

# Purdue Weed Science

## Bayer Corn Portfolio Midwest-North/Corn/Grass & Broadleaf/Phyto & Efficacy

Trial ID: 20S-TPAC-CORN-03  
 Project ID: 20S-TPAC-CORN-03  
 Protocol Developer: Riley, Eric  
 License User: Childs, Dan

### General Trial Information

**Trial Initiation Date:** 5/7/2020  
**Trial Status:** A  
**Last change done by:** Dr. Bill Johnson  
**Trial Objectives fulfilled:** FULLY  
**GEP level:** Conducted under GEP  
**External Trial:** X

**Protocol Edition No.:** 1.03  
**Trial Status Date:** 8/28/2020  
**Date of last export:** 9/3/2020 11:40 AM

Please verify that the crop/harvest have been destroyed.

Destroyed?	Verified by
NOTREQ	Dr. Bill Johnson

	1
<b>TD Number(s):</b>	LOCALCREATED

	1	2
<b>Objectives:</b>	PHYTOTOX	EFFICACY

**License User:** Childs, Dan  
**Department:** Bayer CropScience LP

**Protocol Developer:** Riley, Eric

**Trial Officer:** Childs, Dan

**Cooperator (Outside service):** Cooperator

**Affiliation:** Affiliation  
**Street:** Street  
**City:** City  
**Postal Code:** PostalCode  
**Telephone:** Telephon  
**Fax:** Fax  
**Mobile Tel.:** Mobile Telephone  
**E-Mail:** E-Mail

### Site and Design

**Field Name:** TPAC - Throckmorton Purdue Agricultural Center  
**City:** Lafayette  
**Postal Code:** 47909  
**County:** Tippecanoe  
**State/Province:** IN  
**Country:** USA

### Latitude, Longitude of Trial Corners

**Lower Left**  
**Latitude:** 40.2917701  
**Longitude:** -86.907988

**No. of Replicates:** 4      **No. of Treatments:** 12      **No. of Plots:** 48  
**Plot Width:** 3.048 m      **Plot Length:** 9.14 m  
**Plot Area:** 27.87 m<sup>2</sup>  
**Site Type:** FIELD      **Test Type:** EXTER  
**Tillage Type:** CONTIL      **Trial Design:** RACOBL

**Most relevant weather station:** Throckmorton Purdue Agricultural Center  
**Distance:** 0.75 KM  
**Location of Control:** INCLUDED

### Previous Crops and Agricultural Chemicals

Previous Crops		Year
GLXMA	C BSOY	2019

### Soil Description

**Soil Name:** Toronto-Millbrook complex  
**Texture:** SIL      **% Sand:** 17      **% Silt:** 56  
                                  **% Clay:** 27  
**% Organic Matter:** 3.1  
**pH:** 6.2      **Cation Exchange Capacity:** 11.5

**Irrigation/Rainfall**

Date	Amount	Unit	Type and Equipment
5/2/2020	0.025	CM	RAIN
5/3/2020	0.585	CM	RAIN
5/5/2020	0.481	CM	RAIN
5/6/2020	0.025	CM	RAIN
5/10/2020	0.101	CM	RAIN
5/14/2020	0.405	CM	RAIN
5/15/2020	0.279	CM	RAIN
5/17/2020	1.497	CM	RAIN
5/18/2020	0.914	CM	RAIN
5/19/2020	0.684	CM	RAIN
5/23/2020	0.178	CM	RAIN
5/27/2020	0.025	CM	RAIN
5/28/2020	0.331	CM	RAIN
6/4/2020	0.33	CM	RAIN
6/9/2020	0.787	CM	RAIN
6/20/2020	0.025	CM	RAIN
6/21/2020	0.075	CM	RAIN
6/22/2020	0.711	CM	RAIN
6/23/2020	0.203	CM	RAIN
6/27/2020	2.769	CM	RAIN
6/28/2020	0.229	CM	RAIN
6/29/2020	0.076	CM	RAIN
6/30/2020	1.829	CM	RAIN
7/10/2020	0.05	CM	RAIN
7/11/2020	0.914	CM	RAIN
7/12/2020	0.66	CM	RAIN
7/15/2020	0.127	CM	RAIN
7/16/2020	0.456	CM	RAIN
7/19/2020	0.051	CM	RAIN
7/21/2020	1.423	CM	RAIN
7/22/2020	0.329	CM	RAIN
7/23/2020	0.178	CM	RAIN
7/27/2020	1.295	CM	RAIN
7/30/2020	1.599	CM	RAIN

