

Northeast Research & Extension Center

2008 Soybean 2-pass Enlite and other SU burndown and residual herbicides

Trial ID: 38 08 DUP USA-08-120 Protocol ID: 08 DUP USA-08-120
 Location: Concord, NE Study Director: Stevan Knezevic
 Investigator: Stevan Knezevic

General Trial Information

Study Director: Stevan Knezevic
Investigator: Stevan Knezevic

Trial Location

City: Concord
State/Prov.: NE
Postal Code: 68728
Country: USA

Cooperator/Landowner

Cooperator: Haskell Agricultural Laboratory Country: USA
 Organization: University of Nebraska Phone No: 402-584-2261
 Address 1: 57905 866 RD Fax No: 402-584-3859
 City: Concord
 State/Prov: NE
 Postal Code: 68728

Crop Description

Crop 1: GLXMA Glycine max Soybean
 Variety: Kruger K245 RR SCN LINO Description: Rows 1 2 3 odd 4 5 6 on even
 BBCH Scale: BSOY Planting Date: 06-01-08
 Planting Method: seeded Rate, Unit: 196000 s/a
 Depth, Unit: 1.25 in
 Row Spacing, Unit: 30 in

Crop 2: GLXMA Glycine max Soybean
 Variety: Asgrow DKB 27-52 RR Description: Rows 4 5 6 odd 1 2 3 on even
 BBCH Scale: BSOY Planting Date: 06-01-08
 Planting Method: seeded Rate, Unit: 196000 s/a
 Depth, Unit: 1.25 in
 Row Spacing, Unit: 30 in

Pest Description

Pest 1 Type: W Code: ERICA Erigeron canadensis L.
 Common Name: Horseweed

Pest 2 Type: W Code: THLAR Thlaspi arvense L.
 Common Name: Pennycress, field

Pest 3 Type: W Code: SETVI Setaria viridis (L.) P.Beauv.
 Common Name: Foxtail, green

Pest 4 Type: W Code: AMATU Amaranthus tuberculatos (Moq.) J
 Common Name: Waterhemp, tall

Pest 5 Type: W Code: ABUTH Abutilon theophrasti Medik.
 Common Name: Velvetleaf

Site and Design

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 30 FT Tillage Type: NO-TILL
 Replications: 3 Study Design: Randomized Complete Block

Soil Description

% Sand: 16 % OM: 2.7 Texture: SILT LOAM
 % Silt: 58 pH: 6.1
 % Clay: 26 CEC: 18.8 Fert. Level: EXCELLENT
 Analyzed By:
 Midwest Labs

Application Description

	A	B
Application Date:	05-20-08	07-11-08
Time of Day:	11 am	10 am
Application Method:	spray	spray
Application Timing:	BURNDOWN	POST
Application Placement:	foliar	foliar
Applied By:	RR,JS	js
Air Temperature, Unit:	61 F	83 F
% Relative Humidity:	44	69
Wind Velocity, Unit:	5 mph	4 mph
Wind Direction:	NNW	s
Dew Presence (Y/N):	n	n
Soil Temperature, Unit:	52 F	70 F
Soil Moisture:	ADEQUATE	adequate
% Cloud Cover:	10	10

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:		BBCH
Stage Majority, Percent:		3T
Height, Unit:		10 in
Crop 2 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY

Pest Stage At Each Application

	A	B
Pest 1 Code, Disc., Scale:	ERICA W	ERICA W
Diameter, Unit:	4 in	
Height, Unit:	2.5 in	4 in
Height Minimum, Maximum:	2 3	2 8
Density, Unit:	25 m2	1 m2
Pest 2 Code, Disc., Scale:	THLAR W	THLAR W
Height, Unit:	12 in	
Density, Unit:	3 m2	
Pest 3 Code, Disc., Scale:	SETVI W	SETVI W
Height, Unit:		6 in
Height Minimum, Maximum:		4 8
Density, Unit:		3 m2
Pest 4 Code, Disc., Scale:	AMATU W	AMATU W
Height, Unit:		12 in
Height Minimum, Maximum:		8 18
Pest 5 Code, Disc., Scale:	ABUTH W	ABUTH W

