

# Purdue University Weed Science

## Postemergence Weed Control in Popcorn with Revulin Q

Trial ID: 15S-THP-CTP-10      Location: TPAC      Trial Year: 2015  
 Protocol ID: 15S-THP-CTP-10      Investigator: Dr. Bill Johnson  
 Project ID: USA-15-013      Study Director: Joe Ikley  
 Sponsor Contact: DuPont - Kelly Barnett

### General Trial Information

**Study Director:** Joe Ikley      **Title:** Research Associate  
**Investigator:** Dr. Bill Johnson      **Title:** Professor

**Discipline:** H      herbicide  
**Initiation Date:** May-2-2015

### Trial Location

**Country:** USA United States

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

### Contacts

**Study Director:** Joe Ikley      **Title:** Research Associate  
**Organization:** Purdue University  
**Address:** 915 West State Street      **Phone No.:** 765-494-0891  
**City+State/Prov:** West Lafayette      **Mobile No.:** 410-596-9091  
**Postal Code:** 47907      **E-mail:** jikley@purdue.edu

**Investigator:** Dr. Bill Johnson      **Title:** Professor  
**Organization:** Purdue University  
**Address:** 915 West State Street      **Phone No.:** 765-494-4656  
**City+State/Prov:** West Lafayette      **Mobile No.:** 765-404-9801  
**Postal Code:** 47907      **E-mail:** wgj@purdue.edu

### Cooperator/Landowner

**Cooperator:** Jay Young      **Role:** Superintendent  
**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  
**Country:** USA United States      **E-mail:** jayyoung@purdue.edu

### Crop Description

**Crop 1:** ZEAME      Zea mays everta      Popcorn  
**Variety:** AP2504 F147RC LR      **BBCH Scale:** BCOR  
**Planting Rate, Unit:** 32000 S/A      **Planting Date:** May-2-2015  
**Depth, Unit:** 1.5 IN      **Planting Method:** SEEDED seeded  
**Row Spacing, Unit:** 30 IN      **Planting Equipment:** FPP      Finger Pickup Planter  
**Spacing Within Row, Unit:** 6 IN      **Emergence Date:** May-9-2015  
**Planting Density, Unit:** 32000 S/A  
**Soil Temperature, Unit:** 55 F  
**Soil Moisture:** SLIWET      slightly wet, moist  
**Seed Bed:** MEDIUM      medium

### 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

### Site and Design

**Treated Plot Width:** 10 FT      **Site Type:** FIELD      field  
**Treated Plot Length:** 30 FT      **Experimental Unit:** 1      PLOT      plot  
**Treated Plot Area:** 300 FT2      **Treatments:** 10      **Tillage Type:** CONTIL      conventional-till  
**Replications:** 4      **Study Design:** RACOB      Randomized Complete Block (RCB)  
**Untreated Arrangement:** INCLUDED single control randomized in each block

### Field Prep./Maintenance:

171 pounds of UAN (28-0-0) applied and disked in on May 1st

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

Application Description		
	A	B
<b>Application Date:</b>	May-2-2015	May-22-2015
<b>Appl. Start Time:</b>	15:00	8:00
<b>Appl. Stop Time:</b>	16:00	8:45
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>	PRE	POST
<b>Application Placement:</b>	SOIL	BROADC
<b>Applied By:</b>	Jl	PD
<b>Air Temperature, Unit:</b>	75 F	54 F
<b>% Relative Humidity:</b>	37	76
<b>Wind Velocity, Unit:</b>	5 MPH	2.4 MPH
<b>Wind Direction:</b>	SW	SW
<b>Dew Presence (Y/N):</b>	N no	N no
<b>Soil Temperature, Unit:</b>	58 F	57 F
<b>Soil Moisture:</b>	SLIWET	SLIDRY
<b>% Cloud Cover:</b>	30	10
<b>Next Moisture Occurred On:</b>	May-4-2015	

Crop Stage At Each Application		
	A	B
<b>Crop 1 Code, BBCH Scale:</b>	ZEAME BCOR	ZEAME BCOR
<b>Stage Scale Used:</b>	BBCH	BBCH
<b>Stage Majority, Percent:</b>	00	32
<b>Height, Unit:</b>		4.5 IN
<b>Height Minimum, Maximum:</b>		4 5