**Plant Development at Appl. and/or Ass.**

Date From	To	Crop			BBCH From	To	Plant Development	Soil Humidity	Cloud Cover	Temperature
5/7/2020	5/7/2020	A2	C	BCOR	00	00	NORMAL	DRY	SLIGHT	MEDIUM
5/29/2020	5/29/2020	A2	C	BCOR	12	13	NORMAL	DRY	SLIGHT	MEDIUM
6/12/2020	6/12/2020	A2	C	BCOR	15	16	NORMAL	SLIWET	NONE	HOT

**Crop 1:** ZEAMD      **Discipline:** C      **Crop Scale:** BCOR

Zea mays L. ssp. indentata STU

Corn, dent

**Variety:** DKC 62-52RIB

**Variety Characteristic:** RR2/LL

**Seed/Planting Date:** 5/7/2020

**Depth:** 4.5      CM

**Crop Description**

**Use Group:** A2

**Seed/Plant Count:** 84565 P/HA

**Rows Per Plot:** 4

**Row Spacing:** 76      CM

**Planting Method:** PLANTD

**Planting Implement:** PP

**Soil Temperature:** 15.5      C

**Soil Moisture (at Planting):** DRY

**Emergence Crop Date:** 5/18/2020

**Planting Crop Stage:** 00

**Target Description**

**Target 1:** AMBTR **Discipline:** W **Target Scale:** BDIC  
 Ambrosia trifida L.  
 Ragweed, giant  
**Target Characteristics:** SOILBORN  
**Target 2:** ECHCG **Discipline:** W **Target Scale:** BGRM  
 Echinochloa crus-galli (L.) P.  
 Barnyardgrass, common  
**Target Characteristics:** SOILBORN

**Application Description**

	<b>A</b>	<b>B</b>	<b>C</b>
<b>Application Date</b>	5/7/2020	5/29/2020	6/12/2020
<b>Interval to prev. Appl.</b>		22 DAY	14 DAY
<b>Application Timing</b>	PREPRE	EAPOCR	MIPOCR
<b>Appl.Start - Time of Day</b>	6:00 PM	7:10 PM	12:36 PM
<b>Appl. Stop</b>	6:24 AM	7:34 AM	12:49 PM
<b>Appl. Rain 0-6H</b>	0 CM	0 CM	0 CM
<b>Time b. Appl./first Rain</b>	3 DAY	5 DAY	8 DAY
<b>% Relative Humidity</b>	36	38	49
<b>Air Temperature</b>	20 C	25.56 C	27.78 C
<b>% Cloud Cover</b>	10	30	0
<b>Appl. Wind Strength</b>	MOD	CLM	CLM
<b>Wind Velocity</b>	20.9 KPH	2.74 KPH	4.51 KPH
<b>Wind Direction/Degrees</b>	W	NW	N
<b>Plant Condition</b>	NORMAL	NORMAL	NORMAL
<b>Soil Temperature</b>	15.56 C	20.56 C	30.56 C
<b>Soil Moisture</b>	DRY	DRY	SLIWET
<b>Problems with Application?</b>	No	No	No

**Crop Stage at Application**

	<b>A</b>	<b>B</b>	<b>C</b>
<b>Crop 1/Disc./Scale</b>	ZEAMD, C, BCOR	ZEAMD, C, BCOR	ZEAMD, C, BCOR
<b>Days after Emergence</b>	-11	11	25
<b>Application Plant Condition</b>	NORMAL	NORMAL	NORMAL
<b>Stage Majority/Percent</b>	00, 100	12, 90	15, 90
<b>Stage Minimum/Percent</b>	00, -	12, -	15, -
<b>Stage Maximum/Percent</b>	00, -	13, -	16, -
<b>Majority Height/Unit</b>	0 CM	10.8 CM	35.56 CM
<b>Min/Max (Unit=Height Unit)</b>	0, 0	9.14, 12.45	25.4, 40.64

