

Corvus, Balance Flexx, Acetochlor in Corn  
 Trial ID: 19BAYERPRE Location: Trial Year: 2019  
 Protocol ID: 19BAYERPRE Investigator: Dr. Mark M. Loux  
 Project ID: HP19USAWMI Study Director: Anthony Dobbels  
 Sponsor Contact: David Lamore, Bayer CropScience

**General Trial Information**

**Study Director:** Anthony Dobbels  
**Investigator:** Dr. Mark M. Loux

**Trial Status:** E established  
**ARM Trial Created On:** Mar-26-2019

**Trial Location**

**City:** South Charleston **Country:** USA United States  
**State/Prov.:** Ohio  
**Postal Code:** 45368 **Climate Zone:** USWARM US Warm Continental

**Latitude of LL Corner °:** 39.85781 N  
**Longitude of LL Corner °:** 83.67003 W  
**Altitude of LL Corner:** 1193.00 ft

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

**Contacts**

**Study Director:** Anthony Dobbels

**Investigator:** Dr. Mark M. Loux

**Crop Description**

**Crop 1:** C ZEAMX Zea mays Corn **Stage Scale:** VR  
**Entry Date:** Apr-15-2019  
**Variety:** Seed Consultants SC10AGT96  
**Attributes:** Agrisure GT/CB/LL  
**Planting Date:** Apr-12-2019 **Planting Rate:** 32097 S/A  
**Depth:** 1.5 IN  
**Rows per Plot:** 4 **Planting Method:** SEEDED seeded  
**Row Spacing:** 30 IN **Planting Equipment:** FPP finger pickup planter  
**Seed Bed:** SMOOTH smooth  
**Soil Temperature:** 58 F **Soil Moisture:** SLIDRY slightly dry  
**Emergence Date:** Apr-26-2019

**Pest Description**

**Pest 1 Type:** W **Code:** SETFA *Setaria faberi*  
**Common Name:** Giant foxtail **Entry Date:** Jun-7-2019

**Pest 2 Type:** W **Code:** ECHCG *Echinochloa crus-galli*  
**Common Name:** Common barnyard grass **Entry Date:** Jun-7-2019

**Pest 3 Type:** W **Code:** AMBTR *Ambrosia trifida*  
**Common Name:** Giant ragweed **Entry Date:** Jun-7-2019

**Pest 4 Type:** W **Code:** CHEAL *Chenopodium album*  
**Common Name:** common lambsquarters **Entry Date:** Jun-7-2019

**Pest 5 Type:** W **Code:** AMARE *Amaranthus retroflexus*  
**Common Name:** Redroot pigweed **Entry Date:** Jun-7-2019

**Pest 6 Type:** W **Code:** ABUTH *Abutilon theophrasti*  
**Common Name:** velvetleaf **Entry Date:** Jun-7-2019

**Pest 7 Type:** W **Code:** IPOHE *Ipomoea hederacea*  
**Common Name:** ivy-leaf morning glory **Entry Date:** Jun-7-2019

**Site and Design**

**Treated Plot Width:** 6.67 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot  
**Treated Plot Area:** 200.1 FT2 **Treatments:** 12 **Tillage Type:** CONTIL conventional-till  
**Replications:** 4 **Study Design:** RAOBL Randomized Complete Block (RCB)

**Previous**

**No. Crop Year**  
1. SOYBEAN 2018

**Field Prep./Maintenance:**

Fall chisel plow, spring finishing tool, and cultipacker.

Soil Description

**Description Name:** Big E  
**% Sand:** 44      **% OM:** 3.1      **Texture:** L loam  
**% Silt:** 45      **pH:** 6.6      **Soil Name:** Kokomo  
**% Clay:** 11      **CEC:** 15.2      **Fert. Level:** G good  
**Soil Drainage:** G good

Application Description

**Application Date** Apr-13-2019 **A**  
**Appl. Start Time** 8:00 AM  
**Appl. Stop Time** 9:00 AM  
**Application Method** SPRAY  
**Application Timing** PRE  
**Application Placement** BROSOI  
**Applied By** Ackley  
**Appl. Entry Date** Apr-15-2019  
**Air Temperature Start, Stop** 43 47 F  
**% Relative Humidity Start, Stop** 77 74  
**Wind Velocity+Dir. Start** 3 MPH W  
**Wind Velocity+Dir. Stop** 2 MPH WSW  
**Wind Velocity+Dir. Max** 3 MPH W  
**Wet Leaves (Y/N)** N no  
**Soil Temperature** 46 F  
**Soil Moisture** DRY  
**Soil Surface Condition** SMOOTH  
**% Cloud Cover** 20  
**Next Moisture Occurred On** Apr-14-2019  
**Time to Next Moisture** 1 DAY  
**Moisture 6 Hours after Appl.** 0 IN  
**Moisture 1 Week after Appl.** 2.35 IN

