

# Purdue University

## Tolpyralate (SL-573) for Weed Control in RR/LL Corn

Trial ID: 14S-THP-CTC-03      Protocol ID: 14S-THP-CTC-03  
 Location: Throckmorton      Study Director:  
 Project ID: 14-US-H-2-CG RR Univ      Investigator: Dr. Bill Johnson  
 Sponsor Contact: ISK - Dennis Tonks

### General Trial Information

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

**Discipline:** H herbicide  
**Trial Status:** E established

### Trial Location

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

### 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:** 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  
**State/Prov.:** IN  
**Postal Code:** 47909      **E-mail:** jayyoung@purdue.edu  
**Country:** USA      United States  
**Phone No.:** 765-538-3422  
**Fax No.:** 765-538-3423

### Crop Description

**Crop 1:** ZEAMD Zea mays indentata    Dent corn  
**Variety:** Dekalb DKC 62-08      **Description:** HXX, LL, RR2  
**BBCH Scale:** BCOR      **Planting Date:** May-5-2014  
**Planting Method:** SEEDED    seeded      **Rate, Unit:** 33000 S/A  
**Depth, Unit:** 1.5    IN  
**Row Spacing, Unit:** 30    IN  
**Seed Bed:** FINE      fine  
**Emergence Date:** May-12-2014

### Pest Description

**Pest 1 Type:** W    **Code:** AMBTR Ambrosia trifida  
**Common Name:** Giant ragweed

**Pest 2 Type:** W    **Code:** SETFA Setaria faberi  
**Common Name:** Giant foxtail

**Pest 3 Type:** W    **Code:** CHEAL Chenopodium album  
**Common Name:** Common lambsquarters

### 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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## Soil Description

**Description Name:** TPAC -Field 4A  
**% OM:** 3.1      **Texture:** SIL      silt loam  
**pH:** 6      **Soil Name:** Toronto-Millbrook  
**CEC:** 11.1

## Application Description

	A	B
<b>Application Date:</b>	May-6-2014	May-29-2014
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>	ATPLAN	EAPWE
<b>Application Placement:</b>	SOIL	FOLIAR
<b>Air Temperature, Unit:</b>	75.1 F	80 F
<b>% Relative Humidity:</b>	32.5	68
<b>Wind Velocity, Unit:</b>	9.6 mph	4.5 mph
<b>Wind Direction:</b>	SW	NE
<b>Dew Presence (Y/N):</b>	N no	N no
<b>Soil Temperature, Unit:</b>	67.5 F	81 F
<b>Soil Moisture:</b>	Dry	Dry
<b>% Cloud Cover:</b>	10	60

## Crop Stage At Each Application

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

## Pest Stage At Each Application

	A
<b>Pest 1 Code, Type, Scale:</b>	AMBTR W
<b>Height, Unit:</b>	3 IN
<b>Height Minimum, Maximum:</b>	1 4
<b>Density, Unit:</b>	3 YD2
<b>Pest 2 Code, Type, Scale:</b>	SETFA W
<b>Height, Unit:</b>	1.5 IN
<b>Height Minimum, Maximum:</b>	1 2
<b>Density, Unit:</b>	11 FT2
<b>Pest 3 Code, Type, Scale:</b>	CHEAL W
<b>Height, Unit:</b>	1 IN
<b>Height Minimum, Maximum:</b>	1 3
<b>Density, Unit:</b>	6 FT2

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## Application Equipment

	A	B
<b>Appl. Equipment:</b>	CO2 FORD	CO2 FORD
<b>Equipment Type:</b>	SPTRMO	SPTRMO
<b>Operation Pressure, Unit:</b>	25 PSI	25 PSI
<b>Nozzle Type:</b>	FLAT FAN	FLAT FAN
<b>Nozzle Size:</b>	XR 100 02	XR 100 02
<b>Nozzle Spacing, Unit:</b>	20 IN	20 IN
<b>Nozzles/Row:</b>	6	6
<b>Boom Length, Unit:</b>	10 FT	10 FT
<b>Ground Speed, Unit:</b>	2.1 MPH	2.1 MPH
<b>Carrier:</b>	MEIGS	MEIGS
<b>Spray Volume, Unit:</b>	20 gal/ac	20 gal/ac
<b>Mix Size, Unit:</b>	2.5 liters	2.5 liters
<b>Propellant:</b>	CO2	CO2

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## Tolpyralate (SL-573) for Weed Control in RR/LL Corn

Trial ID: 14S-THP-CTC-03      Protocol ID: 14S-THP-CTC-03  
 Location: Throckmorton      Study Director:  
 Project ID: 14-US-H-2-CG RR Univ      Investigator: Dr. Bill Johnson  
 Sponsor Contact: ISK - Dennis Tonks

