

Loveland Experimental Glyphosate Formulations.

Trial ID: 09-ARC-13-W70

Location: Agronomy Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu

City State Zip Country: Carbondale IL 62901 USA

Trial Status: FINAL Initiation Date: 06-02-09

Objectives: Evaluate LI 6285 and other glyphosate products with and without LI6262 for efficacy and crop tolerance in Roundup Ready soybean.

Crop 1: GLXMA Soybean	Variety: P94Y01	Description: RR
Planting Method: SEED	Planting Date: 06-02-09	
Rate, Unit: 75 LB/A	Depth, Unit: 1.0 IN	
Row Spacing, Unit: 30 IN		

Pest 1 Type: W	Code: SETFA	Setaria faberi Herrm.	foxtail, giant
Pest 2 Type: W	Code: AMATA	Amaranthus rudis Sauer	waterhemp, common
Pest 3 Type: W	Code: IPOSS		morningglory, species

Plot Width, Unit: 10 FT	Site Type: FIELD
Plot Length, Unit: 25 FT	Tillage Type: REDUCED-TILL
Replications: 4	Study Design: Randomized Complete Block

Prior Crops, Year

1. ZEAMD 2008

Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 0 LB/A

% OM: 1.4	Texture: SILT LOAM
pH: 6.1	Soil Name: WEIR
CEC: 74	Fert. Level: P1: 69 LB/A, K: 402 LB/A

Application Description

	A	B
Application Date:	07-01-09	07-31-09
Time of Day:	9:45	11:00
Application Method:	Spray	Spray
Application Timing:	V3	V3+30D
Application Placement:	BROFOL	BROFOL
Applied By:	DKT	DKT
Air Temperature, Unit:	75 F	80 F
% Relative Humidity:	49	50
Wind Velocity, Unit:	2 MPH	4 MPH
Wind Direction:	E	W
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	80 F	78 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	60	60

	07-01-09	07-31-09
Crop stage at application:	V3	R3
Height Min, Max (inch):	6 8	24 28

Pest Stage At Each Application

	07-01-09	07-31-09
Application Date:	07-01-09	07-31-09
Weed Code:	SETFA	SETFA
Stage Majority (leaves):	3	4
Stage Min, Max:	2 5	2 5
Height Majority:	6 IN	8 IN
Height Min, Max:	3 9	3 10
Density, Unit:	3 FT2	3 FT2
Weed Code:	AMATA	AMATA
Stage Majority (leaves):	8	10
Stage Min, Max:	4 12	4 16
Height Majority:	3 IN	8 IN
Height Min, Max:	1 5	2 12
Density, Unit:	1 FT2	1 FT2
Weed Code:	IPOSS	IPOSS
Stage Majority (leaves):	6	12
Stage Min, Max:	COTY 10	4 20
Height Majority:	4 IN	5 IN
Height Min, Max:	1 6	2 6
Density, Unit:	1 FT2	1 FT2

Application Equipment

Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	XR 110015	XR 110015
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	10 GPA	10 GPA

Loveland Experimental Glyphosate Formulations.

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Pest Code
Crop Code
Rating Date
Rating Data Type
Rating Unit
Rating Timing
Trt-Eval Interval

