

# Purdue University

## Planned two pass programs for weed control in corn.

Trial ID: 13S-THP-CTC-14      Protocol ID: 13S-THP-CTC-14  
 Location: Throckmorton      Study Director:  
 Project ID: DEM-AWC-CORN01-2013      Investigator: Dr. Bill Johnson  
 Sponsor Contact: BASF- Gery Welker

### General Trial Information

**Investigator:** Dr. Bill Johnson    **Title:** Professor

### Personnel

**Investigator:** Dr. Bill Johnson      **Title:** Professor  
**Affiliation:** Purdue University  
**Address:** 915 W State Street  
**Location:** West Lafayette, IN, USA  
**Postal Code:** 47907      **E-mail:** wgj@purdue.edu  
**Phone No.:** 765-494-4656    **Mobile No.:** 765-404-9801

### Crop Description

**Crop 1:** ZEAMD Zea mays indentata    Dent corn  
**Variety:** DEKALB DKC61-21      **Description:** RR/LL  
**BBCH Scale:** BCOR      **Planting Date:** May-8-2013  
**Planting Method:** DIRDRI    direct drilled      **Rate, Unit:** 32000 S/A  
**Depth, Unit:** 1.5    IN  
**Row Spacing, Unit:** 30    IN  
**Soil Temperature, Unit:** 67    F  
**Soil Moisture:** DRY    dry      **Emergence Date:** May-17-2013

### Pest Description

**Pest 1 Type:** W    **Code:** SETFA Setaria faberi  
**Common Name:** Giant foxtail

**Pest 2 Type:** W    **Code:** ABUTH Abutilon theophrasti  
**Common Name:** velvetleaf

**Pest 3 Type:** W    **Code:** AMBTR Ambrosia trifida  
**Common Name:** Giant ragweed

**Pest 4 Type:** W    **Code:** CHEAL Chenopodium album  
**Common Name:** Common lambsquarters

**Pest 5 Type:** W    **Code:** IPOHE Ipomoea hederacea  
**Common Name:** Ivyleaf morningglory

### Site and Design

**Plot Width, Unit:** 10 FT      **Site Type:** FIELD    field  
**Plot Length, Unit:** 30 FT    **Experimental Unit:** 1    PLOT plot  
**Plot Area, Unit:** 300 FT<sup>2</sup>    **Tillage Type:** CONTIL    conventional-till  
**Replications:** 4      **Study Design:** RACOB    Randomized Complete Block (RCB)  
**Untreated Arrangement:** INCLUDED    single control randomized in each block

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## Application Description

	A	B	C
<b>Application Date:</b>	May-8-2013	May-24-2013	Jun-5-2013
<b>Time of Day:</b>	PM	8:45 AM	8:15 AM
<b>Application Method:</b>	SPRAY	SPRAY	SPRAY
<b>Application Timing:</b>	ATPLAN	EAPOCR	MIPOCR
<b>Application Placement:</b>	SOIL	FOLIAR	FOLIAR
<b>Applied By:</b>	MW	GT	MW
<b>Air Temperature, Unit:</b>	67 F	49 F	52 F
<b>% Relative Humidity:</b>	62	69	64
<b>Wind Velocity, Unit:</b>	14 MPH	2 MPH	1.7 MPH
<b>Wind Direction:</b>	NW	W	E
<b>Dew Presence (Y/N):</b>	N no	Y yes	Y yes
<b>Soil Temperature, Unit:</b>	67 F	45 F	49 F
<b>Soil Moisture:</b>	DRY	DRY	WET
<b>% Cloud Cover:</b>	15	5	10

## Crop Stage At Each Application

	A	B	C
<b>Crop 1 Code, BBCH Scale:</b>	ZEAMD BCOR	ZEAMD BCOR	ZEAMD BCOR
<b>Stage Scale Used:</b>		BBCH	BBCH
<b>Stage Majority, Percent:</b>		V2	V3

## Pest Stage At Each Application

	A	B	C
<b>Pest 1 Code, Type, Scale:</b>	SETFA W	SETFA W	SETFA W
<b>Height Minimum, Maximum:</b>		0.5 1	1 4
<b>Density, Unit:</b>		20 YD2	17 YD2
<b>Pest 2 Code, Type, Scale:</b>	ABUTH W	ABUTH W	ABUTH W
<b>Height, Unit:</b>		1 IN	
<b>Density, Unit:</b>		3 YD2	
<b>Pest 3 Code, Type, Scale:</b>	AMBTR W	AMBTR W	AMBTR W
<b>Height, Unit:</b>		1.5 IN	
<b>Density, Unit:</b>		2 YD2	
<b>Pest 4 Code, Type, Scale:</b>	CHEAL W	CHEAL W	CHEAL W
<b>Height, Unit:</b>		0.5 IN	
<b>Height Minimum, Maximum:</b>			1 2
<b>Density, Unit:</b>		8 YD2	2 YD2
<b>Pest 5 Code, Type, Scale:</b>	IPOHE W	IPOHE W	IPOHE W
<b>Height, Unit:</b>		1 IN	
<b>Height Minimum, Maximum:</b>			1 2
<b>Density, Unit:</b>		1 YD2	2 YD2

