

Northeast Research & Extension Center

2008 IGNITE Liberty Link Corn Efficacy Weed control programs with new glufosinate formulations.  
 Trial ID: 15EX 08 BAY MRF Ignite      Protocol ID: 08 BAY MRF Ignite  
 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: 11-26-08      Harvest Equipment: Almaco 40  
 Harvested Width, Unit: 5 ft      Harvested Length, Unit: 27 ft  
 % Standard Moisture: 15.5

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

	Previous Crops	Previous Pesticides	Year
1.	Soybean	glyphosate	2007

Soil Description

Description Name: 08CRNHRBW  
 % Sand: 12      % OM: 3.4      Texture: SILT LOAM  
 % Silt: 62      pH: 6.7      Soil Name: Baltic  
 % Clay: 26      CEC: 20.4      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	js	js
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
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
Pest 2 Code, Disc., Scale:	ABUTH W	ABUTH W	ABUTH W
Pest 3 Code, Disc., Scale:	AMATU W	AMATU W	AMATU W

## 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

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 Trial ID: 15EX 08 BAY MRF Ignite Protocol ID: 08 BAY MRF Ignite  
 Location: Concord, NE Study Director: Stevan Knezevic  
 Investigator: Stevan Knezevic

Description	Corn, field	Corn, field	Corn, field	Corn, field	Green Foxtail	Green Foxtail	Green Foxtail	Green Foxtail	Velvetleaf	Velvetleaf			
Rating Date	11-26-08	11-26-08	06-30-08	07-18-08	06-30-08	07-18-08	07-18-08	08-06-08	06-30-08	07-18-08			
Rating Data Type	Yield	Moisture	Injury	Injury	Control	Control	Density	Control	Control	Control			
Rating Unit	Bu/A15.5	%	Percent	Percent	Percent	Percent	m2 RunCH	Percent	Percent	Percent			
Days After First/Last Applic.	175 148	175 148	26 12	44 17	26 12	44 17	44 17	63 36	26 12	44 17			
Plant-Eval Interval	175 DP-1	175 DP-1	26 DP-1	44 DP-1	26 DP-1	44 DP-1	44 DP-1	63 DP-1	26 DP-1	44 DP-1			
Trt No.	Treatment Name	Rate	Growth Stage										
1	Nontreated Check			94.7 c	16.2 a	0.0 a	0.0 a	0.0 d	0.0 d	83.3 a	0.0 d	0.0 d	0.0 d
2	Balance Flexx atrazine Ignite 280 Laudis Ammonium Sulfate	3 oz/a 2 pt/a 22 oz/a 2 oz/a 17 lb/100 gal	PRE PRE MPOST MPOST MPOST	193.5 ab	15.2 a	0.0 a	0.0 a	91.7 ab	97.0 a	53.3 a	98.7 a	94.7 a	99.0 a
3	Balance Flexx atrazine Ignite 280 atrazine Ammonium Sulfate	3 oz/a 2 pt/a 22 oz/a 2 pt/a 1.5 lb/a	PRE PRE MPOST MPOST MPOST	202.1 a	14.6 a	0.0 a	0.0 a	88.3 b	98.3 a	86.7 a	98.3 a	96.3 a	99.0 a
4	Radius atrazine Ignite 280 Laudis Ammonium Sulfate	10 oz/a 2 pt/a 22 oz/a 2 oz/a 17 lb/100 gal	PRE PRE MPOST MPOST MPOST	191.6 ab	15.5 a	0.0 a	0.0 a	97.3 ab	97.3 a	63.3 a	98.7 a	99.0 a	98.7 a
5	Corvus atrazine Ignite 280 Laudis Ammonium Sulfate	3 oz/a 2 pt/a 22 oz/a 2 oz/a 17 lb/100 gal	PRE PRE MPOST MPOST MPOST	197.8 ab	14.6 a	0.0 a	0.0 a	93.3 ab	97.0 a	65.0 a	98.7 a	99.0 a	98.3 ab
6	atrazine Ignite 280 Laudis Ammonium Sulfate	2 pt/a 22 oz/a 2 oz/a 17 lb/100 gal	PRE MPOST MPOST MPOST	200.0 ab	15.2 a	0.0 a	0.0 a	28.3 c	91.0 b	91.7 a	91.3 b	61.7 c	92.7 b
7	atrazine Ignite 280 Laudis Ammonium Sulfate	3 pt/a 22 oz/a 3 oz/a 17 lb/100 gal	EPOST EPOST EPOST EPOST	186.8 b	15.5 a	0.0 a	0.0 a	99.0 a	81.7 c	56.7 a	83.3 c	99.0 a	85.0 c
8	Ignite 280 Capreno Ammonium Sulfate	22 oz/a 3 oz/a 17 lb/100 gal	EPOST EPOST EPOST	189.1 ab	15.2 a	0.0 a	0.0 a	99.0 a	85.0 c	40.0 a	84.0 c	99.0 a	81.7 c
9	G-MAX Lite Roundup PowerMAX Ammonium Sulfate	2.5 pt/a 22 oz/a 17 lb/100 gal	PRE MPOST MPOST	191.2 ab	15.1 a	0.0 a	0.0 a	96.0 ab	96.3 ab	58.3 a	98.7 a	77.3 b	83.3 c
