

Adjuvant Evaluation for Burndown.

Trial ID: 12-FagerS-UnitedSuppliers
 Location: Murphysboro, IL

Investigator: Bryan Young

General Trial Information	
Study Director: Bryan Young	Title: Professor
Investigator: Bryan Young	
Trial Status: F - one-year/final	
Initiation Date: 4-26-12	
Trial Location	
City: Murphysboro	
State/Prov.: IL	
Postal Code: 62966	
Country: USA	

Objectives: Determine if a new formulation of NIS increases the speed of weed control and total weed control in burndown.

Personnel	
Study Director: Bryan Young	Title: Professor
Investigator: Bryan Young	
Affiliation: Southern Illinois University	
Address: 1205 Lincoln Drive - AG 176 - MC 4415	
Location: Carbondale IL	
Postal Code: 62901	E-mail: bgyoung@siu.edu
Phone No.: 618-453-7679	Mobile No.: 618-713-6471

Crop Description
Crop 1: NONE - Non-crop

Pest Description
Pest 1 Type: W Code: ERICA - Conyza canadensis (L.) Crong. Common Name: horseweed Description: glyphosate-resistant marestail

Site and Design							
Plot Width, Unit: 10 FT	Site Type: FIELD field						
Plot Length, Unit: 30 FT							
Plot Area, Unit: 300 FT2	Tillage Type: NOTILL no-till						
Replications: 3	Study Design: RACOB L Randomized Complete Block (RCB)						
<table border="1"> <thead> <tr> <th>No.</th> <th>Previous Crop</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>GLXMA</td> <td>2011</td> </tr> </tbody> </table>	No.	Previous Crop	Year	1.	GLXMA	2011	
No.	Previous Crop	Year					
1.	GLXMA	2011					

Maintenance					
<table border="1"> <thead> <tr> <th>No.</th> <th>Maintenance Treatment Name</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>N 0 LB/A, P205 0 LB/A, K20 0 LB/A</td> </tr> </tbody> </table>	No.	Maintenance Treatment Name	1.	N 0 LB/A, P205 0 LB/A, K20 0 LB/A	
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1.	N 0 LB/A, P205 0 LB/A, K20 0 LB/A				

Soil Description										
% OM: 1.87	Texture: SIL SILT LOAM									
pH: 5.5	Soil Name: ALVIN									
CEC: 7.06										
Additional Measured Elements										
<table border="1"> <thead> <tr> <th>Element</th> <th>Quantity</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>P1</td> <td>172</td> <td>LB/A</td> </tr> <tr> <td>K</td> <td>446</td> <td>LB/A</td> </tr> </tbody> </table>	Element	Quantity	Unit	P1	172	LB/A	K	446	LB/A	
Element	Quantity	Unit								
P1	172	LB/A								
K	446	LB/A								

Moisture and Weather Conditions	
Overall Moisture Conditions: BELNOR below normal	
Closest Weather Station: SOUTHERN IL AIRPORT (93810)	Distance, Unit: 3.5 MI

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Application Description

	A
Application Date:	4-26-12
Time of Day:	18:45
Application Method:	Spray
Application Timing:	6-10"MT
Application Placement:	BROFOL
Applied By:	RFK
Air Temperature, Unit:	75 F
% Relative Humidity:	68
Wind Velocity, Unit:	1 MPH
Wind Direction:	N
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	73 F
Soil Moisture:	NORMAL
% Cloud Cover:	85
Next Rain Occurred On:	4-30-12

