

Purdue University

Impact Sequential and 1-Pass Programs

Trial ID: 14S-THP-CTC-10 Protocol ID: 14S-THP-CTC-10
 Location: Throckmorton Study Director:
 Project ID: 14C04H060 Investigator: Dr. Bill Johnson
 Sponsor Contact: Amvac - Rich Porter

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:** wgj@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: 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
Soil Moisture: DRY dry **Emergence Date:** May-12-2014

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed
Pest 2 Type: W **Code:** ABUTH Abutilon theophrasti
Common Name: velvetleaf
Pest 3 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail
Pest 4 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 FT2 **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	C
Application Date:	May-6-2014	May-23-2014	Jun-6-2014
Time of Day:	AM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	ATPLAN	EAPOCR	MIPOCR
Application Placement:	SOIL	FOLIAR	FOLIAR
Air Temperature, Unit:	75.1 F	61 F	72 F
% Relative Humidity:	32.5	68	66
Wind Velocity, Unit:	9.6 mph	4 mph	4.5 mph
Wind Direction:	SW	NE	S
Dew Presence (Y/N):	N no	Y yes	Y yes
Soil Temperature, Unit:	67.5 F	62 F	70 F
Soil Moisture:	Dry	Moist	Moist
% Cloud Cover:	10	10	0

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMD BCOR	ZEAMD BCOR	ZEAMD BCOR
Stage Scale Used:	BBCH	BBCH	BBCH
Stage Majority, Percent:	00	12	14

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Height, Unit:		3 IN	5 IN
Height Minimum, Maximum:		1 3	3 5
Density, Unit:		3 FT2	2 FT2
Pest 2 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Height, Unit:		1 IN	1 IN
Height Minimum, Maximum:		1 2	1 2
Density, Unit:		1 YD2	1 YD2
Pest 3 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:		2	
Height, Unit:		0.5 IN	2 IN
Height Minimum, Maximum:		0 1	1 2
Density, Unit:		3 YD2	3 YD2
Pest 4 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W
Diameter, Unit:			1.5 IN
Height, Unit:			1 2
Density, Unit:			1 YD2

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Application Equipment

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

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 Location: Throckmorton Study Director:
 Project ID: 14C04H060 Investigator: Dr. Bill Johnson
 Sponsor Contact: Amvac - Rich Porter

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	Other Rate	Other Rate	Growth Unit Stage	Appl Code	Appl Description	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check											101	402	603	801
2	Harness Xtra 5.6 (5.6 SC)	5.6 LBA/GAL	SC		2.24 lb ai/a	3.2 pt/a		ATPLAN	A		49.99 ml/mx	102	303	503	902
	Impact (2.8 SC)	2.8 LBA/GAL	SL		0.263 oz ai/a	0.75 oz/a		MIPOCR	C	V3-4	0.7337 ml/mx				
	Atrazine	4 LBA/GAL	F		0.5 lb ai/a	1 pt/a		MIPOCR	C	V3-4	15.62 ml/mx				
	MSO	100 %	L		1 % v/v	1 % v/v		MIPOCR	C	V3-4	25.0 ml/mx				
	28% UAN	100 %	SL		2.5 % v/v	2.5 % v/v		MIPOCR	C	V3-4	62.49 ml/mx				
3	Harness Xtra 5.6 (5.6 SC)	5.6 LBA/GAL	SC		2.24 lb ai/a	3.2 pt/a		ATPLAN	A		49.99 ml/mx	103	401	601	1001
	Impact (2.8 SC)	2.8 LBA/GAL	SL		0.263 oz ai/a	0.75 oz/a		MIPOCR	C	V3-4	0.7337 ml/mx				
	Status (56 SG)	56 %	SG		1.68 oz ai/a	3 oz/a		MIPOCR	C	V3-4	2.808 g/mx				
	Atrazine	4 LBA/GAL	F		0.5 lb ai/a	1 pt/a		MIPOCR	C	V3-4	15.62 ml/mx				
	MSO	100 %	L		1 % v/v	1 % v/v		MIPOCR	C	V3-4	25.0 ml/mx				
	28% UAN	100 %	SL		2.5 % v/v	2.5 % v/v		MIPOCR	C	V3-4	62.49 ml/mx				
4	Harness Xtra 5.6 (5.6 SC)	5.6 LBA/GAL	SC		2.24 lb ai/a	3.2 pt/a		ATPLAN	A		49.99 ml/mx	201	302	702	901
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		1.13 lb ae/a	32 oz/a		MIPOCR	C	V3-4	31.39 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		MIPOCR	C	V3-4	62.49 ml/mx				
5	Harness Xtra 5.6 (5.6 SC)	5.6 LBA/GAL	SC		2.24 lb ai/a	3.2 pt/a		ATPLAN	A		49.99 ml/mx	202	502	701	803
	Impact (2.8 SC)	2.8 LBA/GAL	SL		0.263 oz ai/a	0.75 oz/a		MIPOCR	C	V3-4	0.7337 ml/mx				
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		1.13 lb ae/a	32 oz/a		MIPOCR	C	V3-4	31.39 ml/mx				
	Atrazine	4 LBA/GAL	F		0.5 lb ai/a	1 pt/a		MIPOCR	C	V3-4	15.62 ml/mx				
	MSO	100 %	L		0.5 % v/v	0.5 % v/v		MIPOCR	C	V3-4	12.5 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		MIPOCR	C	V3-4	62.49 ml/mx				
6	Harness Xtra 5.6 (5.6 SC)	5.6 LBA/GAL	SC		2.24 lb ai/a	3.2 pt/a		EAPOCR	B	V2-4	49.99 ml/mx	203	403	703	903
	Impact (2.8 SC)	2.8 LBA/GAL	SL		0.263 oz ai/a	0.75 oz/a		EAPOCR	B	V2-4	0.7337 ml/mx				
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		1.13 lb ae/a	32 oz/a		EAPOCR	B	V2-4	31.39 ml/mx				
	MSO	100 %	L		0.25 % v/v	0.25 % v/v		EAPOCR	B	V2-4	6.249 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		EAPOCR	B	V2-4	62.49 ml/mx				
7	Halex GT (4.39 SC)	4.39 LBA/GAL	SC		1.98 lb ai/a	3.6 pt/a		EAPOCR	B	V2-4	56.37 ml/mx	301	501	602	802
	Atrazine	4 LBA/GAL	F		0.5 lb ai/a	1 pt/a		EAPOCR	B	V2-4	15.62 ml/mx				
	NIS	100 %	SL		0.25 % v/v	0.25 % v/v		EAPOCR	B	V2-4	6.249 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		EAPOCR	B	V2-4	62.49 ml/mx				

