

2011 Corn Herbicide Programs: PRE One Pass

Trial ID: 11 SYN CRN PRE One Pass Protocol ID: 11 SYN CRN PRE One Pass  
Location: Concord, NE  
Project ID: 2011 TSR-001 Investigator: Stevan Knezevic

General Trial Information

Investigator: Stevan Knezevic

Trial Location

City: Concord  
State/Prov.: NE  
Postal Code: 68728  
Country: USA

Personnel

Investigator: Stevan Knezevic

Crop Description

Crop 1: ZEAMX Zea mays Corn  
Variety: Pioneer 35F40 Description: RRLL  
BBCH Scale: BCOR Planting Date: 06-05-2011  
Planting Method: SEEDED seeded Rate, Unit: 25677 s/a  
Depth, Unit: 2 in  
Row Spacing, Unit: 30 in  
Harvest Date: 10-21-2011 Harvest Equipment: Almaco SP40  
Harvested Width, Unit: 5 ft Harvested Length, Unit: 22.5 ft  
% Standard Moisture: 15.5

Pest Description

Pest 1 Type: W Code: SETVI Setaria viridis  
Common Name: Green foxtail  
Pest 2 Type: W Code: AMASS Amaranthus sp.  
Common Name: Amaranth  
Establishment Method/Description: waterhemp and redroot pigweed  
Pest 3 Type: W Code: ABUTH Abutilon theophrasti  
Common Name: Velvetleaf

Site and Design

Plot Width, Unit: 6.667 FT Site Type: FIELD field  
Plot Length, Unit: 25 FT  
Plot Area, Unit: 166.6667 FT2 Tillage Type: NOTILL no-till  
Replications: 4 Study Design: RACOB L Randomized Complete Block (RCB)

	Previous Crops	Previous Pesticides	Year
1.	soybean	glyphosate	2010

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix
1.	05-18-2011	glyphosate (Durango)	5.4	lb/gal	SL	44	oz/A	yes
2.	06-05-2011	Roundup Power MAX	5.5	lb'gal	SL	29	oz/A	yes
3.	06-05-2011	AMS	21.5	%	SG	2.5	lb/A	yes

Comment: ON 5-18-11 glyphosate mixed in 20 gal/A 32% Nitrogen

Soil Description

% Sand: 10 % OM: 2.8 Texture: SICL silty clay loam  
% Silt: 58 pH: 6.3  
% Clay: 32 CEC: 19.7 Fert. Level: E excellent  
Analyzed By:  
Midwest Labs

Application Description

	A	B
Application Date:	06-09-2011	07-06-2011
Time of Day:	10:00 am	10:00 am
Application Method:	spray	spray
Application Timing:	PRE	POST
Application Placement:	surface	foliar
Applied By:	js	js
Air Temperature, Unit:	60 F	79 F
% Relative Humidity:	69	71
Wind Velocity, Unit:	7 mph	1 mph
Wind Direction:	NE	SE
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	64 F	76 F
Soil Moisture:	adequate	adequate
% Cloud Cover:	100	30

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:		BBCH
Stage Majority, Percent:		V6 50
Stage Minimum, Percent:		V7 50
Height, Unit:		14 in
Height Minimum, Maximum:		12 16

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	SETVI W	SETVI W
Height, Unit:		4 in
Height Minimum, Maximum:		2 6
Density, Unit:		1 m2
Pest 2 Code, Type, Scale:	AMASS W	AMASS W
Height, Unit:		4 in
Height Minimum, Maximum:		2 6
Density, Unit:		1 m2
Pest 3 Code, Type, Scale:	ABUTH W	ABUTH W
Height, Unit:		4 in
Height Minimum, Maximum:		2 6
Density, Unit:		0.1 m2

Application Equipment

	A	B
Appl. Equipment:	4 nozzle PRE	Backpack
Operating Pressure, Unit:	20 PSI	30 PSI
Nozzle Type:	Turbo Tee	AIXR
Nozzle Size:	11002	110015
Nozzle Spacing, Unit:	20 in	20 in
Boom Length, Unit:	6.67 ft	6.67 ft
Boom Height, Unit:	15 in	15 in
Ground Speed, Unit:	2.7 mph	2.7 mph
Carrier:	WATER	WATER
Spray Volume, Unit:	15 gal/ac	15 gal/ac
Mix Size, Unit:	.9 liters	.9 liters
Propellant:	COMCO2	COMCO2