LSD (P=.05)		14.39	1.28	0.00	0.00	9.25	5.64	67.25	3.67	10.00	5.91		
Standard Deviation		8.32	0.74	0.00	0.00	5.34	3.26	38.85	2.12	5.78	3.41		
CV		4.54	4.86	0.0	0.0	6.94	3.94	58.44	2.54	7.16	4.16		
Grand Mean		182.98	15.24	0.0	0.0	77.0	82.63	66.48	83.52	80.67	81.96		
Replicate F		1.829	0.185	0.000	0.000	0.401	0.234	0.056	0.750	1.602	1.758		
Replicate Prob(F)		0.1926	0.8325	1.0000	1.0000	0.6761	0.7941	0.9459	0.4884	0.2322	0.2040		
Treatment F		48.662	1.246	0.000	0.000	139.998	281.710	0.590	681.870	97.401	256.625		
Treatment Prob(F)		0.0001	0.3356	1.0000	1.0000	0.0001	0.0001	0.7723	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	Velvetleaf 07-18-08	Velvetleaf 08-06-08	Waterhemp 06-30-08	Waterhemp 07-18-08	Waterhemp 07-18-08	Waterhemp 08-06-08				
Rating Date	Density	Control	Control	Control	Density	Control				
Rating Data Type	m2 RunCH	Percent	Percent	Percent	m2 RunCH	Percent				
Rating Unit	44 17	63 36	26 12	44 17	44 17	63 36				
Days After First/Last Applic.	44 DP-1	63 DP-1	26 DP-1	44 DP-1	44 DP-1	63 DP-1				
Plant-Eval Interval										
Trt No.	Treatment Name	Rate	Unit	Growth Stage						
1	Nontreated Check				56.7 a	0.0 d	0.0 c	0.0 d	53.3 a	0.0 d
2	Balance Flexx	3 oz/a		PRE	23.3 a	98.7 a	96.0 a	99.0 a	23.3 b	99.0 a
	atrazine	2 pt/a		PRE						
	Ignite 280	22 oz/a		MPOST						
	Laudis	2 oz/a		MPOST						
	Ammonium Sulfate	17 lb/100 gal		MPOST						
3	Balance Flexx	3 oz/a		PRE	25.0 a	99.0 a	96.0 a	97.7 ab	12.7 b	99.0 a
	atrazine	2 pt/a		PRE						
	Ignite 280	22 oz/a		MPOST						
	atrazine	2 pt/a		MPOST						
	Ammonium Sulfate	1.5 lb/a		MPOST						
4	Radius	10 oz/a		PRE	21.7 a	98.7 a	99.0 a	98.7 a	20.0 b	98.7 ab
	atrazine	2 pt/a		PRE						
	Ignite 280	22 oz/a		MPOST						
	Laudis	2 oz/a		MPOST						
	Ammonium Sulfate	17 lb/100 gal		MPOST						
5	Corvus	3 oz/a		PRE	25.0 a	98.3 a	99.0 a	98.3 ab	21.7 b	99.0 a
	atrazine	2 pt/a		PRE						
	Ignite 280	22 oz/a		MPOST						
	Laudis	2 oz/a		MPOST						
	Ammonium Sulfate	17 lb/100 gal		MPOST						
6	atrazine	2 pt/a		PRE	31.7 a	92.7 b	46.7 b	98.3 ab	11.7 b	98.3 ab
	Ignite 280	22 oz/a		MPOST						
	Laudis	2 oz/a		MPOST						
	Ammonium Sulfate	17 lb/100 gal		MPOST						
7	atrazine	3 pt/a		EPOST	15.0 a	83.3 c	99.0 a	96.0 b	16.7 b	96.3 c
	Ignite 280	22 oz/a		EPOST						
	Laudis	3 oz/a		EPOST						
	Ammonium Sulfate	17 lb/100 gal		EPOST						
8	Ignite 280	22 oz/a		EPOST	21.7 a	80.7 c	99.0 a	92.3 c	13.3 b	97.3 bc
	Capreno	3 oz/a		EPOST						
	Ammonium Sulfate	17 lb/100 gal		EPOST						
9	G-MAX Lite	2.5 pt/a		PRE	23.3 a	92.3 b	99.0 a	96.7 ab	23.3 b	98.0 ab
	Roundup PowerMAX	22 oz/a		MPOST						
	Ammonium Sulfate	17 lb/100 gal		MPOST						
LSD (P=.05)					31.89	3.90	5.42	2.49	23.58	1.54
Standard Deviation					18.42	2.25	3.13	1.44	13.62	0.89
CV					68.15	2.73	3.84	1.67	62.56	1.02
Grand Mean					27.04	82.63	81.52	86.33	21.78	87.3
Replicate F					0.175	2.304	0.923	0.698	2.235	1.318
Replicate Prob(F)					0.8414	0.1320	0.4173	0.5121	0.1394	0.2953
Treatment F					1.257	594.828	375.779	1525.530	2.599	4087.953
Treatment Prob(F)					0.3306	0.0001	0.0001	0.0001	0.0495	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.

<u>Additional Treatment Information</u>	
Rate Unit	
OZ/A = Ounces Product per Acre (Metric=ML-G/HA) O	
PT/A = Pints Product per Acre (Metric=L/HA) P	
LB/100 GAL = Pounds Dry Product per 100 Gallons Mix (Metric=KG/100 L) L	
LB/A = Pounds Product per Acre (Metric=KG/MU) AE	