Sort Order: Treatment

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 Location: Throckmorton Study Director:
 Project ID: 14C04H060 Investigator: Dr. Bill Johnson
 Sponsor Contact: Amvac - Rich Porter

Pest Type	W Weed	W Weed	W Weed	W Weed						
Pest Code	SETFA	AMBTR	CHEAL	ABUTH						
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Abutilon theop>						
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	velvetleaf						
Crop Code					ZEAMX	ZEAMX				
BBCH Scale					BCOR	BCOR				
Crop Scientific Name					Zea mays	Zea mays				
Crop Name					Corn	Corn				
Rating Date	May-30-2014	May-30-2014	May-30-2014	May-30-2014	May-30-2014	May-30-2014				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYBLE	PHYNEC				
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				
Crop Stage Majority	V3	V3	V3	V3	V3	V3				
Pest Stage Majority	1.25	2.5	.25	1						
Pest Density, Unit	10 FT2	4 YD2	5 FT2	2 YD2						
Days After First/Last Applic.	24 7	24 7	24 7	24 7	24 7	24 7				
Plant-Eval Interval	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1				
Days After Emergence	18 DE-1	18 DE-1	18 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
1 Untreated Check				101	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
				603	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
				Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		102	99.0	80.0	99.0	99.0	3.0	3.0
Impact (2.8 SC)	0.263 oz ai/a	C		303	99.0	40.0	99.0	99.0	5.0	3.0
Atrazine	0.5 lb ai/a	C		503	99.0	40.0	99.0	99.0	3.0	3.0
MSO	1 % v/v	C		902	99.0	70.0	99.0	99.0	0.0	5.0
28% UAN	2.5 % v/v	C								
				Mean =	99.0	57.5	99.0	99.0	2.8	3.5
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		103	99.0	70.0	99.0	99.0	3.0	3.0
Impact (2.8 SC)	0.263 oz ai/a	C		401	97.0	50.0	99.0	99.0	3.0	0.0
Status (56 SG)	1.68 oz ai/a	C		601	99.0	83.0	99.0	99.0	5.0	5.0
Atrazine	0.5 lb ai/a	C		1001	99.0	20.0	99.0	99.0	5.0	5.0
MSO	1 % v/v	C								
28% UAN	2.5 % v/v	C								
				Mean =	98.5	55.8	99.0	99.0	4.0	3.3
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		201	99.0	65.0	99.0	99.0	5.0	3.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		302	99.0	50.0	99.0	99.0	3.0	0.0
AMS - Liquid	2.5 % v/v	C		702	99.0	80.0	99.0	99.0	5.0	3.0
				901	99.0	80.0	99.0	99.0	3.0	3.0
				Mean =	99.0	68.8	99.0	99.0	4.0	2.3
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		202	99.0	80.0	99.0	70.0	7.0	3.0
Impact (2.8 SC)	0.263 oz ai/a	C		502	99.0	80.0	99.0	99.0	5.0	0.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		701	99.0	30.0	99.0	99.0	5.0	3.0
Atrazine	0.5 lb ai/a	C		803	97.0	10.0	99.0	99.0	3.0	0.0
MSO	0.5 % v/v	C								
AMS - Liquid	2.5 % v/v	C								
				Mean =	98.5	50.0	99.0	91.8	5.0	1.5

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Pest Type	W Weed	W Weed	W Weed	W Weed						
Pest Code	SETFA	AMBTR	CHEAL	ABUTH						
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Abutilon theop>						
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	velvetleaf						
Crop Code					ZEAMX	ZEAMX				
BBCH Scale					BCOR	BCOR				
Crop Scientific Name					Zea mays	Zea mays				
Crop Name					Corn	Corn				
Rating Date	May-30-2014	May-30-2014	May-30-2014	May-30-2014	May-30-2014	May-30-2014				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYBLE	PHYNEC				
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				
Crop Stage Majority	V3	V3	V3	V3	V3	V3				
Pest Stage Majority	1.25	2.5	.25	1						
Pest Density, Unit	10 FT2	4 YD2	5 FT2	2 YD2						
Days After First/Last Applic.	24 7	24 7	24 7	24 7	24 7	24 7				
Plant-Eval Interval	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1				
Days After Emergence	18 DE-1	18 DE-1	18 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
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	B	203		99.0	90.0	99.0	99.0	10.0	5.0
Impact (2.8 SC)	0.263 oz ai/a	B	403		99.0	90.0	99.0	99.0	7.0	5.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B	703		99.0	90.0	99.0	99.0	7.0	5.0
MSO	0.25 % v/v	B	903		99.0	87.0	99.0	99.0	3.0	0.0
AMS - Liquid	2.5 % v/v	B								
			Mean =		99.0	89.3	99.0	99.0	6.8	3.8
7 Halex GT (4.39 SC)	1.98 lb ai/a	B	301		99.0	95.0	99.0	99.0	7.0	3.0
Atrazine	0.5 lb ai/a	B	501		99.0	93.0	99.0	99.0	7.0	5.0
NIS	0.25 % v/v	B	602		99.0	95.0	99.0	99.0	7.0	3.0
AMS - Liquid	2.5 % v/v	B	802		99.0	94.0	99.0	99.0	7.0	3.0
			Mean =		99.0	94.3	99.0	99.0	7.0	3.5

