

# Purdue University

## Preemergence Herbicide Programs for Corn

Trial ID: 13S-THP-CTC-13      Protocol ID: 13S-THP-CTC-13  
 Location: Throckmorton      Study Director:  
 Project ID:      Investigator: Dr. Bill Johnson  
                                  Sponsor Contact:

### General Trial Information

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

**Discipline:** H herbicide  
**Trial Status:** E established  
**Initiation Date:** Mar-30-2013

### Trial Location

**City:** Lafayette  
**State/Prov.:** IN  
**Postal Code:** 47909  
**Country:** USA

### Personnel

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

### Cooperator/Landowner

**Cooperator:** Throckmorton Purdue Ag Center      **Role:** Purdue Ag Center  
**Organization:** Purdue University  
**Address 1:** 8343 US 231 S  
  
**City:** Lafayette      **Phone No.:** 765-538-3422  
**State/Prov.:** IN      **Fax No.:** 765-538-3423  
**Postal Code:** 47909      **E-mail:** jayyoung@purdue.edu  
**Country:** USA      United States

### Crop Description

**Crop 1:** ZEAMD Zea mays indentata Dent corn  
**Variety:** GH G10D98-3122      **Description:** RR/LL  
**BBCH Scale:** BCOR      **Planting Date:** May-9-2013  
**Planting Method:** SEEDED seeded      **Rate, Unit:** 32000 S/A  
**Depth, Unit:** 1.5 IN  
**Row Spacing, Unit:** 30 IN  
  
**Soil Moisture:** DRY dry      **Soil Temperature, Unit:** 69 F  
**Emergence Date:** May-18-2013

### 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 FT2      **Tillage Type:** CONTIL conventional-till  
**Replications:** 4      **Study Design:** RACOB� Randomized Complete Block (RCB)  
**Untreated Arrangement:** INCLUDED single control randomized in each block

### Soil Description

**Description Name:** TPAC - Field 4B  
**% OM:** 2.9      **Texture:** SIL silt loam  
**pH:** 6.2      **Soil Name:** Toronto-Millbrook  
**CEC:** 13.3

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## Application Description

	A
<b>Application Date:</b>	May-9-2013
<b>Time of Day:</b>	AM
<b>Application Method:</b>	SPRAY
<b>Application Timing:</b>	ATPLAN
<b>Application Placement:</b>	SOIL
<b>Applied By:</b>	MW
<b>Air Temperature, Unit:</b>	73 F
<b>% Relative Humidity:</b>	49
<b>Wind Velocity, Unit:</b>	6.3 MPH
<b>Wind Direction:</b>	SW
<b>Dew Presence (Y/N):</b>	Y yes
<b>Soil Temperature, Unit:</b>	69 F
<b>Soil Moisture:</b>	DRY
<b>% Cloud Cover:</b>	95

## Crop Stage At Each Application

	A
<b>Crop 1 Code, BBCH Scale:</b>	ZEAMD BCOR

## Application Equipment

	A
<b>Appl. Equipment:</b>	CO2 FORD
<b>Equipment Type:</b>	SPTRMO
<b>Nozzle Type:</b>	FLAT FAN
<b>Nozzle Size:</b>	XR 100 02
<b>Nozzle Spacing, Unit:</b>	20 IN
<b>Nozzles/Row:</b>	6
<b>Boom Length, Unit:</b>	10 FT
<b>Boom Height, Unit:</b>	20 IN
<b>Ground Speed, Unit:</b>	2.1 MPH
<b>Carrier:</b>	MEIGS
<b>Spray Volume, Unit:</b>	20 gal/ac
<b>Mix Size, Unit:</b>	2.5 liters
<b>Propellant:</b>	CO2