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	Other Rate	Other Unit	Growth Stage	Appl Code	Appl Description	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check											101	504	801	803
2	Dual II Magnum (7.64 EC)	7.64	LBA/GAL	EC	25.5 oz ai/a	1.67	pt/a	ATPLAN	A		26.07 ml/mx	102	303	601	902
3	Dual II Magnum (7.64 EC)	7.64	LBA/GAL	EC	25.5 oz ai/a	1.67	pt/a	ATPLAN	A		26.07 ml/mx	103	304	704	1001
	SL-573 (400 SL)	400	G/L	SL	0.417 oz ai/a	1	oz/a	EAPOWE	B	2-4" weeds	0.9772 ml/mx				
	Atrazine	4	LBA/GAL	F	1 lb ai/a	2	pt/a	EAPOWE	B	2-4" weeds	31.25 ml/mx				
	MSO	100	%	L	0.5 % v/v	0.5	% v/v	EAPOWE	B	2-4" weeds	12.5 ml/mx				
	28% UAN	100	%	SL	2.5 % v/v	2.5	% v/v	EAPOWE	B	2-4" weeds	62.49 ml/mx				
4	Dual II Magnum (7.64 EC)	7.64	LBA/GAL	EC	25.5 oz ai/a	1.67	pt/a	ATPLAN	A		26.07 ml/mx	104	404	702	901
	SL-573 (400 SL)	400	G/L	SL	0.57 oz ai/a	1.37	oz/a	EAPOWE	B	2-4" weeds	1.336 ml/mx				
	Atrazine	4	LBA/GAL	F	1 lb ai/a	2	pt/a	EAPOWE	B	2-4" weeds	31.25 ml/mx				
	MSO	100	%	L	0.5 % v/v	0.5	% v/v	EAPOWE	B	2-4" weeds	12.5 ml/mx				
	28% UAN	100	%	SL	2.5 % v/v	2.5	% v/v	EAPOWE	B	2-4" weeds	62.49 ml/mx				
5	Dual II Magnum (7.64 EC)	7.64	LBA/GAL	EC	25.5 oz ai/a	1.67	pt/a	ATPLAN	A		26.07 ml/mx	201	503	604	1003
	SL-573 (400 SL)	400	G/L	SL	0.417 oz ai/a	1	oz/a	EAPOWE	B	2-4" weeds	0.9772 ml/mx				
	Atrazine	4	LBA/GAL	F	0.875 lb ai/a	1.75	pt/a	EAPOWE	B	2-4" weeds	27.34 ml/mx				
	Roundup PowerMax 4.5 SL	4.5	LBAE/GAL	SL	0.77 lb ae/a	22	oz/a	EAPOWE	B	2-4" weeds	21.39 ml/mx				
	MSO	100	%	L	0.5 % v/v	0.5	% v/v	EAPOWE	B	2-4" weeds	12.5 ml/mx				
	AMS - Liquid	3.4	LB/GAL	SL	17 lb ai/100 gal	20	qt/100 gal	EAPOWE	B	2-4" weeds	125.0 ml/mx				
6	Dual II Magnum (7.64 EC)	7.64	LBA/GAL	EC	25.5 oz ai/a	1.67	pt/a	ATPLAN	A		26.07 ml/mx	202	403	703	1004
	SL-573 (400 SL)	400	G/L	SL	0.57 oz ai/a	1.37	oz/a	EAPOWE	B	2-4" weeds	1.336 ml/mx				
	Atrazine	4	LBA/GAL	F	0.875 lb ai/a	1.75	pt/a	EAPOWE	B	2-4" weeds	27.34 ml/mx				
	Roundup PowerMax 4.5 SL	4.5	LBAE/GAL	SL	0.77 lb ae/a	22	oz/a	EAPOWE	B	2-4" weeds	21.39 ml/mx				
	MSO	100	%	L	0.5 % v/v	0.5	% v/v	EAPOWE	B	2-4" weeds	12.5 ml/mx				
	AMS - Liquid	3.4	LB/GAL	SL	17 lb ai/100 gal	20	qt/100 gal	EAPOWE	B	2-4" weeds	125.0 ml/mx				
7	Dual II Magnum (7.64 EC)	7.64	LBA/GAL	EC	25.5 oz ai/a	1.67	pt/a	ATPLAN	A		26.07 ml/mx	203	501	802	1002
	SL-573 (400 SL)	400	G/L	SL	0.417 oz ai/a	1	oz/a	EAPOWE	B	2-4" weeds	0.9772 ml/mx				
	Atrazine	4	LBA/GAL	F	0.875 lb ai/a	1.75	pt/a	EAPOWE	B	2-4" weeds	27.34 ml/mx				
	Liberty 280 (2.34 SL)	2.34	LBA/GAL	SL	0.402 lb ai/a	22	oz/a	EAPOWE	B	2-4" weeds	21.47 ml/mx				
	MSO	100	%	L	0.5 % v/v	0.5	% v/v	EAPOWE	B	2-4" weeds	12.5 ml/mx				
	AMS - Liquid	3.4	LB/GAL	SL	17 lb ai/100 gal	20	qt/100 gal	EAPOWE	B	2-4" weeds	125.0 ml/mx				
8	Dual II Magnum (7.64 EC)	7.64	LBA/GAL	EC	25.5 oz ai/a	1.67	pt/a	ATPLAN	A		26.07 ml/mx	204	502	603	903
	SL-573 (400 SL)	400	G/L	SL	0.57 oz ai/a	1.37	oz/a	EAPOWE	B	2-4" weeds	1.336 ml/mx				
	Atrazine	4	LBA/GAL	F	0.875 lb ai/a	1.75	pt/a	EAPOWE	B	2-4" weeds	27.34 ml/mx				
	Liberty 280 (2.34 SL)	2.34	LBA/GAL	SL	0.402 lb ai/a	22	oz/a	EAPOWE	B	2-4" weeds	21.47 ml/mx				
	MSO	100	%	L	0.5 % v/v	0.5	% v/v	EAPOWE	B	2-4" weeds	12.5 ml/mx				
	AMS - Liquid	3.4	LB/GAL	SL	17 lb ai/100 gal	20	qt/100 gal	EAPOWE	B	2-4" weeds	125.0 ml/mx				
9	Dual II Magnum (7.64 EC)	7.64	LBA/GAL	EC	25.5 oz ai/a	1.67	pt/a	ATPLAN	A		26.07 ml/mx	301	402	701	804
	Callisto (4.0 SC)	4	LBA/GAL	SC	1.5 oz ai/a	3	oz/a	EAPOWE	B	2-4" weeds	2.929 ml/mx				
	Atrazine	4	LBA/GAL	F	0.875 lb ai/a	1.75	pt/a	EAPOWE	B	2-4" weeds	27.34 ml/mx				
	COC	100	%	SL	1 % v/v	1	% v/v	EAPOWE	B	2-4" weeds	25.0 ml/mx				
	28% UAN	100	%	SL	2.5 % v/v	2.5	% v/v	EAPOWE	B	2-4" weeds	62.49 ml/mx				
10	Dual II Magnum (7.64 EC)	7.64	LBA/GAL	EC	25.5 oz ai/a	1.67	pt/a	ATPLAN	A		26.07 ml/mx	302	401	602	904
	Impact (2.8 SC)	2.8	LBA/GAL	SL	0.35 oz ai/a	1	oz/a	EAPOWE	B	2-4" weeds	0.9765 ml/mx				
	Atrazine	4	LBA/GAL	F	0.875 lb ai/a	1.75	pt/a	EAPOWE	B	2-4" weeds	27.34 ml/mx				
	MSO	100	%	L	0.5 % v/v	0.5	% v/v	EAPOWE	B	2-4" weeds	12.5 ml/mx				
	28% UAN	100	%	SL	2.5 % v/v	2.5	% v/v	EAPOWE	B	2-4" weeds	62.49 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		SETFA
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>		Setaria faberi
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>		Giant foxtail
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn
Rating Date	Jun-5-2014	Jun-5-2014	Jun-5-2014	Jun-5-2014	Jun-5-2014
Rating Type	CONTRO	CONTRO	CONTRO	PHYNLS	PHYCHL
Rating Unit	%	%	%	%	%
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT		1 PLOT
Number of Subsamples	1	1	1	1	1
Pest Stage Majority	1-2"	2-5"	1-2"		1-5"
Pest Density, Unit	7 YD2	2 FT2	2 YD2		6 FT2
Assessed By	GT/KA	GT/KA	GT/KA		
Days After First/Last Applic.	30 7	30 7	30 7	30 7	30 7
Plant-Eval Interval	31 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1
Days After Emergence	24 DE-1	24 DE-1	24 DE-1	24 DE-1	24 DE-1
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	1	2	3
			4	5	6
6 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 202	99.0	99.0	99.0
SL-573 (400 SL)	0.57 oz ai/a	B 403	99.0	97.0	99.0
Atrazine	0.875 lb ai/a	B 703	99.0	85.0	99.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B 1004	99.0	85.0	99.0
MSO	0.5 % v/v	B			
AMS - Liquid	17 lb ai/100 gal B				
Mean =			99.0	91.5	99.0
7 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 203	99.0	95.0	99.0
SL-573 (400 SL)	0.417 oz ai/a	B 501	99.0	95.0	99.0
Atrazine	0.875 lb ai/a	B 802	99.0	93.0	99.0
Liberty 280 (2.34 SL)	0.402 lb ai/a	B 1002	99.0	95.0	99.0
MSO	0.5 % v/v	B			
AMS - Liquid	17 lb ai/100 gal B				
Mean =			99.0	94.5	99.0
8 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 204	99.0	95.0	99.0
SL-573 (400 SL)	0.57 oz ai/a	B 502	99.0	97.0	99.0
Atrazine	0.875 lb ai/a	B 603	99.0	98.0	99.0
Liberty 280 (2.34 SL)	0.402 lb ai/a	B 903	99.0	97.0	99.0
MSO	0.5 % v/v	B			
AMS - Liquid	17 lb ai/100 gal B				
Mean =			99.0	96.8	99.0
9 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 301	99.0	95.0	99.0
Callisto (4.0 SC)	1.5 oz ai/a	B 402	99.0	80.0	99.0
Atrazine	0.875 lb ai/a	B 701	99.0	95.0	99.0
COC	1 % v/v	B 804	99.0	50.0	99.0
28% UAN	2.5 % v/v	B			
Mean =			99.0	80.0	99.0
10 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 302	99.0	85.0	99.0
Impact (2.8 SC)	0.35 oz ai/a	B 401	99.0	80.0	99.0
Atrazine	0.875 lb ai/a	B 602	99.0	85.0	99.0
MSO	0.5 % v/v	B 904	99.0	90.0	99.0
28% UAN	2.5 % v/v	B			
Mean =			99.0	85.0	99.0