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## Application Equipment

	A	B	C
<b>Appl. Equipment:</b>	CO2 FORD	CO2 BKPCK	CO2 FORD
<b>Equipment Type:</b>	SPTRMO	SPRBAC	SPTRMO
<b>Operation Pressure, Unit:</b>	20 PSI	17 PSI	20 PSI
<b>Nozzle Type:</b>	FLAT FAN	AIXR	FLAT FAN
<b>Nozzle Size:</b>	XR 100 02	XR 100 02	XR 100 02
<b>Nozzle Spacing, Unit:</b>	20 IN	15 IN	20 IN
<b>Nozzles/Row:</b>	6	8	6
<b>Boom Length, Unit:</b>	10 FT	10 FT	10 FT
<b>Boom Height, Unit:</b>	20 IN	18 IN	20 IN
<b>Ground Speed, Unit:</b>	2.1 MPH	2.2 MPH	2.1 MPH
<b>Carrier:</b>	MEIGS	MEIGS	MEIGS
<b>Spray Volume, Unit:</b>	20 gal/ac	20 gal/ac	20 gal/ac
<b>Mix Size, Unit:</b>	2.5 liters	2.5 liters	2.5 liters
<b>Propellant:</b>	CO2	CO2	CO2
<b>Tank Mix (Y/N):</b>		N no	

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## Planned two pass programs for weed control in corn.

Trial ID: 13S-THP-CTC-14 Protocol ID: 13S-THP-CTC-14  
 Location: Throckmorton Study Director:  
 Project ID: DEM-AWC-CORN01-2013 Investigator: Dr. Bill Johnson  
 Sponsor Contact: BASF- Gery Welker

