

Northeast Research & Extension Center

2008 Laudis Corn Efficacy University Programs

Trial ID: 11 08 BAY DLA Laudis Protocol ID: 08 BAY DLA Laudis
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

Table with 4 columns: Previous Crops, Previous Pesticides, Year. Row 1: Soybean, glyphosate, 2007

Maintenance

Table with 10 columns: No., Date, Maintenance Treatment Name, Form Conc, Form Unit, Form Type, Rate, Rate Unit, Tank Mix. Row 1: 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	06-30-08
Time of Day:	5:00 pm	11:00 am	2:00 pm
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	86 F
% Relative Humidity:	70	40	36
Wind Velocity, Unit:	1 mph	2 mph	4 mph
Wind Direction:	var	S	S
Dew Presence (Y/N):		n	n
Soil Temperature, Unit:	68 F	72 F	82 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 80
Stage Minimum, Percent:			V4 5
Stage Maximum, Percent:		V3 10	V6 15
Height, Unit:		4 in	10 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

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

Northeast Research & Extension Center

2008 Laudis Corn Efficacy University Programs

Trial ID: 11 08 BAY DLA Laudis Protocol ID: 08 BAY DLA Laudis
 Location: Concord, NE Study Director: Stevan Knezevic
 Investigator: Stevan Knezevic

Description	Corn, field	Corn, field	Corn	Corn	Green foxtail	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	07-18-08	07-18-08	08-05-08	07-03-08	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	Percent	m2 RunCH	Percent	Percent	Percent			
Days After First/Last Applic.	183 157	183 157	29 3	63 37	29 3	44 18	44 18	62 36	29 3	44 18			
Plant-Eval Interval	183 DP-1	183 DP-1	29 DP-1	63 DP-1	29 DP-1	44 DP-1	44 DP-1	62 DP-1	29 DP-1	44 DP-1			
Trt No.	Treatment Name	Rate	Growth Stage										
1	Nontreated Check			111.4 b	13.8 a	0.0 a	0.0 a	0.0 d	0.0 d	13.3 a	0.0 d	0.0 c	0.0 b
2	Corvus atrazine Laudis atrazine COC 28% UAN	2.5 oz/a 1 qt/a 3 oz/a 1 pt/a 1 % v/v 1.5 qt/a	PRE PRE MPOST MPOST MPOST MPOST	204.3 a	13.8 a	0.0 a	0.0 a	92.3 abc	91.7 abc	10.0 a	91.3 abc	99.0 a	99.0 a