GLXMA 11-05-09 Moisture Percent	GLXMA 11-05-09 Yield bu/A	GLXMA 07-08-09 Injury Percent	GLXMA 07-15-09 Injury Percent	GLXMA 08-07-09 Injury Percent	GLXMA 08-14-09 Injury Percent
		7 DA-A	14 DA-A	7 DA-B	14 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate Rate Unit	Growth Stage	Appl Code						
1	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a	V3	A	10.9 ab	52 a	0 b	0 a	0 a	0 a
1	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
1	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3	A						
1	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a	V3+30D	B						
1	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
1	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3+30D	B						
2	LI 6303		SL	22 fl oz/a	22 fl oz/a	V3	A	10.9 ab	56 a	0 b	0 a	0 a	0 a
2	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
2	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3	A						
2	LI 6303		SL	22 fl oz/a	22 fl oz/a	V3+30D	B						
2	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
2	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3+30D	B						
3	MAD DOG PLUS	3	SL	0.75 lb ae/a	32 fl oz/a	V3	A	10.9 ab	52 a	0 b	0 a	0 a	0 a
3	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
3	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3	A						
3	MAD DOG PLUS	3	SL	0.75 lb ae/a	32 fl oz/a	V3+30D	B						
3	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
3	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3+30D	B						
4	LI 6285		SL	32 fl oz/a	32 fl oz/a	V3	A	10.9 ab	56 a	0 b	0 a	0 a	0 a
4	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
4	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3	A						
4	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a	V3+30D	B						
4	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
4	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3+30D	B						
5	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a	V3	A	11.0 ab	52 a	0 b	0 a	0 a	0 a
5	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
5	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3	A						
5	LI 6285		SL	32 fl oz/a	32 fl oz/a	V3+30D	B						
5	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
5	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3+30D	B						
6	LI 6285		SL	32 fl oz/a	32 fl oz/a	V3	A	10.8 b	53 a	0 b	0 a	0 a	0 a
6	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
6	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3	A						
6	LI 6285		SL	32 fl oz/a	32 fl oz/a	V3+30D	B						
6	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
6	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v	V3+30D	B						
7	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a	V3	A	10.9 ab	55 a	0 b	0 a	0 a	0 a
7	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
7	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal	V3	A						
7	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a	V3+30D	B						
7	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
7	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal	V3+30D	B						
8	LI 6303		SL	22 fl oz/a	22 fl oz/a	V3	A	11.0 a	51 a	1 a	0 a	0 a	0 a
8	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
8	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal	V3	A						
8	LI 6303		SL	22 fl oz/a	22 fl oz/a	V3+30D	B						
8	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
8	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal	V3+30D	B						
9	MAD DOG PLUS	3	SL	0.75 lb ae/a	32 fl oz/a	V3	A	10.8 b	55 a	0 b	0 a	0 a	0 a
9	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
9	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal	V3	A						
9	MAD DOG PLUS	3	SL	0.75 lb ae/a	32 fl oz/a	V3+30D	B						
9	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
9	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal	V3+30D	B						
10	LI 6285		SL	32 fl oz/a	32 fl oz/a	V3	A	11.0 ab	54 a	0 b	0 a	0 a	0 a
10	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3	A						
10	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal	V3	A						
10	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a	V3+30D	B						
10	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v	V3+30D	B						
10	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal	V3+30D	B						

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Pest Code
Crop Code
Rating Date
Rating Data Type
Rating Unit
Rating Timing
Trt-Eval Interval

GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
11-05-09	11-05-09	07-08-09	07-15-09	08-07-09	08-14-09
Moisture	Yield	Injury	Injury	Injury	Injury
Percent	bu/A	Percent	Percent	Percent	Percent
		7 DA-A	14 DA-A	7 DA-B	14 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
11	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3	A	10.9	ab	53	a	0	b
11	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A					0	a
11	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A						
11	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3+30D	B						
11	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
11	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B						
12	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3	A	11.0	ab	55	a	1	ab
12	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A					0	a
12	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A						
12	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3+30D	B						
12	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
12	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B						
LSD (P=.05)										0.16		5.9		1.2	
Replicate F										4.522		0.537		0.688	
Replicate Prob(F)										0.0092		0.6599		0.5661	
Treatment F										1.184		0.731		0.896	
Treatment Prob(F)										0.3351		0.7017		0.5540	

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

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Location: Agronomy Res. Center