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				W Weed			W Weed	W Weed	W Weed	
				AMBTR			AMBTR	SETFA	AMBTR	
				Ambrosia trifi>			Ambrosia trifi>	Setaria faberi	Ambrosia trifi>	
				Giant ragweed			Giant ragweed	Giant foxtail	Giant ragweed	
Crop Code				ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
BBCH Scale				BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	
Crop Scientific Name				Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	
Crop Name				Corn	Corn	Corn	Corn	Corn	Corn	
Rating Date				Jun-16-2014	Jun-16-2014	Jun-16-2014	Jul-2-2014	Jul-2-2014	Jul-2-2014	
Rating Type				CONTRO	PHYNEC	PHYLMA	CONTRO	CONTRO	PHYSTU	
Rating Unit				%	%	%	%	%	%	
Sample Size, Unit				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples				1	1	1	1	1	1	
Pest Stage Majority				6-36"			5-72"	2-12"	6-86"	
Pest Density, Unit				3 FT2			2 FT2	3 FT2	2 FT2	
Assessed By										
Days After First/Last Applic.				41 18	41 18	41 18	57 34	57 34	57 34	
Plant-Eval Interval				42 DP-1	42 DP-1	42 DP-1	58 DP-1	58 DP-1	58 DP-1	
Days After Emergence				35 DE-1	35 DE-1	35 DE-1	51 DE-1	51 DE-1	64 DE-1	
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code Plot		7	8	9	10	11	12	13
1 Untreated Check			101	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			504	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
			803	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 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	102	50.0	0.0	0.0	0.0	99.0	0.0	0.0
			303	70.0	2.0	4.0	0.0	99.0	7.0	20.0
			601	75.0	0.0	0.0	10.0	99.0	0.0	70.0
			902	40.0	0.0	0.0	0.0	99.0	6.0	40.0
			Mean =	58.8	0.5	1.0	2.5	99.0	3.3	32.5
3 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	103	50.0	0.0	2.0	50.0	99.0	0.0	30.0
SL-573 (400 SL)	0.417 oz ai/a	B	304	85.0	0.0	0.0	80.0	99.0	7.0	75.0
Atrazine	1 lb ai/a	B	704	80.0	0.0	0.0	10.0	99.0	0.0	20.0
MSO	0.5 % v/v	B	1001	60.0	0.0	0.0	55.0	99.0	0.0	50.0
28% UAN	2.5 % v/v	B								
			Mean =	68.8	0.0	0.5	48.8	99.0	1.8	43.8
4 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	104	60.0	0.0	4.0	60.0	99.0	0.0	70.0
SL-573 (400 SL)	0.57 oz ai/a	B	404	90.0	0.0	0.0	70.0	99.0	0.0	60.0
Atrazine	1 lb ai/a	B	702	85.0	0.0	2.0	85.0	75.0	0.0	75.0
MSO	0.5 % v/v	B	901	20.0	0.0	0.0	90.0	80.0	0.0	40.0
28% UAN	2.5 % v/v	B								
			Mean =	63.8	0.0	1.5	76.3	88.3	0.0	61.3
5 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	201	80.0	0.0	0.0	40.0	99.0	5.0	99.0
SL-573 (400 SL)	0.417 oz ai/a	B	503	85.0	0.0	0.0	70.0	99.0	0.0	60.0
Atrazine	0.875 lb ai/a	B	604	87.0	0.0	2.0	50.0	99.0	5.0	65.0
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B	1003	20.0	0.0	5.0	10.0	99.0	0.0	50.0
MSO	0.5 % v/v	B								
AMS - Liquid	17 lb ai/100 gal	B								
			Mean =	68.0	0.0	1.8	42.5	99.0	2.5	68.5