Reps: 4 Plots: 10 by 30 feet  
 Spray vol: 20 gal/ac Mix size: 2.5 liters (min 2.0856)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Appl Description	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check											101	405	702	805
2	Zidua (85 WG)	85 %		WG	2.13 oz ai/a	2.5 oz wt/a		ATPLAN	A		2.346 g/mx	102	404	602	804
	Status (56 SG)	56 %		SG	2.8 oz ai/a	5 oz wt/a		MIPOCR	C	6-10" Corn	4.681 g/mx				
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL		SL	0.77 lb ae/a	22 fl oz/a		MIPOCR	C	6-10" Corn	21.39 ml/mx				
	NIS	100 %		SL	0.25 % v/v	0.25 % v/v		MIPOCR	C	6-10" Corn	6.249 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	8.5 lb ai/100 gal	10 qt/100 gal		MIPOCR	C	6-10" Corn	62.49 ml/mx				
3	Zidua (85 WG)	85 %		WG	2.13 oz ai/a	2.5 oz wt/a		ATPLAN	A		2.346 g/mx	104	502	704	901
	Armezon (2.8 SC)	2.8 LBA/GAL		SL	0.263 oz ai/a	0.75 fl oz/a		MIPOCR	C	6-10" Corn	0.7337 ml/mx				
	Atrazine	4 LBA/GAL		F	0.5 lb ai/a	1 pt/a		MIPOCR	C	6-10" Corn	15.62 ml/mx				
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL		SL	0.77 lb ae/a	22 fl oz/a		MIPOCR	C	6-10" Corn	21.39 ml/mx				
	MSO				1 % v/v	1 % v/v		MIPOCR	C	6-10" Corn	25.0 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	7.2 lb ai/100 gal	8.5 qt/100 gal		MIPOCR	C	6-10" Corn	52.94 ml/mx				
4	Zidua (85 WG)	85 %		WG	2.13 oz ai/a	2.5 oz wt/a		EAPOCR	B	Spike - V2	2.346 g/mx	105	402	605	904
	Atrazine	4 LBA/GAL		F	1.5 lb ai/a	1.5 qt/a		EAPOCR	B	Spike - V2	46.87 ml/mx				
	Armezon (2.8 SC)	2.8 LBA/GAL		SL	0.263 oz ai/a	0.75 fl oz/a		EAPOCR	B	Spike - V2	0.7337 ml/mx				
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL		SL	0.77 lb ae/a	22 fl oz/a		EAPOCR	B	Spike - V2	21.39 ml/mx				
	MSO				1 % v/v	1 % v/v		EAPOCR	B	Spike - V2	25.0 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	7.2 lb ai/100 gal	8.5 qt/100 gal		EAPOCR	B	Spike - V2	52.94 ml/mx				
5	Verdict (5.57 SC)	5.57 LBA/GAL		SC	10.4 oz ai/a	15 fl oz/a		ATPLAN	A		14.59 ml/mx	201	505	705	905
	Status (56 SG)	56 %		SG	2.8 oz ai/a	5 oz wt/a		MIPOCR	C	6-10" Corn	4.681 g/mx				
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL		SL	0.77 lb ae/a	22 fl oz/a		MIPOCR	C	6-10" Corn	21.39 ml/mx				
	NIS	100 %		SL	0.25 % v/v	0.25 % v/v		MIPOCR	C	6-10" Corn	6.249 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	8.5 lb ai/100 gal	10 qt/100 gal		MIPOCR	C	6-10" Corn	62.49 ml/mx				
6	Verdict (5.57 SC)	5.57 LBA/GAL		SC	10.4 oz ai/a	15 fl oz/a		ATPLAN	A		14.59 ml/mx	202	501	802	1005
	Armezon (2.8 SC)	2.8 LBA/GAL		SL	0.263 oz ai/a	0.75 fl oz/a		MIPOCR	C	6-10" Corn	0.7337 ml/mx				
	Atrazine	4 LBA/GAL		F	0.5 lb ai/a	1 pt/a		MIPOCR	C	6-10" Corn	15.62 ml/mx				
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL		SL	0.77 lb ae/a	22 fl oz/a		MIPOCR	C	6-10" Corn	21.39 ml/mx				
	MSO				1 % v/v	1 % v/v		MIPOCR	C	6-10" Corn	25.0 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	8.5 lb ai/100 gal	10 qt/100 gal		MIPOCR	C	6-10" Corn	62.49 ml/mx				
7	Guardman Max (5 SC)	5 LBA/GAL		SC	2.5 lb ai/a	4 pt/a		EAPOCR	B	Spike - V2	62.49 ml/mx	204	401	601	902
	Armezon (2.8 SC)	2.8 LBA/GAL		SL	0.263 oz ai/a	0.75 fl oz/a		EAPOCR	B	Spike - V2	0.7337 ml/mx				
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL		SL	0.77 lb ae/a	22 fl oz/a		EAPOCR	B	Spike - V2	21.39 ml/mx				
	MSO				1 % v/v	1 % v/v		EAPOCR	B	Spike - V2	25.0 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	8.5 lb ai/100 gal	10 qt/100 gal		EAPOCR	B	Spike - V2	62.49 ml/mx				
8	Halex GT (4.39 SC)	4.39 LBA/GAL		SC	35 oz ai/a	4 pt/a		EAPOCR	B	Spike - V2	62.28 ml/mx	205	305	604	1004
	Atrazine	4 LBA/GAL		F	1 lb ai/a	1 qt/a		EAPOCR	B	Spike - V2	31.25 ml/mx				
	NIS	100 %		SL	0.25 % v/v	0.25 % v/v		EAPOCR	B	Spike - V2	6.249 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	8.5 lb ai/100 gal	10 qt/100 gal		EAPOCR	B	Spike - V2	62.49 ml/mx				
9	Capreno (3.45 SL)	3.45 LB/GAL		SC	1.3 oz ai/a	3 fl oz/a		EAPOCR	B	Spike - V2	2.944 ml/mx	301	304	701	1001
	Atrazine	4 LBA/GAL		F	0.5 lb ai/a	1 pt/a		EAPOCR	B	Spike - V2	15.62 ml/mx				
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL		SL	0.77 lb ae/a	22 fl oz/a		EAPOCR	B	Spike - V2	21.39 ml/mx				
	HSOC	100 %		SL	0.5 % v/v	0.5 % v/v		EAPOCR	B	Spike - V2	12.5 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	8.5 lb ai/100 gal	10 qt/100 gal		EAPOCR	B	Spike - V2	62.49 ml/mx				
10	Anthem ATZ (4.505 SC)	4.505 LBA/GAL		SC	1.27 lb ai/a	2.25 pt/a		EAPOCR	B	Spike - V2	35.23 ml/mx	302	504	801	1002
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL		SL	0.77 lb ae/a	22 fl oz/a		EAPOCR	B	Spike - V2	21.39 ml/mx				
	NIS	100 %		SL	0.25 % v/v	0.25 % v/v		EAPOCR	B	Spike - V2	6.249 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	8.5 lb ai/100 gal	10 qt/100 gal		EAPOCR	B	Spike - V2	62.49 ml/mx				
11	SureStart (4.25 SC)	4.25 LBA/GAL		SC	1.06 lb ai/a	2 pt/a		EAPOCR	B	Spike - V2	31.17 ml/mx	103	303	603	803
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL		SL	0.77 lb ae/a	22 fl oz/a		EAPOCR	B	Spike - V2	21.39 ml/mx				
	NIS	100 %		SL	0.25 % v/v	0.25 % v/v		EAPOCR	B	Spike - V2	6.249 ml/mx				
	AMS - Liquid	3.4 LB/GAL		SL	8.5 lb ai/100 gal	10 qt/100 gal		EAPOCR	B	Spike - V2	62.49 ml/mx				

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Reps: 4

Plots: 10 by 30 feet

Spray vol: 20 gal/ac

Mix size: 2.5 liters (min 2.0856)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Appl Description	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
12	Bicep II Magnum (5.5 SC)	5.5 LB/GAL	SC		2.9 lb ai/a		2.1 qt/a		ATPLAN	A		65.9 ml/mx	203	403	703	903
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		0.77 lb ae/a		22 fl oz/a		MIPOCR	C	6-10" Corn	21.39 ml/mx				
	Callisto Xtra (3.7 SC)	3.7 LB/GAL	SC		0.694 lb ai/a		1.5 pt/a		MIPOCR	C	6-10" Corn	23.44 ml/mx				
	NIS	100 %	SL		0.25 % v/v		0.25 % v/v		MIPOCR	C	6-10" Corn	6.249 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		8.5 lb ai/100 gal		10 qt/100 gal		MIPOCR	C	6-10" Corn	62.49 ml/mx				

