2008 Capreno Corn Efficacy University Programs

Trial ID: 12 08 BAY DLL Capreno Protocol ID: 08 BAY DLL Capreno
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

Northeast Research & Extension Center

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
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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Location: Concord, NE Study Director: Stevan Knezevic
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Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Corn, field 12-04-08 Yield bu/A15.5 183 157 183 DP-1	Corn, field 12-04-08 Moisture Percent 183 157 183 DP-1	Corn 07-03-08 Injury Percent 29 3 29 DP-1	Corn 08-06-08 Injury Percent 63 37 63 DP-1	Green foxtail 07-03-08 Control Percent 29 3 29 DP-1	Green foxtail 07-18-08 Control Percent 44 18 44 DP-1	Green foxtail 07-18-08 Density m2 RunCH 44 18 44 DP-1	Green foxtail 08-05-08 Control Percent 62 36 62 DP-1	Velvetleaf 07-03-08 Control Percent 29 3 29 DP-1	Velvetleaf 07-18-08 Control Percent 44 18 44 DP-1
1	Nontreated Check				131.3 a	13.6 a	0.0 a	0.0 a	0.0 d	0.0 d	13.3 a	0.0 c	0.0 b	0.0 b
2	Balance Flexx	3	oz/a	PRE	178.8 a	13.4 a	0.0 a	0.0 a	93.3 abc	99.0 a	8.3 a	99.0 a	99.0 a	99.0 a
	atrazine	1	qt/a	PRE										
	Capreno	3	oz/a	MPOST										
	atrazine	1	pt/a	MPOST										
	COC	1	% v/v	MPOST										
	28% UAN	1.5	qt/a	MPOST										
3	Balance Flexx	3	oz/a	PRE	161.1 a	13.4 a	0.0 a	0.0 a	90.7 abc	99.0 a	8.3 a	98.3 a	99.0 a	99.0 a
	atrazine	1	qt/a	PRE										
	Capreno	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	189.7 a	13.5 a	0.0 a	0.0 a	87.3 bc	93.0 ab	6.7 a	90.0 a	99.0 a	99.0 a
	Lumax	1.5	qt/a	MPOST										
	NIS	0.25	% v/v	MPOST										
5	Capreno	3	oz/a	MPOST	167.1 a	13.5 a		0.0 a		99.0 a	11.7 a	99.0 a		99.0 a
	Roundup PowerMAX	22	oz/a	MPOST										
	Ammonium Sulfate	8.5	lb/100 gal	MPOST										
6	Capreno	3	oz/a	MPOST	182.4 a	13.9 a		0.0 a		94.7 a	11.7 a	99.0 a		99.0 a
	atrazine	1	qt/a	MPOST										
	Roundup PowerMAX	11	oz/a	MPOST										
	Ammonium Sulfate	8.5	lb/100 gal	MPOST										
7	Capreno	3	oz/a	EPOST	202.8 a	14.0 a	0.0 a	0.0 a	94.3 ab	92.7 ab	10.0 a	93.3 a	98.7 a	99.0 a
	atrazine	1	pt/a	EPOST										
	COC	1	% v/v	EPOST										
	28% UAN	1.5	qt/a	EPOST										
8	Calisto	3	oz/a	EPOST	171.3 a	12.7 a	0.0 a	0.0 a	84.0 c	81.3 c	16.7 a	68.3 b	99.0 a	99.0 a
	atrazine	1	pt/a	EPOST										
	COC	1	% v/v	EPOST										
	28% UAN	1.5	qt/a	EPOST										
9	Capreno	3	oz/a	EPOST	190.0 a	14.1 a	0.0 a	0.0 a	94.0 ab	85.0 bc	11.7 a	91.0 a	99.0 a	99.0 a
	atrazine	1	pt/a	EPOST										
	MSO	1	% v/v	EPOST										
	28% UAN	1.5	qt/a	EPOST										
10	HALEX GT	3.6	qt/a	EPOST	177.4 a	13.0 a	0.0 a	0.0 a	98.3 a	99.0 a	8.3 a	99.0 a	99.0 a	99.0 a
	NIS	0.25	% v/v	EPOST										
	Ammonium Sulfate	8.5	lb/100 gal	EPOST										
LSD (P=.05)					41.62	0.90	0.00	0.00	9.88	9.44	10.05	11.55	0.36	0.00
Standard Deviation					24.26	0.52	0.00	0.00	5.64	5.51	5.86	6.73	0.20	0.00
CV					13.85	3.86	0.0	0.0	7.03	6.53	54.95	8.04	0.24	0.0
Grand Mean					175.2	13.51	0.0	0.0	80.25	84.27	10.67	83.7	86.58	89.1
Replicate F					6.313	5.824	0.000	0.000	0.782	1.361	0.461	1.922	1.000	0.000
Replicate Prob(F)					0.0084	0.0112	1.0000	1.0000	0.4767	0.2817	0.6379	0.1752	0.3927	1.0000
Treatment F					1.963	1.982	0.000	0.000	100.970	90.553	0.765	63.090	88125.149	0.000
Treatment Prob(F)					0.1068	0.1037	1.0000	1.0000	0.0001	0.0001	0.6488	0.0001	0.0001	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					Velvetleaf	Velvetleaf	Waterhemp	Waterhemp	Waterhemp	Waterhemp	Redroot pigweed	Redroot pigweed	Redroot pigweed
Rating Date					07-18-08	08-05-08	07-03-08	07-18-08	07-18-08	08-05-08	07-03-08	07-18-08	07-18-08
Rating Data Type					Density	Control	Control	Control	Density	Control	Control	Control	Density
Rating Unit					m2 RunCH	Percent	Percent	Percent	m2 RunCH	Percent	Percent	Percent	m2 RunCH
Days After First/Last Applic.					44 18	62 36	29 3	44 18	44 18	62 36	29 3	44 18	44 18
Plant-Eval Interval					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
Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage									
1	Nontreated Check				1.7 a	0.0 b	0.0 b	0.0 b	5.0 a	0.0 b	0.0 b	0.0 c	5.0 a
2	Balance Flexx	3	oz/a	PRE	1.7 a	99.0 a	92.7 a	99.0 a	5.7 a	99.0 a	97.0 a	99.0 a	5.7 a
	atrazine	1	qt/a	PRE									
	Capreno	3	oz/a	MPOST									
	atrazine	1	pt/a	MPOST									
	COC	1	% v/v	MPOST									
	28% UAN	1.5	qt/a	MPOST									
3	Balance Flexx	3	oz/a	PRE	1.0 a	99.0 a	96.3 a	99.0 a	1.0 a	99.0 a	92.7 a	99.0 a	1.7 a
	atrazine	1	qt/a	PRE									
	Capreno	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	1.3 a	99.0 a	98.3 a	99.0 a	1.3 a	99.0 a	94.3 a	99.0 a	1.3 a
	Lumax	1.5	qt/a	MPOST									
	NIS	0.25	% v/v	MPOST									
5	Capreno	3	oz/a	MPOST	1.0 a	99.0 a		99.0 a	4.0 a	99.0 a		99.0 a	5.0 a
	Roundup PowerMAX	22	oz/a	MPOST									
	Ammonium Sulfate	8.5	lb/100 gal	MPOST									
6	Capreno	3	oz/a	MPOST	1.7 a	99.0 a		99.0 a	4.0 a	99.0 a		99.0 a	5.0 a
	atrazine	1	qt/a	MPOST									
	Roundup PowerMAX	11	oz/a	MPOST									
	Ammonium Sulfate	8.5	lb/100 gal	MPOST									
7	Capreno	3	oz/a	EPOST	0.7 a	99.0 a	99.0 a	99.0 a	2.0 a	99.0 a	99.0 a	99.0 a	3.0 a
	atrazine	1	pt/a	EPOST									
	COC	1	% v/v	EPOST									
	28% UAN	1.5	qt/a	EPOST									
8	Calisto	3	oz/a	EPOST	1.7 a	99.0 a	99.0 a	99.0 a	5.3 a	99.0 a	99.0 a	99.0 a	5.0 a
	atrazine	1	pt/a	EPOST									
	COC	1	% v/v	EPOST									
	28% UAN	1.5	qt/a	EPOST									
9	Capreno	3	oz/a	EPOST	2.7 a	99.0 a	99.0 a	99.0 a	3.7 a	99.0 a	99.0 a	98.7 b	3.7 a
	atrazine	1	pt/a	EPOST									
	MSO	1	% v/v	EPOST									
	28% UAN	1.5	qt/a	EPOST									
10	HALEX GT	3.6	qt/a	EPOST	1.3 a	99.0 a	99.0 a	99.0 a	2.7 a	99.0 a	99.0 a	99.0 a	5.3 a
	NIS	0.25	% v/v	EPOST									
	Ammonium Sulfate	8.5	lb/100 gal	EPOST									
LSD (P=.05)					1.36	0.00	7.25	0.00	3.60	0.00	6.61	0.31	3.70
Standard Deviation					0.79	0.00	4.14	0.00	2.10	0.00	3.78	0.18	2.16
CV					53.94	0.0	4.84	0.0	60.53	0.0	4.44	0.2	53.08
Grand Mean					1.47	89.1	85.42	89.1	3.47	89.1	85.0	89.07	4.07
Replicate F					4.846	0.000	0.477	0.000	4.776	0.000	3.499	1.000	0.801
Replicate Prob(F)					0.0207	1.0000	0.6303	1.0000	0.0217	1.0000	0.0586	0.3874	0.4641
Treatment F					1.444	0.000	209.606	0.000	1.870	0.000	249.486	88144.009	1.587
Treatment Prob(F)					0.2420	1.0000	0.0001	1.0000	0.1234	1.0000	0.0001	0.0001	0.1932