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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	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check												101	402	603	801
2	Lexar EZ (3.7 SC)	3.7	LBA/GAL	SL	3.24	lb ai/a	3.5	qt/a		ATPLAN	A	109.4 ml/mx	102	303	503	902
3	Lumax EZ (3.95 SC) Atrazine	3.95	LBA/GAL	SC	3.2	lb ai/a	3.25	qt/a		ATPLAN	A	101.3 ml/mx	103	401	601	1001
		4	LBA/GAL	F	0.5	lb ai/a	1	pt/a		ATPLAN	A	15.62 ml/mx				
4	Keystone NXT Hornet (85.6 WG)	5.25	LBA/GAL	SC	3.4	lb ai/a	2.6	qt/a		ATPLAN	A	80.94 ml/mx	201	302	702	901
		85.6	%	WG	0.16	lb ai/a	3	oz wt/a		ATPLAN	A	2.8 g/mx				
5	Corvus (2.63 SC) Atrazine	2.63	LBA/GAL	SC	0.115	lb ai/a	5.6	fl oz/a		ATPLAN	A	5.465 ml/mx	202	502	701	803
		4	LBA/GAL	F	1.5	lb ai/a	3	pt/a		ATPLAN	A	46.87 ml/mx				
6	Fierce (76 WG) Atrazine	76	%	WG	0.19	lb ai/a	4	oz wt/a		ATPLAN	A	3.745 g/mx	203	403	703	903
		4	LBA/GAL	F	1.5	lb ai/a	3	pt/a		ATPLAN	A	46.87 ml/mx				
7	Zidua (85 WG)	85	%	WG	2.55	oz ai/a	3	oz wt/a		ATPLAN	A	2.808 g/mx	301	501	602	802
	Sharpen 2.85 SC	2.85	LBA/GAL	SC	1.07	oz ai/a	3	fl oz/a		ATPLAN	A	2.933 ml/mx				
	Atrazine	4	LBA/GAL	F	1.5	lb ai/a	3	pt/a		ATPLAN	A	46.87 ml/mx				

Sort Order: Treatment

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Pest Type	W Weed	W Weed	W Weed	W Weed			W Weed				
Pest Code	SETFA	AMBTR	CHEAL	ABUTH			SETSS				
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Abutilon theop>			Setaria sp.				
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	velvetleaf			Foxtail millet				
Crop Code					ZEAMX	ZEAMX					
BBCH Scale					BCOR	BCOR					
Crop Scientific Name					Zea mays	Zea mays					
Crop Name					Corn	Corn					
Rating Date	May-29-2013	May-29-2013	May-29-2013	May-29-2013	May-29-2013	Jun-5-2013	Jun-5-2013				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYNEC	PHYGEN	CONTRO				
Rating Unit	%	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Majority					V2						
Pest Stage Majority	2.5 IN	2 IN	1 IN	1 IN							
Pest Density, Unit	25 FT2	3 YD2	2 YD2	2 YD2							
Assessed By	MW	MW	MW	MW	MW						
Days After First/Last Applic.	20 20	20 20	20 20	20 20	20 20	27 27	27 27				
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	20 DA-A	20 DA-A	27 DA-A	27 DA-A				
Plant-Eval Interval	20 DP-1	20 DP-1	20 DP-1	20 DP-1	20 DP-1	27 DP-1	27 DP-1				
Days After Emergence	11 DE-1	11 DE-1	11 DE-1	11 DE-1	11 DE-1	18 DE-1	18 DE-1				
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	Plot	1	2	3	4	5	6	7
1 Untreated Check				101	0.0	0.0	0.0	0.0	0.0	0.0	0.0
				402	0.0	0.0	0.0	0.0	0.0	0.0	0.0
				603	0.0	0.0	0.0	0.0	0.0	0.0	0.0
				801	0.0	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	0.0
2 Lexar EZ (3.7 SC)	3.24 lb ai/a	A		102	90.0	95.0	99.0	99.0	0.0	0.0	100.0
				303	95.0	99.0	99.0	99.0	0.0	0.0	95.0
				503	90.0	95.0	99.0	99.0	1.0	0.0	60.0
				902	95.0	99.0	99.0	99.0	7.0	5.0	85.0
				Mean =	92.5	97.0	99.0	99.0	2.0	1.3	85.0
3 Lumax EZ (3.95 SC)	3.2 lb ai/a	A		103	97.0	99.0	99.0	99.0	2.0	0.0	100.0
Atrazine	0.5 lb ai/a	A		401	80.0	95.0	99.0	99.0	3.0	0.0	80.0
				601	65.0	95.0	99.0	99.0	0.0	0.0	75.0
				1001	95.0	97.0	99.0	99.0	0.0	0.0	90.0
				Mean =	84.3	96.5	99.0	99.0	1.3	0.0	86.3
4 Keystone NXT	3.4 lb ai/a	A		201	97.0	95.0	99.0	99.0	0.0	0.0	100.0
Hornet (85.6 WG)	0.16 lb ai/a	A		302	97.0	97.0	99.0	97.0	0.0	0.0	100.0
				702	90.0	99.0	99.0	95.0	5.0	5.0	90.0
				901	95.0	99.0	99.0	99.0	3.0	0.0	85.0
				Mean =	94.8	97.5	99.0	97.5	2.0	1.3	93.8
5 Corvus (2.63 SC)	0.115 lb ai/a	A		202	85.0	95.0	99.0	99.0	3.0	0.0	75.0
Atrazine	1.5 lb ai/a	A		502	85.0	90.0	99.0	95.0	0.0	0.0	30.0
				701	65.0	75.0	99.0	99.0	0.0	0.0	25.0
				803	85.0	95.0	99.0	90.0	0.0	0.0	50.0
				Mean =	80.0	88.8	99.0	95.8	0.8	0.0	45.0

# Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed				W Weed			
Pest Code	SETFA	AMBTR	CHEAL	ABUTH				SETSS			
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Chenopodium album	Abutilon theophrasti				Setaria sp.			
Pest Name	Giant foxtail	Giant ragweed	Common lambsquarters	velvetleaf				Foxtail millet			
Crop Code					ZEAMX	ZEAMX					
BBCH Scale					BCOR	BCOR					
Crop Scientific Name					Zea mays	Zea mays					
Crop Name					Corn	Corn					
Rating Date	May-29-2013	May-29-2013	May-29-2013	May-29-2013	May-29-2013	Jun-5-2013	Jun-5-2013	Jun-5-2013			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYNEC	PHYGEN	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1	1	1			
Crop Stage Majority					V2						
Pest Stage Majority	2.5 IN	2 IN	1 IN	1 IN							
Pest Density, Unit	25 FT2	3 YD2	2 YD2	2 YD2							
Assessed By	MW	MW	MW	MW	MW						
Days After First/Last Applic.	20 20	20 20	20 20	20 20	20 20	27 27	27 27	27 27			
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	20 DA-A	20 DA-A	27 DA-A	27 DA-A	27 DA-A			
Plant-Eval Interval	20 DP-1	20 DP-1	20 DP-1	20 DP-1	20 DP-1	27 DP-1	27 DP-1	27 DP-1			
Days After Emergence	11 DE-1	11 DE-1	11 DE-1	11 DE-1	11 DE-1	18 DE-1	18 DE-1	18 DE-1			
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	Plot	1	2	3	4	5	6	7
6 Fierce (76 WG)	0.19 lb ai/a	A	203		85.0	95.0	99.0	99.0	3.0	0.0	90.0
Atrazine	1.5 lb ai/a	A	403		95.0	95.0	97.0	99.0	5.0	5.0	90.0
			703		80.0	95.0	99.0	99.0	10.0	5.0	50.0
			903		60.0	95.0	80.0	90.0	10.0	5.0	50.0
			Mean =		80.0	95.0	93.8	96.8	7.0	3.8	70.0
7 Zidua (85 WG)	2.55 oz ai/a	A	301		90.0	97.0	99.0	99.0	0.0	0.0	75.0
Sharpen 2.85 SC	1.07 oz ai/a	A	501		20.0	99.0	99.0	99.0	0.0	0.0	20.0
Atrazine	1.5 lb ai/a	A	602		50.0	99.0	99.0	99.0	0.0	0.0	50.0
			802		85.0	99.0	99.0	99.0	1.0	0.0	55.0
			Mean =		61.3	98.5	99.0	99.0	0.3	0.0	50.0