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Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	AMBTR	ABUTH	CHEAL	SETFA							
Pest Scientific Name	Ambrosia trifi>	Abutilon theop>	Chenopodium al>	Setaria faberi							
Pest Name	Giant ragweed	velvetleaf	Common lambsqu>	Giant foxtail							
Crop Code					ZEAMX	ZEAMX	ZEAMX				
BBCB Scale					BCOR	BCOR	BCOR				
Crop Scientific Name					Zea mays	Zea mays	Zea mays				
Crop Name					Corn	Corn	Corn				
Rating Date	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYSTU	PHYNEC	PHYLMA				
Rating Unit											
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1	1			
Crop Stage Majority	V4	V4	V4	V4	V4	V4	V4	V4			
Pest Stage Majority	1-15	1-4	1-2	1-8							
Pest Density, Unit	3 FT2	2 YD2	3 FT2	1 FT2							
Days After First/Last Applic.	34 3	34 3	34 3	34 3	34 3	34 3	34 3	34 3			
Plant-Eval Interval	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1			
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 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
				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 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		102	80.0	98.0	99.0	99.0	3.0	4.0	0.0
Impact (2.8 SC)	0.263 oz ai/a	C		303	30.0	99.0	99.0	99.0	0.0	0.0	0.0
Atrazine	0.5 lb ai/a	C		503	40.0	99.0	99.0	99.0	0.0	0.0	0.0
MSO	1 % v/v	C		902	60.0	99.0	99.0	99.0	0.0	2.0	0.0
28% UAN	2.5 % v/v	C									
				Mean =	52.5	98.8	99.0	99.0	0.8	1.5	0.0
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		103	60.0	99.0	99.0	99.0	0.0	2.0	0.0
Impact (2.8 SC)	0.263 oz ai/a	C		401	60.0	99.0	99.0	99.0	0.0	1.0	2.0
Status (56 SG)	1.68 oz ai/a	C		601	60.0	99.0	99.0	99.0	3.0	0.0	0.0
Atrazine	0.5 lb ai/a	C		1001	40.0	99.0	99.0	99.0	0.0	0.0	1.0
MSO	1 % v/v	C									
28% UAN	2.5 % v/v	C									
				Mean =	55.0	99.0	99.0	99.0	0.8	0.8	0.8
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		201	50.0	99.0	99.0	99.0	0.0	0.0	0.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		302	65.0	99.0	99.0	99.0	0.0	0.0	0.0
AMS - Liquid	2.5 % v/v	C		702	60.0	99.0	99.0	99.0	0.0	0.0	2.0
				901	80.0	99.0	99.0	99.0	3.0	0.0	0.0
				Mean =	63.8	99.0	99.0	99.0	0.8	0.0	0.5
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		202	60.0	99.0	99.0	99.0	0.0	0.0	0.0
Impact (2.8 SC)	0.263 oz ai/a	C		502	75.0	99.0	99.0	99.0	3.0	0.0	0.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		701	0.0	99.0	99.0	99.0	0.0	0.0	0.0
Atrazine	0.5 lb ai/a	C		803	0.0	99.0	99.0	99.0	0.0	0.0	0.0
MSO	0.5 % v/v	C									
AMS - Liquid	2.5 % v/v	C									
				Mean =	33.8	99.0	99.0	99.0	0.8	0.0	0.0

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Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	AMBTR	ABUTH	CHEAL	SETFA							
Pest Scientific Name	Ambrosia trifi>	Abutilon theop>	Chenopodium al>	Setaria faberi							
Pest Name	Giant ragweed	velvetleaf	Common lambsqu>	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-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYSTU	PHYNEC	PHYLMA				
Rating Unit											
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1	1			
Crop Stage Majority	V4	V4	V4	V4	V4	V4	V4	V4			
Pest Stage Majority	1-15	1-4	1-2	1-8							
Pest Density, Unit	3 FT2	2 YD2	3 FT2	1 FT2							
Days After First/Last Applic.	34 3	34 3	34 3	34 3	34 3	34 3	34 3	34 3			
Plant-Eval Interval	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1			
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1			
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	Plot	7	8	9	10	11	12	13
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	B	203		40.0	99.0	99.0	99.0	3.0	0.0	5.0
Impact (2.8 SC)	0.263 oz ai/a	B	403		85.0	99.0	99.0	99.0	0.0	0.0	0.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B	703		75.0	99.0	99.0	99.0	3.0	0.0	0.0
MSO	0.25 % v/v	B	903		70.0	99.0	99.0	99.0	0.0	0.0	3.0
AMS - Liquid	2.5 % v/v	B									
			Mean =		67.5	99.0	99.0	99.0	1.5	0.0	2.0
7 Halex GT (4.39 SC)	1.98 lb ai/a	B	301		99.0	99.0	99.0	99.0	3.0	0.0	0.0
Atrazine	0.5 lb ai/a	B	501		80.0	99.0	99.0	99.0	0.0	0.0	0.0
NIS	0.25 % v/v	B	602		90.0	99.0	99.0	99.0	0.0	0.0	0.0
AMS - Liquid	2.5 % v/v	B	802		95.0	99.0	99.0	99.0	3.0	0.0	0.0
			Mean =		91.0	99.0	99.0	99.0	1.5	0.0	0.0

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Pest Type		W Weed	W Weed	W Weed							
Pest Code		AMBTR	SETFA	CHEAL							
Pest Scientific Name		Ambrosia trifi>	Setaria faberi	Chenopodium al>							
Pest Name		Giant ragweed	Giant foxtail	Common lambsqu>							
Crop Code	ZEAMX				ZEAMX	ZEAMX	ZEAMX				
BBCH Scale	BCOR				BCOR	BCOR	BCOR				
Crop Scientific Name	Zea mays				Zea mays	Zea mays	Zea mays				
Crop Name	Corn				Corn	Corn	Corn				
Rating Date	Jun-9-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014				
Rating Type	PHYCHL	CONTRO	CONTRO	CONTRO	PHYSTU	PHYNEC	PHYLMA				
Rating Unit											
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Majority	V4	V5	V5	V5	V5	V5	V5				
Pest Stage Majority		4-40	1-6	1-3							
Pest Density, Unit		2 FT2	6 FT2	2 YD2							
Days After First/Last Applic.	34 3	41 10	41 10	41 10	41 10	41 10	41 10				
Plant-Eval Interval	35 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1				
Days After Emergence	28 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1				
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	Plot	14	15	16	17	18	19	20
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 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		102	0.0	85.0	99.0	99.0	0.0	7.0	0.0
Impact (2.8 SC)	0.263 oz ai/a	C		303	0.0	60.0	99.0	99.0	0.0	0.0	4.0
Atrazine	0.5 lb ai/a	C		503	0.0	75.0	99.0	99.0	0.0	0.0	3.0
MSO	1 % v/v	C		902	0.0	80.0	99.0	99.0	0.0	0.0	7.0
28% UAN	2.5 % v/v	C									
				Mean =	0.0	75.0	99.0	99.0	0.0	1.8	3.5
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		103	0.0	85.0	99.0	99.0	0.0	2.0	0.0
Impact (2.8 SC)	0.263 oz ai/a	C		401	0.0	80.0	99.0	99.0	0.0	0.0	5.0
Status (56 SG)	1.68 oz ai/a	C		601	0.0	93.0	99.0	99.0	0.0	0.0	0.0
Atrazine	0.5 lb ai/a	C		1001	0.0	60.0	99.0	99.0	0.0	2.0	0.0
MSO	1 % v/v	C									
28% UAN	2.5 % v/v	C									
				Mean =	0.0	79.5	99.0	99.0	0.0	1.0	1.3
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		201	0.0	80.0	99.0	99.0	0.0	0.0	0.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		302	0.0	90.0	99.0	99.0	0.0	0.0	0.0
AMS - Liquid	2.5 % v/v	C		702	0.0	70.0	99.0	99.0	0.0	0.0	0.0
				901	0.0	93.0	99.0	99.0	3.0	0.0	6.0
				Mean =	0.0	83.3	99.0	99.0	0.8	0.0	1.5
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		202	0.0	80.0	99.0	99.0	0.0	2.0	0.0
Impact (2.8 SC)	0.263 oz ai/a	C		502	0.0	90.0	99.0	99.0	3.0	0.0	0.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		701	0.0	65.0	99.0	99.0	3.0	0.0	0.0
Atrazine	0.5 lb ai/a	C		803	0.0	50.0	99.0	99.0	0.0	0.0	6.0
MSO	0.5 % v/v	C									
AMS - Liquid	2.5 % v/v	C									
				Mean =	0.0	71.3	99.0	99.0	1.5	0.5	1.5