Crop Stage At Each Application

**Crop 1 Code, BBCH Scale** ZEAMX BCOR **A**  
**Days after Emergence** -13

Pest Stage At Each Application

**Pest 1 Code, Type, Scale** SETFA W **A**  
**Density Average** 310 M2  
**Density Min, Max** 40 400  
**Pest 2 Code, Type, Scale** ECHCG W  
**Density Average** 162 M2  
**Density Min, Max** 28 300  
**Pest 3 Code, Type, Scale** AMBTR W  
**Density Average** 10 M2  
**Density Min, Max** 4 16  
**Pest 4 Code, Type, Scale** CHEAL W  
**Density Average** 6 M2  
**Density Min, Max** 4 12  
**Pest 5 Code, Type, Scale** AMARE W  
**Density Average** 3 M2  
**Density Min, Max** 4 4  
**Pest 6 Code, Type, Scale** ABUTH W  
**Density Average** 1 M2  
**Pest 7 Code, Type, Scale** IPOHE W  
**Density Average** 2 M2  
**Density Min, Max** 4 4

Application Equipment

**Appl. Equipment** 6 foot TTI **A**  
**Equipment Type** SPRBAC  
**Operation Pressure** 48 PSI  
**Nozzle Type** TTI  
**Nozzle Size** 110015  
**Nozzle Spacing** 18 IN  
**Boom Length** 6.67 FT  
**Boom Height** 20 IN  
**Ground Speed** 3 MPH  
**Carrier** WATER  
**Application Amount** 15 GPA  
**Mix Size** 1 Liters  
**Propellant** COMCO2

Date	By	Context	Notes
Mar-26-2019	Dr. Mark M. Loux	STATUS	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
Apr-15-2019	Dr. Mark M. Loux	STATUS	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

SE Definitions

1.

Crop Type, Code C

Pest Type		W Weed	W Weed	W Weed	W Weed
Pest Code		SETFA	AMBTR	CHEAL	AMARE
Pest Name		Giant foxtail	Giant ragweed	common lambsqu	Redroot pigweed
Crop Type, Code	C ZEAMX	C -	C -	C -	C -
Crop Name	Corn				
Rating Date	May-15-2019	May-15-2019	May-15-2019	May-15-2019	May-15-2019
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	May-15-2019	May-15-2019	May-15-2019	May-15-2019	May-15-2019
Days After First/Last Applic.					
Trt-Eval Interval	32 32	32 32	32 32	32 32	32 32
Days After Emergence	19 DE-1	19 DE-1	19 DE-1	19 DE-1	19 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	1*	2*	3*	4*	5*
1	UTC						0 -	0 b	0	0 -	0 -
2	Corvus	129 g ai/ha		5.6 oz/a		A	0 -	99 a	91 ab	100 -	100 -
	2 AAtrex	1120 g ai/ha		1 qt/a		A					
3	Balance Flexx	88 g ai/ha		5 oz/a		A	0 -	96	93 ab	100 -	100 -
	3 AAtrex	1120 g ai/ha		32 oz/a		A					
4	Harness Xtra 5.6	4100 g ai/ha		2.6 qt/a		A	0 -	100 a	85 ab	100 -	100 -
5	Corvus	104 g ai/ha		4.5 oz/a		A	0 -	100 a	92 ab	100 -	100 -
	5 Harness Xtra 5.6	2820 g ai/ha		1.8 qt/a		A					
6	Balance Flexx	79 g ai/ha		4.5 oz/a		A	0 -	100 a	93 ab	100 -	100 -
	6 Harness Xtra 5.6	2820 g ai/ha		1.8 qt/a		A					
7	Harness Max	2140 g ai/ha		64 oz/a		A	0 -	100 a	90 ab	100 -	100 -
	7 AAtrex	1120 g ai/ha		1 qt/a		A					
8	Acuron	2400 g ai/ha		2.5 qt/a		A	0 -	100 a	89 ab	100 -	100 -
9	Lexar EZ	2600 g ai/ha		2.5 qt/a		A	0 -	99 a	89 ab	100 -	100 -
10	Resicore	2300 g ai/ha		2.5 qt/a		A	0 -	100 a	99 a	100 -	100 -
	10 AAtrex	1680 g ai/ha		1.5 qt/a		A					
11	Corvus	76 g ai/ha		3.3 oz/a		A	0 -	100 a	86 ab	100 -	100 -
	11 Degree Xtra	2720 g ai/ha		2.4 qt/a		A					
12	Balance Flexx	70 g ai/ha		4 oz/a		A	0 -	100 a	80 b	100 -	100 -
	12 Degree Xtra	2720 g ai/ha		2.4 qt/a		A					
LSD P=.05							.	1.5	9.0	.	.
Standard Deviation							0.0	1.1	6.3	0.0	0.0
CV							0.0	1.17	6.98	0.0	0.0
Levene's F							0.00	1.341	1.083	0.00	0.00
Levene's Prob(F)							.	0.25	0.402	.	.
Skewness							.	-2.9406*	-0.3629	-3.1133*	-3.1133*
Kurtosis							.	6.9779*	-0.7453	8.0253*	8.0253*
Replicate F							0.000	0.557	2.191	0.000	0.000
Replicate Prob(F)							1.0000	0.6475	0.1097	1.0000	1.0000
Treatment F							0.000	3204.866	2.474	0.000	0.000
Treatment Prob(F)							1.0000	0.0001	0.0269	1.0000	1.0000

