

Northeast Research & Extension Center

2008 Corvus and Balance Flex applied EPP, PRE, and EPOST for one pass weed control in corn.

Trial ID: 13 08 BAY JJA FlexxEPP Protocol ID: 08 BAY JJA Flexx EPP
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: CCHIN Cenchrus incertis M.A.Curtis
Common Name: Sandbur, field
Pest 3 Type: W Code: ABUTH Abutilon theophrasti Medik.
Common Name: Velvetleaf
Pest 4 Type: W Code: AMATU Amaranthus tuberculatos (Moq.) J
Common Name: Waterhemp, tall
Pest 5 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: 38 % OM: 2.8 Texture: LOAM
% Silt: 48 pH: 7.3
% Clay: 14 CEC: 16.4 Fert. Level: EXCELLENT

Analyzed By:
Midwest Labs

Application Description

	A	B	C
Application Date:	05-09-08	06-04-08	06-18-08
Time of Day:	4:00 pm	5:00 pm	11:00 am
Application Method:	spray	spray	spray
Application Timing:	EPP	PRE	EPOST
Application Placement:	surface	surface	foliar
Applied By:	js	js	js
Air Temperature, Unit:	61 F	75 F	81 F
% Relative Humidity:	58	70	40
Wind Velocity, Unit:	2 mph	1 mph	2 mph
Wind Direction:	SW	var	S
Dew Presence (Y/N):	n		n
Soil Temperature, Unit:	52 F	68 F	72 F
Soil Moisture:	wet	EXCESSIVE	ADEQUATE
% Cloud Cover:	100	100	50
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
Stage Majority, Percent:			V2 90
Stage Maximum, Percent:			V3 10
Height, Unit:			4 in

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Disc., Scale:	SETVI W	SETVI W	SETVI W 2
Stage Majority, Percent:			m2
Height, Unit:			1.5 in
Height Minimum, Maximum:			1 2
Density, Unit:			5 m2
Pest 2 Code, Disc., Scale:	CCHIN W	CCHIN W	CCHIN W
Height, Unit:			1.5 in
Height Minimum, Maximum:			1 2
Density, Unit:			5 m2
Pest 3 Code, Disc., Scale:	ABUTH W	ABUTH W	ABUTH W
Height, Unit:			1.5 in
Height Minimum, Maximum:			1 2
Density, Unit:			2 m2
Pest 4 Code, Disc., Scale:	AMATU W	AMATU W	AMATU W
Height, Unit:			1.5 in
Height Minimum, Maximum:			1 2
Density, Unit:			2 m2
Pest 5 Code, Disc., Scale:	AMARE W	AMARE W	AMARE W
Height, Unit:			1.5 in
Height Minimum, Maximum:			1 2
Density, Unit:			2 m2

Application Equipment

	A	B	C
Appl. Equipment:	backpack	backpack	BACKPACK
Operating Pressure, Unit:	20 psi	20 psi	40 PSI
Nozzle Type:	Turbo Tee	Turbo Tee	TURBO TEE
Nozzle Size:	11003	11003	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: 13 08 BAY JJA Flexx EPP Protocol ID: 08 BAY JJA Flexx EPP
 Location: Concord, NE Study Director: Stevan Knezevic
 Investigator: Stevan Knezevic

