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Impact sequential and 1-pass programs

Trial ID: 13S-THP-CTC-15 Protocol ID: 13S-THP-CTC-15
 Location: Throckmorton Study Director:
 Project ID: 13C04H059 Investigator: Dr. Bill Johnson
 Sponsor Contact: Amvac - Rich Porter

General Trial Information

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

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

Trial Location

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

Personnel

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

Cooperator/Landowner

Cooperator: Throckmorton Purdue Ag Center **Role:** Purdue Ag Center
Organization: Purdue University
Address 1: 8343 US 231 S

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

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DEKALB DKC61-21 **Description:** RR/LL
BBCH Scale: BCOR **Planting Date:** May-8-2013
Planting Method: SEEDED seeded **Rate, Unit:** 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN

Soil Moisture: DRY dry **Soil Temperature, Unit:** 67 F
Emergence Date: May-17-2013

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Pest Description

- Pest 1 Type:** W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail
- Pest 2 Type:** W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed
- Pest 3 Type:** W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters
- Pest 4 Type:** W **Code:** IPOHE *Ipomoea hederacea*
Common Name: Ivyleaf morningglory
- Pest 5 Type:** W **Code:** ABUTH *Abutilon theophrasti*
Common Name: velvetleaf
- Pest 6 Type:** W **Code:** CYPES *Cyperus esculentus*
Common Name: Yellow nutsedge

Site and Design

Plot Width, Unit: 10 FT
Plot Length, Unit: 30 FT
Plot Area, Unit: 300 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

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

Application Description

	A	B	C	D
Application Date:	May-8-2013	May-30-2013	Jun-11-2013	Jun-18-2013
Time of Day:	PM	7:45 AM	8:30 AM	8 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	ATPLAN	EAPOCR	MIPOCR	POST
Application Placement:	SOIL	FOLIAR	FOLIAR	FOLIAR
Applied By:	MW	MW	MW	GT
Air Temperature, Unit:	69 F	74 F	71 F	76 F
% Relative Humidity:	62	71	71	73
Wind Velocity, Unit:	14 MPH	10 MPH	1.6 MPH	1.2 MPH
Wind Direction:	NW	SW	SW	SW
Dew Presence (Y/N):	N no	N no	Y yes	Y yes
Soil Temperature, Unit:	67 F	71 F	70 F	74 F
Soil Moisture:	DRY	SLIWET	SLIWET	DRY
% Cloud Cover:	15	40	10	75

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	ZEAMD BCOR	ZEAMD BCOR	ZEAMD BCOR	ZEAMD BCOR
Stage Scale Used:		BBCH	BBCH	BBCH
Stage Majority, Percent:		V2	V4	V5
Stage Maximum, Percent:		V3	V5	
Height, Unit:		3.5 IN		2 FT
Height Minimum, Maximum:		3 4		2 3

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Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	SETFA W	SETFA W	SETFA W	SETFA W
Height Minimum, Maximum:		0.5 2	1 6	6 24
Density, Unit:		15 FT2	13 FT2	10 FT2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Height, Unit:		1 IN		
Height Minimum, Maximum:			3 5	6 24
Density, Unit:		4 YD2	5 YD2	8 YD2
Pest 3 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W	CHEAL W
Height Minimum, Maximum:		0.5 1	3 6	2 18
Density, Unit:		8 YD2	7 YD2	12 YD2
Pest 4 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W	IPOHE W
Height Minimum, Maximum:		0.5 1	2 4	
Density, Unit:		2 YD2	2 YD2	
Pest 5 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W	ABUTH W
Height, Unit:			1 IN	
Density, Unit:			1 YD2	
Pest 6 Code, Type, Scale:	CYPES W	CYPES W	CYPES W	CYPES W
Height Minimum, Maximum:			4 8	
Density, Unit:			4 YD2	

Application Equipment

	A	B	C	D
Appl. Equipment:	CO2 FORD	CO2 FORD	CO2 FORD	
Equipment Type:	SPTRMO	SPTRMO	SPTRMO	BACCAI
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:	XR 100 02	XR 100 02	XR 110 02	XR 110 02
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	15 IN
Nozzles/Row:	6	6	6	8
Boom Length, Unit:	10 FT	10 FT	10 FT	10 FT
Boom Height, Unit:	20 IN	20 IN	20 IN	
Ground Speed, Unit:	2.1 MPH	2.1 MPH	2.1 MPH	2.2 MPH
Carrier:	MEIGS	MEIGS	MEIGS	MEIGS
Spray Volume, Unit:	20 gal/ac	20 gal/ac	20 gal/ac	20 gal/ac
Mix Size, Unit:	2.5 liters	2.5 liters	2.5 liters	2.5 liters
Propellant:	CO2	CO2	CO2	CO2

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Impact sequential and 1-pass programs

Trial ID: 13S-THP-CTC-15 Protocol ID: 13S-THP-CTC-15
 Location: Throckmorton Study Director:
 Project ID: 13C04H059 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 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	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	601	902
	Impact (2.8 SC)	2.8 LBA/GAL	SL		0.35 oz ai/a	1 fl oz/a		MIPOCR	C	V3-V4 Corn	0.9765 ml/mx				
	Atrazine	4 LBA/GAL	F		0.5 lb ai/a	1 pt/a		MIPOCR	C	V3-V4 Corn	15.62 ml/mx				
	MSO	100 %	L		1 % v/v	1 % v/v		MIPOCR	C	V3-V4 Corn	25.0 ml/mx				
	28% UAN	100 %	SL		2.5 % v/v	2.5 % v/v		MIPOCR	C	V3-V4 Corn	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	304	704	1001
	Impact (2.8 SC)	2.8 LBA/GAL	SL		0.263 oz ai/a	0.75 fl oz/a		MIPOCR	C	V3-V4 Corn	0.7337 ml/mx				
	Status (56 SG)	56 %	SG		1.4 oz ai/a	2.5 oz wt/a		MIPOCR	C	V3-V4 Corn	2.34 g/mx				
	Atrazine	4 LBA/GAL	F		0.5 lb ai/a	1 pt/a		MIPOCR	C	V3-V4 Corn	15.62 ml/mx				
	MSO	100 %	L		1 % v/v	1 % v/v		MIPOCR	C	V3-V4 Corn	25.0 ml/mx				
	28% UAN	100 %	SL		2.5 % v/v	2.5 % v/v		MIPOCR	C	V3-V4 Corn	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	104	404	702	901
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		1.13 lb ae/a	32 fl oz/a		MIPOCR	C	V3-V4 Corn	31.39 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		MIPOCR	C	V3-V4 Corn	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	201	503	604	1003
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		1.13 lb ae/a	32 fl oz/a		MIPOCR	C	V3-V4 Corn	31.39 ml/mx				
	Impact (2.8 SC)	2.8 LBA/GAL	SL		0.263 oz ai/a	0.75 fl oz/a		MIPOCR	C	V3-V4 Corn	0.7337 ml/mx				
	Atrazine	4 LBA/GAL	F		0.5 lb ai/a	1 pt/a		MIPOCR	C	V3-V4 Corn	15.62 ml/mx				
	MSO	100 %	L		0.5 % v/v	0.5 % v/v		MIPOCR	C	V3-V4 Corn	12.5 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		MIPOCR	C	V3-V4 Corn	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		ATPLAN	A		49.99 ml/mx	202	403	703	1004
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		1.13 lb ae/a	32 fl oz/a		MIPOCR	C	V3-V4 Corn	31.39 ml/mx				
	Laudis (3.5 SL)	3.5 LB/GAL	SC		1.31 oz ai/a	3 fl oz/a		MIPOCR	C	V3-V4 Corn	2.924 ml/mx				
	Atrazine	4 LBA/GAL	F		0.5 lb ai/a	1 pt/a		MIPOCR	C	V3-V4 Corn	15.62 ml/mx				
	MSO	100 %	L		0.5 % v/v	0.5 % v/v		MIPOCR	C	V3-V4 Corn	12.5 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		MIPOCR	C	V3-V4 Corn	62.49 ml/mx				
7	Warrant (3 CS)	3 LBA/GAL	SC		1.13 lb ai/a	3 pt/a		EAPOCR	B	V2-V3 Corn	47.08 ml/mx	203	501	802	1002
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		1.13 lb ae/a	32 fl oz/a		EAPOCR	B	V2-V3 Corn	31.39 ml/mx				
	Impact (2.8 SC)	2.8 LBA/GAL	SL		0.263 oz ai/a	0.75 fl oz/a		EAPOCR	B	V2-V3 Corn	0.7337 ml/mx				
	Atrazine	4 LBA/GAL	F		1 lb ai/a	2 pt/a		EAPOCR	B	V2-V3 Corn	31.25 ml/mx				
	MSO	100 %	L		0.5 % v/v	0.5 % v/v		EAPOCR	B	V2-V3 Corn	12.5 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		EAPOCR	B	V2-V3 Corn	62.49 ml/mx				
8	Halex GT (4.39 SC)	4.39 LBA/GAL	SC		1.98 lb ai/a	3.6 pt/a		EAPOCR	B	V2-V3 Corn	56.37 ml/mx	204	502	603	903
	Atrazine	4 LBA/GAL	F		1 lb ai/a	2 pt/a		EAPOCR	B	V2-V3 Corn	31.25 ml/mx				
	NIS	100 %	SL		0.25 % v/v	0.25 % v/v		EAPOCR	B	V2-V3 Corn	6.249 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		EAPOCR	B	V2-V3 Corn	62.49 ml/mx				
9	Solida (25 WG)	25 %	WG		0.0156 lb ai/a	1 oz wt/a		POSPOS	D	V6 Corn	0.9346 g/mx	301	402	701	804
	Glyphos Xtra (3 SL)	3 LBAE/GAL	SL		0.75 lb ae/a	32 fl oz/a		POSPOS	D	V6 Corn	31.25 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		POSPOS	D	V6 Corn	62.49 ml/mx				
10	Harrow (75 WG)	75 %	WG		0.0155 lb ai/a	0.33 oz wt/a		EAPOCR	B	V2-V3 Corn	0.3096 g/mx	302	401	602	904
	Glyphos Xtra (3 SL)	3 LBAE/GAL	SL		0.75 lb ae/a	32 fl oz/a		EAPOCR	B	V2-V3 Corn	31.25 ml/mx				
	AMS - Liquid	3.4 LB/GAL	SL		2.5 % v/v	2.5 % v/v		EAPOCR	B	V2-V3 Corn	62.49 ml/mx				