Sort Order: Treatment

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Trial ID: 13S-THP-CTC-14      Protocol ID: 13S-THP-CTC-14  
 Location: Throckmorton      Study Director:  
 Project ID: DEM-AWC-CORN01-2013      Investigator: Dr. Bill Johnson  
 Sponsor Contact: BASF- Gery Welker

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code		SETFA	AMBTR	CHEAL	IPOHE	ABUTH		
Pest Scientific Name		Setaria faberi	Ambrosia trifi>	Chenopodium al>	Ipomoea heder>	Abutilon theop>		
Pest Name		Giant foxtail	Giant ragweed	Common lambsqu>	Ivyleaf mornin>	velvetleaf		
Crop Code	ZEAMX							
BBCH Scale	BCOR							
Crop Scientific Name	Zea mays							
Crop Name	Corn							
Rating Date	May-29-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013		
Rating Type	PHYNEC	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Crop Stage Majority	V2-V3	V3	V3	V3	V3	V3		
Pest Stage Majority		1-4 IN	2-3 IN	1-2 IN	1 IN	1 IN		
Pest Density, Unit		17 FT2	2 YD2	4 YD2	3 YD2	1 YD2		
Assessed By	BM/GT	BM/GT	BM/GT	BM/GT	BM/GT	BM/GT		
Days After First/Last Applic.	21 5	26 10	26 10	26 10	26 10	26 10		
Plant-Eval Interval	21 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1		
Days After Emergence	12 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6
1 Untreated Check		101	0.0	0.0	0.0	0.0	0.0	0.0
		405	0.0	0.0	0.0	0.0	0.0	0.0
		702	0.0	0.0	0.0	0.0	0.0	0.0
		805	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2 Zidua (85 WG)	2.13 oz ai/a	A 102	0.0	60.0	60.0	99.0	97.0	99.0
Status (56 SG)	2.8 oz ai/a	C 404	2.0	97.0	95.0	75.0	99.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C 602	0.0	20.0	95.0	97.0	95.0	99.0
NIS	0.25 % v/v	C 804	0.0	85.0	60.0	80.0	95.0	95.0
AMS - Liquid	8.5 lb ai/100 gal	C						
		Mean =	0.5	65.5	77.5	87.8	96.5	98.0
3 Zidua (85 WG)	2.13 oz ai/a	A 104	0.0	80.0	90.0	99.0	95.0	99.0
Armezon (2.8 SC)	0.263 oz ai/a	C 502	3.0	60.0	95.0	99.0	97.0	99.0
Atrazine	0.5 lb ai/a	C 704	0.0	80.0	95.0	95.0	95.0	95.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C 901	0.0	60.0	99.0	95.0	97.0	97.0
MSO	1 % v/v	C						
AMS - Liquid	7.2 lb ai/100 gal	C						
		Mean =	0.8	70.0	94.8	97.0	96.0	97.5
4 Zidua (85 WG)	2.13 oz ai/a	B 105	10.0	99.0	99.0	99.0	99.0	99.0
Atrazine	1.5 lb ai/a	B 402	5.0	99.0	99.0	99.0	99.0	99.0
Armezon (2.8 SC)	0.263 oz ai/a	B 605	5.0	99.0	99.0	99.0	97.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B 904	5.0	99.0	99.0	99.0	99.0	99.0
MSO	1 % v/v	B						
AMS - Liquid	7.2 lb ai/100 gal	B						
		Mean =	6.3	99.0	99.0	99.0	98.5	99.0
5 Verdict (5.57 SC)	10.4 oz ai/a	A 201	0.0	95.0	99.0	99.0	97.0	99.0
Status (56 SG)	2.8 oz ai/a	C 505	0.0	99.0	99.0	99.0	99.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C 705	0.0	95.0	99.0	99.0	99.0	99.0
NIS	0.25 % v/v	C 905	0.0	80.0	99.0	99.0	97.0	99.0
AMS - Liquid	8.5 lb ai/100 gal	C						
		Mean =	0.0	92.3	99.0	99.0	98.0	99.0