**Target Stage at Application**

	<b>A</b>	<b>B</b>	<b>C</b>
<b>Target 1/Disc./Scale</b>	AMBTR, W, BDIC	AMBTR, W, BDIC	AMBTR, W, BDIC
<b>Target Characteristics</b>	SOILBORN	SOILBORN	SOILBORN
<b>Stage Majority/Percent</b>	00, -	16, -	14, -
<b>Stage Minimum/Percent</b>	00, -	12, -	12, -
<b>Stage Maximum/Percent</b>	00, -	18, -	14, -
<b>Majority Height/Unit</b>	0 CM	8.89 CM	5.08 CM
<b>Min/Max (Unit=Height Unit)</b>	0, 0	6.35, 12.19	1.27, 7.62
<b>Target 2/Disc./Scale</b>	ECHCG, W, BGRM	ECHCG, W, BGRM	ECHCG, W, BGRM
<b>Target Characteristics</b>	SOILBORN	SOILBORN	SOILBORN
<b>Stage Majority/Percent</b>	00, -	13, -	12, -
<b>Stage Minimum/Percent</b>	00, -	12, -	11, -
<b>Stage Maximum/Percent</b>	00, -	13, -	12, -
<b>Majority Height/Unit</b>	0 CM	6.35 CM	5.08 CM
<b>Min/Max (Unit=Height Unit)</b>	0, 0	1.27, 7.62	1.27, 5.08

**Application Equipment**

	<b>A</b>	<b>B</b>	<b>C</b>
<b>Application Method</b>	SPRAY	SPRAY	SPRAY
<b>Application Placement</b>	BROADC	BROADC	BROADC
<b>Application Equipment</b>	BACSPR	BACSPR	BACSPR
<b>Ground Speed</b>	4.8 KPH	4.8 KPH	4.8 KPH
<b>Propellant Type</b>	COMCO2	COMCO2	COMCO2
<b>Carrier</b>	WATER	WATER	WATER
<b>Appl./Slurry Volume</b>	140.3	140.3	140.3
<b>Appl./Slurry Volume Unit</b>	L/HA	L/HA	L/HA
<b>Minimum Mix/Treatment</b>	1.564 L	1.564 L	1.564 L
<b>Mix Overage</b>	0 ML	0 ML	0 ML
<b>Mix Size</b>	1.8 L	1.8 L	1.8 L
<b>Operating Pressure</b>	172.4 KPA	165.5 KPA	151.7 KPA
<b>Spray Swath Width</b>	3.0480001 M	3.0480001 M	3.0480001 M
<b>Nozzle Type</b>	TEEJAI	TJAIXR	TEEJTU
<b>Nozzle Size</b>	110015	110015	110015
<b>Nozzle Spacing</b>	38.1 CM	38.1 CM	38.1 CM
<b>Nozzles/Row</b>	8	8	8
<b>Boom Height</b>	43.2 CM	43.2 CM	43.2 CM

**Maintenance**

<b>Date</b>	<b>Crop</b>			<b>Dosage</b>	<b>Dosage Unit</b>	<b>Maintenance Product Name</b>
4/7/2020	A2	C	BCOR	202	KG N/HA	UAN