Description	Corn, field	Corn, field	Corn, field	Corn, field	Green foxtail	Green foxtail	Sandbur	Sandbur	Velvetleaf	Velvetleaf	Waterhemp			
Rating Date	12-04-08	12-04-08	07-03-08	08-05-08	07-03-08	08-05-08	07-03-08	08-05-08	07-03-08	08-05-08	07-03-08			
Rating Data Type	Yield	Moisture	Injury	Injury	Control	Control	Control	Control	Control	Control	Control			
Rating Unit	bu/A15.5	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent			
Days After First/Last Applic.	209 169	209 169	55 15	88 48	55 15	88 48	55 15	88 48	55 15	88 48	55 15			
Plant-Eval Interval	183 DP-1	183 DP-1	29 DP-1	62 DP-1	29 DP-1	62 DP-1	29 DP-1	62 DP-1	29 DP-1	62 DP-1	29 DP-1			
Trt No.	Treatment Name	Rate	Growth Stage											
1	Corvus atrazine	3.3 oz/a 2 pt/a	EPP EPP	153.3 a	12.9 a	0.0 a	0.0 a	89.5 ab	85.0 bc		89.7 bc	79.7 a	76.3 a	
2	Corvus atrazine	4.5 oz/a 2 pt/a	EPP EPP	170.3 a	12.7 a	0.0 a	0.0 a	94.5 ab	86.7 abc		97.7 ab	86.3 a	83.3 a	
3	Balance Flexx atrazine	4 oz/a 2 pt/a	EPP EPP	129.4 a	12.5 a	0.0 a	0.0 a	99.0 a	90.0 abc	80.0	90.0	99.0 a	99.0 a	81.7 a
4	Balance Flexx atrazine	5 oz/a 2 pt/a	EPP EPP	118.7 a	12.8 a	0.0 a	0.0 a	99.0 a	90.0 abc	90.0	90.0	92.0 abc	99.0 a	83.0 a
5	Corvus atrazine	3.3 oz/a 2 pt/a	PRE PRE	137.2 a	12.9 a	0.0 a	0.0 a	99.0 a	95.0 ab	90.0	75.0	99.0 a	95.0 a	94.5 a
6	Corvus atrazine	4.5 oz/a 2 pt/a	PRE PRE	134.2 a	12.5 a	0.0 a	0.0 a	99.0 a	97.7 a	99.0	90.0	99.0 a	99.0 a	99.0 a
7	Balance Flexx atrazine	4 oz/a 2 pt/a	PRE PRE	127.5 a	12.6 a	0.0 a	0.0 a	96.0 ab	89.7 abc	90.0	75.0	99.0 a	89.7 a	99.0 a
8	Balance Flexx atrazine	5 oz/a 2 pt/a	PRE PRE	134.0 a	12.9 a	0.0 a	0.0 a	99.0 a	97.0 a	90.0	85.0	99.0 a	99.0 a	99.0 a
9	Corvus atrazine	3.3 oz/a 2 pt/a	EPOST V2 EPOST V2	156.5 a	13.1 a	0.0 a	0.0 a	89.5 ab	78.3 c	90.0	75.0	89.7 bc	82.3 a	91.0 a
10	Corvus atrazine	4.5 oz/a 2 pt/a	EPOST V2 EPOST V2	138.2 a	12.6 a	0.0 a	0.0 a	73.3 c	78.3 c	85.0	77.5	99.0 a	99.0 a	96.0 a
11	Balance Flexx atrazine	4 oz/a 2 pt/a	EPOST V2 EPOST V2	153.0 a	13.0 a	0.0 a	0.0 a	81.7 bc	86.7 abc			85.0 c	94.7 a	96.0 a
12	Balance Flexx atrazine	5 oz/a 2 pt/a	EPOST V2 EPOST V2	142.4 a	12.9 a	0.0 a	0.0 a	75.0 c	80.0 c			99.0 a	99.0 a	99.0 a
LSD (P=.05)		51.24	0.90	0.00	0.00	14.41	11.91	.	.	9.22	21.41	19.98		
Standard Deviation		30.26	0.53	0.00	0.00	8.10	6.88	.	.	5.35	12.43	11.69		
CV		21.42	4.18	0.0	0.0	8.88	7.83	.	.	5.6	13.3	12.78		
Grand Mean		141.23	12.78	0.0	0.0	91.21	87.86	49.94	45.94	95.58	93.47	91.49		
Replicate F		17.752	2.918	0.000	0.000	0.012	0.092			0.579	0.549	1.182		
Replicate Prob(F)		0.0001	0.0752	1.0000	1.0000	0.9883	0.9125			0.5711	0.5875	0.3282		
Treatment F		0.692	0.409	0.000	0.000	4.225	2.866			2.675	1.002	1.477		
Treatment Prob(F)		0.7319	0.9365	1.0000	1.0000	0.0099	0.0275			0.0334	0.4832	0.2194		

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				Waterhemp	Redroot pigweed	Redroot pigweed
Rating Date				08-05-08	07-03-08	08-05-08
Rating Data Type				Control	Control	Control
Rating Unit				Percent	Percent	Percent
Days After First/Last Applic.				88 48	55 15	88 48
Plant-Eval Interval				62 DP-1	29 DP-1	62 DP-1
Trt No.	Treatment Name	Rate	Growth Unit Stage			
1	Corvus atrazine	3.3 oz/a 2 pt/a	EPP EPP	56.7 a	96.0 a	86.3 a
2	Corvus atrazine	4.5 oz/a 2 pt/a	EPP EPP	76.7 a	99.0 a	96.3 a
3	Balance Flexx atrazine	4 oz/a 2 pt/a	EPP EPP	85.0 a	99.0 a	99.0 a
4	Balance Flexx atrazine	5 oz/a 2 pt/a	EPP EPP	70.0 a	99.0 a	99.0 a
5	Corvus atrazine	3.3 oz/a 2 pt/a	PRE PRE	97.0 a	99.0 a	99.0 a
6	Corvus atrazine	4.5 oz/a 2 pt/a	PRE PRE	97.7 a	99.0 a	99.0 a
7	Balance Flexx atrazine	4 oz/a 2 pt/a	PRE PRE	96.3 a	99.0 a	99.0 a
8	Balance Flexx atrazine	5 oz/a 2 pt/a	PRE PRE	99.0 a	99.0 a	99.0 a
9	Corvus atrazine	3.3 oz/a 2 pt/a	EPOST V2 EPOST V2	96.0 a	99.0 a	99.0 a
10	Corvus atrazine	4.5 oz/a 2 pt/a	EPOST V2 EPOST V2	96.0 a	99.0 a	99.0 a
11	Balance Flexx atrazine	4 oz/a 2 pt/a	EPOST V2 EPOST V2	96.0 a	99.0 a	99.0 a
12	Balance Flexx atrazine	5 oz/a 2 pt/a	EPOST V2 EPOST V2	99.0 a	99.0 a	99.0 a
LSD (P=.05)				28.56	3.29	7.95
Standard Deviation				16.71	1.88	4.65
CV				18.82	1.9	4.76
Grand Mean				88.78	98.75	97.72
Replicate F				0.571	0.636	0.925
Replicate Prob(F)				0.5745	0.5439	0.4136
Treatment F				2.064	0.636	1.864
Treatment Prob(F)				0.0797	0.7717	0.1124

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<p><u>Additional Treatment Information</u></p> <p>Rate Unit</p> <p>OZ/A = Ounces Product per Acre (Metric=ML-G/HA) O</p> <p>PT/A = Pints Product per Acre (Metric=L/HA) P</p>
