

2008 KJM44 Bareground - Railroad, Roadsides, Utility sites - Western US

Trial ID: 08 DUP USA-08-401	Protocol ID: 08 DUP USA-08-401
Location: Near Niobrara, NE	Study Director: Stevan Knezevic
	Investigator: Stevan Knezevic

General Trial Information

Study Director: Stevan Knezevic
Investigator: Stevan Knezevic

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	

Site and Design

Plot Width, Unit: 10	FT	
Plot Length, Unit: 30	FT	
Replications: 3		Study Design: Randomized Complete Block

Application Description

	A
Application Date:	05-31-08
Time of Day:	12:00 pm
Application Method:	spray
Application Timing:	POST
Application Placement:	foliar
Applied By:	RR
Air Temperature, Unit:	83 F
% Relative Humidity:	50
Wind Velocity, Unit:	3 mph
Wind Direction:	N
Dew Presence (Y/N):	n
Soil Temperature, Unit:	68 F
Soil Moisture:	Good
% Cloud Cover:	25
Next Rain Occurred On:	06-01-08

Application Equipment

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

Date	By	Notes
05-31-08	SK	Species at application consisted of Ragweed 2", Canada thistles 6", Hoary vervain 4", bindweed 3", marestail 3", tansy mustard 8"

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Trial ID: 08 DUP USA-08-401 Protocol ID: 08 DUP USA-08-401
 Location: Near Niobrara, NE Study Director: Stevan Knezevic
 Investigator: Stevan Knezevic

Description						Canada Thistle	Canada Thistle	Canada Thistle	Common Ragweed	Common Ragweed	Common Ragweed
Rating Date						06-21-08	07-18-08	09-28-08	06-21-08	07-18-08	09-28-08
Rating Data Type						Control	Control	Control	Control	Control	Control
Rating Unit						Percent	Percent	Percent	Percent	Percent	Percent
Days After First/Last Applic.						21 21	48 48	120 120	21 21	48 48	120 120
Trt-Eval Interval						21 DA-A	48 DA-A	120 DA-A	21 DA-A	48 DA-A	120 DA-A
Trt No.	Treatment Name	Rate	Other Rate	Other Rate Unit	Growth Stage						
1	DPX-KJM44	2.5 oz/a	2 oz a/a		POST	100.0 a	100.0 a	100.0 a	98.3 a	96.7 a	100.0 a
	MSO	1 % v/v			POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
2	DPX-KJM44	3.75 oz/a	3 oz a/a		POST	90.0 ab	90.0 ab	100.0 a	93.0 ab	93.3 a	100.0 a
	MSO	1 % v/v			POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
3	DPX-KJM44	5 oz/a	4 oz a/a		POST	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	MSO	1 % v/v			POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
4	DPX-KJM44	2.5 oz/a	2 oz a/a		POST	65.0 cd	65.0 cd	100.0 a	70.0 d	70.0 c	100.0 a
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
5	DPX-KJM44	5 oz/a	4 oz a/a		POST				85.0 bc	80.0 bc	100.0 a
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
6	DPX-KJM44	2.5 oz/a	2 oz a/a		POST	100.0 a	100.0 a	100.0 a	98.3 a	98.3 a	100.0 a
	OUST XP	1.5 oz/a	1.13 oz a/a		POST						
	TELAR XP	0.75 oz/a	0.56 oz a/a		POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
7	OUST XP	3 oz/a	2.25 oz a/a		POST	97.5 ab	99.5 ab	100.0 a	100.0 a	100.0 a	100.0 a
	TELAR XP	1.5 oz/a	1.13 oz a/a		POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
8	DPX-KJM44	3.75 oz/a	3 oz a/a		POST	100.0 a	100.0 a	100.0 a	96.7 ab	100.0 a	100.0 a
	OUST XP	2.25 oz/a	1.69 oz a/a		POST						
	TELAR XP	1.12 oz/a	0.84 oz a/a		POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
9	DPX-KJM44	5 oz/a	4 oz a/a		POST	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	OUST XP	3 oz/a	2.25 oz a/a		POST						
	TELAR XP	1.5 oz/a	1.13 oz a/a		POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
10	glyphosate	64 oz/a	32 oz a/a		POST	85.0 abc	85.0 abc	100.0 a	90.0 abc	90.0 ab	86.7 a
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
11	Karmex XP	160 oz/a	128 oz a/a		POST	78.3 bc	78.3 bc	100.0 a	78.3 cd	78.3 bc	100.0 a
	glyphosate	64 oz/a	32 oz a/a		POST						
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
12	DPX-KJM44	5 oz/a	4 oz a/a		POST	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Karmex XP	160 oz/a	128 oz a/a		POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						