3	Corvus atrazine Laudis atrazine MSO 28% UAN	2.5 oz/a 1 qt/a 3 oz/a 1 pt/a 1 % v/v 1.5 qt/a	PRE PRE MPOST MPOST MPOST MPOST	201.7 a	13.8 a	0.0 a	0.0 a	94.7 ab	94.3 ab	6.7 a	96.7 ab	99.0 a	99.0 a
4	Lumax Lumax NIS	1.5 qt/a 1.5 qt/a 0.25 % v/v	PRE MPOST MPOST	194.3 a	13.2 a	0.0 a	0.0 a	89.7 bc	88.0 bc	16.7 a	92.7 abc	99.0 a	99.0 a
5	G-MAX Lite Laudis atrazine COC 28% UAN	2.5 pt/a 3 oz/a 1 pt/a 1 % v/v 1.5 qt/a	PRE MPOST MPOST MPOST MPOST	197.4 a	13.5 a	0.0 a	0.0 a	85.3 c	99.0 a	13.3 a	96.7 ab	88.0 b	99.0 a
6	Laudis Ignite 280 atrazine Ammonium Sulfate	2 oz/a 22.9 oz/a 1 pt/a 8.5 lb/100 gal	MPOST MPOST MPOST MPOST	189.5 a	13.4 a		0.0 a		90.3 bc	11.7 a	85.7 c		99.0 a
7	Laudis atrazine Roundup PowerMAX Ammonium Sulfate	3 oz/a 1 pt/a 22 oz/a 8.5 lb/100 gal	MPOST MPOST MPOST MPOST	188.2 a	13.6 a		3.3 a		99.0 a	10.0 a	99.0 a		99.0 a
8	Laudis atrazine Roundup PowerMAX Ammonium Sulfate	3 oz/a 1 qt/a 22 oz/a 8.5 lb/100 gal	MPOST MPOST MPOST MPOST	189.1 a	13.7 a		5.0 a		99.0 a	10.0 a	99.0 a		99.0 a
9	Laudis atrazine MSO 28% UAN	3 oz/a 1 pt/a 1 % v/v 1.5 qt/a	EPOST EPOST EPOST EPOST	197.5 a	13.5 a	0.0 a	0.0 a	93.3 ab	88.3 bc	16.7 a	87.3 bc	99.0 a	99.0 a
10	Calisto atrazine COC 28% UAN	3 oz/a 1 pt/a 1 % v/v 1.5 qt/a	EPOST EPOST EPOST EPOST	210.2 a	13.4 a	0.0 a	0.0 a	92.7 abc	85.0 c	13.3 a	83.7 c	99.0 a	99.0 a
11	Capreno atrazine COC 28% UAN	3 oz/a 1 pt/a 1 % v/v 1.5 qt/a	EPOST EPOST EPOST EPOST	196.8 a	13.5 a	0.0 a	0.0 a	97.0 ab	99.0 a	8.3 a	96.0 ab	99.0 a	99.0 a
12	Roundup PowerMAX Ammonium Sulfate	22 oz/a 8.5 lb/100 gal	EPOST EPOST	199.0 a	13.6 a	0.0 a	0.0 a	99.0 a	99.0 a	10.0 a	99.0 a	99.0 a	99.0 a
LSD (P=.05)		24.24	0.49	0.00	3.59	7.74	8.51	7.03	9.35	5.90	0.00		
Standard Deviation		14.32	0.29	0.00	2.12	4.45	5.03	4.15	5.52	3.39	0.00		
CV		7.54	2.15	0.0	304.87	5.38	5.84	35.58	6.45	3.91	0.0		
Grand Mean		189.94	13.58	0.0	0.69	82.67	86.06	11.67	85.58	86.78	90.75		
Replicate F		1.471	11.235	0.000	2.014	0.881	1.130	1.571	3.874	0.938	0.000		
Replicate Prob(F)		0.2514	0.0004	1.0000	0.1573	0.4349	0.3412	0.2302	0.0362	0.4134	1.0000		
Treatment F		9.573	1.140	0.000	1.845	147.924	90.406	1.670	74.351	279.793	0.000		
Treatment Prob(F)		0.0001	0.3793	1.0000	0.1067	0.0001	0.0001	0.1472	0.0001	0.0001	1.0000		