Pest Stage At Each Application		
	A	B
<b>Pest 1 Code, Type, Scale:</b>	AMBTR W	AMBTR W
<b>Stage Majority, Percent:</b>		32
<b>Stage Minimum, Percent:</b>		31
<b>Stage Maximum, Percent:</b>		33
<b>Height, Unit:</b>		2 IN
<b>Height Minimum, Maximum:</b>		1 3
<b>Density, Unit:</b>		30 YD2
<b>Pest 2 Code, Type, Scale:</b>	SETFA W	SETFA W
<b>Stage Majority, Percent:</b>		13
<b>Stage Minimum, Percent:</b>		12
<b>Stage Maximum, Percent:</b>		14
<b>Height, Unit:</b>		1.5 IN
<b>Height Minimum, Maximum:</b>		1 2
<b>Density, Unit:</b>		150 YD2

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Application Equipment			
	A	B	
<b>Appl. Equipment:</b>	CO2 BACKPACK	CO2 BACKPACK	
<b>Equipment Type:</b>	BACSPR	BACSPR	
<b>Operation Pressure, Unit:</b>	18 PSI	18 PSI	
<b>Nozzle Type:</b>	FLAT FAN	FLAT FAN	
<b>Nozzle Size:</b>	XR 11002	XR 11002	
<b>Nozzle Spacing, Unit:</b>	15 IN	15 IN	
<b>Nozzles/Row:</b>	8	8	
<b>Boom Length, Unit:</b>	10 FT	10 FT	
<b>Boom Height, Unit:</b>	17 IN	17 IN	
<b>Ground Speed, Unit:</b>	3 MPH	3 MPH	
<b>Carrier:</b>	MEIGS	MEIGS	
<b>Spray Volume, Unit:</b>	15 gal/ac	15 gal/ac	
<b>Mix Size, Unit:</b>	1.8 liters	1.8 liters	
<b>Propellant:</b>	CO2	CO2	

Reps: 4      Appl Code: A      Plots: 10 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Stage	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
4	CINCH	7.64	LB/GAL	EC	1 pt/a	PRE	A	15.0 ml/mx	104	205	302	403
5	CINCH	7.64	LB/GAL	EC	1 pt/a	PRE	A	15.0 ml/mx	105	208	307	402
6	CINCH	7.64	LB/GAL	EC	1 pt/a	PRE	A	15.0 ml/mx	106	201	305	406
7	CINCH	7.64	LB/GAL	EC	1 pt/a	PRE	A	15.0 ml/mx	107	206	301	409
8	CINCH ATZ	5.5	LB/GAL	L	2 qt/a	PRE	A	60.0 ml/mx	108	209	306	407
9	CINCH ATZ	5.5	LB/GAL	L	1.5 qt/a	PRE	A	45.0 ml/mx	109	210	309	408
10	CINCH ATZ	5.5	LB/GAL	L	2 qt/a	PRE	A	60.0 ml/mx	110	203	310	404

Reps: 4      Appl Code: B      Plots: 10 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Stage	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
2	NICOSULFURON	75 %		WG	0.49 oz ai/a		B	0.5871 g/mx	102	204	303	401
	MESOTRIONE	50 %		WG	1.25 oz ai/a		B	2.247 g/mx				
	ISOXADIFEN-ETHYL	50 %		WG	0.125 oz ai/a		B	0.2247 g/mx				
	PRIME OIL - COC	99.47 %		L	1 % v/v		B	18.0 ml/mx				
	N-PAK - AMS	3.4	LBA/GAL	SL	2 lb ai/a	V3-V4 CORN	B	70.58 ml/mx				
3	NICOSULFURON	75 %		WG	0.49 oz ai/a		B	0.5871 g/mx	103	207	308	410
	MESOTRIONE	50 %		WG	1.25 oz ai/a		B	2.247 g/mx				
	ISOXADIFEN-ETHYL	50 %		WG	0.125 oz ai/a		B	0.2247 g/mx				
	AATREX	4	LB/GAL	L	1 pt/a		B	15.0 ml/mx				
	PRIME OIL - COC	99.47 %		L	1 % v/v		B	18.0 ml/mx				
N-PAK - AMS	3.4	LBA/GAL	SL	2 lb ai/a	V3-V4 CORN	B	70.58 ml/mx					
4	NICOSULFURON	75 %		WG	0.49 oz ai/a		B	0.5871 g/mx	104	205	302	403
	MESOTRIONE	50 %		WG	1.25 oz ai/a		B	2.247 g/mx				
	ISOXADIFEN-ETHYL	50 %		WG	0.125 oz ai/a		B	0.2247 g/mx				
	PRIME OIL - COC	99.47 %		L	1 % v/v		B	18.0 ml/mx				
	N-PAK - AMS	3.4	LBA/GAL	SL	2 lb ai/a	V3-V4 CORN	B	70.58 ml/mx				
5	NICOSULFURON	75 %		WG	0.49 oz ai/a		B	0.5871 g/mx	105	208	307	402
	MESOTRIONE	50 %		WG	1.25 oz ai/a		B	2.247 g/mx				
	ISOXADIFEN-ETHYL	50 %		WG	0.125 oz ai/a		B	0.2247 g/mx				
	AATREX	4	LB/GAL	L	1 pt/a		B	15.0 ml/mx				
	PRIME OIL - COC	99.47 %		L	1 % v/v		B	18.0 ml/mx				
N-PAK - AMS	3.4	LBA/GAL	SL	2 lb ai/a	V3-V4 CORN	B	70.58 ml/mx					