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Description						Canada Thistle	Canada Thistle	Canada Thistle	Common Ragweed	Common Ragweed	Common Ragweed
Rating Date						06-21-08	07-18-08	09-28-08	06-21-08	07-18-08	09-28-08
Rating Data Type						Control	Control	Control	Control	Control	Control
Rating Unit						Percent	Percent	Percent	Percent	Percent	Percent
Days After First/Last Applic.						21 21	48 48	120 120	21 21	48 48	120 120
Trt-Eval Interval						21 DA-A	48 DA-A	120 DA-A	21 DA-A	48 DA-A	120 DA-A
Trt No.	Treatment Name	Rate	Other Rate	Other Rate Unit	Growth Stage						
13	DPX-KJM44	5 oz/a	4 oz a/a		POST	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Hyvar X	32 oz/a	25.6 oz a/a		POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
14	Matrix	4 oz/a	1 oz a/a		POST	50.0 d	50.0 d	100.0 a	50.0 e	50.0 d	43.3 b
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
15	Matrix	4 oz/a	1 oz a/a		POST	95.0 ab	95.0 ab	100.0 a	95.0 ab	93.3 a	86.7 a
	glyphosate	64 oz/a	32 oz a/a		POST						
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
16	Matrix	4 oz/a	1 oz a/a		POST	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	DPX-KJM44	5 oz/a	4 oz a/a		POST						
	glyphosate	64 oz/a	32 oz a/a		POST						
	MSO	1 % v/v			POST						
	Ammonium Sulfate	17 lb/100 gal			POST						
17	Nontreated Check										
LSD (P=.05)						21.05	21.20	0.00	13.07	12.56	15.10
Standard Deviation						11.40	11.48	0.00	7.82	7.51	9.03
CV						12.56	12.63	0.0	8.6	8.29	9.53
Grand Mean						90.72	90.86	100.0	90.92	90.63	94.79
Replicate F						1.579	1.448	0.000	3.752	5.343	0.715
Replicate Prob(F)						0.2583	0.2850	1.0000	0.0360	0.0108	0.4978
Treatment F						5.378	5.352	0.000	9.699	10.865	7.683
Treatment Prob(F)						0.0078	0.0079	1.0000	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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Description						Hoary Vervain	Hoary Vervain	Hoary Vervain	Marestail	Marestail	Marestail	Tansy mustard	Tansy mustard
Rating Date						06-21-08	07-18-08	09-28-08	06-21-08	07-18-08	09-28-08	06-21-08	07-18-08
Rating Data Type						Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit						Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Days After First/Last Applic.						21 21	48 48	120 120	21 21	48 48	120 120	21 21	48 48
Trt-Eval Interval						21 DA-A	48 DA-A	120 DA-A	21 DA-A	48 DA-A	120 DA-A	21 DA-A	48 DA-A
Trt No.	Treatment Name	Rate	Other Rate	Other Rate Unit	Growth Stage								
15	Matrix	4 oz/a	1 oz a/a		POST	95.0 a	95.0 a	100.0 a	95.0 ab	90.0 abc	100.0 a		
	glyphosate	64 oz/a	32 oz a/a		POST								
	MSO	1 % v/v			POST								
	Ammonium Sulfate	17 lb/100 gal			POST								
16	Matrix	4 oz/a	1 oz a/a		POST	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0	100.0
	DPX-KJM44	5 oz/a	4 oz a/a		POST								
	glyphosate	64 oz/a	32 oz a/a		POST								
	MSO	1 % v/v			POST								
	Ammonium Sulfate	17 lb/100 gal			POST								
17	Nontreated Check												
LSD (P=.05)						10.24	10.36	0.00	17.87	18.07	0.00	.	.
Standard Deviation						5.55	5.61	0.00	10.20	10.32	0.00	.	.
CV						6.06	6.17	0.0	11.43	11.54	0.0	.	.
Grand Mean						91.6	90.86	100.0	89.26	89.41	100.0	35.42	35.0
Replicate F						0.849	0.541	0.000	2.288	1.848	0.000		
Replicate Prob(F)						0.4595	0.6002	1.0000	0.1381	0.1940	1.0000		
Treatment F						18.422	20.661	0.000	6.163	6.204	0.000		
Treatment Prob(F)						0.0001	0.0001	1.0000	0.0008	0.0008	1.0000		