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	NONE
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ERICA W DESC
Stage Majority, Percent:	35
Stage Minimum, Percent:	6
Stage Maximum, Percent:	50+
Height, Unit:	8 IN
Height Minimum, Maximum:	1 14
Density, Unit:	5 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval								ERICA-HR	ERICA-HR	ERICA-HR	
								4-29-12 Control Percent	5-3-12 Control Percent	5-10-12 Control Percent	
								3 DA-A	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	NONTREATED								0 d	0 d	0 c
2	ROUNDUP POWERMAX AMSOL	4.5 SL 100 SL		0.77 lb ae/a 2.5 % v/v	22 fl oz/a 2.5 % v/v		6-10"MT A 6-10"MT A		12 c	29 c	36 b
3	ROUNDUP POWERMAX CLARITY AMSOL	4.5 SL 4 SL 100 SL		0.77 lb ae/a 0.25 lb ae/a 2.5 % v/v	22 fl oz/a 8 fl oz/a 2.5 % v/v		6-10"MT A 6-10"MT A 6-10"MT A		30 b	58 b	76 a
4	ROUNDUP POWERMAX CHEMSURF 80 AMSOL	4.5 SL 100 SL 100 SL		0.77 lb ae/a 0.25 % v/v 2.5 % v/v	22 fl oz/a 0.25 % v/v 2.5 % v/v		6-10"MT A 6-10"MT A 6-10"MT A		13 c	27 c	33 b
5	ROUNDUP POWERMAX CLARITY CHEMSURF 80 AMSOL	4.5 SL 4 SL 100 SL 100 SL		0.77 lb ae/a 0.25 lb ae/a 0.25 % v/v 2.5 % v/v	22 fl oz/a 8 fl oz/a 0.25 % v/v 2.5 % v/v		6-10"MT A 6-10"MT A 6-10"MT A 6-10"MT A		30 b	60 ab	77 a
6	ROUNDUP POWERMAX CHEMSURF 80 EXTRA AMSOL	4.5 SL 100 SL 100 SL		0.77 lb ae/a 0.25 % v/v 2.5 % v/v	22 fl oz/a 0.25 % v/v 2.5 % v/v		6-10"MT A 6-10"MT A 6-10"MT A		13 c	28 c	35 b
7	ROUNDUP POWERMAX CLARITY CHEMSURF 80 EXTRA AMSOL	4.5 SL 4 SL 100 SL 100 SL		0.77 lb ae/a 0.25 lb ae/a 0.25 % v/v 2.5 % v/v	22 fl oz/a 8 fl oz/a 0.25 % v/v 2.5 % v/v		6-10"MT A 6-10"MT A 6-10"MT A 6-10"MT A		35 a	60 ab	75 a
8	ROUNDUP POWERMAX CLARITY WETCIT AMSOL	4.5 SL 4 SL 100 SL 100 SL		0.77 lb ae/a 0.25 lb ae/a 0.25 % v/v 2.5 % v/v	22 fl oz/a 8 fl oz/a 0.25 % v/v 2.5 % v/v		6-10"MT A 6-10"MT A 6-10"MT A 6-10"MT A		32 ab	60 ab	75 a
9	ROUNDUP POWERMAX CLARITY USIEX2442012 AMSOL	4.5 SL 4 SL 100 SL 100 SL		0.77 lb ae/a 0.25 lb ae/a 0.25 % v/v 2.5 % v/v	22 fl oz/a 8 fl oz/a 0.25 % v/v 2.5 % v/v		6-10"MT A 6-10"MT A 6-10"MT A 6-10"MT A		33 ab	62 a	76 a
10	ROUNDUP POWERMAX CLARITY USIEX2652012 AMSOL	4.5 SL 4 SL 100 SL 100 SL		0.77 lb ae/a 0.25 lb ae/a 0.25 % v/v 2.5 % v/v	22 fl oz/a 8 fl oz/a 0.25 % v/v 2.5 % v/v		6-10"MT A 6-10"MT A 6-10"MT A 6-10"MT A		32 ab	61 ab	74 a
11	ROUNDUP POWERMAX CLARITY USIEX2882012 AMSOL	4.5 SL 4 SL 100 SL 100 SL		0.77 lb ae/a 0.25 lb ae/a 0.25 % v/v 2.5 % v/v	22 fl oz/a 8 fl oz/a 0.25 % v/v 2.5 % v/v		6-10"MT A 6-10"MT A 6-10"MT A 6-10"MT A		30 b	60 ab	74 a
LSD (P=.05)								3.5	2.7	4.0	
Standard Deviation								2.1	1.6	2.3	
CV								8.79	3.49	4.06	
Replicate F								1.579	0.365	0.908	
Replicate Prob(F)								0.2308	0.6986	0.4193	
Treatment F								96.421	524.099	392.235	
Treatment Prob(F)								0.0001	0.0001	0.0001	

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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Trial Comments

1. Protocol: United Suppliers.
2. WC at 3, 7, and 14 DAT.
3. ERICA-HR = Herbicide-resistant marestalk (glyphosate).
4. Not harvested, non-crop.