

Northeast Research & Extension Center

2008 Evaluate the performance of Prequel on light to medium textured soils

Trial ID: 19 08 DUP USA-08-001                      Protocol ID: 08 DUP USA-08-001  
 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: ZEAMX Zea mays    Corn  
 Variety: Pioneer 35F40    Description: HX1 LL RR2  
 BBCH Scale: BCOR    Planting Date: 06-04-08  
 Planting Method: seeded    Rate, Unit: 24503 s/a  
 Depth, Unit: 1.75 in  
 Row Spacing, Unit: 30 in  
 Soil Moisture: ABOVE NORMAL  
 Harvest Date: 12-04-08    Harvest Equipment: SPC-40  
 Harvested Width, Unit: 5 ft    Harvested Length, Unit: 27 ft  
 % Standard Moisture: 15.5    Moisture Meter: Almaco  
 Weighing Equipment: Almaco

Pest Description

Pest 1 Type: W Code: SETVI Setaria viridis (L.) P.Beauv.  
 Common Name: Foxtail, green

Pest 2 Type: W Code: ABUTH Abutilon theophrasti Medik.  
 Common Name: Velvetleaf

Pest 3 Type: W Code: AMATU Amaranthus tuberculatos (Moq.) J  
 Common Name: Waterhemp, tall

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

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Tank
1.	05-18-08	glyphosate	5.5	lbai/ga	SL	32	oz/A n

Soil Description

% Sand: 40                      % OM: 2.1                      Texture: LOAM  
 % Silt: 44                      pH: 6.8  
 % Clay: 16                      CEC: 13.7                      Fert. Level: EXCELLENT  
 Analyzed By:  
 Midwest Labs

Application Description

	A	B	C
Application Date:	06-04-08	06-18-08	07-01-08
Time of Day:	5:00 pm	11:00 am	10:00 am
Application Method:	spray	spray	spray
Application Timing:	PRE	EPOST	POST
Application Placement:	surface	foliar	foliar
Applied By:	rr su	rr	rr
Air Temperature, Unit:	75 F	81 F	78 F
% Relative Humidity:	70	40	60
Wind Velocity, Unit:	1 mph	2 mph	2.5 mph
Wind Direction:	var	S	S
Dew Presence (Y/N):	n	n	n
Soil Temperature, Unit:	68 F	72 F	65 F
Soil Moisture:	EXCESSIVE	ADEQUATE	ADEQUATE
% Cloud Cover:	100	50	10
Next Rain Occurred On:	06-05-08		

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:		BBCH	BBCH
Stage Majority, Percent:		V2 90	V5 50
Stage Maximum, Percent:		V3 10	V6 50
Height, Unit:		4 in	12 in

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Disc., Scale:	SETVI W	SETVI W	SETVI W
Height, Unit:		1.5 in	7 in
Height Minimum, Maximum:		1 2	6 8
Density, Unit:		5 m2	10 m2
Pest 2 Code, Disc., Scale:	ABUTH W	ABUTH W	ABUTH W
Height, Unit:		1.5 in	7 in
Height Minimum, Maximum:		1 2	6 8
Density, Unit:		2 m2	5 m2
Pest 3 Code, Disc., Scale:	AMATU W	AMATU W	AMATU W
Height, Unit:		1 in	7 in
Height Minimum, Maximum:		1 1	6 8
Density, Unit:		2 m2	1 m2

Application Equipment

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

Date 06-04-08 By js Notes Treatment 12 balance flexx is equal to 0.75 oz product of Balance Pro

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 Location: Concord, NE      Study Director: Stevan Knezevic  
 Investigator: Stevan Knezevic