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	AMBTR	AMBTR	SETFA	IPOHE	CHEAL						
Pest Scientific Name	Ambrosia trifi>	Ambrosia trifi>	Setaria faberi	Ipomoea heder>	Chenopodium al>						
Pest Name	Giant ragweed	Giant ragweed	Giant foxtail	Ivyleaf mornin>	Common lambsqu>						
Crop Code						ZEAMX	ZEAMX				
BBCB Scale						BCOR	BCOR				
Crop Scientific Name						Zea mays	Zea mays				
Crop Name						Corn	Corn				
Rating Date	Jun-5-2013	Jul-2-2013	Jul-2-2013	Jul-2-2013	Jul-2-2013	Oct-10-2013	Oct-10-2013				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	MOICON	YIELD				
Rating Unit	%	%	%	%	%	%	bu/ac				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Majority											
Pest Stage Majority		4-5 FT	3-4.5 FT	3 FT	3-4 FT						
Pest Density, Unit		4 YD2	13 FT2	2 YD2	2 YD2						
Assessed By		BM/GT	BM/GT	BM/GT	BM/GT						
Days After First/Last Applic.	27 27	54 54	54 54	54 54	54 54	154 154	154 154				
Trt-Eval Interval	27 DA-A	48 DA-A	48 DA-A	48 DA-A	54 DA-A	154 DA-A	154 DA-A				
Plant-Eval Interval	27 DP-1	54 DP-1	54 DP-1	54 DP-1	54 DP-1	154 DP-1	154 DP-1				
Days After Emergence	18 DE-1	45 DE-1	45 DE-1	45 DE-1	45 DE-1	145 DE-1	145 DE-1				
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	Plot	8	9	10	11	12	13	14
1 Untreated Check				101	0.0	0.0	0.0	0.0	0.0	20.50	121.70
				402	0.0	0.0	0.0	0.0	0.0	21.60	114.40
				603	0.0	0.0	0.0	0.0	0.0	20.70	90.90
				801	0.0	0.0	0.0	0.0	0.0	20.50	60.30
				Mean =	0.0	0.0	0.0	0.0	0.0	20.83	96.83
2 Lexar EZ (3.7 SC)	3.24 lb ai/a	A		102	95.0	99.0	97.0	99.0	99.0	21.10	226.80
				303	100.0	99.0	90.0	90.0	99.0	19.90	289.30
				503	95.0	99.0	77.0	99.0	99.0	19.70	285.40
				902	100.0	99.0	90.0	95.0	99.0	19.60	257.10
				Mean =	97.5	99.0	88.5	95.8	99.0	20.08	264.65
3 Lumax EZ (3.95 SC)	3.2 lb ai/a	A		103	100.0	99.0	95.0	97.0	99.0	19.50	272.60
Atrazine	0.5 lb ai/a	A		401	100.0	99.0	75.0	97.0	99.0	20.40	238.30
				601	100.0	99.0	50.0	99.0	99.0	20.80	225.40
				1001	100.0	99.0	60.0	90.0	99.0	19.70	229.70
				Mean =	100.0	99.0	70.0	95.8	99.0	20.10	241.50
4 Keystone NXT	3.4 lb ai/a	A		201	90.0	99.0	95.0	97.0	99.0	18.30	243.60
Hornet (85.6 WG)	0.16 lb ai/a	A		302	100.0	99.0	95.0	85.0	99.0	20.50	259.50
				702	90.0	99.0	97.0	99.0	99.0	20.30	225.10
				901	100.0	99.0	99.0	97.0	99.0	19.20	226.70
				Mean =	95.0	99.0	96.5	94.5	99.0	19.58	238.73
5 Corvus (2.63 SC)	0.115 lb ai/a	A		202	100.0	99.0	85.0	99.0	99.0	19.30	270.40
Atrazine	1.5 lb ai/a	A		502	90.0	99.0	70.0	99.0	99.0	21.20	246.90
				701	35.0	95.0	50.0	95.0	99.0	20.30	193.60
				803	50.0	90.0	40.0	75.0	99.0	19.70	195.20
				Mean =	68.8	95.8	61.3	92.0	99.0	20.13	226.53