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Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code		SETFA	AMBTR	CHEAL	IPOHE	ABUTH			
Pest Scientific Name		Setaria faberi	Ambrosia trifi>	Chenopodium al>	Ipomoea heder>	Abutilon theop>			
Pest Name		Giant foxtail	Giant ragweed	Common lambsqu>	lyleaf mornin>	velvetleaf			
Crop Code	ZEAMX								
BBCH Scale	BCOR								
Crop Scientific Name	Zea mays								
Crop Name	Corn								
Rating Date	May-29-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013			
Rating Type	PHYNEC	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Crop Stage Majority	V2-V3	V3	V3	V3	V3	V3			
Pest Stage Majority		1-4 IN	2-3 IN	1-2 IN	1 IN	1 IN			
Pest Density, Unit		17 FT2	2 YD2	4 YD2	3 YD2	1 YD2			
Assessed By	BM/GT	BM/GT	BM/GT	BM/GT	BM/GT	BM/GT			
Days After First/Last Applic.	21 5	26 10	26 10	26 10	26 10	26 10			
Plant-Eval Interval	21 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1			
Days After Emergence	12 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1			
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	
6 Verdict (5.57 SC)	10.4 oz ai/a	A 202	0.0	70.0	97.0	99.0	97.0	97.0	97.0
Armezon (2.8 SC)	0.263 oz ai/a	C 501	0.0	95.0	99.0	99.0	99.0	99.0	99.0
Atrazine	0.5 lb ai/a	C 802	2.0	80.0	99.0	99.0	99.0	99.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C 1005	0.0	90.0	99.0	99.0	99.0	99.0	99.0
MSO	1 % v/v	C							
AMS - Liquid	8.5 lb ai/100 gal	C							
	Mean =		0.5	83.8	98.5	99.0	98.5	98.5	98.5
7 Guardsman Max (5 SC)	2.5 lb ai/a	B 204	5.0	99.0	99.0	99.0	97.0	99.0	99.0
Armezon (2.8 SC)	0.263 oz ai/a	B 401	7.0	99.0	99.0	99.0	97.0	99.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B 601	5.0	99.0	99.0	99.0	97.0	99.0	99.0
MSO	1 % v/v	B 902	5.0	99.0	99.0	99.0	99.0	99.0	99.0
AMS - Liquid	8.5 lb ai/100 gal	B							
	Mean =		5.5	99.0	99.0	99.0	97.5	99.0	99.0
8 Halex GT (4.39 SC)	35 oz ai/a	B 205	3.0	99.0	99.0	99.0	95.0	99.0	99.0
Atrazine	1 lb ai/a	B 305	3.0	99.0	97.0	99.0	99.0	99.0	99.0
NIS	0.25 % v/v	B 604	3.0	99.0	99.0	99.0	99.0	99.0	99.0
AMS - Liquid	8.5 lb ai/100 gal	B 1004	3.0	99.0	99.0	99.0	99.0	99.0	99.0
	Mean =		3.0	99.0	98.5	99.0	98.0	99.0	99.0
9 Capreno (3.45 SL)	1.3 oz ai/a	B 301	3.0	99.0	99.0	99.0	95.0	99.0	99.0
Atrazine	0.5 lb ai/a	B 304	5.0	99.0	99.0	99.0	97.0	99.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B 701	3.0	99.0	99.0	99.0	97.0	99.0	99.0
HSOC	0.5 % v/v	B 1001	3.0	99.0	99.0	99.0	97.0	99.0	99.0
AMS - Liquid	8.5 lb ai/100 gal	B							
	Mean =		3.5	99.0	99.0	99.0	96.5	99.0	99.0
10 Anthem ATZ (4.505 SC)	1.27 lb ai/a	B 302	5.0	99.0	99.0	99.0	99.0	99.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B 504	5.0	99.0	99.0	99.0	99.0	99.0	99.0
NIS	0.25 % v/v	B 801	5.0	99.0	99.0	99.0	99.0	99.0	99.0
AMS - Liquid	8.5 lb ai/100 gal	B 1002	5.0	99.0	99.0	99.0	99.0	99.0	99.0
	Mean =		5.0	99.0	99.0	99.0	99.0	99.0	99.0
11 SureStart (4.25 SC)	1.06 lb ai/a	B 103	3.0	99.0	99.0	99.0	97.0	99.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B 303	3.0	99.0	99.0	99.0	99.0	99.0	99.0
NIS	0.25 % v/v	B 603	3.0	99.0	99.0	99.0	97.0	99.0	99.0
AMS - Liquid	8.5 lb ai/100 gal	B 803	3.0	99.0	99.0	99.0	97.0	99.0	99.0
	Mean =		3.0	99.0	99.0	99.0	97.5	99.0	99.0

# Purdue University

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code		SETFA	AMBTR	CHEAL	IPOHE	ABUTH
Pest Scientific Name		Setaria faberi	Ambrosia trifi>	Chenopodium al>	Ipomoea heder>	Abutilon theop>
Pest Name		Giant foxtail	Giant ragweed	Common lambsqu>	Ivyleaf mornin>	velvetleaf
Crop Code	ZEAMX					
BBCH Scale	BCOR					
Crop Scientific Name	Zea mays					
Crop Name	Corn					
Rating Date	May-29-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013
Rating Type	PHYNEC	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	V2-V3	V3	V3	V3	V3	V3
Pest Stage Majority		1-4 IN	2-3 IN	1-2 IN	1 IN	1 IN
Pest Density, Unit		17 FT2	2 YD2	4 YD2	3 YD2	1 YD2
Assessed By	BM/GT	BM/GT	BM/GT	BM/GT	BM/GT	BM/GT
Days After First/Last Applic.	21 5	26 10	26 10	26 10	26 10	26 10
Plant-Eval Interval	21 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1
Days After Emergence	12 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot	1	2	3	4
12 Bicep II Magnum (5.5 SC)	2.9 lb ai/a	A 203	0.0	95.0	97.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C 403	0.0	97.0	97.0	99.0
Callisto Xtra (3.7 SC)	0.694 lb ai/a	C 703	0.0	75.0	97.0	99.0
NIS	0.25 % v/v	C 903	0.0	75.0	97.0	99.0
AMS - Liquid	8.5 lb ai/100 gal	C				
	Mean =		0.0	85.5	97.0	99.0
						93.0
						80.5