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Pest Type		W Weed	W Weed	W Weed							
Pest Code		AMBTR	SETFA	CHEAL							
Pest Scientific Name		Ambrosia trifi>	Setaria faberi	Chenopodium al>							
Pest Name		Giant ragweed	Giant foxtail	Common lambsqu>							
Crop Code	ZEAMX				ZEAMX	ZEAMX	ZEAMX				
BBCH Scale	BCOR				BCOR	BCOR	BCOR				
Crop Scientific Name	Zea mays				Zea mays	Zea mays	Zea mays				
Crop Name	Corn				Corn	Corn	Corn				
Rating Date	Jun-9-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014				
Rating Type	PHYCHL	CONTRO	CONTRO	CONTRO	PHYSTU	PHYNEC	PHYLMA				
Rating Unit											
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Majority	V4	V5	V5	V5	V5	V5	V5				
Pest Stage Majority		4-40	1-6	1-3							
Pest Density, Unit		2 FT2	6 FT2	2 YD2							
Days After First/Last Applic.	34 3	41 10	41 10	41 10	41 10	41 10	41 10				
Plant-Eval Interval	35 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1				
Days After Emergence	28 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1				
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	Plot	14	15	16	17	18	19	20
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	B	203		0.0	40.0	99.0	99.0	3.0	0.0	3.0
Impact (2.8 SC)	0.263 oz ai/a	B	403		0.0	75.0	99.0	99.0	0.0	0.0	4.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B	703		0.0	20.0	99.0	99.0	0.0	3.0	0.0
MSO	0.25 % v/v	B	903		0.0	30.0	99.0	99.0	3.0	0.0	5.0
AMS - Liquid	2.5 % v/v	B									
			Mean =		0.0	41.3	99.0	99.0	1.5	0.8	3.0
7 Halex GT (4.39 SC)	1.98 lb ai/a	B	301		0.0	95.0	99.0	99.0	0.0	0.0	4.0
Atrazine	0.5 lb ai/a	B	501		0.0	80.0	99.0	99.0	0.0	0.0	0.0
NIS	0.25 % v/v	B	602		0.0	90.0	99.0	99.0	0.0	2.0	0.0
AMS - Liquid	2.5 % v/v	B	802		0.0	75.0	99.0	99.0	0.0	0.0	2.0
			Mean =		0.0	85.0	99.0	99.0	0.0	0.5	1.5

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Pest Type		W Weed	W Weed	W Weed		W Weed	W Weed				
Pest Code		AMBTR	SETFA	CHEAL		SETFA	AMBTR				
Pest Scientific Name		Ambrosia trifi>	Setaria faberi	Chenopodium al>		Setaria faberi	Ambrosia trifi>				
Pest Name		Giant ragweed	Giant foxtail	Common lambsqu>		Giant foxtail	Giant ragweed				
Crop Code	ZEAMX				ZEAMX						
BBCH Scale	BCOR				BCOR						
Crop Scientific Name	Zea mays				Zea mays						
Crop Name	Corn				Corn						
Rating Date	Jun-16-2014	Jul-2-2014	Jul-2-2014	Jul-2-2014	Jul-2-2014	Jul-22-2014	Jul-22-2014				
Rating Type	PHYCHL	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO				
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	1				
Crop Stage Majority	V5	V8	V8	V8	V8						
Pest Stage Majority		5-72	3-10	2-4		42"	12'				
Pest Density, Unit		2 FT2	3 FT2	1 YD2		1 FT2	7 YD2				
Days After First/Last Applic.	41 10	57 26	57 26	57 26	57 26	77 46	77 46				
Plant-Eval Interval	42 DP-1	58 DP-1	58 DP-1	58 DP-1	58 DP-1	78 DP-1	78 DP-1				
Days After Emergence	35 DE-1	51 DE-1	51 DE-1	51 DE-1	51 DE-1	71 DE-1	71 DE-1				
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	Plot	21	22	23	24	25	26	27
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 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		102	3.0	90.0	99.0	99.0	0.0	99.0	94.0
Impact (2.8 SC)	0.263 oz ai/a	C		303	0.0	40.0	99.0	99.0	0.0	98.0	70.0
Atrazine	0.5 lb ai/a	C		503	0.0	30.0	99.0	99.0	0.0	99.0	86.0
MSO	1 % v/v	C		902	0.0	60.0	99.0	99.0	0.0	99.0	88.0
28% UAN	2.5 % v/v	C									
				Mean =	0.8	55.0	99.0	99.0	0.0	98.8	84.5
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		103	0.0	60.0	99.0	99.0	0.0	99.0	85.0
Impact (2.8 SC)	0.263 oz ai/a	C		401	0.0	75.0	99.0	99.0	0.0	95.0	85.0
Status (56 SG)	1.68 oz ai/a	C		601	0.0	75.0	95.0	99.0	0.0	95.0	87.0
Atrazine	0.5 lb ai/a	C		1001	3.0	40.0	99.0	99.0	0.0	90.0	87.0
MSO	1 % v/v	C									
28% UAN	2.5 % v/v	C									
				Mean =	0.8	62.5	98.0	99.0	0.0	94.8	86.0
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		201	0.0	75.0	99.0	99.0	0.0	99.0	85.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		302	0.0	70.0	99.0	99.0	0.0	99.0	90.0
AMS - Liquid	2.5 % v/v	C		702	0.0	50.0	99.0	99.0	0.0	99.0	75.0
				901	0.0	97.0	99.0	99.0	0.0	97.0	90.0
				Mean =	0.0	73.0	99.0	99.0	0.0	98.5	85.0
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		202	0.0	90.0	99.0	99.0	0.0	99.0	90.0
Impact (2.8 SC)	0.263 oz ai/a	C		502	0.0	80.0	99.0	99.0	0.0	95.0	88.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		701	0.0	75.0	99.0	99.0	0.0	99.0	85.0
Atrazine	0.5 lb ai/a	C		803	0.0	20.0	99.0	99.0	0.0	99.0	84.0
MSO	0.5 % v/v	C									
AMS - Liquid	2.5 % v/v	C									
				Mean =	0.0	66.3	99.0	99.0	0.0	98.0	86.8