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Pest Type	W Weed			W Weed			W Weed				
Pest Code	AMBTR			AMBTR			SETFA				
Pest Scientific Name	Ambrosia trifida			Ambrosia trifida			Setaria faberi				
Pest Name	Giant ragweed			Giant ragweed			Giant foxtail				
Crop Code	ZEAMX			ZEAMX			ZEAMX				
BBCH Scale	BCOR			BCOR			BCOR				
Crop Scientific Name	Zea mays			Zea mays			Zea mays				
Crop Name	Corn			Corn			Corn				
Rating Date	Jun-16-2014			Jun-16-2014			Jul-2-2014				
Rating Type	CONTRO			PHYNEC			PHYLMA				
Rating Unit	%			%			%				
Sample Size, Unit	1 PLOT			1 PLOT			1 PLOT				
Number of Subsamples	1			1			1				
Pest Stage Majority	6-36"			5-72"			2-12"				
Pest Density, Unit	3 FT2			2 FT2			3 FT2				
Assessed By											
Days After First/Last Applic.	41 18			41 18			41 18				
Plant-Eval Interval	42 DP-1			42 DP-1			42 DP-1				
Days After Emergence	35 DE-1			35 DE-1			35 DE-1				
Trt No.	Treatment	Rate	Appl Code	Plot	7	8	9	10	11	12	13
6	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	202	75.0	0.0	5.0	90.0	99.0	0.0	80.0
	SL-573 (400 SL)	0.57 oz ai/a	B	403	90.0	0.0	3.0	75.0	99.0	0.0	55.0
	Atrazine	0.875 lb ai/a	B	703	95.0	0.0	0.0	30.0	99.0	0.0	30.0
	Roundup PowerMax 4.5 SL	0.77 lb ae/a	B	1004	75.0	2.0	2.0	30.0	99.0	0.0	30.0
	MSO	0.5 % v/v	B								
	AMS - Liquid	17 lb ai/100 gal	B								
	Mean =				83.8	0.5	2.5	56.3	99.0	0.0	48.8
7	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	203	50.0	0.0	3.0	60.0	99.0	0.0	50.0
	SL-573 (400 SL)	0.417 oz ai/a	B	501	90.0	0.0	2.0	70.0	99.0	8.0	80.0
	Atrazine	0.875 lb ai/a	B	802	60.0	0.0	2.0	50.0	99.0	0.0	10.0
	Liberty 280 (2.34 SL)	0.402 lb ai/a	B	1002	40.0	3.0	4.0	50.0	99.0	0.0	60.0
	MSO	0.5 % v/v	B								
	AMS - Liquid	17 lb ai/100 gal	B								
	Mean =				60.0	0.8	2.8	57.5	99.0	2.0	50.0
8	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	204	50.0	0.0	3.0	65.0	99.0	0.0	50.0
	SL-573 (400 SL)	0.57 oz ai/a	B	502	75.0	0.0	2.0	55.0	99.0	0.0	50.0
	Atrazine	0.875 lb ai/a	B	603	90.0	0.0	0.0	70.0	99.0	4.0	75.0
	Liberty 280 (2.34 SL)	0.402 lb ai/a	B	903	97.0	0.0	2.0	98.0	99.0	4.0	75.0
	MSO	0.5 % v/v	B								
	AMS - Liquid	17 lb ai/100 gal	B								
	Mean =				78.0	0.0	1.8	72.0	99.0	2.0	62.5
9	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	301	65.0	0.0	3.0	50.0	99.0	0.0	60.0
	Callisto (4.0 SC)	1.5 oz ai/a	B	402	50.0	0.0	5.0	30.0	99.0	0.0	40.0
	Atrazine	0.875 lb ai/a	B	701	85.0	0.0	0.0	50.0	99.0	0.0	50.0
	COC	1 % v/v	B	804	50.0	0.0	0.0	30.0	99.0	0.0	10.0
	28% UAN	2.5 % v/v	B								
	Mean =				62.5	0.0	2.0	40.0	99.0	0.0	40.0
10	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	302	90.0	0.0	7.0	99.0	99.0	0.0	30.0
	Impact (2.8 SC)	0.35 oz ai/a	B	401	50.0	0.0	3.0	60.0	99.0	0.0	30.0
	Atrazine	0.875 lb ai/a	B	602	85.0	0.0	4.0	85.0	75.0	0.0	80.0
	MSO	0.5 % v/v	B	904	93.0	0.0	2.0	98.0	99.0	0.0	95.0
	28% UAN	2.5 % v/v	B								
	Mean =				79.5	0.0	4.0	85.5	93.0	0.0	58.8