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Trial ID: 20S-TPAC-CORN-03

Protocol Developer: Riley, Eric  
License User: Childs, Dan

Unique Col. ID	1	15	16	17	18
Orig./Calc. Flag	O	O	O	O	O
SE Group	1	1	1	2	2
SE ID	PE12AD1	EE22AD3	EE22AD3	PE12AD1	EE22AD3
SE Label	Estimat	1 weed,	1 weed,	Estimat	1 weed,
Target		1, AMBTR	2, ECHCG		1, AMBTR
-Disc./Scale		W, BDIC	W, BGRM		W, BDIC
-Characteristic		SOILBORN	SOILBORN		SOILBORN
-Stage Majority		16	13		
-Stage Minimum		12	12		
-Stage Maximum		18	13		
Crop	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
-Disc./Scale	C, BCOR	C, BCOR	C, BCOR	C, BCOR	C, BCOR
Variety	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB
-Characteristic	RR2/LL	RR2/LL	RR2/LL	RR2/LL	RR2/LL
-Stage Maj/Min/Max	12, 12, 13	12, 12, 13	12, 12, 13		
Assessment Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO
Assessment Unit	%	%	%	%	%
Sample Size	1	1	1	1	1
Sample Size Unit	PLOT	PLOT	PLOT	PLOT	PLOT
Sample Size (total)	1	1	1	1	1
Assessment Date	5/29/2020	5/29/2020	5/29/2020	6/11/2020	6/11/2020
Assessment Code	B0	B0	B0	C0	C0
Days after first Appl.	22 DAA	22 DAA	22 DAA	35 DAA	35 DAA
Days after last Appl.	22 DAA	22 DAA	22 DAA	13 DAB	13 DAB
Plant.-Ass.Interval	22 DP1	22 DP1	22 DP1	35 DP1	35 DP1
Days after Emergence	11 DE1	11 DE1	11 DE1	24 DE1	24 DE1
Entry No.	1	2	3	4	5
Entry/Trt. Description					
1 UNTREATED	0.0	0.0	0.0	0.0	0.0
2 CORVUS HERBICIDE HARNESS XTRA 5.6L	0.0 -	99.3 a	100.0 -	0.0 -	95.5 ab
3 BALANCE FLEXX HERBICIDE HARNESS XTRA 5.6L	0.0 -	98.5 a	100.0 -	0.0 -	95.5 ab
4 HARNESS MAX ATRAZINE	0.0 -	98.5 a	100.0 -	0.0 -	94.8 ab
5 ACURON HERBICIDE	0.0 -	99.3 a	100.0 -	0.0 -	97.3 a
6 CAPRENO HERBICIDE DEGREE EXTRA ROUNDUP POWER MAX N-PAK AMS LIQUID	119.9 G AI/HA B 3403 G AI/HA B 1263 G AI/HA B 2.5 % V/V B			0.0 -	97.8 a
7 HARNESS MAX ATRAZINE ROUNDUP POWER MAX N-PAK AMS LIQUID	2160 G AI/HA B 1122 G AI/HA B 1263 G AI/HA B 2.5 % V/V B			0.0 -	97.5 a
8 DEGREE EXTRA DIFLEXX ROUNDUP POWER MAX CLASS ACT RIDION	3403 G AI/HA B 295.8 G AI/HA B 1263 G AI/HA B 1 % V/V B			0.0 -	97.8 a
9 HALEX GT ATRAZINE NIS N-PAK AMS LIQUID	2213 G AI/HA B 1122 G AI/HA B 0.25 % V/V B 2.5 % V/V B			0.0 -	93.5 bc
10 CORVUS HERBICIDE ATRAZINE HARNESS MAX ROUNDUP POWER MAX N-PAK AMS LIQUID	152.9 G AI/HA A 1122 G AI/HA A 1350 G AI/HA C 1263 G AI/HA C 2.5 % V/V C	0.0 -	96.0 b	100.0 -	0.0 - 90.5 cd

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Untreated treatment(s) 1 excluded from analysis.  
 Could not calculate LSD (% mean diff) for columns 1,3,4,7 because error mean square = 0.  
 ^Calculated from residual.