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 Location: Concord, NE  
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Description									Corn, field	Corn, field	Corn, field	Green foxtail	Green foxtail	
Rating Date									07-04-2011	07-30-2011	08-29-2011	07-04-2011	07-30-2011	
Rating Type									Injury	Injury	Injury	Control	Control	
Rating Unit									Percent	Percent	Percent	Percent	Percent	
Days After First/Last Applic.									25 25	51 24	81 54	25 25	51 24	
Trt-Eval Interval														
Plant-Eval Interval									29 DP-1	55 DP-1	85 DP-1	29 DP-1	55 DP-1	
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	A17227C	472	ga/l	SL	2.5 qt/a	2760	g ai/ha	PRE	A	0.0 b	0.0 a	0.0 a	99.0 a	98.0 a
2	A17622C	443.8	ga/l	SL	3 qt/a	3100	g ai/ha	PRE	A	0.0 b	0.0 a	0.0 a	99.0 a	95.8 a
3	Bicep II Magnum	5.5	lb/gal	SL	1.3 qt/a	2000	g ai/ha	PRE	A	0.0 b	0.0 a	0.0 a	88.8 c	99.0 a
	Halex GT	4.389	lb/gal	SL	3.6 pt/a	2210	g ai/ha	EPOST V3 B						
	NIS	100	%	L	0.25 % v/v			EPOST V3 B						
	AMS	21.5	%	SG	17 lb/100 gal			EPOST V3 B						
4	Fierce	76	%	WG	3 oz/a	160	g ai/ha	PRE	A	6.3 a	0.0 a	0.0 a	95.8 ab	95.0 a
5	Zidua	85	%	WG	3.5 oz/a	208	g ai/ha	PRE	A	0.0 b	0.0 a	0.0 a	98.0 a	98.0 a
6	Corvus	479	ga/l	SC	5.6 oz/a	196	g ai/ha	PRE	A	0.0 b	0.0 a	0.0 a	99.0 a	93.8 a
7	Verdict	5.57	lb/gal	EC	16 oz/a	780	g ai/ha	PRE	A	0.0 b	0.0 a	0.0 a	96.8 a	92.0 a
8	Triple Flex	4.16	lb/gal	SE	1.75 pt/a	1020	g ai/ha	PRE	A	0.0 b	0.0 a	0.0 a	89.8 bc	89.8 a
9	Balance Flexx atrazine	480	ga/l	SL	6 oz/a	210	g ai/ha	PRE	A	0.0 b	0.0 a	0.0 a	99.0 a	97.0 a
		4	lb/gal	L	1 qt/a	1120	g ai/ha	PRE	A					
LSD (P=.05)									1.22	0.00	0.00	6.39	6.46	
Standard Deviation									0.83	0.00	0.00	4.38	4.42	
CV									120.0	0.0	0.0	4.55	4.64	
Grand Mean									0.69	0.0	0.0	96.11	95.36	
Replicate F									1.000	0.000	0.000	0.306	0.217	
Replicate Prob(F)									0.4098	1.0000	1.0000	0.8210	0.8835	
Treatment F									25.000	0.000	0.000	3.451	1.930	
Treatment Prob(F)									0.0001	1.0000	1.0000	0.0087	0.1018	

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Description									Green foxtail	AMASS	AMASS	AMASS	Velvetleaf	
Rating Date									08-29-2011	07-04-2011	07-30-2011	08-29-2011	07-04-2011	
Rating Type									Control	Control	Control	Control	Control	
Rating Unit									Percent	Percent	Percent	Percent	Percent	
Days After First/Last Applic.									81 54	25 25	51 24	81 54	25 25	
Trt-Eval Interval									85 DP-1	29 DP-1	55 DP-1	85 DP-1	29 DP-1	
Plant-Eval Interval														
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	A17227C	472	ga/l	SL	2.5 qt/a	2760	g ai/ha	PRE	A	95.0 a	99.0 a	99.0 a	99.0 a	99.0 a
2	A17622C	443.8	ga/l	SL	3 qt/a	3100	g ai/ha	PRE	A	89.5 a	99.0 a	99.0 a	99.0 a	99.0 a
3	Bicep II Magnum	5.5	lb/gal	SL	1.3 qt/a	2000	g ai/ha	PRE	A	100.0 a	93.5 b	99.0 a	100.0 a	57.5 b
	Halex GT	4.389	lb/gal	SL	3.6 pt/a	2210	g ai/ha	EPOST V3 B						
	NIS	100	%	L	0.25 % v/v			EPOST V3 B						
	AMS	21.5	%	SG	17 lb/100 gal			EPOST V3 B						
4	Fierce	76	%	WG	3 oz/a	160	g ai/ha	PRE	A	92.3 a	99.0 a	99.0 a	99.0 a	88.5 a
5	Zidua	85	%	WG	3.5 oz/a	208	g ai/ha	PRE	A	95.8 a	95.8 ab	99.0 a	99.0 a	93.3 a
6	Corvus	479	ga/l	SC	5.6 oz/a	196	g ai/ha	PRE	A	88.8 a	99.0 a	99.0 a	99.0 a	99.0 a
7	Verdict	5.57	lb/gal	EC	16 oz/a	780	g ai/ha	PRE	A	87.0 a	99.0 a	99.0 a	99.0 a	94.3 a
8	Triple Flex	4.16	lb/gal	SE	1.75 pt/a	1020	g ai/ha	PRE	A	79.8 a	94.8 b	94.8 b	92.0 b	86.3 a
9	Balance Flexx atrazine	480	ga/l	SL	6 oz/a	210	g ai/ha	PRE	A	94.8 a	99.0 a	99.0 a	99.0 a	98.0 a
		4	lb/gal	L	1 qt/a	1120	g ai/ha	PRE	A					
LSD (P=.05)									13.34	3.36	1.79	4.41	11.79	
Standard Deviation									9.14	2.30	1.23	3.02	8.08	
CV									10.0	2.36	1.25	3.07	8.92	
Grand Mean									91.42	97.56	98.53	98.33	90.53	
Replicate F									0.217	1.577	1.000	1.000	0.526	
Replicate Prob(F)									0.8838	0.2209	0.4098	0.4098	0.6684	
Treatment F									1.697	3.777	5.319	2.524	10.776	
Treatment Prob(F)									0.1506	0.0054	0.0007	0.0378	0.0001	