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	AMBTR	AMBTR	SETFA	IPOHE	CHEAL						
Pest Scientific Name	Ambrosia trifi>	Ambrosia trifi>	Setaria faberi	Ipomoea hederata>	Chenopodium al>						
Pest Name	Giant ragweed	Giant ragweed	Giant foxtail	Ivyleaf mornin>	Common lambsqu>						
Crop Code						ZEAMX	ZEAMX				
BBCH Scale						BCOR	BCOR				
Crop Scientific Name						Zea mays	Zea mays				
Crop Name						Corn	Corn				
Rating Date	Jun-5-2013	Jul-2-2013	Jul-2-2013	Jul-2-2013	Jul-2-2013	Oct-10-2013	Oct-10-2013				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	MOICON	YIELD				
Rating Unit	%	%	%	%	%	%	bu/ac				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Majority											
Pest Stage Majority		4-5 FT	3-4.5 FT	3 FT	3-4 FT						
Pest Density, Unit		4 YD2	13 FT2	2 YD2	2 YD2						
Assessed By		BM/GT	BM/GT	BM/GT	BM/GT						
Days After First/Last Applic.	27 27	54 54	54 54	54 54	54 54	154 154	154 154				
Trt-Eval Interval	27 DA-A	48 DA-A	48 DA-A	48 DA-A	54 DA-A	154 DA-A	154 DA-A				
Plant-Eval Interval	27 DP-1	54 DP-1	54 DP-1	54 DP-1	54 DP-1	154 DP-1	154 DP-1				
Days After Emergence	18 DE-1	45 DE-1	45 DE-1	45 DE-1	45 DE-1	145 DE-1	145 DE-1				
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	Plot	8	9	10	11	12	13	14
6 Fierce (76 WG)	0.19 lb ai/a	A	203		100.0	95.0	75.0	80.0	99.0	20.00	230.80
Atrazine	1.5 lb ai/a	A	403		80.0	85.0	70.0	95.0	99.0	20.40	221.30
			703		100.0	99.0	50.0	99.0	99.0	19.10	216.40
			903		60.0	99.0	60.0	97.0	99.0	20.40	185.50
			Mean =		85.0	94.5	63.8	92.8	99.0	19.98	213.50
7 Zidua (85 WG)	2.55 oz ai/a	A	301		100.0	99.0	80.0	95.0	99.0	19.50	227.70
Sharpen 2.85 SC	1.07 oz ai/a	A	501		60.0	85.0	50.0	99.0	99.0	19.60	205.70
Atrazine	1.5 lb ai/a	A	602		90.0	99.0	40.0	99.0	99.0	21.10	206.60
			802		100.0	99.0	60.0	97.0	99.0	20.00	257.90
			Mean =		87.5	95.5	57.5	97.5	99.0	20.05	224.48

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 Project ID:      Investigator: Dr. Bill Johnson  
                                  Sponsor Contact:

### 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  
 ABUTH, Abutilon theophrasti, = US  
 SETSS, Setaria sp., = US  
 IPOHE, Ipomoea hederacea, = US

### Crop Code

ZEAMX, BCOR, Zea mays, = US

### Rating Type

CONTRO = control / burndown or knockdown  
 PHYNEC = phytotoxicity - necrosis /burn  
 PHYGEN = phytotoxicity - general / injury  
 MOICON = moisture content  
 YIELD = yield

### Rating Unit

% = percent  
 bu/ac = bushels per acre

FT2 = per square foot  
 YD2 = per square yard

### Plant-Eval Interval

20 DP-1 = 1 ZEAMD May-9-2013  
 27 DP-1 = 1 ZEAMD May-9-2013  
 54 DP-1 = 1 ZEAMD May-9-2013  
 154 DP-1 = 1 ZEAMD May-9-2013