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	ABUTH	SETFA	ECHCG	AMBTR	CHEAL					
Pest Name	velvetleaf	Giant foxtail	Common barnyar>	Giant ragweed	common lambsqu>					
Crop Type, Code	C -	C -	C -	C -	C -					
Crop Name										
Rating Date	May-15-2019	Jun-14-2019	Jun-14-2019	Jun-14-2019	Jun-14-2019					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Data Entry Date	May-15-2019	Jun-14-2019	Jun-14-2019	Jun-14-2019	Jun-14-2019					
Days After First/Last Applic.	32 32	62 62	62 62	62 62	62 62					
Trt-Eval Interval	32 DA-A	62 DA-A	62 DA-A	62 DA-A	62 DA-A					
Days After Emergence	19 DE-1	49 DE-1	49 DE-1	49 DE-1	49 DE-1					
Number of Decimals	0	0	0	0	0					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	6*	7*	8*	9*	10*
1	UTC					0 -	0 c	0 b	0	0 -
2	Corvus	129 g ai/ha	5.6 oz/a		A	100 -	70 b	70 a	65 -	100 -
	2 AAtrex	1120 g ai/ha	1 qt/a		A					
3	Balance Flexx	88 g ai/ha	5 oz/a		A	100 -	69 b	66 a	60 -	100 -
	3 AAtrex	1120 g ai/ha	32 oz/a		A					
4	Harness Xtra 5.6	4100 g ai/ha	2.6 qt/a		A	100 -	96 a	93 a	56 -	100 -
5	Corvus	104 g ai/ha	4.5 oz/a		A	100 -	93 ab	89 a	69 -	100 -
	5 Harness Xtra 5.6	2820 g ai/ha	1.8 qt/a		A					
6	Balance Flexx	79 g ai/ha	4.5 oz/a		A	100 -	91 ab	88 a	75 -	100 -
	6 Harness Xtra 5.6	2820 g ai/ha	1.8 qt/a		A					
7	Harness Max	2140 g ai/ha	64 oz/a		A	100 -	83 ab	80 a	68 -	100 -
	7 AAtrex	1120 g ai/ha	1 qt/a		A					
8	Acuron	2400 g ai/ha	2.5 qt/a		A	100 -	91 ab	90 a	70 -	100 -
9	Lexar EZ	2600 g ai/ha	2.5 qt/a		A	100 -	86 ab	81 a	69 -	100 -
10	Resicore	2300 g ai/ha	2.5 qt/a		A	100 -	91 ab	90 a	75 -	100 -
	10 AAtrex	1680 g ai/ha	1.5 qt/a		A					
11	Corvus	76 g ai/ha	3.3 oz/a		A	100 -	96 a	94 a	69 -	100 -
	11 Degree Xtra	2720 g ai/ha	2.4 qt/a		A					
12	Balance Flexx	70 g ai/ha	4 oz/a		A	100 -	95 a	95 a	48 -	100 -
	12 Degree Xtra	2720 g ai/ha	2.4 qt/a		A					
LSD P=.05						.	15.2	19.9	17.2	.
Standard Deviation						0.0	10.6	13.9	11.9	0.0
CV						0.0	13.23	17.79	18.18	0.0
Levene's F						0.00	1.576	0.849	0.49	0.00
Levene's Prob(F)						.	0.148	0.595	0.884	.
Skewness						-3.1133*	-2.0093*	-1.7059*	-0.6224	-3.1133*
Kurtosis						8.0253*	3.5402*	2.46*	0.5835	8.0253*
Replicate F						0.000	3.403	3.062	2.145	0.000
Replicate Prob(F)						1.0000	0.0290	0.0416	0.1154	1.0000
Treatment F						0.000	25.768	14.262	1.902	0.000
Treatment Prob(F)						1.0000	0.0001	0.0001	0.0848	1.0000