# Purdue University

Pest Type					W Weed
Pest Code					SETFA
Pest Scientific Name					Setaria faberi
Pest Name					Giant foxtail
Crop Code					ZEAMX
BBCH Scale					BCOR
Crop Scientific Name					Zea mays
Crop Name					Corn
Rating Date					Jul-15-2014
Rating Type					CONTRO
Rating Unit					%
Sample Size, Unit	1 PLOT				
Number of Subsamples					1
Pest Stage Majority					6-30"
Pest Density, Unit					3 FT2
Assessed By					
Days After First/Last Applic.					70 47
Plant-Eval Interval					71 DP-1
Days After Emergence					64 DE-1
Trt No.	Treatment Name	Rate	Appl Code	Plot	
		Rate Unit			14
1	Untreated Check			101	0.0
				504	0.0
				801	0.0
				803	0.0
				Mean =	0.0
2	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	102	99.0
				303	99.0
				601	99.0
				902	99.0
				Mean =	99.0
3	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	103	99.0
	SL-573 (400 SL)	0.417 oz ai/a	B	304	99.0
	Atrazine	1 lb ai/a	B	704	99.0
	MSO	0.5 % v/v	B	1001	99.0
	28% UAN	2.5 % v/v	B		
				Mean =	99.0
4	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	104	99.0
	SL-573 (400 SL)	0.57 oz ai/a	B	404	99.0
	Atrazine	1 lb ai/a	B	702	60.0
	MSO	0.5 % v/v	B	901	75.0
	28% UAN	2.5 % v/v	B		
				Mean =	83.3
5	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	201	99.0
	SL-573 (400 SL)	0.417 oz ai/a	B	503	99.0
	Atrazine	0.875 lb ai/a	B	604	99.0
	Roundup PowerMax 4.5 SL	0.77 lb ae/a	B	1003	99.0
	MSO	0.5 % v/v	B		
	AMS - Liquid	17 lb ai/100 gal	B		
				Mean =	99.0

# Purdue University

Pest Type					W Weed
Pest Code					SETFA
Pest Scientific Name					Setaria faberi
Pest Name					Giant foxtail
Crop Code					ZEAMX
BBCH Scale					BCOR
Crop Scientific Name					Zea mays
Crop Name					Corn
Rating Date					Jul-15-2014
Rating Type					CONTRO
Rating Unit					%
Sample Size, Unit	1 PLOT				
Number of Subsamples					1
Pest Stage Majority					6-30"
Pest Density, Unit					3 FT2
Assessed By					
Days After First/Last Applic.					70 47
Plant-Eval Interval					71 DP-1
Days After Emergence					64 DE-1
Trt No.	Treatment	Rate	Appl		
		Rate Unit	Code Plot		14
6	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 202		90.0
	SL-573 (400 SL)	0.57 oz ai/a	B 403		99.0
	Atrazine	0.875 lb ai/a	B 703		99.0
	Roundup PowerMax 4.5 SL	0.77 lb ae/a	B 1004		99.0
	MSO	0.5 % v/v	B		
	AMS - Liquid	17 lb ai/100 gal	B		
				Mean =	96.8
7	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 203		99.0
	SL-573 (400 SL)	0.417 oz ai/a	B 501		99.0
	Atrazine	0.875 lb ai/a	B 802		99.0
	Liberty 280 (2.34 SL)	0.402 lb ai/a	B 1002		99.0
	MSO	0.5 % v/v	B		
	AMS - Liquid	17 lb ai/100 gal	B		
				Mean =	99.0
8	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 204		99.0
	SL-573 (400 SL)	0.57 oz ai/a	B 502		99.0
	Atrazine	0.875 lb ai/a	B 603		95.0
	Liberty 280 (2.34 SL)	0.402 lb ai/a	B 903		99.0
	MSO	0.5 % v/v	B		
	AMS - Liquid	17 lb ai/100 gal	B		
				Mean =	98.0
9	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 301		99.0
	Callisto (4.0 SC)	1.5 oz ai/a	B 402		90.0
	Atrazine	0.875 lb ai/a	B 701		99.0
	COC	1 % v/v	B 804		99.0
	28% UAN	2.5 % v/v	B		
				Mean =	96.8
10	Dual II Magnum (7.64 EC)	25.5 oz ai/a	A 302		99.0
	Impact (2.8 SC)	0.35 oz ai/a	B 401		99.0
	Atrazine	0.875 lb ai/a	B 602		50.0
	MSO	0.5 % v/v	B 904		99.0
	28% UAN	2.5 % v/v	B		
				Mean =	86.8