Description	Corn, field	Corn, field	Corn	Corn	Green foxtail	Green foxtail	Green foxtail	Velvetleaf	Velvetleaf					
Rating Date	12-04-08	12-04-08	07-03-08	08-06-08	07-03-08	08-06-08	08-06-08	07-03-08	08-06-08					
Rating Data Type	Yield	Moisture	Injury	Injury	Control	Control	Density	Control	Control					
Rating Unit	bu/A15.5	Percent	Percent	Percent	Percent	Percent	m2 RunCH	Percent	Percent					
Days After First/Last Applic.	183 156	183 156	29 2	63 36	29 2	63 36	63 36	29 2	63 36					
Plant-Eval Interval	183 DP-1	183 DP-1	29 DP-1	63 DP-1	29 DP-1	63 DP-1	63 DP-1	29 DP-1	63 DP-1					
Trt No.	Treatment	Rate	Other Rate	Other Rate	Growth Stage									
1	Rimsulfuron	0.5 oz/a	0.125 oz a/a		PRE	160.5 a	13.3 a	0.0 a	0.0 a	97.7 b	92.7 a	7.3 a	99.0 a	99.0 a
	Isoxaflutole	0.333 oz/a	0.25 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
2	Rimsulfuron	1 oz/a	0.25 oz a/a		PRE	149.3 a	13.2 a	0.0 a	0.0 a	99.0 a	97.7 a	5.7 a	99.0 a	99.0 a
	Isoxaflutole	0.67 oz/a	0.5 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
3	Rimsulfuron	1.5 oz/a	0.375 oz a/a		PRE	169.9 a	13.7 a	0.0 a	0.0 a	99.0 a	92.0 a	6.3 a	99.0 a	99.0 a
	Isoxaflutole	1 oz/a	0.75 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
4	Rimsulfuron	0.5 oz/a	0.125 oz a/a		PRE	166.4 a	13.3 a	0.0 a	0.0 a	99.0 a	99.0 a	7.7 a	99.0 a	99.0 a
	Isoxaflutole	0.333 oz/a	0.25 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
5	Rimsulfuron	1 oz/a	0.25 oz a/a		PRE	165.2 a	13.2 a	0.0 a	0.0 a	99.0 a	99.0 a	4.3 a	99.0 a	99.0 a
	Isoxaflutole	0.67 oz/a	0.5 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
6	Rimsulfuron	1.5 oz/a	0.375 oz a/a		PRE	173.9 a	13.4 a	0.0 a	0.0 a	99.0 a	99.0 a	3.3 a	99.0 a	99.0 a
	Isoxaflutole	1 oz/a	0.75 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
7	Roundup PowerMAX	22 oz/a			EPOST	179.8 a	13.4 a	0.0 a	0.0 a	99.0 a	97.7 a	4.3 a	99.0 a	97.0 b
	Ammonium Sulfate	17 lb/100 gal			EPOST									
8	Roundup PowerMAX	22 oz/a			EPOST	172.8 a	13.5 a	0.0 a	0.0 a	99.0 a	96.0 a	5.0 a	99.0 a	99.0 a
	Ammonium Sulfate	17 lb/100 gal			EPOST									
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
9	Roundup PowerMAX	22 oz/a			MPOST	169.5 a	13.5 a	0.0 a		99.0 a		5.3 a		99.0 a
	Ammonium Sulfate	17 lb/100 gal			MPOST									
10	Guardsman Max Lite	2.5 pt/a			PRE	178.7 a	13.0 a	0.0 a	0.0 a	99.0 a	99.0 a	4.3 a	99.0 a	99.0 a
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
11	Nontreated Check					116.4 a	13.3 a	0.0 a	0.0 a	0.0 c	0.0 b	7.3 a	0.0 b	0.0 c
12	Rimsulfuron	1.5 oz/a	0.375 oz a/a		PRE	165.4 a	13.3 a	0.0 a	0.0 a	99.0 a	99.0 a	5.0 a	99.0 a	99.0 a
	Balance Flexx (1/2 rate)	1.5 oz/a	0.75 oz a/a		PRE									
LSD (P=.05)						42.16	0.74	0.00	0.00	1.19	7.18	4.45	0.00	1.69
Standard Deviation						24.90	0.44	0.00	0.00	0.70	4.24	2.63	0.00	1.00
CV						15.19	3.28	0.0	0.0	0.77	4.75	47.82	0.0	1.1
Grand Mean						163.96	13.35	0.0	0.0	89.88	89.17	5.5	90.0	90.58
Replicate F						1.876	0.753	0.000	0.000	1.000	0.519	0.325	0.000	1.000
Replicate Prob(F)						0.1769	0.4829	1.0000	1.0000	0.3855	0.6020	0.7257	1.0000	0.3840
Treatment F						1.413	0.485	0.000	0.000	5499.213	132.683	0.846	0.000	2442.250
Treatment Prob(F)						0.2352	0.8932	1.0000	1.0000	0.0001	0.0001	0.6005	1.0000	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	Velvetleaf 08-06-08 Density		Waterhemp 07-03-08 Control Percent		Waterhemp 08-06-08 Control Percent		Waterhemp 08-06-08 Density		Redroot pigweed 07-03-08 Control Percent		Redroot pigweed 08-06-08 Control Percent		Redroot pigweed 08-06-08 Density	