Unique Col. ID	1	15	16	17	18				
Orig./Calc. Flag	O	O	O	O	O				
SE Group	1	1	1	2	2				
SE ID	PE12AD1	EE22AD3	EE22AD3	PE12AD1	EE22AD3				
SE Label	Estimat	1 weed,	1 weed,	Estimat	1 weed,				
Target		1, AMBTR	2, ECHCG		1, AMBTR				
-Disc./Scale		W, BDIC	W, BGRM		W, BDIC				
-Characteristic		SOILBORN	SOILBORN		SOILBORN				
-Stage Majority		16	13						
-Stage Minimum		12	12						
-Stage Maximum		18	13						
Crop	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD				
-Disc./Scale	C, BCOR	C, BCOR	C, BCOR	C, BCOR	C, BCOR				
Variety	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB				
-Characteristic	RR2/LL	RR2/LL	RR2/LL	RR2/LL	RR2/LL				
-Stage Maj/Min/Max	12, 12, 13	12, 12, 13	12, 12, 13						
Assessment Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO				
Assessment Unit	%	%	%	%	%				
Sample Size	1	1	1	1	1				
Sample Size Unit	PLOT	PLOT	PLOT	PLOT	PLOT				
Sample Size (total)	1	1	1	1	1				
Assessment Date	5/29/2020	5/29/2020	5/29/2020	6/11/2020	6/11/2020				
Assessment Code	B0	B0	B0	C0	C0				
Days after first Appl.	22 DAA	22 DAA	22 DAA	35 DAA	35 DAA				
Days after last Appl.	22 DAA	22 DAA	22 DAA	13 DAB	13 DAB				
Plant.-Ass.Interval	22 DP1	22 DP1	22 DP1	35 DP1	35 DP1				
Days after Emergence	11 DE1	11 DE1	11 DE1	24 DE1	24 DE1				
Entry No.	Entry/Trt. Description	Dose	Dose Unit	Appl. Code	1	2	3	4	5
11	BALANCE FLEXX HERBICIDE	105.2 G	AI/HA A	A	0.0 -	98.5 a	100.0 -	0.0 -	91.3 cd
	HARNES XTRA 5.6L	2514 G	AI/HA A	A					
	CAPRENO HERBICIDE	119.9 G	AI/HA C	C					
	ROUNDUP POWER MAX	1263 G	AI/HA C	C					
	N-PAK AMS LIQUID	2.5 %	V/V C	C					
12	ACURON HERBICIDE	1493 G	AI/HA A	A	0.0 -	95.0 b	100.0 -	0.0 -	90.0 d
	HALEX GT	2213 G	AI/HA C	C					
	ATRAZINE	1122 G	AI/HA C	C					
	NIS	0.25 %	V/V C	C					
	N-PAK AMS LIQUID	2.5 %	V/V C	C					
LSD P=.05						2.16			3.27
Standard Deviation					0.00	1.45	0.00	0.00	2.26
CV					0.0	1.48	0.0	0.0	2.39
Grand Mean					0.00	97.86	100.00	0.00	94.66
Levene's F^						0.833			0.477
Levene's Prob(F)						0.558			0.893
Rank X2									
P(Rank X2)									
Skewness^						-0.2475			-0.6997
Kurtosis^						-1.2004			1.4623*
Replicate F					0.000	1.040	0.000	0.000	3.315
Replicate Prob(F)					1.0000	0.3989	1.0000	1.0000	0.0331
Treatment F					0.000	5.294	0.000	0.000	6.811
Treatment Prob(F)					1.0000	0.0027	1.0000	1.0000	0.0001

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^Calculated from residual.