Pest Code	GGGAN	GGGAN	GGGAN	GGGAN
Crop Code				
Rating Date	07-08-09	07-15-09	08-07-09	08-14-09
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval	7 DA-A	14 DA-A	7 DA-B	14 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a		V3	A	59 c	98 a	97 c	99 a
1	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
1	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3	A				
1	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a		V3+30D	B				
1	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
1	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3+30D	B				
2	LI 6303		SL	22 fl oz/a	22 fl oz/a		V3	A	59 c	98 a	99 ab	99 a
2	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
2	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3	A				
2	LI 6303		SL	22 fl oz/a	22 fl oz/a		V3+30D	B				
2	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
2	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3+30D	B				
3	MAD DOG PLUS	3	SL	0.75 lb ae/a	32 fl oz/a		V3	A	59 c	98 a	99 a	99 a
3	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
3	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3	A				
3	MAD DOG PLUS	3	SL	0.75 lb ae/a	32 fl oz/a		V3+30D	B				
3	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
3	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3+30D	B				
4	LI 6285		SL	32 fl oz/a	32 fl oz/a		V3	A	60 bc	98 a	99 a	99 a
4	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
4	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3	A				
4	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a		V3+30D	B				
4	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
4	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3+30D	B				
5	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a		V3	A	60 bc	98 a	99 a	99 a
5	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
5	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3	A				
5	LI 6285		SL	32 fl oz/a	32 fl oz/a		V3+30D	B				
5	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
5	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3+30D	B				
6	LI 6285		SL	32 fl oz/a	32 fl oz/a		V3	A	60 bc	98 a	99 a	99 a
6	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
6	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3	A				
6	LI 6285		SL	32 fl oz/a	32 fl oz/a		V3+30D	B				
6	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
6	LIBERATE	100	SL	0.25 % v/v	0.25 % v/v		V3+30D	B				
7	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a		V3	A	60 bc	98 a	99 ab	99 b
7	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
7	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal		V3	A				
7	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a		V3+30D	B				
7	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
7	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal		V3+30D	B				
8	LI 6303		SL	22 fl oz/a	22 fl oz/a		V3	A	59 c	98 a	99 ab	99 a
8	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
8	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal		V3	A				
8	LI 6303		SL	22 fl oz/a	22 fl oz/a		V3+30D	B				
8	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
8	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal		V3+30D	B				
9	MAD DOG PLUS	3	SL	0.75 lb ae/a	32 fl oz/a		V3	A	63 ab	98 a	99 b	99 a
9	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
9	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal		V3	A				
9	MAD DOG PLUS	3	SL	0.75 lb ae/a	32 fl oz/a		V3+30D	B				
9	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
9	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal		V3+30D	B				
10	LI 6285		SL	32 fl oz/a	32 fl oz/a		V3	A	60 bc	98 a	99 a	99 a
10	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3	A				
10	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal		V3	A				
10	MAKAZE	3	SL	0.75 lb ae/a	32 fl oz/a		V3+30D	B				
10	CHOICE WEATHER MASTER	100	SL	0.5 % v/v	0.5 % v/v		V3+30D	B				
10	LI 6262	100	SL	0.25 % v/v	3.2 fl oz/10 gal		V3+30D	B				

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Crop Code				
Rating Date	07-08-09	07-15-09	08-07-09	08-14-09
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval	7 DA-A	14 DA-A	7 DA-B	14 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
11	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3	A	60	bc	98	a
11	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A			99	a
11	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A				
11	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3+30D	B				
11	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B				
11	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B				
12	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3	A	64	a	98	a
12	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A			99	a
12	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A				
12	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3+30D	B				
12	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B				
12	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B				
LSD (P=.05)										3.2		0.8	
Replicate F										0.387		2.099	
Replicate Prob(F)										0.7634		0.1192	
Treatment F										1.946		1.168	
Treatment Prob(F)										0.0689		0.3454	