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Reps: 4      Appl Code: B      Plots: 10 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Rate Unit	Growth Stage	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
6	NICOSULFURON	75 %		WG	0.49 oz ai/a			B	0.5871 g/mx	106	201	305	406
	MESOTRIONE	50 %		WG	1.25 oz ai/a			B	2.247 g/mx				
	ISOXADIFEN-ETHYL	50 %		WG	0.125 oz ai/a			B	0.2247 g/mx				
	AATREX		4 LB/GAL	L		1 pt/a		B	15.0 ml/mx				
	DICAMBA	70 %		WG		4 oz/a		B	3.595 g/mx				
	PRIME OIL - COC	99.47 %		L		1 % v/v		B	18.0 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL		2 lb ai/a		V3-V4 CORN	B	70.58 ml/mx				
7	NICOSULFURON	75 %		WG	0.49 oz ai/a			B	0.5871 g/mx	107	206	301	409
	MESOTRIONE	50 %		WG	1.25 oz ai/a			B	2.247 g/mx				
	ISOXADIFEN-ETHYL	50 %		WG	0.125 oz ai/a			B	0.2247 g/mx				
	AATREX		4 LB/GAL	L		1 pt/a		B	15.0 ml/mx				
	IMPACT		2.8 LB/GAL	L		0.75 fl oz/a		B	0.7031 ml/mx				
	PRIME OIL - COC	99.47 %		L		1 % v/v		B	18.0 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL		2 lb ai/a		V3-V4 CORN	B	70.58 ml/mx				
8	NICOSULFURON	75 %		WG	0.49 oz ai/a			B	0.5871 g/mx	108	209	306	407
	MESOTRIONE	50 %		WG	1.25 oz ai/a			B	2.247 g/mx				
	ISOXADIFEN-ETHYL	50 %		WG	0.125 oz ai/a			B	0.2247 g/mx				
	PRIME OIL - COC	99.47 %		L		1 % v/v		B	18.0 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL		2 lb ai/a		V3-V4 CORN	B	70.58 ml/mx				
9	NICOSULFURON	75 %		WG	0.49 oz ai/a			B	0.5871 g/mx	109	210	309	408
	MESOTRIONE	50 %		WG	1.25 oz ai/a			B	2.247 g/mx				
	ISOXADIFEN-ETHYL	50 %		WG	0.125 oz ai/a			B	0.2247 g/mx				
	CINCH ATZ		5.5 LB/GAL	L		1 qt/a		B	30.0 ml/mx				
	PRIME OIL - COC	99.47 %		L		1 % v/v		B	18.0 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL		2 lb ai/a		V3-V4 CORN	B	70.58 ml/mx				
10	LAUDIS		3.5 LB/GAL	L		3 fl oz/a		B	2.812 ml/mx	110	203	310	404
	MSO ULTRA	100 %		L		1 % v/v		B	18.0 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL		2 lb ai/a		V3-V4 CORN	B	70.58 ml/mx				