Sort Order: Treatment

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Trial ID: 13S-THP-CTC-15 Protocol ID: 13S-THP-CTC-15
 Location: Throckmorton Study Director:
 Project ID: 13C04H059 Investigator: Dr. Bill Johnson
 Sponsor Contact: Amvac - Rich Porter

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code	SETFA	AMBTR	CHEAL	IPOHE	AMARE	CYPES		
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Ipomoea heder>	Amaranthus ret>	Cyperus escul>		
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	Ivyleaf mornin>	Redroot pigweed	Yellow nutsedge		
Crop Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Rating Date	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Crop Stage Majority								
Crop Stage Scale								
Pest Stage Majority	4 IN	3 IN	1.5 IN	1 IN	1.5 IN			
Pest Density, Unit	7 FT2	2 YD2	5 YD2	2 YD2	1 YD2			
Assessed By	MW	MW	MW	MW	MW	MW		
Days After First/Last Applic.	29 7	29 7	29 7	29 7	29 7	29 7		
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1		
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 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
		504	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
		803	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	85.0	99.0	90.0	99.0	10.0
Impact (2.8 SC)	0.35 oz ai/a	C 303	97.0	0.0	97.0	99.0	99.0	0.0
Atrazine	0.5 lb ai/a	C 601	99.0	0.0	99.0	0.0	99.0	0.0
MSO	1 % v/v	C 902	90.0	0.0	90.0	0.0	99.0	0.0
28% UAN	2.5 % v/v	C						
		Mean =	96.3	21.3	96.3	47.3	99.0	2.5
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A 103	99.0	85.0	99.0	95.0	99.0	10.0
Impact (2.8 SC)	0.263 oz ai/a	C 304	99.0	10.0	99.0	90.0	99.0	0.0
Status (56 SG)	1.4 oz ai/a	C 704	99.0	0.0	99.0	0.0	99.0	0.0
Atrazine	0.5 lb ai/a	C 1001	90.0	0.0	90.0	0.0	99.0	0.0
MSO	1 % v/v	C						
28% UAN	2.5 % v/v	C						
		Mean =	96.8	23.8	96.8	46.3	99.0	2.5
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A 104	97.0	90.0	99.0	90.0	99.0	0.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C 404	99.0	0.0	99.0	90.0	99.0	0.0
AMS - Liquid	2.5 % v/v	C 702	99.0	0.0	99.0	20.0	99.0	0.0
		901	90.0	20.0	85.0	30.0	99.0	40.0
		Mean =	96.3	27.5	95.5	57.5	99.0	10.0
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A 201	97.0	99.0	99.0	95.0	99.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C 503	99.0	30.0	99.0	0.0	99.0	0.0
Impact (2.8 SC)	0.263 oz ai/a	C 604	99.0	0.0	99.0	0.0	99.0	0.0
Atrazine	0.5 lb ai/a	C 1003	90.0	0.0	90.0	0.0	99.0	0.0
MSO	0.5 % v/v	C						
AMS - Liquid	2.5 % v/v	C						
		Mean =	96.3	32.3	96.8	23.8	99.0	24.8

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	SETFA	AMBTR	CHEAL	IPOHE	AMARE	CYPES
Pest Scientific Name	Setaria faberi	Ambrosia trif>	Chenopodium al>	Ipomoea hедера>	Amaranthus ret>	Cyperus escul>
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	Ivyleaf mornin>	Redroot pigweed	Yellow nutsedge
Crop Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority						
Crop Stage Scale						
Pest Stage Majority	4 IN	3 IN	1.5 IN	1 IN	1.5 IN	
Pest Density, Unit	7 FT2	2 YD2	5 YD2	2 YD2	1 YD2	
Assessed By	MW	MW	MW	MW	MW	MW
Days After First/Last Applic.	29 7	29 7	29 7	29 7	29 7	29 7
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1
Trt Treatment	Rate	Appl				
No. Name	Rate	Unit Code Plot	1	2	3	4
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A 202	99.0	0.0	99.0	0.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C 403	99.0	40.0	99.0	99.0
Laudis (3.5 SL)	1.31 oz ai/a	C 703	0.0	0.0	99.0	99.0
Atrazine	0.5 lb ai/a	C 1004	0.0	0.0	90.0	0.0
MSO	0.5 % v/v	C				99.0
AMS - Liquid	2.5 % v/v	C				99.0
Mean =			49.5	10.0	96.8	24.8
7 Warrant (3 CS)	1.13 lb ai/a	B 203	99.0	95.0	99.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B 501	99.0	97.0	99.0	99.0
Impact (2.8 SC)	0.263 oz ai/a	B 802	99.0	99.0	99.0	85.0
Atrazine	1 lb ai/a	B 1002	99.0	97.0	99.0	95.0
MSO	0.5 % v/v	B				99.0
AMS - Liquid	2.5 % v/v	B				99.0
Mean =			99.0	97.0	99.0	94.5
8 Halex GT (4.39 SC)	1.98 lb ai/a	B 204	99.0	97.0	99.0	99.0
Atrazine	1 lb ai/a	B 502	99.0	85.0	99.0	99.0
NIS	0.25 % v/v	B 603	99.0	95.0	99.0	99.0
AMS - Liquid	2.5 % v/v	B 903	99.0	99.0	99.0	99.0
Mean =			99.0	94.0	99.0	99.0
9 Solida (25 WG)	0.0156 lb ai/a	D 301	0.0	0.0	0.0	0.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	D 402	10.0	30.0	20.0	0.0
AMS - Liquid	2.5 % v/v	D 701	0.0	0.0	0.0	99.0
		804	0.0	0.0	0.0	99.0
Mean =			2.5	7.5	5.0	0.0
10 Harrow (75 WG)	0.0155 lb ai/a	B 302	99.0	97.0	99.0	97.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	B 401	97.0	60.0	90.0	75.0
AMS - Liquid	2.5 % v/v	B 602	99.0	95.0	99.0	99.0
		904	99.0	99.0	99.0	99.0
Mean =			98.5	87.8	96.8	75.5