Means followed by same letter do not significantly differ (P=.05, LSD)
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Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Redroot pigweed
	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
1	Nontreated Check				0.0 b
2	Balance Flexx	3	oz/a	PRE	99.0 a
	atrazine	1	qt/a	PRE	
	Capreno	3	oz/a	MPOST	
	atrazine	1	pt/a	MPOST	
	COC	1	% v/v	MPOST	
	28% UAN	1.5	qt/a	MPOST	
3	Balance Flexx	3	oz/a	PRE	99.0 a
	atrazine	1	qt/a	PRE	
	Capreno	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	Capreno	3	oz/a	MPOST	99.0 a
	Roundup PowerMAX	22	oz/a	MPOST	
	Ammonium Sulfate	8.5	lb/100 gal	MPOST	
6	Capreno	3	oz/a	MPOST	99.0 a
	atrazine	1	qt/a	MPOST	
	Roundup PowerMAX	11	oz/a	MPOST	
	Ammonium Sulfate	8.5	lb/100 gal	MPOST	
7	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	
8	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	
9	Capreno	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	HALEX GT	3.6	qt/a	EPOST	99.0 a
	NIS	0.25	% v/v	EPOST	
	Ammonium Sulfate	8.5	lb/100 gal	EPOST	
	LSD (P=.05)				0.00
	Standard Deviation				0.00
	CV				0.0
	Grand Mean				89.1
	Replicate F				0.000
	Replicate Prob(F)				1.0000
	Treatment F				0.000
	Treatment Prob(F)				1.0000

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Additional Treatment Information
Treatment Name
Ammonium Sulfate = |
Rate Unit
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)|]