Unique Col. ID	19	20	21	22	23	
Orig./Calc. Flag	O	O	O	O	O	
SE Group	3	2	2	2	2	
SE ID	EE22AD3	PE12AD1	EE22AD3	EE22AD3	EE22AD3	
SE Label	1 weed,	Estimat	1 weed,	1 weed,	1 weed,	
Target	2, ECHCG		1, AMBTR	2, ECHCG	1, AMBTR	
-Disc./Scale	W, BGRM		W, BDIC	W, BGRM	W, BDIC	
-Characteristic	SOILBORN		SOILBORN	SOILBORN	SOILBORN	
-Stage Majority						
-Stage Minimum						
-Stage Maximum						
Crop	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	
-Disc./Scale	C, BCOR	C, BCOR	C, BCOR	C, BCOR	C, BCOR	
Variety	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB	
-Characteristic	RR2/LL	RR2/LL	RR2/LL	RR2/LL	RR2/LL	
-Stage Maj/Min/Max						
Assessment Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	
Assessment Unit	%	%	%	%	%	
Sample Size	1	1	1	1	1	
Sample Size Unit	PLOT	PLOT	PLOT	PLOT	PLOT	
Sample Size (total)	1	1	1	1	1	
Assessment Date	6/11/2020	6/28/2020	6/28/2020	6/28/2020	7/17/2020	
Assessment Code	C0	C3	C3	C3	C5	
Days after first Appl.	35 DAA	52 DAA	52 DAA	52 DAA	71 DAA	
Days after last Appl.	13 DAB	16 DAC	16 DAC	16 DAC	35 DAC	
Plant.-Ass.Interval	35 DP1	52 DP1	52 DP1	52 DP1	71 DP1	
Days after Emergence	24 DE1	41 DE1	41 DE1	41 DE1	60 DE1	
Entry No.	6	7	8	9	10	
Entry/Trt. Description						
1 UNTREATED	0.0	0.0	0.0	0.0	0.0	
2 CORVUS HERBICIDE HARNESS XTRA 5.6L	190.3 G AI/HA A 3143 G AI/HA A	99.3 ab	0.0 -	96.0 cd	99.3 a	96.0 cde
3 BALANCE FLEXX HERBICIDE HARNESS XTRA 5.6L	175.4 G AI/HA A 3143 G AI/HA A	99.3 ab	0.0 -	94.8 d	98.0 a	94.8 de
4 HARNESS MAX ATRAZINE	2532 G AI/HA A 1122 G AI/HA A	100.0 a	0.0 -	95.5 cd	99.3 a	96.8 bcd
5 ACURON HERBICIDE	2737 G AI/HA A	100.0 a	0.0 -	97.3 bc	97.8 a	96.8 bcd
6 CAPRENO HERBICIDE DEGREE EXTRA ROUNDUP POWER MAX N-PAK AMS LIQUID	119.9 G AI/HA B 3403 G AI/HA B 1263 G AI/HA B 2.5 % V/V B	95.8 bcd	0.0 -	97.8 abc	91.3 b	97.3 bc
7 HARNESS MAX ATRAZINE ROUNDUP POWER MAX N-PAK AMS LIQUID	2160 G AI/HA B 1122 G AI/HA B 1263 G AI/HA B 2.5 % V/V B	100.0 a	0.0 -	97.8 abc	98.0 a	97.8 abc
8 DEGREE EXTRA DIFLEXX ROUNDUP POWER MAX CLASS ACT RIDION	3403 G AI/HA B 295.8 G AI/HA B 1263 G AI/HA B 1 % V/V B	98.5 ab	0.0 -	98.5 ab	95.5 ab	98.5 ab
9 HALEX GT ATRAZINE NIS N-PAK AMS LIQUID	2213 G AI/HA B 1122 G AI/HA B 0.25 % V/V B 2.5 % V/V B	96.8 abc	0.0 -	96.0 cd	91.3 b	93.8 e
10 CORVUS HERBICIDE ATRAZINE HARNESS MAX ROUNDUP POWER MAX N-PAK AMS LIQUID	152.9 G AI/HA A 1122 G AI/HA A 1350 G AI/HA C 1263 G AI/HA C 2.5 % V/V C	94.0 cd	0.0 -	100.0 a	100.0 a	100.0 a

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Unique Col. ID	19	20	21	22	23
Orig./Calc. Flag	O	O	O	O	O
SE Group	3	2	2	2	2
SE ID	EE22AD3	PE12AD1	EE22AD3	EE22AD3	EE22AD3
SE Label	1 weed,	Estimat	1 weed,	1 weed,	1 weed,
Target	2, ECHCG		1, AMBTR	2, ECHCG	1, AMBTR
-Disc./Scale	W, BGRM		W, BDIC	W, BGRM	W, BDIC
-Characteristic	SOILBORN		SOILBORN	SOILBORN	SOILBORN
-Stage Majority					
-Stage Minimum					
-Stage Maximum					
Crop	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
-Disc./Scale	C, BCOR	C, BCOR	C, BCOR	C, BCOR	C, BCOR
Variety	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB	DKC 62-52RIB
-Characteristic	RR2/LL	RR2/LL	RR2/LL	RR2/LL	RR2/LL
-Stage Maj/Min/Max					
Assessment Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Assessment Unit	%	%	%	%	%
Sample Size	1	1	1	1	1
Sample Size Unit	PLOT	PLOT	PLOT	PLOT	PLOT
Sample Size (total)	1	1	1	1	1
Assessment Date	6/11/2020	6/28/2020	6/28/2020	6/28/2020	7/17/2020
Assessment Code	C0	C3	C3	C3	C5
Days after first Appl.	35 DAA	52 DAA	52 DAA	52 DAA	71 DAA
Days after last Appl.	13 DAB	16 DAC	16 DAC	16 DAC	35 DAC
Plant.-Ass.Interval	35 DP1	52 DP1	52 DP1	52 DP1	71 DP1
Days after Emergence	24 DE1	41 DE1	41 DE1	41 DE1	60 DE1
Entry No.	6	7	8	9	10
Entry/Trt. Description					
Dose					
Dose Unit					
Appl. Code					
11 BALANCE FLEXX HERBICIDE	105.2 G AI/HA A				
HARNES XTRA 5.6L	2514 G AI/HA A				
CAPRENO HERBICIDE	119.9 G AI/HA C				
ROUNDUP POWER MAX	1263 G AI/HA C				
N-PAK AMS LIQUID	2.5 % V/V C				
12 ACURON HERBICIDE	1493 G AI/HA A				
HALEX GT	2213 G AI/HA C				
ATRAZINE	1122 G AI/HA C				
NIS	0.25 % V/V C				
N-PAK AMS LIQUID	2.5 % V/V C				
LSD P=.05	4.04	.	2.46	5.03	2.36
Standard Deviation	2.80	0.00	1.70	3.48	1.64
CV	2.87	0.0	1.74	3.58	1.68
Grand Mean	97.70	0.00	97.59	97.30	97.41
Levene's F^	1.966	.	1.714	0.783	1.979
Levene's Prob(F)	0.071	.	0.119	0.644	0.069
Rank X2	.	.	.	.	.
P(Rank X2)	.	.	.	.	.
Skewness^	-0.6203	.	-0.5018	-1.2812*	-0.507
Kurtosis^	3.5271*	.	1.0709	3.0343*	0.9728
Replicate F	0.660	0.000	4.874	2.501	4.629
Replicate Prob(F)	0.5832	1.0000	0.0070	0.0784	0.0089
Treatment F	3.627	0.000	4.969	3.533	6.691
Treatment Prob(F)	0.0030	1.0000	0.0003	0.0035	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Untreated treatment(s) 1 excluded from analysis.  
Could not calculate LSD (% mean diff) for columns 1,3,4,7 because error mean square = 0.  
^Calculated from residual.