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Pest Type	W Weed				W Weed	W Weed					
Pest Code	ABUTH				AMBTR	SETSS					
Pest Scientific Name	Abutilon theop>				Ambrosia trifi>	Setaria sp.					
Pest Name	velvetleaf				Giant ragweed	Foxtail millet					
Crop Code		ZEAMX	ZEAMX	ZEAMX			ZEAMX				
BCH 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-6-2013	Jun-6-2013	Jun-6-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-19-2013				
Rating Type	CONTRO	PHYNLS	PHYBLE	PHYGEN	CONTRO	CONTRO	PHYGEN				
Rating Unit	%	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Majority		V3	V3	V5			V7				
Crop Stage Scale											
Pest Stage Majority	3 IN										
Pest Density, Unit	2 YD2										
Assessed By	MW	MW	MW	JJ	JJ	JJ	DOUG				
Days After First/Last Applic.	29 7	29 7	29 7	35 1	35 1	35 1	42 1				
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	35 DP-1	35 DP-1	35 DP-1	42 DP-1				
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	26 DE-1	26 DE-1	26 DE-1	33 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 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		102	99.0	0.0	3.0	5.0	85.0	95.0	2.0
Impact (2.8 SC)	0.35 oz ai/a	C		303	99.0	0.0	0.0	5.0	80.0	100.0	1.0
Atrazine	0.5 lb ai/a	C		601	70.0	0.0	3.0	0.0	75.0	100.0	2.0
MSO	1 % v/v	C		902	70.0	0.0	0.0	5.0	65.0	75.0	3.0
28% UAN	2.5 % v/v	C									
				Mean =	84.5	0.0	1.5	3.8	76.3	92.5	2.0
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		103	85.0	0.0	0.0	10.0	85.0	100.0	5.0
Impact (2.8 SC)	0.263 oz ai/a	C		304	80.0	0.0	0.0	0.0	75.0	100.0	1.0
Status (56 SG)	1.4 oz ai/a	C		704	0.0	0.0	0.0	0.0	65.0	100.0	4.0
Atrazine	0.5 lb ai/a	C		1001	0.0	0.0	0.0	5.0	20.0	95.0	3.0
MSO	1 % v/v	C									
28% UAN	2.5 % v/v	C									
				Mean =	41.3	0.0	0.0	3.8	61.3	98.8	3.3
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		104	99.0	0.0	5.0	0.0	95.0	100.0	2.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		404	0.0	3.0	3.0	5.0	80.0	100.0	1.0
AMS - Liquid	2.5 % v/v	C		702	0.0	0.0	0.0	0.0	60.0	60.0	2.0
				901	99.0	0.0	0.0	0.0	100.0	85.0	1.0
				Mean =	49.5	0.8	2.0	1.3	83.8	86.3	1.5
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		201	20.0	0.0	0.0	0.0	95.0	100.0	6.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		503	99.0	0.0	0.0	5.0	90.0	100.0	3.0
Impact (2.8 SC)	0.263 oz ai/a	C		604	0.0	0.0	0.0	0.0	60.0	70.0	1.0
Atrazine	0.5 lb ai/a	C		1003	0.0	0.0	0.0	5.0	75.0	90.0	2.0
MSO	0.5 % v/v	C									
AMS - Liquid	2.5 % v/v	C									
				Mean =	29.8	0.0	0.0	2.5	80.0	90.0	3.0

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	W Weed ABUTH Abutilon theop> velvetleaf	ZEAMX BCOR Zea mays Corn	ZEAMX BCOR Zea mays Corn	ZEAMX BCOR Zea mays Corn	W Weed AMBTR Ambrosia trifi> Giant ragweed	W Weed SETSS Setaria sp. Foxtail millet	ZEAMX BCOR Zea mays Corn				
Pest Type											
Pest Code											
Pest Scientific Name											
Pest Name											
Crop Code											
BBCH Scale											
Crop Scientific Name											
Crop Name											
Rating Date	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-19-2013				
Rating Type	CONTRO	PHYNLS	PHYBLE	PHYGEN	CONTRO	CONTRO	PHYGEN				
Rating Unit	%	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Majority		V3	V3	V5			V7				
Crop Stage Scale											
Pest Stage Majority	3 IN										
Pest Density, Unit	2 YD2										
Assessed By	MW	MW	MW	JJ	JJ	JJ	DOUG				
Days After First/Last Applic.	29 7	29 7	29 7	35 1	35 1	35 1	42 1				
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	35 DP-1	35 DP-1	35 DP-1	42 DP-1				
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	26 DE-1	26 DE-1	26 DE-1	33 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	A	202		99.0	0.0	0.0	0.0	90.0	100.0	4.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C	403		0.0	0.0	0.0	0.0	90.0	100.0	6.0
Laudis (3.5 SL)	1.31 oz ai/a	C	703		0.0	0.0	0.0	0.0	50.0	100.0	3.0
Atrazine	0.5 lb ai/a	C	1004		0.0	0.0	0.0	0.0	80.0	65.0	1.0
MSO	0.5 % v/v	C									
AMS - Liquid	2.5 % v/v	C									
	Mean =				24.8	0.0	0.0	0.0	77.5	91.3	3.5
7 Warrant (3 CS)	1.13 lb ai/a	B	203		99.0	5.0	0.0	0.0	100.0	100.0	0.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B	501		99.0	7.0	0.0	0.0	100.0	100.0	2.0
Impact (2.8 SC)	0.263 oz ai/a	B	802		99.0	5.0	0.0	0.0	100.0	100.0	0.0
Atrazine	1 lb ai/a	B	1002		99.0	5.0	0.0	5.0	100.0	95.0	0.0
MSO	0.5 % v/v	B									
AMS - Liquid	2.5 % v/v	B									
	Mean =				99.0	5.5	0.0	1.3	100.0	98.8	0.5
8 Halex GT (4.39 SC)	1.98 lb ai/a	B	204		99.0	0.0	10.0	0.0	100.0	100.0	0.0
Atrazine	1 lb ai/a	B	502		99.0	3.0	3.0	0.0	100.0	100.0	0.0
NIS	0.25 % v/v	B	603		99.0	3.0	0.0	0.0	100.0	100.0	3.0
AMS - Liquid	2.5 % v/v	B	903		99.0	0.0	7.0	0.0	100.0	100.0	1.0
	Mean =				99.0	1.5	5.0	0.0	100.0	100.0	1.0
9 Solida (25 WG)	0.0156 lb ai/a	D	301		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	D	402		0.0	0.0	0.0	0.0	95.0	0.0	0.0
AMS - Liquid	2.5 % v/v	D	701		0.0	0.0	0.0	0.0	0.0	0.0	0.0
			804		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Mean =				0.0	0.0	0.0	0.0	23.8	0.0	0.0
10 Harrow (75 WG)	0.0155 lb ai/a	B	302		99.0	0.0	5.0	5.0	100.0	95.0	2.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	B	401		99.0	0.0	5.0	0.0	100.0	75.0	0.0
AMS - Liquid	2.5 % v/v	B	602		99.0	0.0	5.0	0.0	100.0	100.0	0.0
			904		99.0	0.0	3.0	0.0	95.0	100.0	0.0
	Mean =				99.0	0.0	4.5	1.3	98.8	92.5	0.5

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	AMBTR	CHEAL	ECHSS	SETFA	AMBTR	CHEAL				
Pest Scientific Name	Ambrosia trifi>	Chenopodium al>	Echinochloa sp.	Setaria faberi	Ambrosia trifi>	Chenopodium al>				
Pest Name	Giant ragweed	Common lambsqu>	Barnyardgrass	Giant foxtail	Giant ragweed	Common lambsqu>				
Crop Code										
BBCB Scale										
Crop Scientific Name										
Crop Name										
Rating Date	Jun-19-2013	Jun-19-2013	Jun-19-2013	Jun-26-2013	Jun-26-2013	Jun-26-2013				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority										
Crop Stage Scale										
Pest Stage Majority				36 IN	38 IN	30 IN				
Pest Density, Unit										
Assessed By	DOUG	DOUG	DOUG	MW	MW	MW				
Days After First/Last Applic.	42 1	42 1	42 1	49 8	49 8	49 8				
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	49 DP-1	49 DP-1	49 DP-1				
Days After Emergence	33 DE-1	33 DE-1	33 DE-1	40 DE-1	40 DE-1	40 DE-1				
Trt Treatment	Rate	Appl								
No. Name	Rate	Unit	Code	Plot	14	15	16	17	18	19
1 Untreated Check				101	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
				801	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
				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	100.0	100.0	99.0	99.0	99.0
Impact (2.8 SC)	0.35 oz ai/a	C		303	99.0	100.0	100.0	99.0	97.0	99.0
Atrazine	0.5 lb ai/a	C		601	95.0	98.0	95.0	99.0	99.0	99.0
MSO	1 % v/v	C		902	97.0	100.0	100.0	97.0	99.0	99.0
28% UAN	2.5 % v/v	C								
				Mean =	97.5	99.5	98.8	98.5	98.5	99.0
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		103	100.0	100.0	100.0	99.0	97.0	99.0
Impact (2.8 SC)	0.263 oz ai/a	C		304	100.0	100.0	100.0	99.0	99.0	99.0
Status (56 SG)	1.4 oz ai/a	C		704	98.0	99.0	98.0	99.0	99.0	99.0
Atrazine	0.5 lb ai/a	C		1001	95.0	97.0	90.0	95.0	95.0	99.0
MSO	1 % v/v	C								
28% UAN	2.5 % v/v	C								
				Mean =	98.3	99.0	97.0	98.0	97.5	99.0
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		104	98.0	100.0	100.0	99.0	99.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		404	95.0	100.0	100.0	99.0	93.0	99.0
AMS - Liquid	2.5 % v/v	C		702	100.0	100.0	100.0	99.0	99.0	99.0
				901	100.0	100.0	100.0	99.0	99.0	99.0
				Mean =	98.3	100.0	100.0	99.0	97.5	99.0
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		201	100.0	100.0	100.0	99.0	97.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C		503	98.0	98.0	98.0	99.0	93.0	99.0
Impact (2.8 SC)	0.263 oz ai/a	C		604	98.0	99.0	100.0	99.0	99.0	99.0
Atrazine	0.5 lb ai/a	C		1003	99.0	100.0	100.0	97.0	99.0	99.0
MSO	0.5 % v/v	C								
AMS - Liquid	2.5 % v/v	C								
				Mean =	98.8	99.3	99.5	98.5	97.0	99.0