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 Location: Throckmorton      Study Director:  
 Project ID:      Investigator: Dr. Bill Johnson  
                                  Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed			W Weed	W Weed			
Pest Code	SETFA	AMBTR	CHEAL	ABUTH			SETSS	AMBTR			
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Abutilon theop>			Setaria sp.	Ambrosia trifi>			
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	velvetleaf			Foxtail millet	Giant ragweed			
Crop Code					ZEAMX	ZEAMX					
BBCH Scale					BCOR	BCOR					
Crop Scientific Name					Zea mays	Zea mays					
Crop Name					Corn	Corn					
Rating Date	May-29-2013	May-29-2013	May-29-2013	May-29-2013	May-29-2013	Jun-5-2013	Jun-5-2013	Jun-5-2013			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYNEC	PHYGEN	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1	1	1			
Crop Stage Majority					V2						
Pest Stage Majority	2.5 IN	2 IN	1 IN	1 IN							
Pest Density, Unit	25 FT2	3 YD2	2 YD2	2 YD2							
Assessed By	MW	MW	MW	MW	MW						
Days After First/Last Applic.	20 20	20 20	20 20	20 20	20 20	27 27	27 27	27 27			
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	20 DA-A	20 DA-A	27 DA-A	27 DA-A	27 DA-A			
Plant-Eval Interval	20 DP-1	20 DP-1	20 DP-1	20 DP-1	20 DP-1	27 DP-1	27 DP-1	27 DP-1			
Days After Emergence	11 DE-1	11 DE-1	11 DE-1	11 DE-1	11 DE-1	18 DE-1	18 DE-1	18 DE-1			
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	1	2	3	4	5	6	7	8
1 Untreated Check				0.0 c	0.0 c	0.0 b	0.0 b	0.0 b	0.0 a	0.0 c	0.0 b
2 Lexar EZ (3.7 SC)	3.24 lb ai/a	A		92.5 ab	97.0 a	99.0 a	99.0 a	2.0 b	1.3 a	85.0 a	97.5 a
3 Lumax EZ (3.95 SC)	3.2 lb ai/a	A		84.3 ab	96.5 a	99.0 a	99.0 a	1.3 b	0.0 a	86.3 a	100.0 a
	Atrazine 0.5 lb ai/a	A									
4 Keystone NXT	3.4 lb ai/a	A		94.8 a	97.5 a	99.0 a	97.5 a	2.0 b	1.3 a	93.8 a	95.0 a
	Hornet (85.6 WG)	A									
5 Corvus (2.63 SC)	0.115 lb ai/a	A		80.0 ab	88.8 b	99.0 a	95.8 a	0.8 b	0.0 a	45.0 b	68.8 a
	Atrazine 1.5 lb ai/a	A									
6 Fierce (76 WG)	0.19 lb ai/a	A		80.0 ab	95.0 a	93.8 a	96.8 a	7.0 a	3.8 a	70.0 ab	85.0 a
	Atrazine 1.5 lb ai/a	A									
7 Zidua (85 WG)	2.55 oz ai/a	A		61.3 b	98.5 a	99.0 a	99.0 a	0.3 b	0.0 a	50.0 b	87.5 a
	Sharpen 2.85 SC	A									
	Atrazine 1.5 lb ai/a	A									
LSD (P=.05)				22.11	5.63	5.17	3.52	3.26	2.39	20.66	23.96
Standard Deviation				14.89	3.79	3.48	2.37	2.19	1.61	13.91	16.13
CV				21.15	4.63	4.14	2.82	115.96	179.88	22.64	21.15
Bartlett's X2				18.549	17.759	0.0	2.065	9.732	0.0	4.575	13.845
P(Bartlett's X2)				0.002*	0.001*	.	0.356	0.083	.	0.47	0.008*
Replicate F				1.361	1.190	1.000	1.531	1.213	1.269	4.667	0.690
Replicate Prob(F)				0.2863	0.3417	0.4155	0.2407	0.3335	0.3148	0.0139	0.5698
Treatment F				19.549	366.092	454.814	977.964	4.720	3.000	22.287	19.077
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0047	0.0327	0.0001	0.0001