Unique Col. ID	24
Orig./Calc. Flag	O
SE Group	2
SE ID	EE22AD3
SE Label	1 weed,
Target	2, ECHCG
-Disc./Scale	W, BGRM
-Characteristic	SOILBORN
-Stage Majority	
-Stage Minimum	
-Stage Maximum	
Crop	1, ZEAMD
-Disc./Scale	C, BCOR
Variety	DKC 62-52RIB
-Characteristic	RR2/LL
-Stage Maj/Min/Max	
Assessment Type	CONTRO
Assessment Unit	%
Sample Size	1
Sample Size Unit	PLOT
Sample Size (total)	1
Assessment Date	7/17/2020
Assessment Code	C5
Days after first Appl.	71 DAA
Days after last Appl.	35 DAC
Plant.-Ass.Interval	71 DP1
Days after Emergence	60 DE1
Entry No.	11
Entry/Trt. Description	
1 UNTREATED	0.0
2 CORVUS HERBICIDE HARNESS XTRA 5.6L	190.3 G AI/HA A 3143 G AI/HA A
3 BALANCE FLEXX HERBICIDE HARNESS XTRA 5.6L	175.4 G AI/HA A 3143 G AI/HA A
4 HARNESS MAX ATRAZINE	2532 G AI/HA A 1122 G AI/HA A
5 ACURON HERBICIDE	2737 G AI/HA A
6 CAPRENO HERBICIDE DEGREE EXTRA ROUNDUP POWER MAX N-PAK AMS LIQUID	119.9 G AI/HA B 3403 G AI/HA B 1263 G AI/HA B 2.5 % V/V B
7 HARNESS MAX ATRAZINE ROUNDUP POWER MAX N-PAK AMS LIQUID	2160 G AI/HA B 1122 G AI/HA B 1263 G AI/HA B 2.5 % V/V B
8 DEGREE EXTRA DIFLEXX ROUNDUP POWER MAX CLASS ACT RIDION	3403 G AI/HA B 295.8 G AI/HA B 1263 G AI/HA B 1 % V/V B
9 HALEX GT ATRAZINE NIS N-PAK AMS LIQUID	2213 G AI/HA B 1122 G AI/HA B 0.25 % V/V B 2.5 % V/V B
10 CORVUS HERBICIDE ATRAZINE HARNESS MAX ROUNDUP POWER MAX N-PAK AMS LIQUID	152.9 G AI/HA A 1122 G AI/HA A 1350 G AI/HA C 1263 G AI/HA C 2.5 % V/V C

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Untreated treatment(s) 1 excluded from analysis.  
Could not calculate LSD (% mean diff) for columns 1,3,4,7 because error mean square = 0.  
^Calculated from residual.