Application Equipment

	A	B
Appl. Equipment:	backpack	BACKPACK
Operating Pressure, Unit:	20 psi	40 PSI
Nozzle Type:	Turbo Tee	TURBO TEE
Nozzle Size:	11003	11002
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	10 FT	10 FT
Boom Height, Unit:	12 IN	12 IN
Ground Speed, Unit:	2.7 MPH	2.7 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	20 GPA	20 GPA
Mix Size, Unit:	1.8 Liters	1.8 Liters
Propellant:	co2	co2

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2008 Soybean 2-pass Enlite and other SU burndown and residual herbicides													
Trial ID: 38 08 DUP USA-08-120			Protocol ID: 08 DUP USA-08-120										
Location: Concord, NE			Study Director: Stevan Knezevic										
			Investigator: Stevan Knezevic										
Description	Marestail	Marestail	Marestail	Field pennycress	Green foxtail	Green foxtail	Waterhemp						
Rating Date	06-03-08	07-03-08	08-06-08	06-03-08	07-03-08	08-06-08	07-03-08						
Rating Data Type	Control	Control	Control	Control	Control	Control	Control						
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent						
Days After First/Last Applic.	14 14	44 44	78 26	14 14	44 44	78 26	44 44						
Trt No.	Treatment Name	Rate	Other Unit	Other Rate	Other Unit	Growth Stage							
1	Enlite 2.8oz+Rdup EPP fb Synchrony +Rdup						96.7 a	94.7 b	99.0 a	98.3 a	94.7 a	99.0 a	91.7 a
	chlorimuron	0.32 oz/a	oz/a	0.08 oz/a	oz/a	EPP							
	thifensulfuron	0.5 oz/a	oz/a	0.25 oz/a	oz/a	EPP							
	flumioxazin	1 oz/a	oz/a	1 oz/a	oz/a	EPP							
	Roundup PowerMAX	22 oz/a	oz/a			EPP							
	2,4-D LV ester	1 pt/a	pt/a			EPP							
	Ammonium Sulfate	2 lb/a	lb/a			EPP							
	Synchrony XP	0.375 oz/a	oz/a			POST							
	chlorimuron	0.3225 oz/a	oz/a			POST							
	thifensulfuron	0.05175 oz/a	oz/a			POST							
	Roundup PowerMAX	22 oz/a	oz/a			POST							
	Ammonium Sulfate	2 lb/a	lb/a			POST							
2	Enville 3.5oz+Rdup EPP fb Synchrony +Rdup						100.0 a	97.3 ab	99.0 a	100.0 a	96.0 a	99.0 a	98.7 a
	chlorimuron	1.28 oz/a	oz/a	0.32 oz/a	oz/a	EPP							
	thifensulfuron	0.2 oz/a	oz/a	0.1 oz/a	oz/a	EPP							
	flumioxazin	1 oz/a	oz/a	1 oz/a	oz/a	EPP							
	Roundup PowerMAX	22 oz/a	oz/a			EPP							
	2,4-D LV ester	1 pt/a	pt/a			EPP							
	Ammonium Sulfate	2 lb/a	lb/a			EPP							
	Synchrony XP	0.375 oz/a	oz/a			POST							
	chlorimuron	0.3225 oz/a	oz/a			POST							
	thifensulfuron	0.05175 oz/a	oz/a			POST							
	Roundup PowerMAX	22 oz/a	oz/a			POST							
	Ammonium Sulfate	2 lb/a	lb/a			POST							
3	Canopy EX 2oz + Rdup EPP fb Synchrony+RU						100.0 a	99.0 a	99.0 a	100.0 a	94.7 a	99.0 a	66.7 b
	chlorimuron	1.82 oz/a	oz/a	0.454 oz/a	oz/a	EPP							
	thifensulfuron	0.272 oz/a	oz/a	0.136 oz/a	oz/a	EPP							
	Roundup PowerMAX	22 oz/a	oz/a			EPP							
	2,4-D LV ester	1 pt/a	pt/a			EPP							
	Ammonium Sulfate	2 lb/a	lb/a			EPP							
	Synchrony XP	0.375 oz/a	oz/a			POST							
	chlorimuron	0.3225 oz/a	oz/a			POST							
	thifensulfuron	0.05175 oz/a	oz/a			POST							
	Roundup PowerMAX	22 oz/a	oz/a			POST							
	Ammonium Sulfate	2 lb/a	lb/a			POST							
4	Canopy 4oz + Rdup EPP fb Synchrony+RU						100.0 a	99.0 a	99.0 a	100.0 a	94.7 a	99.0 a	81.7 ab
	chlorimuron	1.71 oz/a	oz/a	0.428 oz/a	oz/a	EPP							
	metribuzin	3.4 oz/a	oz/a	2.57 oz/a	oz/a	EPP							
	Roundup PowerMAX	22 oz/a	oz/a			EPP							
	2,4-D LV ester	1 pt/a	pt/a			EPP							
	Ammonium Sulfate	2 lb/a	lb/a			EPP							
	Synchrony XP	0.375 oz/a	oz/a			POST							
	chlorimuron	0.3225 oz/a	oz/a			POST							
	thifensulfuron	0.05175 oz/a	oz/a			POST							
	Roundup PowerMAX	22 oz/a	oz/a			POST							
	Ammonium Sulfate	2 lb/a	lb/a			POST							
5	Roundup fb Roundup						100.0 a	98.7 a	99.0 a	100.0 a	0.0 b	99.0 a	0.0 d
	Roundup PowerMAX	22 oz/a	oz/a			EPP							
	2,4-D LV ester	1 pt/a	pt/a			EPP							
	Ammonium Sulfate	2 lb/a	lb/a			EPP							
	Roundup PowerMAX	22 oz/a	oz/a			POST							
	Ammonium Sulfate	2 lb/a	lb/a			POST							
6	Nontreated Check						0.0 b	0.0 c	0.0 b	0.0 b	0.0 b	0.0 b	0.0 d