Northeast Research & Extension Center

Description	Corn, field	Corn, field	Corn	Corn	Green foxtail	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	07-18-08	07-18-08	08-05-08	07-03-08	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	Percent	m2 RunCH	Percent	Percent	Percent
Days After First/Last Applic.	183 157	183 157	29 3	63 37	29 3	44 18	44 18	62 36	29 3	44 18
Plant-Eval Interval	183 DP-1	183 DP-1	29 DP-1	63 DP-1	29 DP-1	44 DP-1	44 DP-1	62 DP-1	29 DP-1	44 DP-1

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.

Northeast Research & Extension Center

Description	Velvetleaf 07-18-08	Velvetleaf 08-05-08	Waterhemp 07-03-08	Waterhemp 07-18-08	Waterhemp 07-18-08	Waterhemp 08-05-08	Redroot pigweed 07-03-08	Redroot pigweed 07-18-08	Redroot pigweed 07-18-08				
Rating Date	Density	Control	Control	Control	Density	Control	Control	Control	Density				
Rating Data Type	m2 RunCH	Percent	Percent	Percent	m2 RunCH	Percent	Percent	Percent	m2 RunCH				
Rating Unit	44 18	62 36	29 3	44 18	44 18	62 36	29 3	44 18	44 18				
Days After First/Last Applic.	44 DP-1	62 DP-1	29 DP-1	44 DP-1	44 DP-1	62 DP-1	29 DP-1	44 DP-1	44 DP-1				
Plant-Eval Interval													
Trt No.	Treatment Name	Rate	Unit	Growth Stage									
1	Nontreated Check				1.3 a	0.0 c	0.0 b	0.0 b	6.7 a	0.0 c	0.0 b	0.0 b	10.0 a
2	Corvus atrazine Laudis atrazine COC 28% UAN	2.5 oz/a 1 qt/a 3 oz/a 1 pt/a 1 % v/v 1.5 qt/a		PRE PRE MPOST MPOST MPOST MPOST	1.3 a	99.0 a	94.3 a	99.0 a	8.3 a	99.0 a	99.0 a	99.0 a	5.0 a
3	Corvus atrazine Laudis atrazine MSO 28% UAN	2.5 oz/a 1 qt/a 3 oz/a 1 pt/a 1 % v/v 1.5 qt/a		PRE PRE MPOST MPOST MPOST MPOST	2.3 a	99.0 a	96.0 a	99.0 a	5.0 a	99.0 a	99.0 a	99.0 a	5.0 a
4	Lumax Lumax NIS	1.5 qt/a 1.5 qt/a 0.25 % v/v		PRE MPOST MPOST	1.0 a	99.0 a	99.0 a	99.0 a	3.0 a	99.0 a	99.0 a	99.0 a	5.7 a
5	G-MAX Lite Laudis atrazine COC 28% UAN	2.5 pt/a 3 oz/a 1 pt/a 1 % v/v 1.5 qt/a		PRE MPOST MPOST MPOST MPOST	1.3 a	94.3 b	97.7 a	99.0 a	5.0 a	99.0 a	99.0 a	99.0 a	5.0 a
6	Laudis Ignite 280 atrazine Ammonium Sulfate	2 oz/a 22.9 oz/a 1 pt/a 8.5 lb/100 gal		MPOST MPOST MPOST MPOST	1.3 a	99.0 a		99.0 a	5.0 a	97.0 b		99.0 a	10.0 a
7	Laudis atrazine Roundup PowerMAX Ammonium Sulfate	3 oz/a 1 pt/a 22 oz/a 8.5 lb/100 gal		MPOST MPOST MPOST MPOST	0.3 a	99.0 a		99.0 a	5.0 a	99.0 a		99.0 a	6.7 a
8	Laudis atrazine Roundup PowerMAX Ammonium Sulfate	3 oz/a 1 qt/a 22 oz/a 8.5 lb/100 gal		MPOST MPOST MPOST MPOST	2.0 a	99.0 a		99.0 a	4.7 a	99.0 a		99.0 a	4.7 a
9	Laudis atrazine MSO 28% UAN	3 oz/a 1 pt/a 1 % v/v 1.5 qt/a		EPOST EPOST EPOST EPOST	2.3 a	99.0 a	99.0 a	99.0 a	4.0 a	99.0 a	99.0 a	99.0 a	4.0 a
10	Calisto atrazine COC 28% UAN	3 oz/a 1 pt/a 1 % v/v 1.5 qt/a		EPOST EPOST EPOST EPOST	2.0 a	99.0 a	99.0 a	99.0 a	4.0 a	99.0 a	99.0 a	99.0 a	4.0 a
11	Capreno atrazine COC 28% UAN	3 oz/a 1 pt/a 1 % v/v 1.5 qt/a		EPOST EPOST EPOST EPOST	0.0 a	99.0 a	99.0 a	99.0 a	3.0 a	99.0 a	99.0 a	99.0 a	4.0 a
12	Roundup PowerMAX Ammonium Sulfate	22 oz/a 8.5 lb/100 gal		EPOST EPOST	0.7 a	99.0 a	98.3 a	99.0 a	5.7 a	99.0 a	99.0 a	99.0 a	6.7 a
LSD (P=.05)		2.41	3.95	4.77	0.00	4.62	1.69	0.00	0.00	0.00	0.00	0.00	4.75
Standard Deviation		1.42	2.33	2.74	0.00	2.73	1.00	0.00	0.00	0.00	0.00	0.00	2.80
CV		106.87	2.58	3.15	0.0	55.21	1.1	0.0	0.0	0.0	0.0	0.0	47.61
Grand Mean		1.33	90.36	86.93	90.75	4.94	90.58	88.0	90.75	90.75	90.75	90.75	5.89
Replicate F		2.134	1.000	0.094	0.000	1.256	1.000	0.000	0.000	0.000	0.000	0.000	0.237
Replicate Prob(F)		0.1422	0.3840	0.9110	1.0000	0.3044	0.3840	1.0000	1.0000	1.0000	1.0000	1.0000	0.7912
Treatment F		0.836	447.189	425.747	0.000	0.893	2442.250	0.000	0.000	0.000	0.000	0.000	1.722
Treatment Prob(F)		0.6087	0.0001	0.0001	1.0000	0.5607	0.0001	1.0000	1.0000	1.0000	1.0000	1.0000	0.1339