Means followed by same letter do not significantly differ (P=.05, LSD)
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Description						Tansy mustard	Field Bindweed	Field Bindweed	Field Bindweed	Overall	Overall	Green Foxtail
Rating Date						09-28-08	06-21-08	07-18-08	09-28-08	06-21-08	07-18-08	09-28-08
Rating Data Type						Control	Control	Control	Control	Control	Control	Control
Rating Unit						Percent	Percent	Percent	Percent	Percent	Percent	Percent
Days After First/Last Applic.						120 120	21 21	48 48	120 120	21 21	48 48	120 120
Trt-Eval Interval						120 DA-A	21 DA-A	48 DA-A	120 DA-A	21 DA-A	48 DA-A	120 DA-A
Trt No.	Treatment Name	Rate	Other Rate	Other Rate Unit	Growth Stage							
1	DPX-KJM44 MSO glyphosate Ammonium Sulfate	2.5 oz/a 1 % v/v 64 oz/a 17 lb/100 gal	2 oz a/a 32 oz a/a		POST POST POST POST		97.5 a	95.0 a	100.0 a	98.3 a	96.7 a	40.0 de
2	DPX-KJM44 MSO glyphosate Ammonium Sulfate	3.75 oz/a 1 % v/v 64 oz/a 17 lb/100 gal	3 oz a/a 32 oz a/a		POST POST POST POST	100.0	99.0 a	100.0 a	100.0 a	93.0 ab	93.3 a	40.0 de
3	DPX-KJM44 MSO glyphosate Ammonium Sulfate	5 oz/a 1 % v/v 64 oz/a 17 lb/100 gal	4 oz a/a 32 oz a/a		POST POST POST POST		100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	43.3 de
4	DPX-KJM44 MSO Ammonium Sulfate	2.5 oz/a 1 % v/v 17 lb/100 gal	2 oz a/a		POST POST POST	100.0	80.0 b	80.0 b	100.0 a	70.0 d	70.0 c	30.0 e
5	DPX-KJM44 MSO Ammonium Sulfate	5 oz/a 1 % v/v 17 lb/100 gal	4 oz a/a		POST POST POST	100.0	85.0 b	80.0 b	100.0 a	85.0 bc	80.0 bc	63.3 bcd
6	DPX-KJM44 OUST XP TELAR XP glyphosate MSO Ammonium Sulfate	2.5 oz/a 1.5 oz/a 0.75 oz/a 64 oz/a 1 % v/v 17 lb/100 gal	2 oz a/a 1.13 oz a/a 0.56 oz a/a 32 oz a/a		POST POST POST POST POST POST	100.0	100.0 a	100.0 a	100.0 a	98.3 a	98.3 a	100.0 a
7	OUST XP TELAR XP glyphosate MSO Ammonium Sulfate	3 oz/a 1.5 oz/a 64 oz/a 1 % v/v 17 lb/100 gal	2.25 oz a/a 1.13 oz a/a 32 oz a/a		POST POST POST POST POST	100.0	98.3 a	99.7 a	100.0 a	98.3 a	99.7 a	100.0 a
8	DPX-KJM44 OUST XP TELAR XP glyphosate MSO Ammonium Sulfate	3.75 oz/a 2.25 oz/a 1.12 oz/a 64 oz/a 1 % v/v 17 lb/100 gal	3 oz a/a 1.69 oz a/a 0.84 oz a/a 32 oz a/a		POST POST POST POST POST POST	100.0	95.0 a	100.0 a	100.0 a	96.7 ab	100.0 a	100.0 a
9	DPX-KJM44 OUST XP TELAR XP glyphosate MSO Ammonium Sulfate	5 oz/a 3 oz/a 1.5 oz/a 64 oz/a 1 % v/v 17 lb/100 gal	4 oz a/a 2.25 oz a/a 1.13 oz a/a 32 oz a/a		POST POST POST POST POST POST	100.0	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
10	glyphosate MSO Ammonium Sulfate	64 oz/a 1 % v/v 17 lb/100 gal	32 oz a/a		POST POST POST	100.0	95.0 a	95.0 a	100.0 a	90.0 abc	90.0 ab	50.0 cde
11	Karmex XP glyphosate MSO Ammonium Sulfate	160 oz/a 64 oz/a 1 % v/v 17 lb/100 gal	128 oz a/a 32 oz a/a		POST POST POST POST		100.0 a	100.0 a	100.0 a	78.3 cd	78.3 bc	86.7 ab
12	DPX-KJM44 Karmex XP glyphosate MSO Ammonium Sulfate	5 oz/a 160 oz/a 64 oz/a 1 % v/v 17 lb/100 gal	4 oz a/a 128 oz a/a 32 oz a/a		POST POST POST POST POST		100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
13	DPX-KJM44 Hyvar X glyphosate MSO Ammonium Sulfate	5 oz/a 32 oz/a 64 oz/a 1 % v/v 17 lb/100 gal	4 oz a/a 25.6 oz a/a 32 oz a/a		POST POST POST POST POST	100.0	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	63.3 bcd
14	Matrix MSO Ammonium Sulfate	4 oz/a 1 % v/v 17 lb/100 gal	1 oz a/a		POST POST POST	100.0	50.0 c	50.0 c	100.0 a	50.0 e	50.0 d	73.3 abc