# Purdue University

## Tolpyralate (SL-573) for Weed Control in RR/LL Corn

Trial ID: 14S-THP-CTC-03      Protocol ID: 14S-THP-CTC-03  
 Location: Throckmorton      Study Director:  
 Project ID: 14-US-H-2-CG RR Univ      Investigator: Dr. Bill Johnson  
 Sponsor Contact: ISK - Dennis Tonks

### 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

### Crop Code

ZEAMX, BCOR, Zea mays, = US

### Rating Type

CONTRO = control / burndown or knockdown  
 PHYNLS = phytotoxicity - necrosis, leaf spot  
 PHYCHL = phytotoxicity - chlorosis  
 PHYNEC = phytotoxicity - necrosis /burn  
 PHYLMA = phytotoxicity - leaf malformation  
 PHYSTU = phytotoxicity - stunting

### Rating Unit

% = percent

PLOT = total plot

YD2 = per square yard

FT2 = per square foot

### Plant-Eval Interval

31 DP-1 = 1 ZEAMD May-5-2014  
 42 DP-1 = 1 ZEAMD May-5-2014  
 58 DP-1 = 1 ZEAMD May-5-2014  
 71 DP-1 = 1 ZEAMD May-5-2014

# Purdue University

## Tolpyralate (SL-573) for Weed Control in RR/LL Corn

Trial ID: 14S-THP-CTC-03      Protocol ID: 14S-THP-CTC-03  
 Location: Throckmorton      Study Director:  
 Project ID: 14-US-H-2-CG RR Univ      Investigator: Dr. Bill Johnson  
 Sponsor Contact: ISK - Dennis Tonks

Pest Type	W Weed	W Weed	W Weed			W Weed	W Weed		
Pest Code	SETFA	AMBTR	CHEAL			SETFA	AMBTR		
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>			Setaria faberi	Ambrosia trifi>		
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>			Giant foxtail	Giant ragweed		
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn		
Rating Date	Jun-5-2014	Jun-5-2014	Jun-5-2014	Jun-5-2014	Jun-5-2014	Jun-16-2014	Jun-16-2014		
Rating Type	CONTRO	CONTRO	CONTRO	PHYNLS	PHYCHL	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%	%	%		
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT			1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1		
Pest Stage Majority	1-2"	2-5"	1-2"			1-5"	6-36"		
Pest Density, Unit	7 YD2	2 FT2	2 YD2			6 FT2	3 FT2		
Assessed By	GT/KA	GT/KA	GT/KA						
Days After First/Last Applic.	30 7	30 7	30 7	30 7	30 7	41 18	41 18		
Plant-Eval Interval	31 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1	42 DP-1	42 DP-1		
Days After Emergence	24 DE-1	24 DE-1	24 DE-1	24 DE-1	24 DE-1	35 DE-1	35 DE-1		
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code	1	2	3	4	5	6	7
1 Untreated Check			0.0 b	0.0 c	0.0 c	0.0 a	0.0 a	0.0 b	0.0 b
2 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	96.8 a	73.8 ab	76.0 b	0.0 a	0.0 a	99.0 a	58.8 a
3 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	99.0 a	80.0 ab	99.0 a	1.0 a	0.0 a	99.0 a	68.8 a
SL-573 (400 SL)	0.417 oz ai/a	B							
Atrazine	1 lb ai/a	B							
MSO	0.5 % v/v	B							
28% UAN	2.5 % v/v	B							
4 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	99.0 a	72.5 b	99.0 a	1.5 a	0.0 a	99.0 a	63.8 a
SL-573 (400 SL)	0.57 oz ai/a	B							
Atrazine	1 lb ai/a	B							
MSO	0.5 % v/v	B							
28% UAN	2.5 % v/v	B							
5 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	99.0 a	90.5 ab	99.0 a	2.5 a	0.0 a	99.0 a	68.0 a
SL-573 (400 SL)	0.417 oz ai/a	B							
Atrazine	0.875 lb ai/a	B							
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B							
MSO	0.5 % v/v	B							
AMS - Liquid	17 lb ai/100 gal	B							
6 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	99.0 a	91.5 ab	99.0 a	2.0 a	0.3 a	99.0 a	83.8 a
SL-573 (400 SL)	0.57 oz ai/a	B							
Atrazine	0.875 lb ai/a	B							
Roundup PowerMax 4.5 SL	0.77 lb ae/a	B							
MSO	0.5 % v/v	B							
AMS - Liquid	17 lb ai/100 gal	B							
7 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	99.0 a	94.5 ab	99.0 a	2.8 a	0.0 a	99.0 a	60.0 a
SL-573 (400 SL)	0.417 oz ai/a	B							
Atrazine	0.875 lb ai/a	B							
Liberty 280 (2.34 SL)	0.402 lb ai/a	B							
MSO	0.5 % v/v	B							
AMS - Liquid	17 lb ai/100 gal	B							