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	CHEAL	ECHSS	SETFA	AMBTR	CHEAL
Pest Scientific Name	Ambrosia trifi>	Chenopodium al>	Echinochloa sp.	Setaria faberi	Ambrosia trifi>	Chenopodium al>
Pest Name	Giant ragweed	Common lambsqu>	Barnyardgrass	Giant foxtail	Giant ragweed	Common lambsqu>
Crop Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	Jun-19-2013	Jun-19-2013	Jun-19-2013	Jun-26-2013	Jun-26-2013	Jun-26-2013
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority						
Crop Stage Scale						
Pest Stage Majority				36 IN	38 IN	30 IN
Pest Density, Unit						
Assessed By	DOUG	DOUG	DOUG	MW	MW	MW
Days After First/Last Applic.	42 1	42 1	42 1	49 8	49 8	49 8
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	49 DP-1	49 DP-1	49 DP-1
Days After Emergence	33 DE-1	33 DE-1	33 DE-1	40 DE-1	40 DE-1	40 DE-1
Trt Treatment	Rate	Appl				
No. Name	Rate	Unit Code Plot	14	15	16	17
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A 202	95.0	100.0	100.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C 403	100.0	100.0	100.0	99.0
Laudis (3.5 SL)	1.31 oz ai/a	C 703	100.0	100.0	100.0	99.0
Atrazine	0.5 lb ai/a	C 1004	100.0	100.0	100.0	99.0
MSO	0.5 % v/v	C				
AMS - Liquid	2.5 % v/v	C				
Mean =			98.8	100.0	100.0	99.0
7 Warrant (3 CS)	1.13 lb ai/a	B 203	94.0	100.0	100.0	97.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B 501	95.0	100.0	100.0	90.0
Impact (2.8 SC)	0.263 oz ai/a	B 802	98.0	100.0	85.0	90.0
Atrazine	1 lb ai/a	B 1002	97.0	98.0	95.0	93.0
MSO	0.5 % v/v	B				
AMS - Liquid	2.5 % v/v	B				
Mean =			96.0	99.5	95.0	92.5
8 Halex GT (4.39 SC)	1.98 lb ai/a	B 204	99.0	98.0	100.0	97.0
Atrazine	1 lb ai/a	B 502	100.0	100.0	100.0	97.0
NIS	0.25 % v/v	B 603	97.0	99.0	100.0	99.0
AMS - Liquid	2.5 % v/v	B 903	97.0	100.0	100.0	99.0
Mean =			98.3	99.3	100.0	98.0
9 Solida (25 WG)	0.0156 lb ai/a	D 301	0.0	0.0	0.0	60.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	D 402	50.0	30.0	30.0	87.0
AMS - Liquid	2.5 % v/v	D 701	25.0	30.0	90.0	70.0
		804	0.0	0.0	0.0	99.0
Mean =			18.8	15.0	30.0	79.0
10 Harrow (75 WG)	0.0155 lb ai/a	B 302	95.0	97.0	85.0	93.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	B 401	97.0	93.0	90.0	93.0
AMS - Liquid	2.5 % v/v	B 602	95.0	97.0	95.0	95.0
		904	98.0	99.0	60.0	80.0
Mean =			96.3	96.5	82.5	90.3

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	IPHOE	AMARE		SETFA	AMBTR			
Pest Scientific Name	Ipomoea hederata>	Amaranthus ret>		Setaria faberi	Ambrosia trifida>	Ipomoea hederata>		
Pest Name	Ivyleaf mornin>	Redroot pigweed		Giant foxtail	Giant ragweed	Ivyleaf mornin>		
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-26-2013	Jun-26-2013	Jun-26-2013	Jul-10-2013	Jul-10-2013	Jul-10-2013		
Rating Type	CONTRO	CONTRO	PHYNEC	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Crop Stage Majority								
Crop Stage Scale			V7					
Pest Stage Majority	24 IN	24 IN		54-72 IN	48 IN	66 IN		
Pest Density, Unit				12 FT2	3 YD2	2 YD2		
Assessed By	MW	MW	MW	BM/GT	BM/GT	BM/GT		
Days After First/Last Applic.	49 8	49 8	49 8	63 22	63 22	63 22		
Plant-Eval Interval	49 DP-1	49 DP-1	49 DP-1	63 DP-1	63 DP-1	63 DP-1		
Days After Emergence	40 DE-1	40 DE-1	40 DE-1	54 DE-1	54 DE-1	54 DE-1		
Trt Treatment	Rate	Appl						
No. Name	Rate	Unit Code Plot	20	21	22	23	24	25
1 Untreated Check		101	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
		801	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
		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	95.0	99.0	5.0	95.0	95.0	95.0
Impact (2.8 SC)	0.35 oz ai/a	C 303	99.0	99.0	7.0	99.0	97.0	99.0
Atrazine	0.5 lb ai/a	C 601	95.0	99.0	5.0	97.0	99.0	95.0
MSO	1 % v/v	C 902	95.0	99.0	5.0	99.0	99.0	99.0
28% UAN	2.5 % v/v	C						
		Mean =	96.0	99.0	5.5	97.5	97.5	97.0
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A 103	99.0	99.0	15.0	97.0	99.0	97.0
Impact (2.8 SC)	0.263 oz ai/a	C 304	99.0	99.0	5.0	99.0	99.0	99.0
Status (56 SG)	1.4 oz ai/a	C 704	99.0	99.0	5.0	97.0	99.0	99.0
Atrazine	0.5 lb ai/a	C 1001	95.0	99.0	15.0	97.0	99.0	99.0
MSO	1 % v/v	C						
28% UAN	2.5 % v/v	C						
		Mean =	98.0	99.0	10.0	97.5	99.0	98.5
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A 104	95.0	99.0	3.0	97.0	97.0	97.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C 404	95.0	99.0	3.0	99.0	97.0	99.0
AMS - Liquid	2.5 % v/v	C 702	99.0	99.0	3.0	97.0	99.0	99.0
		901	93.0	99.0	3.0	99.0	99.0	99.0
		Mean =	95.5	99.0	3.0	98.0	98.0	98.5
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A 201	99.0	99.0	15.0	99.0	99.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C 503	99.0	99.0	15.0	97.0	97.0	97.0
Impact (2.8 SC)	0.263 oz ai/a	C 604	93.0	99.0	10.0	97.0	99.0	99.0
Atrazine	0.5 lb ai/a	C 1003	95.0	99.0	5.0	95.0	99.0	90.0
MSO	0.5 % v/v	C						
AMS - Liquid	2.5 % v/v	C						
		Mean =	96.5	99.0	11.3	97.0	98.5	96.3

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	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	IPHOE	AMARE		SETFA	AMBTR
Pest Scientific Name	Ipomoea hederata>	Amaranthus ret>		Setaria faberi	Ambrosia trifida>
Pest Name	Ivyleaf mornin>	Redroot pigweed		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	Jun-26-2013	Jun-26-2013	Jun-26-2013	Jul-10-2013	Jul-10-2013
Rating Type	CONTRO	CONTRO	PHYNEC	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Crop Stage Majority					
Crop Stage Scale			V7		
Pest Stage Majority	24 IN	24 IN		54-72 IN	48 IN
Pest Density, Unit				12 FT2	3 YD2
Assessed By	MW	MW	MW	BM/GT	BM/GT
Days After First/Last Applic.	49 8	49 8	49 8	63 22	63 22
Plant-Eval Interval	49 DP-1	49 DP-1	49 DP-1	63 DP-1	63 DP-1
Days After Emergence	40 DE-1	40 DE-1	40 DE-1	54 DE-1	54 DE-1
Trt Treatment	Rate	Appl			
No. Name	Rate	Unit	Code	Plot	
				20	21
				22	23
				24	25
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	202	93.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C	403	99.0	99.0
Laudis (3.5 SL)	1.31 oz ai/a	C	703	99.0	99.0
Atrazine	0.5 lb ai/a	C	1004	95.0	99.0
MSO	0.5 % v/v	C			
AMS - Liquid	2.5 % v/v	C			
	Mean =			96.5	99.0
7 Warrant (3 CS)	1.13 lb ai/a	B	203	95.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B	501	93.0	99.0
Impact (2.8 SC)	0.263 oz ai/a	B	802	99.0	99.0
Atrazine	1 lb ai/a	B	1002	90.0	99.0
MSO	0.5 % v/v	B			
AMS - Liquid	2.5 % v/v	B			
	Mean =			94.3	99.0
8 Halex GT (4.39 SC)	1.98 lb ai/a	B	204	99.0	99.0
Atrazine	1 lb ai/a	B	502	97.0	99.0
NIS	0.25 % v/v	B	603	93.0	99.0
AMS - Liquid	2.5 % v/v	B	903	99.0	99.0
	Mean =			97.0	99.0
9 Solida (25 WG)	0.0156 lb ai/a	D	301	90.0	99.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	D	402	99.0	99.0
AMS - Liquid	2.5 % v/v	D	701	60.0	99.0
			804	60.0	99.0
	Mean =			77.3	99.0
10 Harrow (75 WG)	0.0155 lb ai/a	B	302	99.0	99.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	B	401	95.0	99.0
AMS - Liquid	2.5 % v/v	B	602	90.0	99.0
			904	70.0	99.0
	Mean =			88.5	99.0