# Purdue University Weed Science

Reps: 4      Appl Code: \_      Plots: 10 by 30 feet  
 Spray vol: 15 GAL/AC      Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Unit	Growth Stage	Appl Code	Amt Product to Measure	Rep 1	2	3	4
1	Untreated Check								101	202	304	405
2	REVULIN Q @ 3.4 OZ/A								102	204	303	401
3	REVULIN Q @ 3.4 OZ/A								103	207	308	410
4	REVULIN Q @ 3.4 OZ/A								104	205	302	403
5	REVULIN Q @ 3.4 OZ/A								105	208	307	402
6	REVULIN Q @ 3.4 OZ/A								106	201	305	406
7	REVULIN Q @ 3.4 OZ/A								107	206	301	409
8	REVULIN Q @ 3.4 OZ/A								108	209	306	407
9	REVULIN Q @ 3.4 OZ/A								109	210	309	408

Sort Order: Application Code, Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
5.871	g	NICOSULFURON	75	WG	
22.467	g	MESOTRIONE	50	WG	
2.247	g	ISOXADIFEN-ETHYL	50	WG	
179.980	ml	PRIME OIL - COC	99.47	L	
794.031	ml	N-PAK - AMS	3.4	SL	
75.000	ml	AATREX	4	L	
75.000	ml	CINCH	7.64	EC	
4.493	g	DICAMBA	70	WG	
0.879	ml	IMPACT	2.8	L	
243.749	ml	CINCH ATZ	5.5	L	
3.516	ml	LAUDIS	3.5	L	
22.498	ml	MSO ULTRA	100	L	

\* 'Per area' calculations based on spray volume= 15 GAL/AC, mix size= 1.8 liters (mix size basis).  
 \* Product amount calculations increased 25 % for overage adjustment.  
 \* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 1.8 liters.

Pest Type		W Weed	W Weed		W Weed	W Weed
Pest Code		AMBTR	SETFA		SETFA	AMBTR
Pest Name		Giant ragweed	Giant foxtail		Giant foxtail	Giant ragweed
Crop Code	ZEAME			ZEAME		
Crop Name	Popcorn			Popcorn		
Part Rated	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P
Rating Date	May-29-2015	May-29-2015	May-29-2015	Jun-5-2015	Jun-5-2015	Jun-5-2015
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Days After First/Last Applic.	27 7	27 7	27 7	34 14	34 14	34 14
Trt-Eval Interval	7 DA-B	7 DA-B	7 DA-B	14 DA-B	14 DA-B	14 DA-B
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	27 DE-1	27 DE-1	27 DE-1
ARM Action Codes	P	P	P	P	P	P
Number of Decimals	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl			
		Rate Unit	Code Plot	1	2	3
				4	5	6
1	Untreated Check		101	0	0	0
			202	0	0	0
			304	0	0	0
			405	0	0	0
			Mean =	0	0	0



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Pest Type		W Weed	W Weed		W Weed	W Weed	
Pest Code		AMBTR	SETFA		SETFA	AMBTR	
Pest Name		Giant ragweed	Giant foxtail		Giant foxtail	Giant ragweed	
Crop Code	ZEAME			ZEAME			
Crop Name	Popcorn			Popcorn			
Part Rated	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P	
Rating Date	May-29-2015	May-29-2015	May-29-2015	Jun-5-2015	Jun-5-2015	Jun-5-2015	
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	
Rating Unit	%	%	%	%	%	%	
Number of Subsamples	1	1	1	1	1	1	
Days After First/Last Applic.	27 7	27 7	27 7	34 14	34 14	34 14	
Trt-Eval Interval	7 DA-B	7 DA-B	7 DA-B	14 DA-B	14 DA-B	14 DA-B	
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	27 DE-1	27 DE-1	27 DE-1	
ARM Action Codes	P	P	P	P	P	P	
Number of Decimals	0	0	0	0	0	0	
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	1	2	3	4	5
8 CINCH ATZ	2 qt/a	A 108	2	100	100	0	100
REVULIN Q @ 3.4 OZ/A		209	2	100	100	5	100
NICOSULFURON	0.49 oz ai/a	B 306	0	80	100	0	100
MESOTRIONE	1.25 oz ai/a	B 407	0	85	100	0	100
ISOXADIFEN-ETHYL	0.125 oz ai/a	B					
PRIME OIL - COC	1 % v/v	B					
N-PAK - AMS	2 lb ai/a	B					
	Mean =		1	91	100	1	100
9 CINCH ATZ	1.5 qt/a	A 109	5	100	100	0	100
REVULIN Q @ 3.4 OZ/A		210	5	100	100	0	100
NICOSULFURON	0.49 oz ai/a	B 309	5	100	100	0	100
MESOTRIONE	1.25 oz ai/a	B 408	5	100	100	0	100
ISOXADIFEN-ETHYL	0.125 oz ai/a	B					
CINCH ATZ	1 qt/a	B					
PRIME OIL - COC	1 % v/v	B					
N-PAK - AMS	2 lb ai/a	B					
	Mean =		5	100	100	0	100
10 CINCH ATZ	2 qt/a	A 110	2	97	100	0	100
LAUDIS	3 fl oz/a	B 203	0	70	100	15	100
MSO ULTRA	1 % v/v	B 310	2	100	100	0	100
N-PAK - AMS	2 lb ai/a	B 404	0	80	100	0	100
	Mean =		1	87	100	4	100