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Description		Marestail	Marestail	Marestail	Field pennycress	Green foxtail	Green foxtail	Waterhemp
Rating Date		06-03-08	07-03-08	08-06-08	06-03-08	07-03-08	08-06-08	07-03-08
Rating Data Type		Control	Control	Control	Control	Control	Control	Control
Rating Unit		Percent	Percent	Percent	Percent	Percent	Percent	Percent
Days After First/Last Applic.		14 14	44 44	78 26	14 14	44 44	78 26	44 44
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	
7	Extreme	3	pt/a				EPP	
	2,4-D LV ester	6	oz/a				EPP	
	Ammonium Sulfate	2	lb/a				EPP	
	Roundup PowerMAX	22	oz/a				POST	
	Ammonium Sulfate	2	lb/a				POST	
	LSD (P=.05)	3.88		3.35	0.00	1.94	6.77	0.00
	Standard Deviation	2.18		1.88	0.00	1.09	3.81	0.00
	CV	2.56		2.25	0.0	1.28	5.56	0.0
	Grand Mean	85.24		83.67	84.86	85.48	68.43	84.86
	Replicate F	1.000		2.193	0.000	1.000	0.069	0.000
	Replicate Prob(F)	0.3966		0.1543	1.0000	0.3966	0.9337	1.0000
	Treatment F	891.000		1155.597	0.000	3581.000	452.588	0.000
	Treatment Prob(F)	0.0001		0.0001	1.0000	0.0001	0.0001	1.0000