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMARE	CHEAL	SETFA	AMBTB	CHEAL
Pest Scientific Name	Amaranthus ret>	Chenopodium al>	Setaria faberi	Ambrosia trifi>	Chenopodium al>
Pest Name	Redroot pigweed	Common lambsqu>	Giant foxtail	Giant ragweed	Common lambsqu>
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	Jul-10-2013	Jul-10-2013	Jul-29-2013	Jul-29-2013	Jul-29-2013
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Crop Stage Majority					
Crop Stage Scale					
Pest Stage Majority	46 IN	30-48 IN	47 IN	120 IN	36 IN
Pest Density, Unit	2 YD2	3 YD2	12 FT2	5 YD2	2 YD2
Assessed By	BM/GT	BM/GT	MW	MW	MW
Days After First/Last Applic.	63 22	63 22	82 41	82 41	82 41
Plant-Eval Interval	63 DP-1	63 DP-1	82 DP-1	82 DP-1	82 DP-1
Days After Emergence	54 DE-1	54 DE-1	73 DE-1	73 DE-1	73 DE-1
Trt Treatment	Rate	Appl			
No. Name	Rate	Unit	Code	Plot	
				26	27
				28	29
				30	
1 Untreated Check				101	0.0
				504	0.0
				801	0.0
				803	0.0
				Mean =	0.0
2 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	102	99.0	99.0
Impact (2.8 SC)	0.35 oz ai/a	C	303	99.0	99.0
Atrazine	0.5 lb ai/a	C	601	99.0	99.0
MSO	1 % v/v	C	902	99.0	99.0
28% UAN	2.5 % v/v	C			
				Mean =	99.0
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	103	99.0	99.0
Impact (2.8 SC)	0.263 oz ai/a	C	304	99.0	99.0
Status (56 SG)	1.4 oz ai/a	C	704	99.0	99.0
Atrazine	0.5 lb ai/a	C	1001	99.0	97.0
MSO	1 % v/v	C			
28% UAN	2.5 % v/v	C			
				Mean =	99.0
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	104	99.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C	404	99.0	99.0
AMS - Liquid	2.5 % v/v	C	702	99.0	99.0
			901	99.0	99.0
				Mean =	99.0
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	201	99.0	99.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C	503	99.0	99.0
Impact (2.8 SC)	0.263 oz ai/a	C	604	99.0	99.0
Atrazine	0.5 lb ai/a	C	1003	99.0	97.0
MSO	0.5 % v/v	C			
AMS - Liquid	2.5 % v/v	C			
				Mean =	99.0

Purdue University

	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Type	AMARE	CHEAL	SETFA	AMBTR	CHEAL
Pest Code	AMARE	CHEAL	SETFA	AMBTR	CHEAL
Pest Scientific Name	Amaranthus ret>	Chenopodium al>	Setaria faberi	Ambrosia trifi>	Chenopodium al>
Pest Name	Redroot pigweed	Common lambsqu>	Giant foxtail	Giant ragweed	Common lambsqu>
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	Jul-10-2013	Jul-10-2013	Jul-29-2013	Jul-29-2013	Jul-29-2013
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Crop Stage Majority					
Crop Stage Scale					
Pest Stage Majority	46 IN	30-48 IN	47 IN	120 IN	36 IN
Pest Density, Unit	2 YD2	3 YD2	12 FT2	5 YD2	2 YD2
Assessed By	BM/GT	BM/GT	MW	MW	MW
Days After First/Last Applic.	63 22	63 22	82 41	82 41	82 41
Plant-Eval Interval	63 DP-1	63 DP-1	82 DP-1	82 DP-1	82 DP-1
Days After Emergence	54 DE-1	54 DE-1	73 DE-1	73 DE-1	73 DE-1
Trt Treatment	Rate	Appl			
No. Name	Rate	Unit Code Plot	26	27	28
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A 202	99.0	99.0	95.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C 403	99.0	99.0	97.0
Laudis (3.5 SL)	1.31 oz ai/a	C 703	99.0	99.0	97.0
Atrazine	0.5 lb ai/a	C 1004	99.0	97.0	99.0
MSO	0.5 % v/v	C			99.0
AMS - Liquid	2.5 % v/v	C			99.0
Mean =			99.0	98.5	97.0
7 Warrant (3 CS)	1.13 lb ai/a	B 203	99.0	99.0	97.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B 501	99.0	99.0	93.0
Impact (2.8 SC)	0.263 oz ai/a	B 802	99.0	99.0	97.0
Atrazine	1 lb ai/a	B 1002	99.0	97.0	95.0
MSO	0.5 % v/v	B			99.0
AMS - Liquid	2.5 % v/v	B			99.0
Mean =			99.0	98.5	95.5
8 Halex GT (4.39 SC)	1.98 lb ai/a	B 204	99.0	99.0	99.0
Atrazine	1 lb ai/a	B 502	99.0	99.0	97.0
NIS	0.25 % v/v	B 603	99.0	99.0	97.0
AMS - Liquid	2.5 % v/v	B 903	99.0	99.0	97.0
Mean =			99.0	99.0	97.5
9 Solida (25 WG)	0.0156 lb ai/a	D 301	99.0	99.0	95.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	D 402	99.0	99.0	97.0
AMS - Liquid	2.5 % v/v	D 701	99.0	99.0	95.0
		804	99.0	99.0	90.0
Mean =			99.0	99.0	94.3
10 Harrow (75 WG)	0.0155 lb ai/a	B 302	99.0	99.0	85.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	B 401	99.0	99.0	90.0
AMS - Liquid	2.5 % v/v	B 602	99.0	99.0	90.0
		904	99.0	97.0	87.0
Mean =			99.0	98.5	88.0

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	IPOHE	SETFA	AMBTR	IPOHE	CHEAL	
Pest Scientific Name	Ipomoea heder>	Setaria fabri>	Ambrosia trifi>	Ipomoea heder>	Chenopodium al>	
Pest Name	Ivyleaf mornin>	Giant foxtail	Giant ragweed	Ivyleaf mornin>	Common lambsqu>	
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	Jul-29-2013	Aug-12-2013	Aug-12-2013	Aug-12-2013	Aug-12-2013	Oct-10-2013
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	MOICON
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority						
Crop Stage Scale						
Pest Stage Majority	48 IN	47 IN	120 IN	36 IN	48 IN	
Pest Density, Unit	2 YD2	12 FT2	5 YD2	2 YD2	2 YD2	
Assessed By	MW	MW	MW	MW	MW	
Days After First/Last Applic.	82 41	96 55	96 55	96 55	96 55	155 114
Plant-Eval Interval	82 DP-1	96 DP-1	96 DP-1	96 DP-1	96 DP-1	155 DP-1
Days After Emergence	73 DE-1	87 DE-1	87 DE-1	87 DE-1	87 DE-1	146 DE-1

Trt Treatment	Rate	Appl				
No. Name	Rate	Unit	Code	Plot	31	32
6 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	202		90.0	97.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C	403		97.0	97.0
Laudis (3.5 SL)	1.31 oz ai/a	C	703		99.0	99.0
Atrazine	0.5 lb ai/a	C	1004		99.0	99.0
MSO	0.5 % v/v	C				
AMS - Liquid	2.5 % v/v	C				
Mean =					96.3	98.0
7 Warrant (3 CS)	1.13 lb ai/a	B	203		99.0	95.0
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B	501		99.0	87.0
Impact (2.8 SC)	0.263 oz ai/a	B	802		99.0	95.0
Atrazine	1 lb ai/a	B	1002		99.0	95.0
MSO	0.5 % v/v	B				
AMS - Liquid	2.5 % v/v	B				
Mean =					99.0	93.0
8 Halex GT (4.39 SC)	1.98 lb ai/a	B	204		99.0	97.0
Atrazine	1 lb ai/a	B	502		97.0	97.0
NIS	0.25 % v/v	B	603		93.0	99.0
AMS - Liquid	2.5 % v/v	B	903		99.0	99.0
Mean =					97.0	98.0
9 Solida (25 WG)	0.0156 lb ai/a	D	301		99.0	97.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	D	402		99.0	95.0
AMS - Liquid	2.5 % v/v	D	701		99.0	99.0
			804		87.0	99.0
Mean =					96.0	95.3
10 Harrow (75 WG)	0.0155 lb ai/a	B	302		90.0	83.0
Glyfos Xtra (3 SL)	0.75 lb ae/a	B	401		93.0	85.0
AMS - Liquid	2.5 % v/v	B	602		85.0	90.0
			904		93.0	87.0
Mean =					90.3	86.3