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Pest Type		W Weed	W Weed
Pest Code		SETFA	AMBTR
Pest Name		Giant foxtail	Giant ragweed
Crop Code	ZEAME		
Crop Name	Popcorn		
Part Rated	PLOT C	PLOT P	PLOT P
Rating Date	Jun-20-2015	Jun-20-2015	Jun-20-2015
Rating Type	PHYGEN	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Days After First/Last Applic.	49 29	49 29	49 29
Tri-Eval Interval	29 DA-B	29 DA-B	29 DA-B
Days After Emergence	42 DE-1	42 DE-1	42 DE-1
ARM Action Codes	P	P	P
Number of Decimals	0	0	0
Tri Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
		7	8
		9	
1 Untreated Check	101	0	0
	202	0	0
	304	0	0
	405	0	0
	Mean =	0	0



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Pest Type		W Weed	W Weed	
Pest Code		SETFA	AMBTR	
Pest Name		Giant foxtail	Giant ragweed	
Crop Code	ZEAME			
Crop Name	Popcorn			
Part Rated	PLOT C	PLOT P	PLOT P	
Rating Date	Jun-20-2015	Jun-20-2015	Jun-20-2015	
Rating Type	PHYGEN	CONTRO	CONTRO	
Rating Unit	%	%	%	
Number of Subsamples	1	1	1	
Days After First/Last Applic.	49 29	49 29	49 29	
Trt-Eval Interval	29 DA-B	29 DA-B	29 DA-B	
Days After Emergence	42 DE-1	42 DE-1	42 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	7	8
8 CINCH ATZ	2 qt/a	A 108	0	99
REVULIN Q @ 3.4 OZ/A		209	0	100
NICOSULFURON	0.49 oz ai/a	B 306	5	90
MESOTRIONE	1.25 oz ai/a	B 407	0	100
ISOXADIFEN-ETHYL	0.125 oz ai/a	B		75
PRIME OIL - COC	1 % v/v	B		
N-PAK - AMS	2 lb ai/a	B		
	Mean =		1	97
9 CINCH ATZ	1.5 qt/a	A 109	5	100
REVULIN Q @ 3.4 OZ/A		210	5	100
NICOSULFURON	0.49 oz ai/a	B 309	0	100
MESOTRIONE	1.25 oz ai/a	B 408	0	100
ISOXADIFEN-ETHYL	0.125 oz ai/a	B		80
CINCH ATZ	1 qt/a	B		
PRIME OIL - COC	1 % v/v	B		
N-PAK - AMS	2 lb ai/a	B		
	Mean =		3	100
10 CINCH ATZ	2 qt/a	A 110	0	100
LAUDIS	3 fl oz/a	B 203	0	90
MSO ULTRA	1 % v/v	B 310	0	100
N-PAK - AMS	2 lb ai/a	B 404	0	95
	Mean =		0	96

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## Postemergence Weed Control in Popcorn with Revulin Q

Trial ID: 15S-THP-CTP-10      Location: TPAC      Trial Year: 2015  
 Protocol ID: 15S-THP-CTP-10      Investigator: Dr. Bill Johnson  
 Project ID: USA-15-013      Study Director: Joe Ikley  
 Sponsor Contact: DuPont - Kelly Barnett

