0	6.0	0.0	
CV					0.0	11.34	0.0	6.05	0.0	
Replicate F					0.000	1.474	0.000	1.763	0.000	
Replicate Prob(F)					1.0000	0.2396	1.0000	0.1734	1.0000	
Treatment F					0.000	3.694	0.000	1.000	0.000	
Treatment Prob(F)					1.0000	0.0017	1.0000	0.4671	1.0000	



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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	SETFA	AMBTR	CHEAL	AMARE	ABUTH					
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>	Abutilon theop>					
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	Redroot pigweed	velvetleaf					
Crop Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Rating Date	Aug-7-2012	Aug-7-2012	Aug-7-2012	Aug-7-2012	Aug-7-2012					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	48 19	48 19	48 19	48 19	48 19					
Trt-Eval Interval	19 DA-D	19 DA-D	19 DA-D	19 DA-D	19 DA-D					
Plant-Eval Interval	81 DP-1	81 DP-1	81 DP-1	81 DP-1	81 DP-1					
Days After Emergence	72 DE-1	72 DE-1	72 DE-1	72 DE-1	72 DE-1					
Number of Decimals	0	0	0	0	0					
Trt Treatment	Rate	Other	Other	Growth	Appl	16	17	18	19	20
No. Name	Rate Unit	Rate	Rate Unit	Stage	Code					
1 4-6 INCH WEED						100 a	100 a	100 a	100 a	100 a
1 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
1 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
1 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
1 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
2 F9324-9	5.0 fl oz/a	0.117 lb ai/a		MPO	A	100 a	100 a	100 a	100 a	100 a
2 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
2 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
2 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
2 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
3 F9324-9	6.0 fl oz/a	0.14 lb ai/a		MPO	A	100 a	98 a	100 a	100 a	100 a
3 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
3 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
3 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
3 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
4 F9324-9	7.25 fl oz/a	0.17 lb ai/a		MPO	A	100 a	100 a	100 a	100 a	100 a
4 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
4 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
4 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
4 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
5 FLEXSTAR	16 fl oz/a	0.235 lb ai/a		MPO	A	100 a	100 a	100 a	100 a	100 a
5 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
5 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
5 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
5 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
6 COBRA	12 fl oz/a	0.188 lb ai/a		MPO	A	100 a	100 a	100 a	100 a	100 a
6 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		MPO	A					
6 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		MPO	A					
6 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	C					
6 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	C					
7 8-10 INCH WEED				LPO	B	100 a	95 a	100 a	100 a	100 a
7 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					
7 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		LPO	B					
7 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		VLPO	D					
7 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal		VLPO	D					
8 F9324-9	6.0 fl oz/a	0.14 lb ai/a		LPO	B	100 a	100 a	100 a	100 a	100 a
8 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a		LPO	B					

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	SETFA	AMBTR	CHEAL	AMARE	ABUTH					
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>	Abutilon theop>					
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	Redroot pigweed	velvetleaf					
Crop Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Rating Date	Aug-7-2012	Aug-7-2012	Aug-7-2012	Aug-7-2012	Aug-7-2012					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	48 19	48 19	48 19	48 19	48 19					
Trt-Eval Interval	19 DA-D	19 DA-D	19 DA-D	19 DA-D	19 DA-D					
Plant-Eval Interval	81 DP-1	81 DP-1	81 DP-1	81 DP-1	81 DP-1					
Days After Emergence	72 DE-1	72 DE-1	72 DE-1	72 DE-1	72 DE-1					
Number of Decimals	0	0	0	0	0					
Trt Treatment	Rate	Other	Other	Growth	Appl	16	17	18	19	20
No. Name	Rate Unit	Rate	Rate Unit	Stage	Code					
8 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
8 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
8 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
9 F9324-9	7.25 fl oz/a	0.17 lb ai/a	LPO	B		100 a	89 a	100 a	100 a	100 a
9 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	LPO	B						
9 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
9 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
9 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
10 FLEXSTAR	16 fl oz/a	0.235 lb ai/a	LPO	B		100 a	93 a	100 a	100 a	100 a
10 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	LPO	B						
10 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
10 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
10 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
11 FLEXSTAR	24 fl oz/a	0.353 lb ai/a	LPO	B		100 a	93 a	100 a	95 a	100 a
11 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	LPO	B						
11 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
11 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
11 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
12 COBRA	12 fl oz/a	0.188 lb ai/a	LPO	B		100 a	96 a	100 a	100 a	100 a
12 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	LPO	B						
12 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	LPO	B						
12 ROUNDUP POWERMAX	22 fl oz/a	0.95 lb ai/a	VLPO	D						
12 AMMONIUM SULFATE	1.02 % v/v	8.5 lb/100 gal	VLPO	D						
LSD (P=.05)						0.0	12.3	0.0	4.2	0.0
Standard Deviation						0.0	8.5	0.0	2.9	0.0
CV						0.0	8.81	0.0	2.9	0.0
Replicate F						0.000	0.506	0.000	1.000	0.000
Replicate Prob(F)						1.0000	0.6811	1.0000	0.4051	1.0000
Treatment F						0.000	0.835	0.000	1.000	0.000
Treatment Prob(F)						1.0000	0.6075	1.0000	0.4671	1.0000