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.

Description				Redroot pigweed
Rating Date				08-05-08
Rating Data Type				Control
Rating Unit				Percent
Days After First/Last Applic.				62 36
Plant-Eval Interval				62 DP-1
Trt No.	Treatment Name	Rate Rate Unit	Growth Stage	
1	Nontreated Check			0.0 b
2	Corvus	2.5 oz/a	PRE	99.0 a
	atrazine	1 qt/a	PRE	
	Laudis	3 oz/a	MPOST	
	atrazine	1 pt/a	MPOST	
	COC	1 % v/v	MPOST	
	28% UAN	1.5 qt/a	MPOST	
3	Corvus	2.5 oz/a	PRE	99.0 a
	atrazine	1 qt/a	PRE	
	Laudis	3 oz/a	MPOST	
	atrazine	1 pt/a	MPOST	
	MSO	1 % v/v	MPOST	
	28% UAN	1.5 qt/a	MPOST	
4	Lumax	1.5 qt/a	PRE	99.0 a
	Lumax	1.5 qt/a	MPOST	
	NIS	0.25 % v/v	MPOST	
5	G-MAX Lite	2.5 pt/a	PRE	99.0 a
	Laudis	3 oz/a	MPOST	
	atrazine	1 pt/a	MPOST	
	COC	1 % v/v	MPOST	
	28% UAN	1.5 qt/a	MPOST	
6	Laudis	2 oz/a	MPOST	99.0 a
	Ignite 280	22.9 oz/a	MPOST	
	atrazine	1 pt/a	MPOST	
	Ammonium Sulfate	8.5 lb/100 gal	MPOST	
7	Laudis	3 oz/a	MPOST	99.0 a
	atrazine	1 pt/a	MPOST	
	Roundup PowerMAX	22 oz/a	MPOST	
	Ammonium Sulfate	8.5 lb/100 gal	MPOST	
8	Laudis	3 oz/a	MPOST	99.0 a
	atrazine	1 qt/a	MPOST	
	Roundup PowerMAX	22 oz/a	MPOST	
	Ammonium Sulfate	8.5 lb/100 gal	MPOST	
9	Laudis	3 oz/a	EPOST	99.0 a
	atrazine	1 pt/a	EPOST	
	MSO	1 % v/v	EPOST	
	28% UAN	1.5 qt/a	EPOST	
10	Calisto	3 oz/a	EPOST	99.0 a
	atrazine	1 pt/a	EPOST	
	COC	1 % v/v	EPOST	
	28% UAN	1.5 qt/a	EPOST	
11	Capreno	3 oz/a	EPOST	99.0 a
	atrazine	1 pt/a	EPOST	
	COC	1 % v/v	EPOST	
	28% UAN	1.5 qt/a	EPOST	
12	Roundup PowerMAX	22 oz/a	EPOST	99.0 a
	Ammonium Sulfate	8.5 lb/100 gal	EPOST	
LSD (P=.05)				0.00
Standard Deviation				0.00
CV				0.0
Grand Mean				90.75
Replicate F				0.000
Replicate Prob(F)				1.0000
Treatment F				0.000
Treatment Prob(F)				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>	

Additional Treatment Information

OZ/A = Ounces Product per Acre (Metric=ML-G/HA)|O

QT/A = Quarts Product per Acre (Metric=L/HA)|Q

PT/A = Pints Product per Acre (Metric=L/HA)|P

% 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)|J