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Pest Type					
Pest Code					
Pest Scientific Name					
Pest Name					
Crop Code				ZEAMX	
BBCB Scale				BCOR	
Crop Scientific Name				Zea mays	
Crop Name				Corn	
Rating Date				Oct-10-2013	
Rating Type				YIELD	
Rating Unit				bu/ac	
Number of Subsamples				1	
Crop Stage Majority					
Crop Stage Scale					
Pest Stage Majority					
Pest Density, Unit					
Assessed By					
Days After First/Last Applic.				155 114	
Plant-Eval Interval				155 DP-1	
Days After Emergence				146 DE-1	
Trt Treatment	Rate	Appl			
No. Name	Rate	Unit	Code	Plot	37
1 Untreated Check				101	120.70
				504	147.80
				801	163.10
				803	192.20
				Mean =	155.95
2 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	102		231.10
Impact (2.8 SC)	0.35 oz ai/a	C	303		227.20
Atrazine	0.5 lb ai/a	C	601		262.20
MSO	1 % v/v	C	902		258.30
28% UAN	2.5 % v/v	C			
				Mean =	244.70
3 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	103		243.80
Impact (2.8 SC)	0.263 oz ai/a	C	304		248.50
Status (56 SG)	1.4 oz ai/a	C	704		285.30
Atrazine	0.5 lb ai/a	C	1001		272.20
MSO	1 % v/v	C			
28% UAN	2.5 % v/v	C			
				Mean =	262.45
4 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	104		249.60
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C	404		219.90
AMS - Liquid	2.5 % v/v	C	702		282.90
			901		244.30
				Mean =	249.18
5 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	201		262.90
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C	503		247.80
Impact (2.8 SC)	0.263 oz ai/a	C	604		237.10
Atrazine	0.5 lb ai/a	C	1003		256.90
MSO	0.5 % v/v	C			
AMS - Liquid	2.5 % v/v	C			
				Mean =	251.18

Purdue University

Pest Type					
Pest Code					
Pest Scientific Name					
Pest Name					
Crop Code					ZEAMX
BBCH Scale					BCOR
Crop Scientific Name					Zea mays
Crop Name					Corn
Rating Date					Oct-10-2013
Rating Type					YIELD
Rating Unit					bu/ac
Number of Subsamples					1
Crop Stage Majority					
Crop Stage Scale					
Pest Stage Majority					
Pest Density, Unit					
Assessed By					
Days After First/Last Applic.					155 114
Plant-Eval Interval					155 DP-1
Days After Emergence					146 DE-1
Trt No.	Treatment Name	Rate	Appl Unit	Code	Plot
					37
6	Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A	202	246.40
	Roundup PowerMax 4.5 SL	1.13 lb ae/a	C	403	192.90
	Laudis (3.5 SL)	1.31 oz ai/a	C	703	263.60
	Atrazine	0.5 lb ai/a	C	1004	252.00
	MSO	0.5 % v/v	C		
	AMS - Liquid	2.5 % v/v	C		
				Mean =	238.73
7	Warrant (3 CS)	1.13 lb ai/a	B	203	291.30
	Roundup PowerMax 4.5 SL	1.13 lb ae/a	B	501	174.90
	Impact (2.8 SC)	0.263 oz ai/a	B	802	251.10
	Atrazine	1 lb ai/a	B	1002	266.00
	MSO	0.5 % v/v	B		
	AMS - Liquid	2.5 % v/v	B		
				Mean =	245.83
8	Halex GT (4.39 SC)	1.98 lb ai/a	B	204	289.70
	Atrazine	1 lb ai/a	B	502	233.90
	NIS	0.25 % v/v	B	603	254.60
	AMS - Liquid	2.5 % v/v	B	903	237.50
				Mean =	253.93
9	Solida (25 WG)	0.0156 lb ai/a	D	301	230.00
	Glyfos Xtra (3 SL)	0.75 lb ae/a	D	402	183.40
	AMS - Liquid	2.5 % v/v	D	701	193.30
				804	197.30
				Mean =	201.00
10	Harrow (75 WG)	0.0155 lb ai/a	B	302	266.60
	Glyfos Xtra (3 SL)	0.75 lb ae/a	B	401	235.60
	AMS - Liquid	2.5 % v/v	B	602	236.90
				904	293.10
				Mean =	258.05

Purdue University

Impact sequential and 1-pass programs

Trial ID: 13S-THP-CTC-15 Protocol ID: 13S-THP-CTC-15
 Location: Throckmorton Study Director:
 Project ID: 13C04H059 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
 IPOHE, Ipomoea hederacea, = US
 AMARE, Amaranthus retroflexus, = US
 CYPES, Cyperus esculentus, = US
 ABUTH, Abutilon theophrasti, = US
 SETSS, Setaria sp., = US
 ECHSS, Echinochloa sp., = US

Crop Code

ZEAMX, BCOR, Zea mays, = US

Rating Type

CONTRO = control / burndown or knockdown
 PHYNLS = phytotoxicity - necrosis, leaf spot
 PHYBLE = phytotoxicity - bleaching
 PHYGEN = phytotoxicity - general / injury
 PHYNEC = phytotoxicity - necrosis /burn
 MOICON = moisture content
 YIELD = yield

Rating Unit

% = percent
 bu/ac = bushels per acre

FT2 = per square foot

YD2 = per square yard

Plant-Eval Interval

29 DP-1 = 1 ZEAMD May-8-2013
 35 DP-1 = 1 ZEAMD May-8-2013
 42 DP-1 = 1 ZEAMD May-8-2013
 49 DP-1 = 1 ZEAMD May-8-2013
 63 DP-1 = 1 ZEAMD May-8-2013
 82 DP-1 = 1 ZEAMD May-8-2013
 96 DP-1 = 1 ZEAMD May-8-2013
 155 DP-1 = 1 ZEAMD May-8-2013

Purdue University

Impact sequential and 1-pass programs

Trial ID: 13S-THP-CTC-15 Protocol ID: 13S-THP-CTC-15
 Location: Throckmorton Study Director:
 Project ID: 13C04H059 Investigator: Dr. Bill Johnson
 Sponsor Contact: Amvac - Rich Porter

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	SETFA	AMBTR	CHEAL	IPOHE	AMARE	CYPES			
Pest Scientific Name	Setaria faberi	Ambrosia trifidi>	Chenopodium al>	Ipomoea hederata>	Amaranthus ret>	Cyperus esculen>			
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	Ivyleaf mornin>	Redroot pigweed	Yellow nutsedge			
Crop Code									
BBCH Scale									
Crop Scientific Name									
Crop Name									
Rating Date	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Crop Stage Majority									
Crop Stage Scale									
Pest Stage Majority	4 IN	3 IN	1.5 IN	1 IN	1.5 IN				
Pest Density, Unit	7 FT2	2 YD2	5 YD2	2 YD2	1 YD2				
Assessed By	MW	MW	MW	MW	MW	MW			
Days After First/Last Applic.	29 7	29 7	29 7	29 7	29 7	29 7			
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1			
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1			
Trt Treatment	Rate	Appl							
No. Name	Rate	Unit	Code	1	2	3	4	5	6
1 Untreated Check				0.0 c	0.0 b	0.0 b	0.0 c	0.0 b	0.0 c
2 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		96.3 a	21.3 b	96.3 a	47.3 abc	99.0 a	2.5 c
Impact (2.8 SC)	0.35 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		96.8 a	23.8 b	96.8 a	46.3 abc	99.0 a	2.5 c
Impact (2.8 SC)	0.263 oz ai/a	C							
Status (56 SG)	1.4 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		96.3 a	27.5 b	95.5 a	57.5 abc	99.0 a	10.0 c
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		96.3 a	32.3 b	96.8 a	23.8 bc	99.0 a	24.8 c
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C							
Impact (2.8 SC)	0.263 oz ai/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	A		49.5 b	10.0 b	96.8 a	24.8 bc	99.0 a	7.5 c
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C							
Laudis (3.5 SL)	1.31 oz ai/a	C							
Atrazine	0.5 lb ai/a	C							
MSO	0.5 % v/v	C							
AMS - Liquid	2.5 % v/v	C							