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Pest Type		W Weed	W Weed	W Weed		W Weed	W Weed				
Pest Code		AMBTR	SETFA	CHEAL		SETFA	AMBTR				
Pest Scientific Name		Ambrosia trifi>	Setaria faberi	Chenopodium al>		Setaria faberi	Ambrosia trifi>				
Pest Name		Giant ragweed	Giant foxtail	Common lambsqu>		Giant foxtail	Giant ragweed				
Crop Code	ZEAMX				ZEAMX						
BBCH Scale	BCOR				BCOR						
Crop Scientific Name	Zea mays				Zea mays						
Crop Name	Corn				Corn						
Rating Date	Jun-16-2014	Jul-2-2014	Jul-2-2014	Jul-2-2014	Jul-2-2014	Jul-22-2014	Jul-22-2014				
Rating Type	PHYCHL	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO				
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	1				
Crop Stage Majority	V5	V8	V8	V8							
Pest Stage Majority		5-72	3-10	2-4		42"	12'				
Pest Density, Unit		2 FT2	3 FT2	1 YD2		1 FT2	7 YD2				
Days After First/Last Applic.	41 10	57 26	57 26	57 26	57 26	77 46	77 46				
Plant-Eval Interval	42 DP-1	58 DP-1	58 DP-1	58 DP-1	58 DP-1	78 DP-1	78 DP-1				
Days After Emergence	35 DE-1	51 DE-1	51 DE-1	51 DE-1	51 DE-1	71 DE-1	71 DE-1				
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	Plot	21	22	23	24	25	26	27
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	B		203	0.0	50.0	99.0	99.0	0.0	99.0	75.0
Impact (2.8 SC)	0.263 oz ai/a	B		403	0.0	70.0	99.0	99.0	0.0	99.0	75.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B		703	0.0	40.0	99.0	99.0	0.0	99.0	80.0
MSO	0.25 % v/v	B		903	0.0	60.0	99.0	99.0	0.0	99.0	70.0
AMS - Liquid	2.5 % v/v	B									
				Mean =	0.0	55.0	99.0	99.0	0.0	99.0	75.0
7 Halex GT (4.39 SC)	1.98 lb ai/a	B		301	0.0	93.0	99.0	99.0	0.0	99.0	95.0
Atrazine	0.5 lb ai/a	B		501	0.0	75.0	99.0	99.0	0.0	94.0	90.0
NIS	0.25 % v/v	B		602	0.0	85.0	99.0	99.0	0.0	93.0	93.0
AMS - Liquid	2.5 % v/v	B		802	0.0	75.0	99.0	99.0	0.0	99.0	92.0
				Mean =	0.0	82.0	99.0	99.0	0.0	96.3	92.5

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Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	28	29	30	31	32
1	Untreated Check				101	0.0	0.0	0.0	17.0400026	49.80
					402	0.0	0.0	0.0	17.2900026	57.60
					603	0.0	0.0	0.0	15.5100018	17.90
					801	0.0	0.0	0.0	17.2700022	28.10
					Mean =	0.0	0.0	0.0	16.7775018	38.35
2	Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		102	0.0	99.0	95.0	16.6900022	258.20
	Impact (2.8 SC)	0.263 oz ai/a	C		303	0.0	98.0	70.0	15.8000018	264.70
	Atrazine	0.5 lb ai/a	C		503	0.0	96.0	78.0	17.6200026	252.00
	MSO	1 % v/v	C		902	0.0	98.0	90.0	16.4300019	235.10
	28% UAN	2.5 % v/v	C							
					Mean =	0.0	97.8	83.3	16.6350019	252.50
3	Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		103	0.0	97.0	84.0	17.8500022	262.10
	Impact (2.8 SC)	0.263 oz ai/a	C		401	0.0	95.0	86.0	16.9200018	251.70
	Status (56 SG)	1.68 oz ai/a	C		601	0.0	95.0	85.0	16.3100011	273.20
	Atrazine	0.5 lb ai/a	C		1001	0.0	90.0	85.0	16.0600011	211.50
	MSO	1 % v/v	C							
	28% UAN	2.5 % v/v	C							
					Mean =	0.0	94.3	85.0	16.7850015	249.63
4	Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		201	0.0	97.0	80.0	16.0800015	269.30
	Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		302	0.0	97.0	83.0	17.8300017	270.30
	AMS - Liquid	2.5 % v/v	C		702	0.0	95.0	84.0	16.1700017	267.50
					901	0.0	96.0	94.0	15.9200017	262.10
					Mean =	0.0	96.3	85.3	16.5000017	267.30
5	Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		202	0.0	98.0	90.0	17.2900026	261.20
	Impact (2.8 SC)	0.263 oz ai/a	C		502	0.0	99.0	90.0	15.6600014	234.50
	Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		701	0.0	95.0	89.0	17.2800024	255.40
	Atrazine	0.5 lb ai/a	C		803	0.0	95.0	75.0	15.7600018	245.00
	MSO	0.5 % v/v	C							
	AMS - Liquid	2.5 % v/v	C							
					Mean =	0.0	96.8	86.0	16.4975030	249.03

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Pest Type		W Weed	W Weed		
Pest Code		SETFA	AMBTR		
Pest Scientific Name		Setaria faberi	Ambrosia trifi>		
Pest Name		Giant foxtail	Giant ragweed		
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	Jul-22-2014	Aug-4-2014	Aug-4-2014	Nov-3-2014	Nov-3-2014
Rating Type	PHYGEN	CONTRO	CONTRO	MOICON	YIELD
Rating Unit				%	bu/ac
Sample Size, Unit		1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1
Crop Stage Majority					
Pest Stage Majority		42"	12'		
Pest Density, Unit		1 FT2	7 YD2		
Days After First/Last Applic.	77 46	90 59	90 59	181 150	181 150
Plant-Eval Interval	78 DP-1	91 DP-1	91 DP-1	182 DP-1	182 DP-1
Days After Emergence	71 DE-1	84 DE-1	84 DE-1	175 DE-1	175 DE-1
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	28	29	30
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a B	203	0.0	95.0	60.0
Impact (2.8 SC)	0.263 oz ai/a B	403	0.0	95.0	82.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a B	703	0.0	95.0	70.0
MSO	0.25 % v/v B	903	0.0	95.0	70.0
AMS - Liquid	2.5 % v/v B				
	Mean =		0.0	95.0	70.5
7 Halex GT (4.39 SC)	1.98 lb ai/a B	301	0.0	93.0	94.0
Atrazine	0.5 lb ai/a B	501	0.0	95.0	89.0
NIS	0.25 % v/v B	602	0.0	96.0	90.0
AMS - Liquid	2.5 % v/v B	802	0.0	97.0	87.0
	Mean =		0.0	95.3	90.0
					16.800009
					233.40
					16.8500021
					210.40
					16.2900025
					226.30
					16.0700013
					203.10
					16.5025022
					218.30
					17.5200022
					275.00
					15.5600020
					242.80
					16.6500013
					230.80
					16.3900010
					248.10
					16.5300023
					249.18