**Pest Type**  
 W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

**Pest Code**  
 AMBTR, Ambrosia trifida, = US  
 SETFA, Setaria faberi, = US

**Crop Code**  
 ZEAME, BCOR, Zea mays everta, = US

**Part Rated**  
 PLOT = plot  
 C = Crop is Part Rated  
 P = Pest is Part Rated

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

**Rating Unit**  
 % = percent

**ARM Action Codes**  
 P = Rating scale of 0 to 100 (e.g. % control or injury)

Pest Type	Pest Code	W Weed AMBTR Giant ragweed	W Weed SETFA Giant foxtail		W Weed SETFA Giant foxtail	W Weed AMBTR Giant ragweed
Crop Code	ZEAME				ZEAME	
Crop Name	Popcorn				Popcorn	
Part Rated	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P
Rating Date	May-29-2015	May-29-2015	May-29-2015	Jun-5-2015	Jun-5-2015	Jun-5-2015
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Days After First/Last Applic.	27 7	27 7	27 7	34 14	34 14	34 14
Trt-Eval Interval	7 DA-B	7 DA-B	7 DA-B	14 DA-B	14 DA-B	14 DA-B
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	27 DE-1	27 DE-1	27 DE-1
ARM Action Codes	P	P	P	P	P	P
Number of Decimals	0	0	0	0	0	0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code	1	2	3	4
1 Untreated Check			0 c	0 e	0 d	0 a
2 REVULIN Q @ 3.4 OZ/A			0 c	31 d	35 c	8 a
NICOSULFURON	0.49 oz ai/a B					79 d
MESOTRIONE	1.25 oz ai/a B					85 d
ISOXADIFEN-ETHYL	0.125 oz ai/a B					
PRIME OIL - COC	1 % v/v B					
N-PAK - AMS	2 lb ai/a B					
3 REVULIN Q @ 3.4 OZ/A			1 c	96 ab	78 b	0 a
NICOSULFURON	0.49 oz ai/a B					90 c
MESOTRIONE	1.25 oz ai/a B					98 a
ISOXADIFEN-ETHYL	0.125 oz ai/a B					
AATREX	1 pt/a B					
PRIME OIL - COC	1 % v/v B					
N-PAK - AMS	2 lb ai/a B					
4 CINCH	1 pt/a A		0 c	63 c	93 ab	1 a
REVULIN Q @ 3.4 OZ/A						95 b
NICOSULFURON	0.49 oz ai/a B					88 cd
MESOTRIONE	1.25 oz ai/a B					
ISOXADIFEN-ETHYL	0.125 oz ai/a B					
PRIME OIL - COC	1 % v/v B					
N-PAK - AMS	2 lb ai/a B					
5 CINCH	1 pt/a A		0 c	97 a	99 a	0 a
REVULIN Q @ 3.4 OZ/A						99 a
NICOSULFURON	0.49 oz ai/a B					95 ab
MESOTRIONE	1.25 oz ai/a B					
ISOXADIFEN-ETHYL	0.125 oz ai/a B					
AATREX	1 pt/a B					
PRIME OIL - COC	1 % v/v B					
N-PAK - AMS	2 lb ai/a B					