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Description	Tansy mustard	Field Bindweed	Field Bindweed	Field Bindweed	Overall	Overall	Green Foxtail	
Rating Date	09-28-08	06-21-08	07-18-08	09-28-08	06-21-08	07-18-08	09-28-08	
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
Days After First/Last Applic.	120 120	21 21	48 48	120 120	21 21	48 48	120 120	
Trt-Eval Interval	120 DA-A	21 DA-A	48 DA-A	120 DA-A	21 DA-A	48 DA-A	120 DA-A	
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Growth Stage			
15	Matrix glyphosate	4 oz/a	1 oz a/a	32 oz a/a	POST			
	MSO	64 oz/a			POST			
	Ammonium Sulfate	1 % v/v			POST			
		17 lb/100 gal			POST			
16	Matrix DPX-KJM44	4 oz/a	1 oz a/a	4 oz a/a	POST			
	glyphosate	5 oz/a		32 oz a/a	POST			
	MSO	64 oz/a			POST			
	Ammonium Sulfate	1 % v/v			POST			
		17 lb/100 gal			POST			
17	Nontreated Check							
	LSD (P=.05)		7.91	7.60	0.00	12.20	11.81	27.45
	Standard Deviation		4.55	4.37	0.00	7.32	7.09	16.46
	CV		4.87	4.68	0.0	8.56	8.31	25.33
	Grand Mean	39.39	93.43	93.31	100.0	85.47	85.27	65.0
	Replicate F		0.460	0.808	0.000	4.424	5.746	0.700
	Replicate Prob(F)		0.6401	0.4641	1.0000	0.0201	0.0074	0.5044
	Treatment F		24.363	28.056	0.000	37.463	40.274	10.505
	Treatment Prob(F)		0.0001	0.0001	1.0000	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.

Additional Treatment Information	
<u>Treatment Name</u>	Ammonium Sulfate =
<u>Rate Unit</u>	
	OZ/A = Ounces Product per Acre (Metric=ML-G/HA) O
	% V/V = Percent, Volume Product per Volume Mix Basis (Metric=same) Z
	LB/100 GAL = Pounds Dry Product per 100 Gallons Mix (Metric=KG/100 L)]
<u>Other Rate Unit</u>	
	OZ A/A = Ounces Active Ingredient per Acre