Unique Col. ID	24				
Orig./Calc. Flag	O				
SE Group	2				
SE ID	EE22AD3				
SE Label	1 weed,				
Target	2, ECHCG				
-Disc./Scale	W, BGRM				
-Characteristic	SOILBORN				
-Stage Majority					
-Stage Minimum					
-Stage Maximum					
Crop	1, ZEAMD				
-Disc./Scale	C, BCOR				
Variety	DKC 62-52RIB				
-Characteristic	RR2/LL				
-Stage Maj/Min/Max					
Assessment Type	CONTRO				
Assessment Unit	%				
Sample Size	1				
Sample Size Unit	PLOT				
Sample Size (total)	1				
Assessment Date	7/17/2020				
Assessment Code	C5				
Days after first Appl.	71 DAA				
Days after last Appl.	35 DAC				
Plant.-Ass.Interval	71 DP1				
Days after Emergence	60 DE1				
Entry No.	Entry/Trt. Description	Dose Unit	Dose Unit	Appl. Code	11
11	BALANCE FLEXX HERBICIDE	105.2 G	AI/HA	A	100.0 a
	HARNESX XTRA 5.6L	2514 G	AI/HA	A	
	CAPRENO HERBICIDE	119.9 G	AI/HA	C	
	ROUNDUP POWER MAX	1263 G	AI/HA	C	
	N-PAK AMS LIQUID	2.5 %	V/V	C	
12	ACURON HERBICIDE	1493 G	AI/HA	A	100.0 a
	HALEX GT	2213 G	AI/HA	C	
	ATRAZINE	1122 G	AI/HA	C	
	NIS	0.25 %	V/V	C	
	N-PAK AMS LIQUID	2.5 %	V/V	C	
LSD P=.05	7.54				
Standard Deviation	5.22				
CV	5.41				
Grand Mean	96.52				
Levene's F^	0.907				
Levene's Prob(F)	0.538				
Rank X2	.				
P(Rank X2)	.				
Skewness^	-1.4933*				
Kurtosis^	4.489*				
Replicate F	2.305				
Replicate Prob(F)	0.0969				
Treatment F	3.117				
Treatment Prob(F)	0.0077				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Untreated treatment(s) 1 excluded from analysis.  
Could not calculate LSD (% mean diff) for columns 1,3,4,7 because error mean square = 0.  
^Calculated from residual.

# Purdue Weed Science

## Bayer Corn Portfolio Midwest-North/Corn/Grass & Broadleaf/Phyto & Efficacy

Trial ID: 20S-TPAC-CORN-03

Protocol Developer: Riley, Eric  
License User: Childs, Dan

**SE ID**

PE12AD1 = Estimation % phytotoxicity (PHYGEN) (symptoms describe in co  
EE22AD3 = 1 weed, % efficacy, in untreated % coverage

**Target**

- 1, AMBTR, W, BDIC, SOILBORN, , = Ambrosia trifida L.
- 2, ECHCG, W, BGRM, SOILBORN, , = Echinochloa crus-galli (L.) P.

**-Stage Majority**

- 16 (BDIC) = 6 true leaves, leaf pairs or whorls unfolded
- 13 (BGRM) = 3 true leaves, leaf pairs or whorls unfolded

**-Stage Minimum**

- 12 (BDIC) = 2 true leaves, leaf pairs or whorls unfolded
- 12 (BGRM) = 2 true leaves, leaf pairs or whorls unfolded

**-Stage Maximum**

- 18 (BDIC) = 8 true leaves, leaf pairs or whorls unfolded
- 13 (BGRM) = 3 true leaves, leaf pairs or whorls unfolded

**Crop**

- 1, ZEAMD, C, BCOR, DKC 62-52RIB, RR2/LL = Zea mays L. ssp. indentata STU

**-Stage Maj/Min/Max**

- 12 (BCOR) = 2 leaves unfolded
- 13 (BCOR) = 3 leaves unfolded

**Assessment Type**

PHYGEN = Phytotoxicity - General, Injury

CONTRO = Control

**Assessment Unit**

% = Percent

**Sample Size Unit**

PLOT = Plot

**Plant.-Ass.Interval**

- 22 DP1 = 1 ZEAMD 5/7/2020
- 35 DP1 = 1 ZEAMD 5/7/2020
- 52 DP1 = 1 ZEAMD 5/7/2020
- 71 DP1 = 1 ZEAMD 5/7/2020