Purdue University

Impact Sequential and 1-Pass Programs

Trial ID: 14S-THP-CTC-10 Protocol ID: 14S-THP-CTC-10
 Location: Throckmorton Study Director:
 Project ID: 14C04H060 Investigator: Dr. Bill Johnson
 Sponsor Contact: Amvac - Rich Porter

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

Crop Code

ZEAMX, BCOR, Zea mays, = US

Rating Type

CONTRO = control / burndown or knockdown
 PHYBLE = phytotoxicity - bleaching
 PHYNEC = phytotoxicity - necrosis /burn
 PHYSTU = phytotoxicity - stunting
 PHYLMA = phytotoxicity - leaf malformation
 PHYCHL = phytotoxicity - chlorosis
 PHYGEN = phytotoxicity - general / injury
 MOICON = moisture content
 YIELD = yield

Rating Unit

% = percent
 bu/ac = bushels per acre

PLOT = total plot

FT2 = per square foot
 YD2 = per square yard

Plant-Eval Interval

25 DP-1 = 1 ZEAMD May-5-2014
 35 DP-1 = 1 ZEAMD May-5-2014
 42 DP-1 = 1 ZEAMD May-5-2014
 58 DP-1 = 1 ZEAMD May-5-2014
 78 DP-1 = 1 ZEAMD May-5-2014
 91 DP-1 = 1 ZEAMD May-5-2014
 182 DP-1 = 1 ZEAMD May-5-2014

Purdue University

Impact Sequential and 1-Pass Programs

Trial ID: 14S-THP-CTC-10 Protocol ID: 14S-THP-CTC-10
 Location: Throckmorton Study Director:
 Project ID: 14C04H060 Investigator: Dr. Bill Johnson
 Sponsor Contact: Amvac - Rich Porter

Pest Type	W Weed	W Weed	W Weed	W Weed			W Weed			
Pest Code	SETFA	AMBTR	CHEAL	ABUTH			AMBTR			
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Abutilon theop>			Ambrosia trifi>			
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	velvetleaf			Giant ragweed			
Crop Code					ZEAMX	ZEAMX				
BBCH Scale					BCOR	BCOR				
Crop Scientific Name					Zea mays	Zea mays				
Crop Name					Corn	Corn				
Rating Date	May-30-2014	May-30-2014	May-30-2014	May-30-2014	May-30-2014	May-30-2014	Jun-9-2014			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYBLE	PHYNEC	CONTRO			
Rating Unit	%	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	V3	V3	V3	V3	V3	V3	V4			
Pest Stage Majority	1.25	2.5	.25	1			1-15			
Pest Density, Unit	10 FT2	4 YD2	5 FT2	2 YD2			3 FT2			
Days After First/Last Applic.	24 7	24 7	24 7	24 7	24 7	24 7	34 3			
Plant-Eval Interval	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1	35 DP-1			
Days After Emergence	18 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	28 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 b	0.0 b	0.0 c	0.0 a	0.0 c
2 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		99.0 a	57.5 ab	99.0 a	99.0 a	2.8 b	3.5 a	52.5 ab
Impact (2.8 SC)	0.263 oz ai/a	C								
Atrazine	0.5 lb ai/a	C								
MSO	1 % v/v	C								
28% UAN	2.5 % v/v	C								
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		98.5 a	55.8 ab	99.0 a	99.0 a	4.0 ab	3.3 a	55.0 ab
Impact (2.8 SC)	0.263 oz ai/a	C								
Status (56 SG)	1.68 oz ai/a	C								
Atrazine	0.5 lb ai/a	C								
MSO	1 % v/v	C								
28% UAN	2.5 % v/v	C								
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		99.0 a	68.8 ab	99.0 a	99.0 a	4.0 ab	2.3 a	63.8 ab
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C								
AMS - Liquid	2.5 % v/v	C								
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		98.5 a	50.0 b	99.0 a	91.8 a	5.0 ab	1.5 a	33.8 b
Impact (2.8 SC)	0.263 oz ai/a	C								
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C								
Atrazine	0.5 lb ai/a	C								
MSO	0.5 % v/v	C								
AMS - Liquid	2.5 % v/v	C								
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	B		99.0 a	89.3 ab	99.0 a	99.0 a	6.8 a	3.8 a	67.5 ab
Impact (2.8 SC)	0.263 oz ai/a	B								
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B								
MSO	0.25 % v/v	B								
AMS - Liquid	2.5 % v/v	B								

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.

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Pest Type	W Weed	W Weed	W Weed	W Weed				W Weed		
Pest Code	SETFA	AMBTR	CHEAL	ABUTH				AMBTR		
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Abutilon theop>				Ambrosia trifi>		
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	velvetleaf				Giant ragweed		
Crop Code						ZEAMX	ZEAMX			
BBCH Scale						BCOR	BCOR			
Crop Scientific Name						Zea mays	Zea mays			
Crop Name						Corn	Corn			
Rating Date	May-30-2014	May-30-2014	May-30-2014	May-30-2014	May-30-2014	May-30-2014	May-30-2014	Jun-9-2014		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYBLE	PHYNEC	CONTRO		
Rating Unit	%	%	%	%	%	%	%	%		
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1		
Crop Stage Majority	V3	V3	V3	V3	V3	V3	V3	V4		
Pest Stage Majority	1.25	2.5	.25	1				1-15		
Pest Density, Unit	10 FT2	4 YD2	5 FT2	2 YD2				3 FT2		
Days After First/Last Applic.	24 7	24 7	24 7	24 7	24 7	24 7	24 7	34 3		
Plant-Eval Interval	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1	25 DP-1	35 DP-1		
Days After Emergence	18 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	28 DE-1		
Trt Treatment	Rate	Appl								
No. Name	Rate	Unit	Code	1	2	3	4	5	6	7
7 Halex GT (4.39 SC)	1.98 lb ai/a	B		99.0 a	94.3 a	99.0 a	99.0 a	7.0 a	3.5 a	91.0 a
Atrazine	0.5 lb ai/a	B								
NIS	0.25 % v/v	B								
AMS - Liquid	2.5 % v/v	B								
LSD (P=.05)				0.82	29.13	0.00	8.14	2.16	2.48	30.82
Standard Deviation				0.55	19.60	0.00	5.48	1.45	1.67	20.74
CV				0.65	33.03	0.0	6.54	34.44	65.92	39.94
Bartlett's X2				0.0	29.321	0.0	0.0	3.47	4.065	9.382
P(Bartlett's X2)				.	0.001*	.	.	0.482	0.54	0.095
Replicate F				0.632	0.904	0.000	1.000	2.463	0.831	0.384
Replicate Prob(F)				0.6041	0.4588	1.0000	0.4155	0.0956	0.4941	0.7660
Treatment F				18508.580	10.107	0.000	182.912	11.011	2.727	7.663
Treatment Prob(F)				0.0001	0.0001	1.0000	0.0001	0.0001	0.0460	0.0003