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

Pest Type	W Weed	W Weed	W Weed	W Weed		
Pest Code	AMBTR	SETFA	IPOHE	CHEAL		
Pest Scientific Name	Ambrosia trifida>	Setaria faberii>	Ipomoea hederifolia>	Chenopodium album>		
Pest Name	Giant ragweed	Giant foxtail	Ipomoea hederifolia>	Common lambsquarters		
Crop Code					ZEAMX	ZEAMX
B BCH Scale					BCOR	BCOR
Crop Scientific Name					Zea mays	Zea mays
Crop Name					Corn	Corn
Rating Date	Jul-2-2013	Jul-2-2013	Jul-2-2013	Jul-2-2013	Oct-10-2013	Oct-10-2013
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	MOICON	YIELD
Rating Unit	%	%	%	%	%	bu/ac
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority						
Pest Stage Majority	4-5 FT	3-4.5 FT	3 FT	3-4 FT		
Pest Density, Unit	4 YD2	13 FT2	2 YD2	2 YD2		
Assessed By	BM/GT	BM/GT	BM/GT	BM/GT		
Days After First/Last Applic.	54 54	54 54	54 54	54 54	154 154	154 154
Trt-Eval Interval	48 DA-A	48 DA-A	48 DA-A	54 DA-A	154 DA-A	154 DA-A
Plant-Eval Interval	54 DP-1	54 DP-1	54 DP-1	54 DP-1	154 DP-1	154 DP-1
Days After Emergence	45 DE-1	45 DE-1	45 DE-1	45 DE-1	145 DE-1	145 DE-1
Trt No.	9	10	11	12	13	14
Treatment Name						
1 Untreated Check	0.0 b	0.0 c	0.0 b	0.0 b	20.83 a	96.83 b
2 Lexar EZ (3.7 SC)	3.24 lb ai/a A	99.0 a	88.5 a	95.8 a	99.0 a	20.08 a
3 Lumax EZ (3.95 SC)	3.2 lb ai/a A	99.0 a	70.0 b	95.8 a	99.0 a	20.10 a
Atrazine	0.5 lb ai/a A					
4 Keystone NXT	3.4 lb ai/a A	99.0 a	96.5 a	94.5 a	99.0 a	19.58 a
Hornet (85.6 WG)	0.16 lb ai/a A					
5 Corvus (2.63 SC)	0.115 lb ai/a A	95.8 a	61.3 b	92.0 a	99.0 a	20.13 a
Atrazine	1.5 lb ai/a A					
6 Fierce (76 WG)	0.19 lb ai/a A	94.5 a	63.8 b	92.8 a	99.0 a	19.98 a
Atrazine	1.5 lb ai/a A					
7 Zidua (85 WG)	2.55 oz ai/a A	95.5 a	57.5 b	97.5 a	99.0 a	20.05 a
Sharpen 2.85 SC	1.07 oz ai/a A					
Atrazine	1.5 lb ai/a A					
LSD (P=.05)	5.83	14.77	9.55	0.00	1.027	36.303
Standard Deviation	3.92	9.94	6.43	0.00	0.691	24.436
CV	4.71	15.9	7.92	0.0	3.44	11.36
Bartlett's X2	0.742	11.476	9.091	0.0	1.682	2.632
P(Bartlett's X2)	0.69	0.043*	0.106	.	0.947	0.853
Replicate F	1.209	6.933	0.901	0.000	1.884	2.007
Replicate Prob(F)	0.3348	0.0027	0.4598	1.0000	0.1684	0.1490
Treatment F	351.323	39.296	124.275	0.000	1.145	20.008
Treatment Prob(F)	0.0001	0.0001	0.0001	1.0000	0.3772	0.0001

# Purdue University

## Preemergence Herbicide Programs for Corn

Trial ID: 13S-THP-CTC-13      Protocol ID: 13S-THP-CTC-13  
 Location: Throckmorton      Study Director:  
 Project ID:      Investigator: Dr. Bill Johnson  
                                  Sponsor Contact:

### 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  
 ABUTH, Abutilon theophrasti, = US  
 SETSS, Setaria sp., = US  
 IPOHE, Ipomoea hederacea, = US

### Crop Code

ZEAMX, BCOR, Zea mays, = US

### Rating Type

CONTRO = control / burndown or knockdown  
 PHYNEC = phytotoxicity - necrosis /burn  
 PHYGEN = phytotoxicity - general / injury  
 MOICON = moisture content  
 YIELD = yield

### Rating Unit

% = percent  
 bu/ac = bushels per acre

FT2 = per square foot  
 YD2 = per square yard

### Plant-Eval Interval

20 DP-1 = 1 ZEAMD May-9-2013  
 27 DP-1 = 1 ZEAMD May-9-2013  
 54 DP-1 = 1 ZEAMD May-9-2013  
 154 DP-1 = 1 ZEAMD May-9-2013