# Purdue University

Pest Type						W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMBTR Ambrosia trifi> Giant ragweed
Pest Code							
Pest Scientific Name							
Pest Name							
Crop Code			ZEAMX				
BBCH Scale			BCOR				
Crop Scientific Name			Zea mays				
Crop Name			Corn				
Rating Date			Jun-26-2013		Jun-26-2013		Jun-26-2013
Rating Type			PHYGEN		CONTRO		CONTRO
Rating Unit			%		%		%
Number of Subsamples			1		1		1
Crop Stage Majority							
Pest Stage Majority							
Pest Density, Unit							
Assessed By			Jl		Jl		Jl
Days After First/Last Applic.			49 21		49 21		49 21
Plant-Eval Interval			49 DP-1		49 DP-1		49 DP-1
Days After Emergence			40 DE-1		40 DE-1		40 DE-1
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	7	8	9		
1 Untreated Check		101	0.0	0.0	0.0		
		405	0.0	0.0	0.0		
		702	0.0	0.0	0.0		
		805	0.0	0.0	0.0		
		Mean =	0.0	0.0	0.0		
2 Zidua (85 WG)	2.13 oz ai/a	A 102	0.0	100.0	100.0		
Status (56 SG)	2.8 oz ai/a	C 404	0.0	100.0	95.0		
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C 602	0.0	100.0	90.0		
NIS	0.25 % v/v	C 804	0.0	100.0	95.0		
AMS - Liquid	8.5 lb ai/100 gal	C					
		Mean =	0.0	100.0	95.0		
3 Zidua (85 WG)	2.13 oz ai/a	A 104	0.0	100.0	100.0		
Armezon (2.8 SC)	0.263 oz ai/a	C 502	0.0	100.0	95.0		
Atrazine	0.5 lb ai/a	C 704	0.0	100.0	100.0		
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C 901	0.0	80.0	100.0		
MSO	1 % v/v	C					
AMS - Liquid	7.2 lb ai/100 gal	C					
		Mean =	0.0	95.0	98.8		
4 Zidua (85 WG)	2.13 oz ai/a	B 105	0.0	100.0	95.0		
Atrazine	1.5 lb ai/a	B 402	0.0	100.0	100.0		
Armezon (2.8 SC)	0.263 oz ai/a	B 605	0.0	100.0	90.0		
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B 904	0.0	90.0	95.0		
MSO	1 % v/v	B					
AMS - Liquid	7.2 lb ai/100 gal	B					
		Mean =	0.0	97.5	95.0		
5 Verdict (5.57 SC)	10.4 oz ai/a	A 201	0.0	95.0	10.0		
Status (56 SG)	2.8 oz ai/a	C 505	0.0	100.0	100.0		
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C 705	0.0	100.0	100.0		
NIS	0.25 % v/v	C 905	0.0	80.0	95.0		
AMS - Liquid	8.5 lb ai/100 gal	C					
		Mean =	0.0	93.8	76.3		



# Purdue University

Pest Type		W Weed	W Weed	
Pest Code		ECHCG	AMBTR	
Pest Scientific Name		Echinochloa cr>	Ambrosia trifi>	
Pest Name		Common barnyar>	Giant ragweed	
Crop Code	ZEAMX			
BBCH Scale	BCOR			
Crop Scientific Name	Zea mays			
Crop Name	Com			
Rating Date	Jun-26-2013	Jun-26-2013	Jun-26-2013	
Rating Type	PHYGEN	CONTRO	CONTRO	
Rating Unit	%	%	%	
Number of Subsamples	1	1	1	
Crop Stage Majority				
Pest Stage Majority				
Pest Density, Unit				
Assessed By	Jl	Jl	Jl	
Days After First/Last Applic.	49 21	49 21	49 21	
Plant-Eval Interval	49 DP-1	49 DP-1	49 DP-1	
Days After Emergence	40 DE-1	40 DE-1	40 DE-1	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	7	8
12 Bicep II Magnum (5.5 SC)	2.9 lb ai/a	A 203	0.0	100.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C 403	0.0	100.0
Callisto Xtra (3.7 SC)	0.694 lb ai/a	C 703	0.0	100.0
NIS	0.25 % v/v	C 903	0.0	95.0
AMS - Liquid	8.5 lb ai/100 gal	C		100.0
	Mean =		0.0	98.8
				100.0

# Purdue University

## Planned two pass programs for weed control in corn.

Trial ID: 13S-THP-CTC-14      Protocol ID: 13S-THP-CTC-14  
Location: Throckmorton      Study Director:  
Project ID: DEM-AWC-CORN01-2013      Investigator: Dr. Bill Johnson  
Sponsor Contact: BASF- Gery Welker