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Pest Type	W Weed	W Weed	W Weed					W Weed			
Pest Code	ABUTH	CHEAL	SETFA					AMBTR			
Pest Scientific Name	Abutilon theop>	Chenopodium al>	Setaria faberi					Ambrosia trifi>			
Pest Name	velvetleaf	Common lambsqu>	Giant foxtail					Giant ragweed			
Crop Code				ZEAMX	ZEAMX	ZEAMX	ZEAMX				
BBCH Scale				BCOR	BCOR	BCOR	BCOR				
Crop Scientific Name				Zea mays	Zea mays	Zea mays	Zea mays				
Crop Name				Corn	Corn	Corn	Corn				
Rating Date	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-9-2014	Jun-16-2014			
Rating Type	CONTRO	CONTRO	CONTRO	PHYSTU	PHYNEC	PHYLMA	PHYCHL	CONTRO			
Rating Unit											
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1	1			
Crop Stage Majority	V4	V4	V4	V4	V4	V4	V4	V5			
Pest Stage Majority	1-4	1-2	1-8					4-40			
Pest Density, Unit	2 YD2	3 FT2	1 FT2					2 FT2			
Days After First/Last Applic.	34 3	34 3	34 3	34 3	34 3	34 3	34 3	41 10			
Plant-Eval Interval	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1	42 DP-1			
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	35 DE-1			
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	8	9	10	11	12	13	14	15
7 Halex GT (4.39 SC)	1.98 lb ai/a	B		99.0 a	99.0 a	99.0 a	1.5 a	0.0 a	0.0 a	0.0 a	85.0 a
Atrazine	0.5 lb ai/a	B									
NIS	0.25 % v/v	B									
AMS - Liquid	2.5 % v/v	B									
LSD (P=.05)				0.28	0.00	0.00	2.28	1.15	1.67	0.00	20.46
Standard Deviation				0.19	0.00	0.00	1.54	0.77	1.13	0.00	13.77
CV				0.22	0.0	0.0	179.12	240.83	242.33	0.0	22.15
Bartlett's X2				0.0	0.0	0.0	0.156	1.308	3.472	0.0	3.896
P(Bartlett's X2)				.	.	.	1.00	0.253	0.176	.	0.564
Replicate F				1.000	0.000	0.000	0.364	1.649	0.254	0.000	1.303
Replicate Prob(F)				0.4155	1.0000	1.0000	0.7800	0.2135	0.8575	1.0000	0.3040
Treatment F				156685.016	0.000	0.000	0.455	2.325	1.740	0.000	20.433
Treatment Prob(F)				0.0001	1.0000	1.0000	0.8324	0.0773	0.1690	1.0000	0.0001

Purdue University

Pest Type	W Weed	W Weed					W Weed			
Pest Code	SETFA	CHEAL					AMBTR			
Pest Scientific Name	Setaria faberi	Chenopodium al>					Ambrosia trifi>			
Pest Name	Giant foxtail	Common lambsqu>					Giant ragweed			
Crop Code			ZEAMX	ZEAMX	ZEAMX	ZEAMX				
BBCB Scale			BCOR	BCOR	BCOR	BCOR				
Crop Scientific Name			Zea mays	Zea mays	Zea mays	Zea mays				
Crop Name			Corn	Corn	Corn	Corn				
Rating Date	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jun-16-2014	Jul-2-2014			
Rating Type	CONTRO	CONTRO	PHYSTU	PHYNEC	PHYLMA	PHYCHL	CONTRO			
Rating Unit										
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	V5	V5	V5	V5	V5	V5	V8			
Pest Stage Majority	1-6	1-3					5-72			
Pest Density, Unit	6 FT2	2 YD2					2 FT2			
Days After First/Last Applic.	41 10	41 10	41 10	41 10	41 10	41 10	57 26			
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1	58 DP-1			
Days After Emergence	35 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1	51 DE-1			
Trt Treatment	Rate	Appl								
No. Name	Rate	Unit	Code	16	17	18	19	20	21	22
7 Halex GT (4.39 SC)	1.98 lb ai/a	B		99.0 a	99.0 a	0.0 a	0.5 a	1.5 a	0.0 a	82.0 a
Atrazine	0.5 lb ai/a	B								
NIS	0.25 % v/v	B								
AMS - Liquid	2.5 % v/v	B								
LSD (P=.05)	0.00			0.00	0.00	1.71	2.31	3.12	1.22	28.55
Standard Deviation	0.00			0.00	0.00	1.15	1.56	2.10	0.82	19.22
CV	0.0			0.0	0.0	214.58	242.22	120.09	384.42	34.17
Bartlett's X2	0.0			0.0	0.0	0.077	7.677	0.911	0.0	5.354
P(Bartlett's X2)	.			.	.	0.962	0.104	0.969	.	0.374
Replicate F	0.000			0.000	0.000	0.243	1.355	3.264	0.632	0.985
Replicate Prob(F)	1.0000			1.0000	1.0000	0.8650	0.2882	0.0455	0.6041	0.4222
Treatment F	0.000			0.000	0.000	1.541	0.614	1.226	0.789	7.670
Treatment Prob(F)	1.0000			1.0000	1.0000	0.2216	0.7166	0.3385	0.5897	0.0003