Means followed by same letter do not significantly differ (P=0.05, 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	W Weed			
Pest Code	SETFA	AMBTR	CHEAL		SETFA	AMBTR			
Pest Scientific Name	Setaria faberi	Ambrosia trif>	Chenopodium al>		Setaria faberi	Ambrosia trif>			
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>		Giant foxtail	Giant ragweed			
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX			
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR			
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays			
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn			
Rating Date	Jun-5-2014	Jun-5-2014	Jun-5-2014	Jun-5-2014	Jun-5-2014	Jun-16-2014			
Rating Type	CONTRO	CONTRO	CONTRO	PHYNLS	PHYCHL	CONTRO			
Rating Unit	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT			1 PLOT			
Number of Subsamples	1	1	1	1	1	1			
Pest Stage Majority	1-2"	2-5"	1-2"			1-5"			
Pest Density, Unit	7 YD2	2 FT2	2 YD2			6 FT2			
Assessed By	GT/KA	GT/KA	GT/KA						
Days After First/Last Applic.	30 7	30 7	30 7	30 7	30 7	41 18			
Plant-Eval Interval	31 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1	42 DP-1			
Days After Emergence	24 DE-1	24 DE-1	24 DE-1	24 DE-1	24 DE-1	35 DE-1			
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code	1	2	3	4	5	6	7
8 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	99.0 a	96.8 a	99.0 a	1.0 a	0.0 a	99.0 a	78.0 a
SL-573 (400 SL)	0.57 oz ai/a	B							
Atrazine	0.875 lb ai/a	B							
Liberty 280 (2.34 SL)	0.402 lb ai/a	B							
MSO	0.5 % v/v	B							
AMS - Liquid	17 lb ai/100 gal	B							
9 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	99.0 a	80.0 ab	99.0 a	1.8 a	0.0 a	99.0 a	62.5 a
Callisto (4.0 SC)	1.5 oz ai/a	B							
Atrazine	0.875 lb ai/a	B							
COC	1 % v/v	B							
28% UAN	2.5 % v/v	B							
10 Dual II Magnum (7.64 EC)	25.5 oz ai/a	A	99.0 a	85.0 ab	99.0 a	2.3 a	0.0 a	99.0 a	79.5 a
Impact (2.8 SC)	0.35 oz ai/a	B							
Atrazine	0.875 lb ai/a	B							
MSO	0.5 % v/v	B							
28% UAN	2.5 % v/v	B							
LSD (P=.05)			2.06	14.63	10.33	2.67	0.23	0.00	26.67
Standard Deviation			1.42	10.08	7.12	1.84	0.16	0.00	18.38
CV			1.6	13.19	8.21	124.72	632.46	0.0	29.5
Bartlett's X2			0.0	30.678	0.0	8.965	0.0	0.0	5.207
P(Bartlett's X2)			.	0.001*	.	0.255	.	.	0.735
Replicate F			1.000	0.820	1.000	0.480	1.000	0.000	3.671
Replicate Prob(F)			0.4079	0.4943	0.4079	0.6988	0.4079	1.0000	0.0244
Treatment F			1927.222	31.154	77.456	1.107	1.000	0.000	6.550
Treatment Prob(F)			0.0001	0.0001	0.0001	0.3908	0.4635	1.0000	0.0001

# Purdue University

Pest Type					W Weed	W Weed			W Weed	W Weed	
Pest Code					AMBTR	SETFA			AMBTR	SETFA	
Pest Scientific Name					Ambrosia trifi>	Setaria faberi			Ambrosia trifi>	Setaria faberi	
Pest Name					Giant ragweed	Giant foxtail			Giant ragweed	Giant foxtail	
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
BBCB Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	
Rating Date	Jun-16-2014	Jun-16-2014	Jul-2-2014	Jul-2-2014	Jul-2-2014	Jul-2-2014	Jul-2-2014	Jul-15-2014	Jul-15-2014	Jul-15-2014	
Rating Type	PHYNEC	PHYLMA	CONTRO	CONTRO	CONTRO	PHYSTU	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit	%	%	%	%	%	%	%	%	%	%	
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1		1		1		1		1		
Pest Stage Majority					5-72"		2-12"		6-86"		
Pest Density, Unit					2 FT2		3 FT2		2 FT2		
Assessed By											
Days After First/Last Applic.	41 18		41 18		57 34		57 34		57 34		
Plant-Eval Interval	42 DP-1		42 DP-1		58 DP-1		58 DP-1		58 DP-1		
Days After Emergence	35 DE-1		35 DE-1		51 DE-1		51 DE-1		51 DE-1		
Trt No.	Treatment Name	Rate	Unit	Appl Code	8	9	10	11	12	13	14
1	Untreated Check				0.0 a	0.0 a	0.0 c	0.0 b	0.0 a	0.0 b	0.0 b
2	Dual II Magnum (7.64 EC)	25.5 oz ai/a		A	0.5 a	1.0 a	2.5 c	99.0 a	3.3 a	32.5 ab	99.0 a
3	Dual II Magnum (7.64 EC)	25.5 oz ai/a		A	0.0 a	0.5 a	48.8 ab	99.0 a	1.8 a	43.8 ab	99.0 a
	SL-573 (400 SL)	0.417 oz ai/a		B							
	Atrazine	1 lb ai/a		B							
	MSO	0.5 % v/v		B							
	28% UAN	2.5 % v/v		B							
4	Dual II Magnum (7.64 EC)	25.5 oz ai/a		A	0.0 a	1.5 a	76.3 ab	88.3 a	0.0 a	61.3 a	83.3 a
	SL-573 (400 SL)	0.57 oz ai/a		B							
	Atrazine	1 lb ai/a		B							
	MSO	0.5 % v/v		B							
	28% UAN	2.5 % v/v		B							
5	Dual II Magnum (7.64 EC)	25.5 oz ai/a		A	0.0 a	1.8 a	42.5 ab	99.0 a	2.5 a	68.5 a	99.0 a
	SL-573 (400 SL)	0.417 oz ai/a		B							
	Atrazine	0.875 lb ai/a		B							
	Roundup PowerMax 4.5 SL	0.77 lb ae/a		B							
	MSO	0.5 % v/v		B							
	AMS - Liquid	17 lb ai/100 gal		B							
6	Dual II Magnum (7.64 EC)	25.5 oz ai/a		A	0.5 a	2.5 a	56.3 ab	99.0 a	0.0 a	48.8 ab	96.8 a
	SL-573 (400 SL)	0.57 oz ai/a		B							
	Atrazine	0.875 lb ai/a		B							
	Roundup PowerMax 4.5 SL	0.77 lb ae/a		B							
	MSO	0.5 % v/v		B							
	AMS - Liquid	17 lb ai/100 gal		B							
7	Dual II Magnum (7.64 EC)	25.5 oz ai/a		A	0.8 a	2.8 a	57.5 ab	99.0 a	2.0 a	50.0 ab	99.0 a
	SL-573 (400 SL)	0.417 oz ai/a		B							
	Atrazine	0.875 lb ai/a		B							
	Liberty 280 (2.34 SL)	0.402 lb ai/a		B							
	MSO	0.5 % v/v		B							
	AMS - Liquid	17 lb ai/100 gal		B							