### Pest Type

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

### Pest Code

SETFA, Setaria faberi, = US  
AMBTR, Ambrosia trifida, = US  
CHEAL, Chenopodium album, = US  
IPOHE, Ipomoea hederacea, = US  
ABUTH, Abutilon theophrasti, = US  
ECHCG, Echinochloa crus-galli, = US

### Crop Code

ZEAMX, BCOR, Zea mays, = US

### Rating Type

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

### Rating Unit

% = percent

FT2 = per square foot

YD2 = per square yard

### Plant-Eval Interval

21 DP-1 = 1 ZEAMD May-8-2013

26 DP-1 = 1 ZEAMD May-8-2013

49 DP-1 = 1 ZEAMD May-8-2013

# Purdue University

## Planned two pass programs for weed control in corn.

Trial ID: 13S-THP-CTC-14      Protocol ID: 13S-THP-CTC-14  
 Location: Throckmorton      Study Director:  
 Project ID: DEM-AWC-CORN01-2013      Investigator: Dr. Bill Johnson  
 Sponsor Contact: BASF- Gery Welker

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code		SETFA	AMBTR	CHEAL	IPOHE	ABUTH		
Pest Scientific Name		Setaria faberi	Ambrosia trifi>	Chenopodium al>	Ipomoea heder>	Abutilon theop>		
Pest Name		Giant foxtail	Giant ragweed	Common lambsqu>	lvyleaf mornin>	velvetleaf		
Crop Code	ZEAMX							
BBCH Scale	BCOR							
Crop Scientific Name	Zea mays							
Crop Name	Corn							
Rating Date	May-29-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013		
Rating Type	PHYNEC	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Crop Stage Majority	V2-V3	V3	V3	V3	V3	V3		
Pest Stage Majority		1-4 IN	2-3 IN	1-2 IN	1 IN	1 IN		
Pest Density, Unit		17 FT2	2 YD2	4 YD2	3 YD2	1 YD2		
Assessed By	BM/GT	BM/GT	BM/GT	BM/GT	BM/GT	BM/GT		
Days After First/Last Applic.	21 5	26 10	26 10	26 10	26 10	26 10		
Plant-Eval Interval	21 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1		
Days After Emergence	12 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	1	2	3	4	5	6
1 Untreated Check			0.0 c	0.0 d	0.0 c	0.0 c	0.0 c	0.0 c
2 Zidua (85 WG)	2.13 oz ai/a	A	0.5 c	65.5 c	77.5 b	87.8 b	96.5 a	98.0 a
Status (56 SG)	2.8 oz ai/a	C						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C						
NIS	0.25 % v/v	C						
AMS - Liquid	8.5 lb ai/100 gal	C						
3 Zidua (85 WG)	2.13 oz ai/a	A	0.8 c	70.0 bc	94.8 a	97.0 a	96.0 a	97.5 a
Armezon (2.8 SC)	0.263 oz ai/a	C						
Atrazine	0.5 lb ai/a	C						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C						
MSO	1 % v/v	C						
AMS - Liquid	7.2 lb ai/100 gal	C						
4 Zidua (85 WG)	2.13 oz ai/a	B	6.3 a	99.0 a	99.0 a	99.0 a	98.5 a	99.0 a
Atrazine	1.5 lb ai/a	B						
Armezon (2.8 SC)	0.263 oz ai/a	B						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B						
MSO	1 % v/v	B						
AMS - Liquid	7.2 lb ai/100 gal	B						
5 Verdict (5.57 SC)	10.4 oz ai/a	A	0.0 c	92.3 ab	99.0 a	99.0 a	98.0 a	99.0 a
Status (56 SG)	2.8 oz ai/a	C						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C						
NIS	0.25 % v/v	C						
AMS - Liquid	8.5 lb ai/100 gal	C						
6 Verdict (5.57 SC)	10.4 oz ai/a	A	0.5 c	83.8 abc	98.5 a	99.0 a	98.5 a	98.5 a
Armezon (2.8 SC)	0.263 oz ai/a	C						
Atrazine	0.5 lb ai/a	C						
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C						
MSO	1 % v/v	C						
AMS - Liquid	8.5 lb ai/100 gal	C						

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.