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Pest Type	W Weed SETFA	W Weed CHEAL		W Weed SETFA	W Weed AMBTR		W Weed SETFA			
Pest Code	SETFA	CHEAL		SETFA	AMBTR		SETFA			
Pest Scientific Name	Setaria faberi	Chenopodium al>		Setaria faberi	Ambrosia trifi>		Setaria faberi			
Pest Name	Giant foxtail	Common lambsqu>		Giant foxtail	Giant ragweed		Giant foxtail			
Crop Code			ZEAMX			ZEAMX				
BBCH Scale			BCOR			BCOR				
Crop Scientific Name			Zea mays			Zea mays				
Crop Name			Corn			Corn				
Rating Date	Jul-2-2014	Jul-2-2014	Jul-2-2014	Jul-22-2014	Jul-22-2014	Jul-22-2014	Aug-4-2014			
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO			
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	1			
Crop Stage Majority	V8	V8								
Pest Stage Majority	3-10	2-4		42"	12'		42"			
Pest Density, Unit	3 FT2	1 YD2		1 FT2	7 YD2		1 FT2			
Days After First/Last Applic.	57 26	57 26	57 26	77 46	77 46	77 46	90 59			
Plant-Eval Interval	58 DP-1	58 DP-1	58 DP-1	78 DP-1	78 DP-1	78 DP-1	91 DP-1			
Days After Emergence	51 DE-1	51 DE-1	51 DE-1	71 DE-1	71 DE-1	71 DE-1	84 DE-1			
Trt Treatment	Rate	Appl								
No. Name	Rate	Unit	Code	23	24	25	26	27	28	29
7 Halex GT (4.39 SC)	1.98 lb ai/a	B		99.0 a	99.0 a	0.0 a	96.3 a	92.5 a	0.0 a	95.3 a
Atrazine	0.5 lb ai/a	B								
NIS	0.25 % v/v	B								
AMS - Liquid	2.5 % v/v	B								
LSD (P=.05)	1.12			0.00	0.00	0.00	2.96	7.86	0.00	2.42
Standard Deviation	0.76			0.00	0.00	0.00	1.99	5.29	0.00	1.63
CV	0.89			0.0	0.0	0.0	2.38	7.26	0.0	1.98
Bartlett's X2	0.0			0.0	0.0	0.0	10.781	14.853	0.0	4.143
P(Bartlett's X2)	0.029*	0.011*	.	0.387
Replicate F	1.000			0.000	0.000	0.000	1.329	0.607	0.000	1.021
Replicate Prob(F)	0.4155			1.0000	1.0000	1.0000	0.2960	0.6190	1.0000	0.4066
Treatment F	9769.001			0.000	0.000	0.000	1372.452	151.191	0.000	1986.553
Treatment Prob(F)	0.0001			1.0000	1.0000	1.0000	0.0001	0.0001	1.0000	0.0001

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Pest Type		W Weed		
Pest Code		AMBTR		
Pest Scientific Name		Ambrosia trifi>		
Pest Name		Giant ragweed		
Crop Code			ZEAMX	ZEAMX
BBCH Scale			BCOR	BCOR
Crop Scientific Name			Zea mays	Zea mays
Crop Name			Corn	Corn
Rating Date		Aug-4-2014	Nov-3-2014	Nov-3-2014
Rating Type		CONTRO	MOICON	YIELD
Rating Unit			%	bu/ac
Sample Size, Unit		1 PLOT		
Number of Subsamples		1	1	1
Crop Stage Majority				
Pest Stage Majority		12'		
Pest Density, Unit		7 YD2		
Days After First/Last Applic.		90 59	181 150	181 150
Plant-Eval Interval		91 DP-1	182 DP-1	182 DP-1
Days After Emergence		84 DE-1	175 DE-1	175 DE-1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	30	31
1 Untreated Check			0.0 c	16.7775018 a
2 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	83.3 a	16.6350019 a
Impact (2.8 SC)	0.263 oz ai/a	C		
Atrazine	0.5 lb ai/a	C		
MSO	1 % v/v	C		
28% UAN	2.5 % v/v	C		
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	85.0 a	16.7850015 a
Impact (2.8 SC)	0.263 oz ai/a	C		
Status (56 SG)	1.68 oz ai/a	C		
Atrazine	0.5 lb ai/a	C		
MSO	1 % v/v	C		
28% UAN	2.5 % v/v	C		
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	85.3 a	16.5000017 a
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		
AMS - Liquid	2.5 % v/v	C		
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	86.0 a	16.4975030 a
Impact (2.8 SC)	0.263 oz ai/a	C		
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		
Atrazine	0.5 lb ai/a	C		
MSO	0.5 % v/v	C		
AMS - Liquid	2.5 % v/v	C		
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	B	70.5 b	16.5025022 a
Impact (2.8 SC)	0.263 oz ai/a	B		
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B		
MSO	0.25 % v/v	B		
AMS - Liquid	2.5 % v/v	B		

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Pest Type	W Weed				
Pest Code	AMBTR				
Pest Scientific Name	Ambrosia trifi>				
Pest Name	Giant ragweed				
Crop Code			ZEAMX	ZEAMX	
BBCH Scale			BCOR	BCOR	
Crop Scientific Name			Zea mays	Zea mays	
Crop Name			Corn	Corn	
Rating Date	Aug-4-2014		Nov-3-2014	Nov-3-2014	
Rating Type	CONTRO		MOICON	YIELD	
Rating Unit			%	bu/ac	
Sample Size, Unit	1 PLOT				
Number of Subsamples	1		1	1	
Crop Stage Majority					
Pest Stage Majority	12'				
Pest Density, Unit	7 YD2				
Days After First/Last Applic.	90 59		181 150	181 150	
Plant-Eval Interval	91 DP-1		182 DP-1	182 DP-1	
Days After Emergence	84 DE-1		175 DE-1	175 DE-1	
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	30	31	32
7 Halex GT (4.39 SC)	1.98 lb ai/a	B	90.0 a	16.5300023 a	249.18 a
Atrazine	0.5 lb ai/a	B			
NIS	0.25 % v/v	B			
AMS - Liquid	2.5 % v/v	B			
LSD (P=.05)			10.66	1.15805757	20.840
Standard Deviation			7.18	0.77950533	14.028
CV			10.05	4.69	6.44
Bartlett's X2			13.912	2.095	8.53
P(Bartlett's X2)			0.016*	0.911	0.202
Replicate F			0.024	1.170	3.768
Replicate Prob(F)			0.9948	0.3488	0.0293
Treatment F			79.955	0.111	131.553
Treatment Prob(F)			0.0001	0.9939	0.0001

Purdue University

Impact Sequential and 1-Pass Programs

Trial ID: 14S-THP-CTC-10 Protocol ID: 14S-THP-CTC-10
 Location: Throckmorton Study Director:
 Project ID: 14C04H060 Investigator: Dr. Bill Johnson
 Sponsor Contact: Amvac - Rich Porter

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

Crop Code

ZEAMX, BCOR, Zea mays, = US

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 PHYNEC = phytotoxicity - necrosis /burn
 PHYSTU = phytotoxicity - stunting
 PHYLMA = phytotoxicity - leaf malformation
 PHYCHL = phytotoxicity - chlorosis
 PHYGEN = phytotoxicity - general / injury
 MOICON = moisture content
 YIELD = yield

Rating Unit

% = percent
 bu/ac = bushels per acre

PLOT = total plot

FT2 = per square foot
 YD2 = per square yard

Plant-Eval Interval

25 DP-1 = 1 ZEAMD May-5-2014
 35 DP-1 = 1 ZEAMD May-5-2014
 42 DP-1 = 1 ZEAMD May-5-2014
 58 DP-1 = 1 ZEAMD May-5-2014
 78 DP-1 = 1 ZEAMD May-5-2014
 91 DP-1 = 1 ZEAMD May-5-2014
 182 DP-1 = 1 ZEAMD May-5-2014