

Northeast Research & Extension Center

2008 IGNITE Liberty Link Corn Efficacy Weed control programs with new glufosinate formulations.  
 Trial ID: 15 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: 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  
 Pest 4 Type: W Code: AMARE Amaranthus retroflexus L.  
 Common Name: Pigweed, redroot

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

Maintenance

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

Soil Description

% Sand: 34 % OM: 3.5 Texture: SILT LOAM  
 % Silt: 50 pH: 7.3  
 % Clay: 16 CEC: 17.4 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	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
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
Pest 4 Code, Disc., Scale:	AMARE W	AMARE W	AMARE 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

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2008 IGNITE Liberty Link Corn Efficacy Weed control programs with new glufosinate formulations.  
 Trial ID: 15 08 BAY MRF Ignite Protocol ID: 08 BAY MRF Ignite  
 Location: Concord, NE Study Director: Stevan Knezevic  
 Investigator: Stevan Knezevic

Description	Corn, field 12-04-08 Yield	Corn, field 12-04-08 Moisture	Corn 07-03-08 Injury Percent	Green foxtail 07-18-08 Control Percent	Green foxtail 07-18-08 Density m2 RunCH	Green foxtail 08-05-08 Control Percent	Velvetleaf 07-18-08 Control Percent	Velvetleaf 07-18-08 Density m2 RunCH	Velvetleaf 08-05-08 Control Percent	Waterhemp 07-18-08 Control Percent			
Rating Date	183 156	183 156	29 2	44 17	44 17	62 35	44 17	44 17	62 35	44 17			
Rating Unit	bu/A15.5	Percent	Percent	Percent	m2 RunCH	Percent	Percent	m2 RunCH	Percent	Percent			
Days After First/Last Applic.	183 DP-1	183 DP-1	29 DP-1	44 DP-1	44 DP-1	62 DP-1	44 DP-1	44 DP-1	62 DP-1	44 DP-1			
Plant-Eval Interval													
Trt No.	Treatment	Rate	Growth Stage										
1	Nontreated Check			90.7 b	13.7 a	0.0 a	0.0 b	10.0 a	0.0 c	0.0 b	1.3 a	0.0 b	99.0 a
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	186.3 a	13.5 a	0.0 a	99.0 a	8.3 a	99.0 a	99.0 a	1.0 a	99.0 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	192.9 a	13.9 a	0.0 a	99.0 a	6.7 a	99.0 a	99.0 a	1.7 a	99.0 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	189.7 a	13.7 a	0.0 a	99.0 a	10.0 a	99.0 a	99.0 a	1.0 a	99.0 a	99.0 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	194.1 a	13.8 a	0.0 a	92.7 a	11.7 a	99.0 a	99.0 a	0.7 a	99.0 a	99.0 a
6	atrazine Ignite 280 Laudis Ammonium Sulfate	2 pt/a 22 oz/a 2 oz/a 17 lb/100 gal	PRE MPOST MPOST MPOST	198.4 a	13.7 a	0.0 a	99.0 a	8.3 a	99.0 a	99.0 a	0.7 a	99.0 a	99.0 a
7	atrazine Ignite 280 Laudis Ammonium Sulfate	3 pt/a 22 oz/a 3 oz/a 17 lb/100 gal	EPOST EPOST EPOST EPOST	198.7 a	13.5 a	0.0 a	96.0 a	11.7 a	97.0 ab	99.0 a	1.0 a	99.0 a	99.0 a
8	Ignite 280 Capreno Ammonium Sulfate	22 oz/a 3 oz/a 17 lb/100 gal	EPOST EPOST EPOST	189.3 a	13.6 a	0.0 a	94.3 a	11.7 a	92.0 b	99.0 a	1.0 a	99.0 a	99.0 a
9	G-MAX Lite Roundup PowerMAX Ammonium Sulfate	2.5 pt/a 22 oz/a 17 lb/100 gal	PRE MPOST MPOST	190.3 a	13.6 a	0.0 a	99.0 a	8.3 a	99.0 a	99.0 a	1.3 a	99.0 a	99.0 a
LSD (P=.05)	29.44	0.61	0.00	8.22	4.96	5.66	0.00	0.81	0.00	0.00	0.00	0.00	0.00
Standard Deviation	17.01	0.35	0.00	4.75	2.87	3.27	0.00	0.47	0.00	0.00	0.00	0.00	0.00
CV	9.39	2.58	0.0	5.49	29.77	3.76	0.0	43.43	0.0	0.0	0.0	0.0	0.0
Grand Mean	181.14	13.67	0.0	86.44	9.63	87.0	88.0	1.07	88.0	88.0	88.0	88.0	88.0
Replicate F	0.915	0.953	0.000	1.434	2.141	0.509	0.000	8.851	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)	0.4204	0.4063	1.0000	0.2673	0.1500	0.6105	1.0000	0.0026	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F	12.115	0.432	0.000	140.625	1.211	300.086	0.000	1.447	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)	0.0001	0.8845	1.0000	0.0001	0.3527	0.0001	1.0000	0.2515	1.0000	1.0000	1.0000	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.