Rating Date	m2 RunCH		29 2		63 36		63 36		29 2		63 36		63 36	
Rating Data Type	63 DP-1		29 DP-1		63 DP-1		63 DP-1		29 DP-1		63 DP-1		63 DP-1	
Rating Unit	63 DP-1		29 DP-1		63 DP-1		63 DP-1		29 DP-1		63 DP-1		63 DP-1	
Days After First/Last Applic.	63 DP-1		29 DP-1		63 DP-1		63 DP-1		29 DP-1		63 DP-1		63 DP-1	
Plant-Eval Interval	63 DP-1		29 DP-1		63 DP-1		63 DP-1		29 DP-1		63 DP-1		63 DP-1	
Trt No.	Treatment Name	Rate	Other Rate	Other Rate Unit	Growth Stage									
1	Rimsulfuron	0.5 oz/a	0.125 oz a/a		PRE	1.7 a	99.0 a	93.7 b	1.7 cde	99.0 a	98.0 b	2.3 cd		
	Isoxaflutole	0.333 oz/a	0.25 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
2	Rimsulfuron	1 oz/a	0.25 oz a/a		PRE	0.7 a	99.0 a	99.0 a	1.0 de	99.0 a	99.0 a	3.3 a-d		
	Isoxaflutole	0.67 oz/a	0.5 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
3	Rimsulfuron	1.5 oz/a	0.375 oz a/a		PRE	1.0 a	99.0 a	99.0 a	1.7 cde	99.0 a	99.0 a	3.7 abc		
	Isoxaflutole	1 oz/a	0.75 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
4	Rimsulfuron	0.5 oz/a	0.125 oz a/a		PRE	2.0 a	99.0 a	99.0 a	2.0 cd	99.0 a	99.0 a	2.3 cd		
	Isoxaflutole	0.333 oz/a	0.25 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
5	Rimsulfuron	1 oz/a	0.25 oz a/a		PRE	1.3 a	99.0 a	99.0 a	2.0 cd	99.0 a	99.0 a	4.7 a		
	Isoxaflutole	0.67 oz/a	0.5 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
6	Rimsulfuron	1.5 oz/a	0.375 oz a/a		PRE	1.0 a	99.0 a	99.0 a	0.7 e	99.0 a	99.0 a	2.7 bcd		
	Isoxaflutole	1 oz/a	0.75 oz a/a		PRE									
	Atrazine	17.8 oz/a	16 oz a/a		PRE									
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
7	Roundup PowerMAX	22 oz/a			EPOST	0.7 a	99.0 a	99.0 a	2.0 cd	99.0 a	99.0 a	1.7 d		
	Ammonium Sulfate	17 lb/100 gal			EPOST									
8	Roundup PowerMAX	22 oz/a			EPOST	0.0 a	99.0 a	99.0 a	1.0 de	99.0 a	99.0 a	1.7 d		
	Ammonium Sulfate	17 lb/100 gal			EPOST									
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
9	Roundup PowerMAX	22 oz/a			MPOST	1.3 a		99.0 a	1.7 cde		99.0 a	2.7 bcd		
	Ammonium Sulfate	17 lb/100 gal			MPOST									
10	Guardsman Max Lite	2.5 pt/a			PRE	0.3 a	99.0 a	99.0 a	4.0 a	99.0 a	99.0 a	3.0 a-d		
	Roundup PowerMAX	22 oz/a			MPOST									
	Ammonium Sulfate	17 lb/100 gal			MPOST									
11	Nontreated Check					1.3 a	0.0 b	0.0 c	3.7 ab	0.0 c	0.0 c	4.3 ab		
12	Rimsulfuron	1.5 oz/a	0.375 oz a/a		PRE	0.7 a	99.0 a	97.0 a	2.7 bc	97.7 b	99.0 a	3.3 a-d		
	Balance Flexx (1/2 rate)	1.5 oz/a	0.75 oz a/a		PRE									
LSD (P=.05)						1.29	0.00	2.98	1.10	1.19	0.85	1.77		
Standard Deviation						0.76	0.00	1.76	0.65	0.70	0.50	1.04		
CV						76.38	0.0	1.95	32.43	0.77	0.55	35.1		
Grand Mean						1.0	90.0	90.14	2.0	89.88	90.67	2.97		
Replicate F						3.857	0.000	0.063	1.387	1.000	1.000	8.907		
Replicate Prob(F)						0.0366	1.0000	0.9394	0.2718	0.3855	0.3840	0.0015		
Treatment F						1.662	0.000	781.327	7.348	5499.213	9784.001	2.476		
Treatment Prob(F)						0.1494	1.0000	0.0001	0.0001	0.0001	0.0001	0.0338		

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	
Treatment Name	Ammonium Sulfate =
Rate Unit	OZ/A = Ounces Product per Acre (Metric=ML-G/HA) O LB/100 GAL = Pounds Dry Product per 100 Gallons Mix (Metric=KG/100 L) J PT/A = Pints Product per Acre (Metric=L/HA) P
Other Rate Unit	OZ A/A = Ounces Active Ingredient per Acre