# Purdue University Weed Science

Pest Type Pest Code Pest Name		W Weed AMBTR Giant ragweed	W Weed SETFA Giant foxtail		W Weed SETFA Giant foxtail	W Weed AMBTR Giant ragweed			
Crop Code		ZEAME			ZEAME				
Crop Name		Popcorn			Popcorn				
Part Rated		PLOT P			PLOT P				
Rating Date		May-29-2015			Jun-5-2015				
Rating Type		PHYGEN			CONTRO				
Rating Unit		%			%				
Number of Subsamples		1			1				
Days After First/Last Applic.		27 7			34 14				
Trt-Eval Interval		7 DA-B			14 DA-B				
Days After Emergence		20 DE-1			27 DE-1				
ARM Action Codes		P			P				
Number of Decimals		0			0				
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
6	CINCH REVULIN Q @ 3.4 OZ/A NICOSULFURON MESOTRIONE ISOXADIFEN-ETHYL AATREX DICAMBA PRIME OIL - COC N-PAK - AMS	1 pt/a 0.49 oz ai/a 1.25 oz ai/a 0.125 oz ai/a 1 pt/a 4 oz/a 1 % v/v 2 lb ai/a	A B B B B B B B	0 c	97 a	98 a	3 a	95 b	94 abc
7	CINCH REVULIN Q @ 3.4 OZ/A NICOSULFURON MESOTRIONE ISOXADIFEN-ETHYL AATREX IMPACT PRIME OIL - COC N-PAK - AMS	1 pt/a 0.49 oz ai/a 1.25 oz ai/a 0.125 oz ai/a 1 pt/a 0.75 fl oz/a 1 % v/v 2 lb ai/a	A B B B B B B B	3 b	99 a	100 a	5 a	98 ab	94 abc
8	CINCH ATZ REVULIN Q @ 3.4 OZ/A NICOSULFURON MESOTRIONE ISOXADIFEN-ETHYL PRIME OIL - COC N-PAK - AMS	2 qt/a 0.49 oz ai/a 1.25 oz ai/a 0.125 oz ai/a 1 % v/v 2 lb ai/a	A B B B B B	1 c	91 ab	100 a	1 a	100 a	96 ab
9	CINCH ATZ REVULIN Q @ 3.4 OZ/A NICOSULFURON MESOTRIONE ISOXADIFEN-ETHYL CINCH ATZ PRIME OIL - COC N-PAK - AMS	1.5 qt/a 0.49 oz ai/a 1.25 oz ai/a 0.125 oz ai/a 1 qt/a 1 % v/v 2 lb ai/a	A B B B B B B	5 a	100 a	100 a	0 a	100 a	100 a
10	CINCH ATZ LAUDIS MSO ULTRA N-PAK - AMS	2 qt/a 3 fl oz/a 1 % v/v 2 lb ai/a	A B B B	1 c	87 b	100 a	4 a	100 a	90 bcd
LSD P=.05		1.0		1.0	9.6	17.8	6.9	3.4	7.0
Standard Deviation		0.7		0.7	6.6	12.2	4.7	2.4	4.8
CV		66.68		66.68	8.71	15.28	222.64	2.78	5.73
Bartlett's X2		0.152		0.152	23.837	16.101	7.434	1.427	7.937
P(Bartlett's X2)		0.985		0.985	0.001*	0.003*	0.19	0.84	0.338
Skewness		1.4254*		1.4254*	-1.3388*	-1.5627*	2.3445*	-2.5351*	-2.5495*
Kurtosis		0.6672		0.6672	0.4297	0.8488	5.0429*	5.108*	5.205*
Replicate F		1.216		1.216	0.778	2.327	0.772	0.590	1.180
Replicate Prob(F)		0.3228		0.3228	0.5166	0.0970	0.5195	0.6268	0.3357
Treatment F		22.708		22.708	108.105	32.140	1.182	669.394	153.841
Treatment Prob(F)		0.0001		0.0001	0.0001	0.0001	0.3453	0.0001	0.0001

# Purdue University Weed Science

Pest Type Pest Code Pest Name		W Weed SETFA Giant foxtail	W Weed AMBTR Giant ragweed
Crop Code Crop Name Part Rated Rating Date Rating Type Rating Unit Number of Subsamples Days After First/Last Applic. Trt-Eval Interval Days After Emergence ARM Action Codes Number of Decimals	ZEAME Popcorn PLOT C Jun-20-2015 PHYGEN % 1 49 29 29 DA-B 42 DE-1 P 0	PLOT P Jun-20-2015 CONTRO % 1 49 29 29 DA-B 42 DE-1 P 0	PLOT P Jun-20-2015 CONTRO % 1 49 29 29 DA-B 42 DE-1 P 0
Trt Treatment No. Name	Rate Rate Unit	Appl Code	
1 Untreated Check		7	8
2 REVULIN Q @ 3.4 OZ/A NICOSULFURON 0.49 oz ai/a B MESOTRIONE 1.25 oz ai/a B ISOXADIFEN-ETHYL 0.125 oz ai/a B PRIME OIL - COC 1 % v/v B N-PAK - AMS 2 lb ai/a B		0 a	0 e
3 REVULIN Q @ 3.4 OZ/A NICOSULFURON 0.49 oz ai/a B MESOTRIONE 1.25 oz ai/a B ISOXADIFEN-ETHYL 0.125 oz ai/a B AATREX 1 pt/a B PRIME OIL - COC 1 % v/v B N-PAK - AMS 2 lb ai/a B		1 a	59 c
4 CINCH 1 pt/a A REVULIN Q @ 3.4 OZ/A NICOSULFURON 0.49 oz ai/a B MESOTRIONE 1.25 oz ai/a B ISOXADIFEN-ETHYL 0.125 oz ai/a B PRIME OIL - COC 1 % v/v B N-PAK - AMS 2 lb ai/a B		0 a	66 bc
5 CINCH 1 pt/a A REVULIN Q @ 3.4 OZ/A NICOSULFURON 0.49 oz ai/a B MESOTRIONE 1.25 oz ai/a B ISOXADIFEN-ETHYL 0.125 oz ai/a B AATREX 1 pt/a B PRIME OIL - COC 1 % v/v B N-PAK - AMS 2 lb ai/a B		0 a	87 ab