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

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	SETFA	AMBTR	CHEAL	IPOHE	AMARE	CYPES			
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Ipomoea heder>	Amaranthus ret>	Cyperus escul>			
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	Ivyleaf mornin>	Redroot pigweed	Yellow nutsedge			
Crop Code									
BBCH Scale									
Crop Scientific Name									
Crop Name									
Rating Date	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013	Jun-6-2013			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Crop Stage Majority									
Crop Stage Scale									
Pest Stage Majority	4 IN	3 IN	1.5 IN	1 IN	1.5 IN				
Pest Density, Unit	7 FT2	2 YD2	5 YD2	2 YD2	1 YD2				
Assessed By	MW	MW	MW	MW	MW	MW			
Days After First/Last Applic.	29 7	29 7	29 7	29 7	29 7	29 7			
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1			
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1			
Trt Treatment	Rate	Appl							
No. Name	Rate	Unit	Code	1	2	3	4	5	6
7 Warrant (3 CS)	1.13 lb ai/a	B		99.0 a	97.0 a	99.0 a	94.5 a	99.0 a	67.5 ab
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B							
Impact (2.8 SC)	0.263 oz ai/a	B							
Atrazine	1 lb ai/a	B							
MSO	0.5 % v/v	B							
AMS - Liquid	2.5 % v/v	B							
8 Halex GT (4.39 SC)	1.98 lb ai/a	B		99.0 a	94.0 a	99.0 a	99.0 a	99.0 a	95.3 a
Atrazine	1 lb ai/a	B							
NIS	0.25 % v/v	B							
AMS - Liquid	2.5 % v/v	B							
9 Solida (25 WG)	0.0156 lb ai/a	D		2.5 c	7.5 b	5.0 b	0.0 c	74.3 a	2.5 c
Glyphos Xtra (3 SL)	0.75 lb ae/a	D							
AMS - Liquid	2.5 % v/v	D							
10 Harrow (75 WG)	0.0155 lb ai/a	B		98.5 a	87.8 a	96.8 a	75.5 ab	99.0 a	57.3 b
Glyphos Xtra (3 SL)	0.75 lb ae/a	B							
AMS - Liquid	2.5 % v/v	B							
LSD (P=.05)				25.96	36.62	6.42	42.70	22.71	29.05
Standard Deviation				17.89	25.24	4.42	29.43	15.65	20.02
CV				24.37	62.95	5.66	62.81	18.07	74.22
Bartlett's X2				56.315	26.359	4.309	9.792	0.0	31.437
P(Bartlett's X2)				0.001*	0.001*	0.635	0.134	.	0.001*
Replicate F				1.523	4.361	3.678	5.628	1.000	2.278
Replicate Prob(F)				0.2312	0.0125	0.0242	0.0040	0.4079	0.1022
Treatment F				20.882	8.952	325.499	5.819	16.111	11.551
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0002	0.0001	0.0001

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Pest Type	W Weed				W Weed	W Weed		W Weed			
Pest Code	ABUTH				AMBTR	SETSS		AMBTR			
Pest Scientific Name	Abutilon theop>				Ambrosia trifi>	Setaria sp.		Ambrosia trifi>			
Pest Name	velvetleaf				Giant ragweed	Foxtail millet		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-6-2013	Jun-6-2013	Jun-6-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-19-2013	Jun-19-2013			
Rating Type	CONTRO	PHYNLS	PHYBLE	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO			
Rating Unit	%	%	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1	1	1			
Crop Stage Majority		V3	V3	V5			V7				
Crop Stage Scale											
Pest Stage Majority	3 IN										
Pest Density, Unit	2 YD2										
Assessed By	MW	MW	MW	Jl	Jl	Jl	DOUG	DOUG			
Days After First/Last Applic.	29 7	29 7	29 7	35 1	35 1	35 1	42 1	42 1			
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	35 DP-1	35 DP-1	35 DP-1	42 DP-1	42 DP-1			
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	26 DE-1	26 DE-1	26 DE-1	33 DE-1	33 DE-1			
Trt Treatment	Rate	Appl									
No. Name	Rate	Unit	Code	7	8	9	10	11	12	13	14
7 Warrant (3 CS)	1.13 lb ai/a	B		99.0 a	5.5 a	0.0 b	1.3 a	100.0 a	98.8 a	0.5 ab	96.0 a
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B									
Impact (2.8 SC)	0.263 oz ai/a	B									
Atrazine	1 lb ai/a	B									
MSO	0.5 % v/v	B									
AMS - Liquid	2.5 % v/v	B									
8 Halex GT (4.39 SC)	1.98 lb ai/a	B		99.0 a	1.5 b	5.0 a	0.0 a	100.0 a	100.0 a	1.0 ab	98.3 a
Atrazine	1 lb ai/a	B									
NIS	0.25 % v/v	B									
AMS - Liquid	2.5 % v/v	B									
9 Solida (25 WG)	0.0156 lb ai/a	D		0.0 c	0.0 b	0.0 b	0.0 a	23.8 b	0.0 b	0.0 b	18.8 b
Glyfos Xtra (3 SL)	0.75 lb ae/a	D									
AMS - Liquid	2.5 % v/v	D									
10 Harrow (75 WG)	0.0155 lb ai/a	B		99.0 a	0.0 b	4.5 a	1.3 a	98.8 a	92.5 a	0.5 ab	96.3 a
Glyfos Xtra (3 SL)	0.75 lb ae/a	B									
AMS - Liquid	2.5 % v/v	B									
LSD (P=.05)	44.46			44.46	1.06	2.41	3.33	27.33	15.32	1.88	11.24
Standard Deviation	30.64			30.64	0.73	1.66	2.29	18.83	10.56	1.30	7.75
CV	58.17			58.17	94.48	127.52	166.71	26.86	14.08	85.1	9.67
Bartlett's X2	3.641			3.641	0.852	6.098	2.383	19.11	14.75	7.516	60.552
P(Bartlett's X2)	0.457			0.457	0.653	0.107	0.794	0.004*	0.022*	0.377	0.001*
Replicate F	2.173			2.173	2.658	1.674	1.705	2.530	1.390	1.044	1.044
Replicate Prob(F)	0.1144			0.1144	0.0684	0.1961	0.1896	0.0783	0.2671	0.3890	0.3892
Treatment F	6.838			6.838	22.430	5.596	1.705	12.689	56.736	4.303	93.905
Treatment Prob(F)	0.0001			0.0001	0.0001	0.0002	0.1366	0.0001	0.0001	0.0015	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	CHEAL	ECHSS	SETFA	AMBTR	CHEAL	IPOHE
Pest Scientific Name	Chenopodium al>	Echinochloa sp.	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Ipomoea heder>
Pest Name	Common lambsqu>	Barnyardgrass	Giant foxtail	Giant ragweed	Common lambsqu>	Ivyleaf mornin>
Crop Code						
BBCB Scale						
Crop Scientific Name						
Crop Name						
Rating Date	Jun-19-2013	Jun-19-2013	Jun-26-2013	Jun-26-2013	Jun-26-2013	Jun-26-2013
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority						
Crop Stage Scale						
Pest Stage Majority			36 IN	38 IN	30 IN	24 IN
Pest Density, Unit						
Assessed By	DOUG	DOUG	MW	MW	MW	MW
Days After First/Last Applic.	42 1	42 1	49 8	49 8	49 8	49 8
Plant-Eval Interval	42 DP-1	42 DP-1	49 DP-1	49 DP-1	49 DP-1	49 DP-1
Days After Emergence	33 DE-1	33 DE-1	40 DE-1	40 DE-1	40 DE-1	40 DE-1
Trt Treatment						
No. Name	15	16	17	18	19	20
1 Untreated Check	0.0 c	0.0 c	0.0 c	0.0 c	0.0 d	0.0 c
2 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a A	99.5 a	98.8 a	98.5 a	98.5 a	99.0 a
Impact (2.8 SC)	0.35 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	99.0 a	97.0 a	98.0 a	97.5 a	99.0 a
Impact (2.8 SC)	0.263 oz ai/a C					
Status (56 SG)	1.4 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	100.0 a	100.0 a	99.0 a	97.5 a	99.0 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	99.3 a	99.5 a	98.5 a	97.0 a	99.0 a
Roundup PowerMax 4.5 SL	1.13 lb ae/a C					
Impact (2.8 SC)	0.263 oz ai/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 A	100.0 a	100.0 a	99.0 a	97.5 a	99.0 a
Roundup PowerMax 4.5 SL	1.13 lb ae/a C					
Laudis (3.5 SL)	1.31 oz ai/a C					
Atrazine	0.5 lb ai/a C					
MSO	0.5 % v/v C					
AMS - Liquid	2.5 % v/v C					