Pest Type	W Weed	W Weed
Pest Code	AMARE	ABUTH
Pest Name	Redroot pigweed	velvetleaf
Crop Type, Code	C -	C -
Crop Name		
Rating Date	Jun-14-2019	Jun-14-2019
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Data Entry Date	Jun-14-2019	Jun-14-2019
Days After First/Last Applic.	62 62	62 62
Trt-Eval Interval	62 DA-A	62 DA-A
Days After Emergence	49 DE-1	49 DE-1
Number of Decimals	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	11*	12*
1	UTC					0 -	0 -
2	Corvus	129 g ai/ha	5.6 oz/a		A	100 -	100 -
2	AAtrex	1120 g ai/ha	1 qt/a		A		
3	Balance Flexx	88 g ai/ha	5 oz/a		A	100 -	100 -
3	AAtrex	1120 g ai/ha	32 oz/a		A		
4	Harness Xtra 5.6	4100 g ai/ha	2.6 qt/a		A	100 -	100 -
5	Corvus	104 g ai/ha	4.5 oz/a		A	100 -	100 -
5	Harness Xtra 5.6	2820 g ai/ha	1.8 qt/a		A		
6	Balance Flexx	79 g ai/ha	4.5 oz/a		A	100 -	100 -
6	Harness Xtra 5.6	2820 g ai/ha	1.8 qt/a		A		
7	Harness Max	2140 g ai/ha	64 oz/a		A	100 -	100 -
7	AAtrex	1120 g ai/ha	1 qt/a		A		
8	Acuron	2400 g ai/ha	2.5 qt/a		A	100 -	100 -
9	Lexar EZ	2600 g ai/ha	2.5 qt/a		A	100 -	100 -
10	Resicore	2300 g ai/ha	2.5 qt/a		A	100 -	100 -
10	AAtrex	1680 g ai/ha	1.5 qt/a		A		
11	Corvus	76 g ai/ha	3.3 oz/a		A	100 -	100 -
11	Degree Xtra	2720 g ai/ha	2.4 qt/a		A		
12	Balance Flexx	70 g ai/ha	4 oz/a		A	100 -	100 -
12	Degree Xtra	2720 g ai/ha	2.4 qt/a		A		
LSD P=.05							
Standard Deviation						0.0	0.0
CV						0.0	0.0
Levene's F						0.00	0.00
Levene's Prob(F)							
Skewness						-3.1133*	-3.1133*
Kurtosis						8.0253*	8.0253*
Replicate F						0.000	0.000
Replicate Prob(F)						1.0000	1.0000
Treatment F						0.000	0.000
Treatment Prob(F)						1.0000	1.0000

Corvus, Balance Flexx, Acetochlor in Corn

Trial ID: 19BAYERPRE                      Location:                      Trial Year: 2019  
Protocol ID: 19BAYERPRE                      Investigator: Dr. Mark M. Loux  
Project ID: HP19USAWMI                      Study Director: Anthony Dobbels  
Sponsor Contact: David Lamore, Bayer CropScience

Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, Giant foxtail = US  
AMBTR, Ambrosia trifida, Giant ragweed = US  
CHEAL, Chenopodium album, common lambsquarters = US  
AMARE, Amaranthus retroflexus, Redroot pigweed = US  
ABUTH, Abutilon theophrasti, velvetleaf = US  
ECHCG, Echinochloa crus-galli, Common barnyard grass = US

Crop Type Code

C, G-ByrC7 = EPPO species (Bayer) codes  
ZEAMX, BCOR, Zea mays, Corn = US

Rating Type

PHYGEN = phytotoxicity - general / injury  
CONTRO = control / burndown or knockdown

Rating Unit

% = percent