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

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Pest Code										AMATA	AMATA	AMATA	AMATA	IPOSS	IPOSS
Crop Code										07-08-09	07-15-09	08-07-09	08-14-09	07-08-09	07-15-09
Rating Date										Control	Control	Control	Control	Control	Control
Rating Data Type										Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit															
Rating Timing															
Trt-Eval Interval										7 DA-A	14 DA-A	7 DA-B	14 DA-B	7 DA-A	14 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3	A	35 b	93 a	97 abc	98 ab	28 c	74 a
1	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
1	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3	A						
1	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3+30D	B						
1	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
1	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3+30D	B						
2	LI 6303		SL	22	fl oz/a	22	fl oz/a	V3	A	38 ab	91 a	98 ab	98 ab	30 bc	75 a
2	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
2	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3	A						
2	LI 6303		SL	22	fl oz/a	22	fl oz/a	V3+30D	B						
2	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
2	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3+30D	B						
3	MAD DOG PLUS	3	SL	0.75	lb ae/a	32	fl oz/a	V3	A	36 b	91 a	94 cd	98 ab	33 abc	72 a
3	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
3	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3	A						
3	MAD DOG PLUS	3	SL	0.75	lb ae/a	32	fl oz/a	V3+30D	B						
3	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
3	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3+30D	B						
4	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3	A	38 ab	96 a	96 a-d	97 abc	33 abc	78 a
4	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
4	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3	A						
4	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3+30D	B						
4	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
4	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3+30D	B						
5	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3	A	39 ab	93 a	90 ef	96 bc	37 ab	80 a
5	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
5	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3	A						
5	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3+30D	B						
5	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
5	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3+30D	B						
6	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3	A	38 ab	92 a	87 f	91 d	33 abc	79 a
6	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
6	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3	A						
6	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3+30D	B						
6	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
6	LIBERATE	100	SL	0.25	% v/v	0.25	% v/v	V3+30D	B						
7	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3	A	40 ab	97 a	99 a	99 a	37 ab	83 a
7	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
7	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A						
7	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3+30D	B						
7	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
7	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B						
8	LI 6303		SL	22	fl oz/a	22	fl oz/a	V3	A	40 ab	91 a	96 abc	97 abc	38 ab	76 a
8	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
8	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A						
8	LI 6303		SL	22	fl oz/a	22	fl oz/a	V3+30D	B						
8	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
8	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B						
9	MAD DOG PLUS	3	SL	0.75	lb ae/a	32	fl oz/a	V3	A	39 ab	94 a	96 a-d	97 abc	38 ab	76 a
9	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
9	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A						
9	MAD DOG PLUS	3	SL	0.75	lb ae/a	32	fl oz/a	V3+30D	B						
9	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
9	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B						
10	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3	A	43 a	92 a	96 bcd	98 abc	39 a	78 a
10	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
10	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A						
10	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3+30D	B						
10	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
10	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B						

Loveland Experimental Glyphosate Formulations.

Trial ID: 09-ARC-13-W70

Location: Agronomy Res. Center

Pest Code	AMATA	AMATA	AMATA	AMATA	IPOSS	IPOSS
Crop Code						
Rating Date	07-08-09	07-15-09	08-07-09	08-14-09	07-08-09	07-15-09
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing						
Trt-Eval Interval	7 DA-A	14 DA-A	7 DA-B	14 DA-B	7 DA-A	14 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
11	MAKAZE	3	SL	0.75	lb ae/a	32	fl oz/a	V3	A	39	ab	93	a	93	de
11	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
11	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A						
11	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3+30D	B						
11	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
11	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B						
12	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3	A	43	a	95	a	98	ab
12	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3	A						
12	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3	A						
12	LI 6285		SL	32	fl oz/a	32	fl oz/a	V3+30D	B						
12	CHOICE WEATHER MASTER	100	SL	0.5	% v/v	0.5	% v/v	V3+30D	B						
12	LI 6262	100	SL	0.25	% v/v	3.2	fl oz/10 gal	V3+30D	B						
LSD (P=.05)										5.4		6.6		3.3	
Replicate F										4.459		2.208		2.449	
Replicate Prob(F)										0.0098		0.1056		0.0810	
Treatment F										1.459		0.799		9.427	
Treatment Prob(F)										0.1940		0.6404		0.0001	

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

Trial Comments

1. Protocol: Loveland.
2. Ratings: CI/WC 7 + 14 da each POST application.
3. Yield.
4. Apply a broadcast treatment of glyphosate at 14 da last POST application 10 ft wide to all plots to maintain the area close to weed-free through harvest.
5. GGGAN = Annual grasses including SETFA (giant foxtail) and PANDI (fall panicum).
IPOSS = Morningglory species including IPOHE (ivyleaf morningglory) and IPOLA (pitted morningglory).
6. Harvested 11-5-09, (2) 30 inch rows by 108.5 ft