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Description									Velvetleaf	Velvetleaf	Corn, field	Corn, field	Corn, field	
Rating Date									07-30-2011	08-29-2011	10-21-2011	10-21-2011	10-21-2011	
Rating Type									Control	Control	Moisture	Test Weight	Yield@15.5%	
Rating Unit									Percent	Percent	Percent	lb/bu	bu/A	
Days After First/Last Applic.									51 24	81 54	134 107	134 107	134 107	
Trt-Eval Interval									55 DP-1	85 DP-1	138 DP-1	138 DP-1	138 DP-1	
Plant-Eval Interval														
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	A17227C	472 ga/l	SL		2.5 qt/a	2760 g ai/ha		PRE	A	99.0 a	99.0 a	15.1900000 a	55.418 a	164.708 a
2	A17622C	443.8 ga/l	SL		3 qt/a	3100 g ai/ha		PRE	A	94.5 ab	94.5 ab	15.1150000 a	55.770 a	161.235 a
3	Bicep II Magnum	5.5 lb/gal	SL		1.3 qt/a	2000 g ai/ha		PRE	A	99.0 a	100.0 a	15.3350000 a	55.115 a	154.143 a
	Halex GT	4.389 lb/gal	SL		3.6 pt/a	2210 g ai/ha		EPOST V3 B						
	NIS	100 %	L		0.25 % v/v			EPOST V3 B						
	AMS	21.5 %	SG		17 lb/100 gal			EPOST V3 B						
4	Fierce	76 %	WG		3 oz/a	160 g ai/ha		PRE	A	88.5 bc	86.0 b	15.3100000 a	54.925 a	157.523 a
5	Zidua	85 %	WG		3.5 oz/a	208 g ai/ha		PRE	A	92.3 abc	87.3 b	15.4150000 a	56.040 a	156.548 a
6	Corvus	479 ga/l	SC		5.6 oz/a	196 g ai/ha		PRE	A	97.0 a	94.5 ab	15.1475000 a	55.798 a	156.835 a
7	Verdict	5.57 lb/gal	EC		16 oz/a	780 g ai/ha		PRE	A	91.3 abc	85.0 b	14.6425000 a	56.285 a	160.378 a
8	Triple Flex	4.16 lb/gal	SE		1.75 pt/a	1020 g ai/ha		PRE	A	85.0 c	73.8 c	15.5350000 a	55.008 a	159.655 a
9	Balance Flexx atrazine	480 ga/l	SL		6 oz/a	210 g ai/ha		PRE	A	99.0 a	99.0 a	15.1625000 a	55.850 a	157.418 a
		4 lb/gal	L		1 qt/a	1120 g ai/ha		PRE	A					
LSD (P=.05)									6.91	10.04	1.05840700	1.3223	9.8463	
Standard Deviation									4.74	6.88	0.72520040	0.9060	6.7465	
CV									5.04	7.56	4.77	1.63	4.25	
Grand Mean									93.94	91.0	15.21	55.58	158.72	
Replicate F									2.748	2.369	1.520	0.045	18.622	
Replicate Prob(F)									0.0649	0.0958	0.2349	0.9870	0.0001	
Treatment F									4.593	6.398	0.486	1.134	0.859	
Treatment Prob(F)									0.0017	0.0002	0.8542	0.3769	0.5630	

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