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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Description						Waterhemp		Velvetleaf	
Rating Date						08-06-08		08-06-08	
Rating Data Type						Control		Control	
Rating Unit						Percent		Percent	
Days After First/Last Applic.						78 26		78 26	
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate Unit	Growth Stage			
1	Enlite 2.8oz+Rdup EPP fb Synchrony +Rdup						99.0 a		99.0 a
	chlorimuron	0.32	oz/a	0.08	oz a/a	EPP			
	thifensulfuron	0.5	oz/a	0.25	oz a/a	EPP			
	flumioxazin	1	oz/a	1	oz/a	EPP			
	Roundup PowerMAX	22	oz/a			EPP			
	2,4-D LV ester	1	pt/a			EPP			
	Ammonium Sulfate	2	lb/a			EPP			
	Synchrony XP	0.375	oz/a			POST			
	chlorimuron	0.3225	oz/a			POST			
	thifensulfuron	0.05175	oz/a			POST			
	Roundup PowerMAX	22	oz/a			POST			
	Ammonium Sulfate	2	lb/a			POST			
2	Envive 3.5oz+Rdup EPP fb Synchrony +Rdup						99.0 a		99.0 a
	chlorimuron	1.28	oz/a	0.32	oz a/a	EPP			
	thifensulfuron	0.2	oz/a	0.1	oz a/a	EPP			
	flumioxazin	1	oz/a	1	oz/a	EPP			
	Roundup PowerMAX	22	oz/a			EPP			
	2,4-D LV ester	1	pt/a			EPP			
	Ammonium Sulfate	2	lb/a			EPP			
	Synchrony XP	0.375	oz/a			POST			
	chlorimuron	0.3225	oz/a			POST			
	thifensulfuron	0.05175	oz/a			POST			
	Roundup PowerMAX	22	oz/a			POST			
	Ammonium Sulfate	2	lb/a			POST			
3	Canopy EX 2oz + Rdup EPP fb Synchrony+RU						99.0 a		99.0 a
	chlorimuron	1.82	oz/a	0.454	oz a/a	EPP			
	thifensulfuron	0.272	oz/a	0.136	oz a/a	EPP			
	Roundup PowerMAX	22	oz/a			EPP			
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	chlorimuron	1.71	oz/a	0.428	oz a/a	EPP			
	metribuzin	3.4	oz/a	2.57	oz a/a	EPP			
	Roundup PowerMAX	22	oz/a			EPP			
	2,4-D LV ester	1	pt/a			EPP			
	Ammonium Sulfate	2	lb/a			EPP			
	Synchrony XP	0.375	oz/a			POST			
	chlorimuron	0.3225	oz/a			POST			
	thifensulfuron	0.05175	oz/a			POST			
	Roundup PowerMAX	22	oz/a			POST			
	Ammonium Sulfate	2	lb/a			POST			
5	Roundup fb Roundup						99.0 a		99.0 a
	Roundup PowerMAX	22	oz/a			EPP			
	2,4-D LV ester	1	pt/a			EPP			
	Ammonium Sulfate	2	lb/a			EPP			
	Roundup PowerMAX	22	oz/a			POST			
	Ammonium Sulfate	2	lb/a			POST			
6	Nontreated Check						0.0 b		0.0 b
7	Extreme	3	pt/a			EPP	99.0 a		99.0 a
	2,4-D LV ester	6	oz/a			EPP			
	Ammonium Sulfate	2	lb/a			EPP			
	Roundup PowerMAX	22	oz/a			POST			
	Ammonium Sulfate	2	lb/a			POST			
LSD (P=.05)							0.00		0.00
Standard Deviation							0.00		0.00
CV							0.0		0.0
Grand Mean							84.86		84.86

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Description	Waterhemp	Velvetleaf
Rating Date	08-06-08	08-06-08
Rating Data Type	Control	Control
Rating Unit	Percent	Percent
Days After First/Last Applic.	78 26	78 26
Replicate F	0.000	0.000
Replicate Prob(F)	1.0000	1.0000
Treatment F	0.000	0.000
Treatment Prob(F)	1.0000	1.0000

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.

<u>Additional Treatment Information</u>
<u>Treatment Name</u>
Ammonium Sulfate =
<u>Rate Unit</u>
OZ/A = Ounces Product per Acre (Metric=ML-G/HA) O
PT/A = Pints Product per Acre (Metric=L/HA) P
LB/A = Pounds Product per Acre (Metric=KG/MU) AE
<u>Other Rate Unit</u>
OZ A/A = Ounces Active Ingredient per Acre
OZ/A = Ounces Product per Acre