# Purdue University

Trt No.	Treatment Name	Rate	Unit	Appl Code	7	8	9
1	Untreated Check				0.0 a	0.0 d	0.0 b
2	Zidua (85 WG)	2.13 oz ai/a		A	0.0 a	100.0 a	95.0 a
	Status (56 SG)	2.8 oz ai/a		C			
	Roundup PowerMax 4.5 SL	0.77 lb ae/a		C			
	NIS	0.25 % v/v		C			
	AMS - Liquid	8.5 lb ai/100 gal		C			
3	Zidua (85 WG)	2.13 oz ai/a		A	0.0 a	95.0 ab	98.8 a
	Armezon (2.8 SC)	0.263 oz ai/a		C			
	Atrazine	0.5 lb ai/a		C			
	Roundup PowerMax 4.5 SL	0.77 lb ae/a		C			
	MSO	1 % v/v		C			
	AMS - Liquid	7.2 lb ai/100 gal		C			
4	Zidua (85 WG)	2.13 oz ai/a		B	0.0 a	97.5 ab	95.0 a
	Atrazine	1.5 lb ai/a		B			
	Armezon (2.8 SC)	0.263 oz ai/a		B			
	Roundup PowerMax 4.5 SL	0.77 lb ae/a		B			
	MSO	1 % v/v		B			
	AMS - Liquid	7.2 lb ai/100 gal		B			
5	Verdict (5.57 SC)	10.4 oz ai/a		A	0.0 a	93.8 ab	76.3 a
	Status (56 SG)	2.8 oz ai/a		C			
	Roundup PowerMax 4.5 SL	0.77 lb ae/a		C			
	NIS	0.25 % v/v		C			
	AMS - Liquid	8.5 lb ai/100 gal		C			
6	Verdict (5.57 SC)	10.4 oz ai/a		A	0.0 a	90.0 abc	100.0 a
	Armezon (2.8 SC)	0.263 oz ai/a		C			
	Atrazine	0.5 lb ai/a		C			
	Roundup PowerMax 4.5 SL	0.77 lb ae/a		C			
	MSO	1 % v/v		C			
	AMS - Liquid	8.5 lb ai/100 gal		C			

# Purdue University

Pest Type		W Weed	W Weed	
Pest Code		ECHCG	AMBTR	
Pest Scientific Name		Echinochloa cr>	Ambrosia trifi>	
Pest Name		Common barnyar>	Giant ragweed	
Crop Code	ZEAMX			
BBCH Scale	BCOR			
Crop Scientific Name	Zea mays			
Crop Name	Com			
Rating Date	Jun-26-2013	Jun-26-2013	Jun-26-2013	
Rating Type	PHYGEN	CONTRO	CONTRO	
Rating Unit	%	%	%	
Number of Subsamples	1	1	1	
Crop Stage Majority				
Pest Stage Majority				
Pest Density, Unit				
Assessed By	Jl	Jl	Jl	
Days After First/Last Applic.	49 21	49 21	49 21	
Plant-Eval Interval	49 DP-1	49 DP-1	49 DP-1	
Days After Emergence	40 DE-1	40 DE-1	40 DE-1	
Trt No.	7	8	9	
Treatment Name				
Rate				
Unit				
Appl Code				
7 Guardsman Max (5 SC)	2.5 lb ai/a	B	0.0 a	93.8 ab
Armezon (2.8 SC)	0.263 oz ai/a	B		
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B		
MISO	1 % v/v	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
8 Halex GT (4.39 SC)	35 oz ai/a	B	0.0 a	93.8 ab
Atrazine	1 lb ai/a	B		
NIS	0.25 % v/v	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
9 Capreno (3.45 SL)	1.3 oz ai/a	B	0.0 a	81.3 c
Atrazine	0.5 lb ai/a	B		
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B		
HSOC	0.5 % v/v	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
10 Anthem ATZ (4.505 SC)	1.27 lb ai/a	B	0.0 a	88.8 abc
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B		
NIS	0.25 % v/v	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
11 SureStart (4.25 SC)	1.06 lb ai/a	B	0.0 a	87.5 bc
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B		
NIS	0.25 % v/v	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
12 Bicep II Magnum (5.5 SC)	2.9 lb ai/a	A	0.0 a	98.8 ab
Roundup PowerMax 4.5 SL	0.77 lb ae/a	C		
Callisto Xtra (3.7 SC)	0.694 lb ai/a	C		
NIS	0.25 % v/v	C		
AMS - Liquid	8.5 lb ai/100 gal	C		
LSD (P=.05)	0.00	7.29	20.03	
Standard Deviation	0.00	5.05	13.87	
CV	0.0	5.94	15.89	
Bartlett's X2	0.0	6.593	40.737	
P(Bartlett's X2)	.	0.679	0.001*	
Replicate F	0.000	19.223	1.685	
Replicate Prob(F)	1.0000	0.0001	0.1892	
Treatment F	0.000	116.688	16.659	
Treatment Prob(F)	1.0000	0.0001	0.0001	



# Purdue University

## Planned two pass programs for weed control in corn.

Trial ID: 13S-THP-CTC-14      Protocol ID: 13S-THP-CTC-14  
Location: Throckmorton      Study Director:  
Project ID: DEM-AWC-CORN01-2013      Investigator: Dr. Bill Johnson  
Sponsor Contact: BASF- Gery Welker

### Pest Type

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

### Pest Code

SETFA, Setaria faberi, = US  
AMBTR, Ambrosia trifida, = US  
CHEAL, Chenopodium album, = US  
IPOHE, Ipomoea hederacea, = US  
ABUTH, Abutilon theophrasti, = US  
ECHCG, Echinochloa crus-galli, = US

### Crop Code

ZEAMX, BCOR, Zea mays, = US

### Rating Type

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

### Rating Unit

% = percent

FT2 = per square foot

YD2 = per square yard

### Plant-Eval Interval

21 DP-1 = 1 ZEAMD May-8-2013

26 DP-1 = 1 ZEAMD May-8-2013

49 DP-1 = 1 ZEAMD May-8-2013