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Pest Type	W Weed		W Weed	W Weed	W Weed	W Weed			
Pest Code	AMARE		SETFA	AMBTR	IPOHE	AMARE			
Pest Scientific Name	Amaranthus ret>		Setaria faberi	Ambrosia trifi>	Ipomoea heder>	Amaranthus ret>			
Pest Name	Redroot pigweed		Giant foxtail	Giant ragweed	Ivyleaf mornin>	Redroot pigweed			
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-26-2013	Jun-26-2013	Jul-10-2013	Jul-10-2013	Jul-10-2013	Jul-10-2013			
Rating Type	CONTRO	PHYNEC	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Crop Stage Majority									
Crop Stage Scale		V7							
Pest Stage Majority	24 IN		54-72 IN	48 IN	66 IN	46 IN			
Pest Density, Unit			12 FT2	3 YD2	2 YD2	2 YD2			
Assessed By	MW	MW	BM/GT	BM/GT	BM/GT	BM/GT			
Days After First/Last Applic.	49 8	49 8	63 22	63 22	63 22	63 22			
Plant-Eval Interval	49 DP-1	49 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1			
Days After Emergence	40 DE-1	40 DE-1	54 DE-1	54 DE-1	54 DE-1	54 DE-1			
Trt Treatment	Rate	Appl							
No. Name	Rate	Unit	Code	21	22	23	24	25	26
1 Untreated Check				0.0 b	0.0 c	0.0 c	0.0 c	0.0 b	0.0 b
2 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		99.0 a	5.5 bc	97.5 a	97.5 ab	97.0 a	99.0 a
Impact (2.8 SC)	0.35 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		99.0 a	10.0 a	97.5 a	99.0 a	98.5 a	99.0 a
Impact (2.8 SC)	0.263 oz ai/a	C							
Status (56 SG)	1.4 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	3.0 bc	98.0 a	98.0 ab	98.5 a	99.0 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		99.0 a	11.3 a	97.0 a	98.5 a	96.3 a	99.0 a
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C							
Impact (2.8 SC)	0.263 oz ai/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	A		99.0 a	6.0 b	96.0 a	96.8 ab	98.0 a	99.0 a
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C							
Laudis (3.5 SL)	1.31 oz ai/a	C							
Atrazine	0.5 lb ai/a	C							
MSO	0.5 % v/v	C							
AMS - Liquid	2.5 % v/v	C							

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	AMARE	SETFA	AMBTR	IPOHE	AMARE				
Pest Scientific Name	Amaranthus ret>	Setaria faberi	Ambrosia trifi>	Ipomoea heder>	Amaranthus ret>				
Pest Name	Redroot pigweed	Giant foxtail	Giant ragweed	Ivyleaf mornin>	Redroot pigweed				
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-26-2013	Jun-26-2013	Jul-10-2013	Jul-10-2013	Jul-10-2013				
Rating Type	CONTRO	PHYNEC	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1				
Crop Stage Majority									
Crop Stage Scale		V7							
Pest Stage Majority	24 IN		54-72 IN	48 IN	66 IN				
Pest Density, Unit			12 FT2	3 YD2	2 YD2				
Assessed By	MW	MW	BM/GT	BM/GT	BM/GT				
Days After First/Last Applic.	49 8	49 8	63 22	63 22	63 22				
Plant-Eval Interval	49 DP-1	49 DP-1	63 DP-1	63 DP-1	63 DP-1				
Days After Emergence	40 DE-1	40 DE-1	54 DE-1	54 DE-1	54 DE-1				
Trt Treatment	Rate	Appl							
No. Name	Rate	Unit	Code	21	22	23	24	25	26
7 Warrant (3 CS)	1.13 lb ai/a	B		99.0 a	0.0 c	91.8 a	97.5 ab	97.0 a	99.0 a
Roundup PowerMax 4.5 SL	1.13 lb ae/a	B							
Impact (2.8 SC)	0.263 oz ai/a	B							
Atrazine	1 lb ai/a	B							
MSO	0.5 % v/v	B							
AMS - Liquid	2.5 % v/v	B							
8 Halex GT (4.39 SC)	1.98 lb ai/a	B		99.0 a	0.0 c	97.0 a	98.5 a	99.0 a	99.0 a
Atrazine	1 lb ai/a	B							
NIS	0.25 % v/v	B							
AMS - Liquid	2.5 % v/v	B							
9 Solida (25 WG)	0.0156 lb ai/a	D		99.0 a	0.8 c	96.0 a	99.0 a	96.8 a	99.0 a
Glyfos Xtra (3 SL)	0.75 lb ae/a	D							
AMS - Liquid	2.5 % v/v	D							
10 Harrow (75 WG)	0.0155 lb ai/a	B		99.0 a	0.0 c	86.8 b	93.5 b	93.8 a	99.0 a
Glyfos Xtra (3 SL)	0.75 lb ae/a	B							
AMS - Liquid	2.5 % v/v	B							
LSD (P=.05)	0.00			0.00	3.62	4.97	3.18	3.56	0.00
Standard Deviation	0.00			0.00	2.49	3.42	2.19	2.45	0.00
CV	0.0			0.0	68.34	3.99	2.5	2.8	0.0
Bartlett's X2	0.0			0.0	13.547	26.401	13.694	10.514	0.0
P(Bartlett's X2)	.			.	0.009*	0.001*	0.033*	0.161	.
Replicate F	0.000			0.000	0.777	1.055	1.393	1.669	0.000
Replicate Prob(F)	1.0000			1.0000	0.5172	0.3843	0.2662	0.1971	1.0000
Treatment F	0.000			0.000	12.082	314.014	795.235	630.610	0.000
Treatment Prob(F)	1.0000			1.0000	0.0001	0.0001	0.0001	0.0001	1.0000

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	CHEAL	SETFA	AMBTR	CHEAL	IPHOE	SETFA			
Pest Scientific Name	Chenopodium al>	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Ipomoea heder>	Setaria faberi			
Pest Name	Common lambsqu>	Giant foxtail	Giant ragweed	Common lambsqu>	Ivyleaf mornin>	Giant foxtail			
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	Jul-10-2013	Jul-29-2013	Jul-29-2013	Jul-29-2013	Jul-29-2013	Aug-12-2013			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Crop Stage Majority									
Crop Stage Scale									
Pest Stage Majority	30-48 IN	47 IN	120 IN	36 IN	48 IN	47 IN			
Pest Density, Unit	3 YD2	12 FT2	5 YD2	2 YD2	2 YD2	12 FT2			
Assessed By	BM/GT	MW	MW	MW	MW	MW			
Days After First/Last Applic.	63 22	82 41	82 41	82 41	82 41	96 55			
Plant-Eval Interval	63 DP-1	82 DP-1	82 DP-1	82 DP-1	82 DP-1	96 DP-1			
Days After Emergence	54 DE-1	73 DE-1	73 DE-1	73 DE-1	73 DE-1	87 DE-1			
Trt Treatment									
No. Name	Rate	Appl							
	Rate	Unit	Code						
				27	28	29	30	31	32
1 Untreated Check				0.0 b	0.0 c	0.0 b	0.0 b	0.0 c	0.0 c
2 Harness Xtra 5.6 (5.6 SC)	2.24 lb ai/a	A		99.0 a	96.5 a	97.5 a	99.0 a	96.5 ab	96.0 a
Impact (2.8 SC)	0.35 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	96.5 a	98.0 a	99.0 a	97.5 a	97.0 a
Impact (2.8 SC)	0.263 oz ai/a	C							
Status (56 SG)	1.4 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	97.0 a	97.0 a	99.0 a	96.0 ab	97.0 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		98.5 a	96.5 a	96.0 a	99.0 a	96.5 ab	97.0 a
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C							
Impact (2.8 SC)	0.263 oz ai/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	A		98.5 a	97.0 a	99.0 a	99.0 a	96.3 ab	98.0 a
Roundup PowerMax 4.5 SL	1.13 lb ae/a	C							
Laudis (3.5 SL)	1.31 oz ai/a	C							
Atrazine	0.5 lb ai/a	C							
MSO	0.5 % v/v	C							
AMS - Liquid	2.5 % v/v	C							

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Impact sequential and 1-pass programs

Trial ID: 13S-THP-CTC-15 Protocol ID: 13S-THP-CTC-15
 Location: Throckmorton Study Director:
 Project ID: 13C04H059 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
 IPOHE, Ipomoea hederacea, = US
 AMARE, Amaranthus retroflexus, = US
 CYPES, Cyperus esculentus, = US
 ABUTH, Abutilon theophrasti, = US
 SETSS, Setaria sp., = US
 ECHSS, Echinochloa sp., = US

Crop Code

ZEAMX, BCOR, Zea mays, = US

Rating Type

CONTRO = control / burndown or knockdown
 PHYNLS = phytotoxicity - necrosis, leaf spot
 PHYBLE = phytotoxicity - bleaching
 PHYGEN = phytotoxicity - general / injury
 PHYNEC = phytotoxicity - necrosis /burn
 MOICON = moisture content
 YIELD = yield

Rating Unit

% = percent
 bu/ac = bushels per acre

FT2 = per square foot

YD2 = per square yard

Plant-Eval Interval

29 DP-1 = 1 ZEAMD May-8-2013
 35 DP-1 = 1 ZEAMD May-8-2013
 42 DP-1 = 1 ZEAMD May-8-2013
 49 DP-1 = 1 ZEAMD May-8-2013
 63 DP-1 = 1 ZEAMD May-8-2013
 82 DP-1 = 1 ZEAMD May-8-2013
 96 DP-1 = 1 ZEAMD May-8-2013
 155 DP-1 = 1 ZEAMD May-8-2013