# Purdue University Weed Science

Pest Type		W Weed	W Weed			
Pest Code		SETFA	AMBTR			
Pest Name		Giant foxtail	Giant ragweed			
Crop Code	ZEAME					
Crop Name	Popcorn					
Part Rated	PLOT C	PLOT P	PLOT P			
Rating Date	Jun-20-2015	Jun-20-2015	Jun-20-2015			
Rating Type	PHYGEN	CONTRO	CONTRO			
Rating Unit	%	%	%			
Number of Subsamples	1	1	1			
Days After First/Last Applic.	49 29	49 29	49 29			
Trt-Eval Interval	29 DA-B	29 DA-B	29 DA-B			
Days After Emergence	42 DE-1	42 DE-1	42 DE-1			
ARM Action Codes	P	P	P			
Number of Decimals	0	0	0			
Trt No.	Treatment Name	Rate	Appl Code	7	8	9
6	CINCH REVULIN Q @ 3.4 OZ/A NICOSULFURON MESOTRIONE ISOXADIFEN-ETHYL AATREX DICAMBA PRIME OIL - COC N-PAK - AMS	1 pt/a 0.49 oz ai/a 1.25 oz ai/a 0.125 oz ai/a 1 pt/a 4 oz/a 1 % v/v 2 lb ai/a	A B B B B B B B	0 a	64 c	85 abc
7	CINCH REVULIN Q @ 3.4 OZ/A NICOSULFURON MESOTRIONE ISOXADIFEN-ETHYL AATREX IMPACT PRIME OIL - COC N-PAK - AMS	1 pt/a 0.49 oz ai/a 1.25 oz ai/a 0.125 oz ai/a 1 pt/a 0.75 fl oz/a 1 % v/v 2 lb ai/a	A B B B B B B B	1 a	91 a	78 a-d
8	CINCH ATZ REVULIN Q @ 3.4 OZ/A NICOSULFURON MESOTRIONE ISOXADIFEN-ETHYL PRIME OIL - COC N-PAK - AMS	2 qt/a 0.49 oz ai/a 1.25 oz ai/a 0.125 oz ai/a 1 % v/v 2 lb ai/a	A B B B B B	1 a	97 a	88 ab
9	CINCH ATZ REVULIN Q @ 3.4 OZ/A NICOSULFURON MESOTRIONE ISOXADIFEN-ETHYL CINCH ATZ PRIME OIL - COC N-PAK - AMS	1.5 qt/a 0.49 oz ai/a 1.25 oz ai/a 0.125 oz ai/a 1 qt/a 1 % v/v 2 lb ai/a	A B B B B B B	3 a	100 a	94 a
10	CINCH ATZ LAUDIS MSO ULTRA N-PAK - AMS	2 qt/a 3 fl oz/a 1 % v/v 2 lb ai/a	A B B B	0 a	96 a	67 bcd
LSD P=.05		2.7		22.8		25.7
Standard Deviation		1.9		15.7		17.7
CV		246.79		22.6		25.72
Bartlett's X2		0.1		15.452		14.603
P(Bartlett's X2)		0.999		0.031*		0.067
Skewness		2.0376*		-0.9617*		-1.057*
Kurtosis		2.2626*		-0.4287		0.1726
Replicate F		0.730		1.738		2.080
Replicate Prob(F)		0.5432		0.1828		0.1264
Treatment F		0.892		16.867		9.673
Treatment Prob(F)		0.5451		0.0001		0.0001

# Purdue University Weed Science

## Postemergence Weed Control in Popcorn with Revulin Q

Trial ID: 15S-THP-CTP-10      Location: TPAC      Trial Year: 2015  
Protocol ID: 15S-THP-CTP-10      Investigator: Dr. Bill Johnson  
Project ID: USA-15-013      Study Director: Joe Ikley  
Sponsor Contact: DuPont - Kelly Barnett

### Pest Type

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

### Pest Code

AMBTR, Ambrosia trifida, = US

SETFA, Setaria faberi, = US

### Crop Code

ZEAME, BCOR, Zea mays everta, = US

### Part Rated

PLOT = plot

C = Crop is Part Rated

P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

### Rating Unit

% = percent

### ARM Action Codes

P = Rating scale of 0 to 100 (e.g. % control or injury)