# Purdue University

Pest Type			W Weed		W Weed		W Weed		W Weed		
Pest Code			AMBTR		SETFA		AMBTR		SETFA		
Pest Scientific Name			Ambrosia trifi>		Setaria faberi		Ambrosia trifi>		Setaria faberi		
Pest Name			Giant ragweed		Giant foxtail		Giant ragweed		Giant foxtail		
Crop Code	ZEAMX		ZEAMX		ZEAMX		ZEAMX		ZEAMX		
BBCH Scale	BCOR		BCOR		BCOR		BCOR		BCOR		
Crop Scientific Name	Zea mays		Zea mays		Zea mays		Zea mays		Zea mays		
Crop Name	Corn		Corn		Corn		Corn		Corn		
Rating Date	Jun-16-2014		Jun-16-2014		Jul-2-2014		Jul-2-2014		Jul-2-2014		
Rating Type	PHYNEC		PHYLMA		CONTRO		CONTRO		PHYSTU		
Rating Unit	%		%		%		%		%		
Sample Size, Unit	1	PLOT	1	PLOT	1	PLOT	1	PLOT	1	PLOT	
Number of Subsamples	1		1		1		1		1		
Pest Stage Majority					5-72"		2-12"		6-86"		
Pest Density, Unit					2 FT2		3 FT2		2 FT2		
Assessed By											
Days After First/Last Applic.	41 18		41 18		57 34		57 34		57 34		
Plant-Eval Interval	42 DP-1		42 DP-1		58 DP-1		58 DP-1		58 DP-1		
Days After Emergence	35 DE-1		35 DE-1		51 DE-1		51 DE-1		51 DE-1		
Trt No.	Treatment Name	Rate	Unit	Appl Code	8	9	10	11	12	13	14
8	Dual II Magnum (7.64 EC)	25.5 oz ai/a		A	0.0 a	1.8 a	72.0 ab	99.0 a	2.0 a	62.5 a	98.0 a
	SL-573 (400 SL)	0.57 oz ai/a		B							
	Atrazine	0.875 lb ai/a		B							
	Liberty 280 (2.34 SL)	0.402 lb ai/a		B							
	MSO	0.5 % v/v		B							
	AMS - Liquid	17 lb ai/100 gal		B							
9	Dual II Magnum (7.64 EC)	25.5 oz ai/a		A	0.0 a	2.0 a	40.0 b	99.0 a	0.0 a	40.0 ab	96.8 a
	Callisto (4.0 SC)	1.5 oz ai/a		B							
	Atrazine	0.875 lb ai/a		B							
	COC	1 % v/v		B							
	28% UAN	2.5 % v/v		B							
10	Dual II Magnum (7.64 EC)	25.5 oz ai/a		A	0.0 a	4.0 a	85.5 a	93.0 a	0.0 a	58.8 a	86.8 a
	Impact (2.8 SC)	0.35 oz ai/a		B							
	Atrazine	0.875 lb ai/a		B							
	MSO	0.5 % v/v		B							
	28% UAN	2.5 % v/v		B							
LSD (P=.05)					0.93	2.49	28.18	7.66	3.45	35.59	14.15
Standard Deviation					0.64	1.72	19.42	5.28	2.38	24.53	9.75
CV					365.98	96.84	40.36	6.04	206.59	52.64	11.37
Bartlett's X2					0.682	4.832	11.499	0.007	1.04	3.313	19.502
P(Bartlett's X2)					0.711	0.775	0.175	0.935	0.904	0.913	0.001*
Replicate F					1.361	1.746	0.354	1.845	0.951	0.020	1.652
Replicate Prob(F)					0.2757	0.1813	0.7864	0.1628	0.4300	0.9960	0.2008
Treatment F					0.819	1.795	8.726	137.351	1.154	2.610	39.512
Treatment Prob(F)					0.6036	0.1158	0.0001	0.0001	0.3621	0.0260	0.0001

# Purdue University

## Tolpyralate (SL-573) for Weed Control in RR/LL Corn

Trial ID: 14S-THP-CTC-03      Protocol ID: 14S-THP-CTC-03  
 Location: Throckmorton      Study Director:  
 Project ID: 14-US-H-2-CG RR Univ      Investigator: Dr. Bill Johnson  
 Sponsor Contact: ISK - Dennis Tonks

### 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

### Crop Code

ZEAMX, BCOR, Zea mays, = US

### Rating Type

CONTRO = control / burndown or knockdown  
 PHYNLS = phytotoxicity - necrosis, leaf spot  
 PHYCHL = phytotoxicity - chlorosis  
 PHYNEC = phytotoxicity - necrosis /burn  
 PHYLMA = phytotoxicity - leaf malformation  
 PHYSTU = phytotoxicity - stunting

### Rating Unit

% = percent

PLOT = total plot

YD2 = per square yard

FT2 = per square foot

### Plant-Eval Interval

31 DP-1 = 1 ZEAMD May-5-2014  
 42 DP-1 = 1 ZEAMD May-5-2014  
 58 DP-1 = 1 ZEAMD May-5-2014  
 71 DP-1 = 1 ZEAMD May-5-2014