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Description	Waterhemp 07-18-08	Waterhemp 08-05-08	Redroot pigweed 07-18-08	Redroot pigweed 07-18-08	Redroot pigweed 08-05-08
Rating Date	Density	Control	Control	Density	Control
Rating Data Type	m2 RunCH	Percent	Percent	m2 RunCH	Percent
Rating Unit	44 17	62 35	44 17	44 17	62 35
Days After First/Last Applic.	44 DP-1	62 DP-1	44 DP-1	44 DP-1	62 DP-1
Plant-Eval Interval					
Trt No.	Treatment Name	Rate	Unit	Growth Stage	
1	Nontreated Check				
		10.0 a		0.0 c	0.0 c
2	Balance Flexx	3 oz/a		PRE	
	atrazine	2 pt/a		PRE	
	Ignite 280	22 oz/a		MPOST	
	Laudis	2 oz/a		MPOST	
	Ammonium Sulfate	17 lb/100 gal		MPOST	
		8.3 a		99.0 a	99.0 a
3	Balance Flexx	3 oz/a		PRE	
	atrazine	2 pt/a		PRE	
	Ignite 280	22 oz/a		MPOST	
	atrazine	2 pt/a		MPOST	
	Ammonium Sulfate	1.5 lb/a		MPOST	
		6.7 a		99.0 a	99.0 a
4	Radius	10 oz/a		PRE	
	atrazine	2 pt/a		PRE	
	Ignite 280	22 oz/a		MPOST	
	Laudis	2 oz/a		MPOST	
	Ammonium Sulfate	17 lb/100 gal		MPOST	
		5.7 a		99.0 a	99.0 a
5	Corvus	3 oz/a		PRE	
	atrazine	2 pt/a		PRE	
	Ignite 280	22 oz/a		MPOST	
	Laudis	2 oz/a		MPOST	
	Ammonium Sulfate	17 lb/100 gal		MPOST	
		6.7 a		99.0 a	98.7 b
6	atrazine	2 pt/a		PRE	
	Ignite 280	22 oz/a		MPOST	
	Laudis	2 oz/a		MPOST	
	Ammonium Sulfate	17 lb/100 gal		MPOST	
		5.0 a		99.0 a	6.7 a
7	atrazine	3 pt/a		EPOST	
	Ignite 280	22 oz/a		EPOST	
	Laudis	3 oz/a		EPOST	
	Ammonium Sulfate	17 lb/100 gal		EPOST	
		5.0 a		99.0 a	6.7 a
8	Ignite 280	22 oz/a		EPOST	
	Capreno	3 oz/a		EPOST	
	Ammonium Sulfate	17 lb/100 gal		EPOST	
		5.0 a		98.3 b	99.0 a
9	G-MAX Lite	2.5 pt/a		PRE	
	Roundup PowerMAX	22 oz/a		MPOST	
	Ammonium Sulfate	17 lb/100 gal		MPOST	
		5.0 a		99.0 a	8.3 a
LSD (P=.05)		3.68		0.67	0.33
Standard Deviation		2.13		0.38	0.19
CV		33.39		0.44	0.22
Grand Mean		6.37		87.93	87.96
Replicate F		1.138		1.000	1.000
Replicate Prob(F)		0.3450		0.3897	0.3897
Treatment F		2.090		22016.127	88135.759
Treatment Prob(F)		0.0997		0.0001	0.0001
				6.01	6.01
				3.47	3.47
				46.84	46.84
				7.41	7.41
				2.385	2.385
				0.1240	0.1240
				0.712	0.712
				0.6786	0.6786
				1.000	1.000
				0.3897	0.3897
				22016.127	22016.127
				0.0001	0.0001

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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Additional Treatment Information	
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) ]	
LB/A = Pounds Product per Acre (Metric=KG/MU) AE	