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INFLUENCE OF IMPACT® PROGRAMS ON WEED CONTROL AND YIELD OF FIELD CORN IN SOUTHERN US (15C04H028XGA6010)

Trial ID: CN-09-15 Location: ATTAPULGUS Trial Year: 2015
 Protocol ID: 15C04H028 Investigator: Ned French, Ph.D.
 Project ID: Study Director: ERIC P. PROSTKO
 Sponsor Contact:

Reps: 4 Plots: 6 by 25 feet
 Spray vol: 15 GAL/AC Mix Size: 1.5 liters (calculated mix size .78211)

Trt No.	Treatment Name	Form Form		Rate Unit	Growth Stage	Appl Code	Amt Product to Measure	Rep			
		Conc	Type					1	2	3	4
01	Untreated Check					A		107	201	305	408
02	IMPACT SEQUENCE	2.8	SC	0.75 fl oz/a	POSPOS	A	0.5859 ml/mx	102	203	307	403
	ATRAZINE	5.25	EW	2.5 pt/a	POSPOS	A	31.25 ml/mx				
	NIS	4	F	1.5 qt/a	POSPOS	A	37.5 ml/mx				
	AMS XTRA	100	SL	0.25 % v/v	POSPOS	A	3.75 ml/mx				
03	HALEX GT	3.4	SL	2.5 % v/v	POSPOS	A	37.5 ml/mx				
	ATRAZINE	4.389	SC	3.6 pt/a	POSPOS	A	45.0 ml/mx	108	209	306	410
	NIS	4	F	1.5 qt/a	POSPOS	A	37.5 ml/mx				
	AMS XTRA	100	SL	0.25 % v/v	POSPOS	A	3.75 ml/mx				
04	IMPACT	3.4	SL	2.5 % v/v	POSPOS	A	37.5 ml/mx				
	ROUNDUP WEATHERMAX	2.8	SC	0.75 fl oz/a	POSPOS	A	0.5859 ml/mx	110	202	308	406
	ATRAZINE	4.5	SL	22 oz/a	POSPOS	A	17.19 ml/mx				
	ZIDUA	4	F	1.5 qt/a	POSPOS	A	37.5 ml/mx				
	MSO	85	WG	2 oz/a	POSPOS	A	1.498 g/mx				
05	IMPACT	100	L	0.5 % v/v	POSPOS	A	7.499 ml/mx				
	ATRAZINE	2.8	SC	0.75 fl oz/a	POSPOS	A	0.5859 ml/mx	104	206	304	402
	COC	4	F	1.5 qt/a	POSPOS	A	37.5 ml/mx				
	AMS XTRA	100	SL	0.25 % v/v	POSPOS	A	3.75 ml/mx				
06	SEQUENCE	3.4	SL	2.5 % v/v	POSPOS	A	37.5 ml/mx				
	ATRAZINE	5.25	EW	2.5 pt/a	POSPOS	A	31.25 ml/mx	105	208	310	404
	NIS	4	F	1.5 qt/a	POSPOS	A	37.5 ml/mx				
	AMS XTRA	100	SL	0.25 % v/v	POSPOS	A	3.75 ml/mx				
07	STEADFAST Q	3.4	SL	2.5 % v/v	POSPOS	A	37.5 ml/mx				
	ATRAZINE	37.7	WG	1.5 oz/a	POSPOS	A	1.123 g/mx	106	204	309	407
	NIS	4	F	1.5 qt/a	POSPOS	A	37.5 ml/mx				
	AMS XTRA	100	SL	0.25 % v/v	POSPOS	A	3.75 ml/mx				
08	ROUNDUP WEATHERMAX	3.4	SL	2.5 % v/v	POSPOS	A	37.5 ml/mx				
	ATRAZINE	4.5	SL	22 oz/a	POSPOS	A	17.19 ml/mx	101	207	303	409
	ZIDUA	4	F	1.5 qt/a	POSPOS	A	37.5 ml/mx				
	MSO	85	WG	2 oz/a	POSPOS	A	1.498 g/mx				
	AMS XTRA	100	L	0.5 % v/v	POSPOS	A	7.499 ml/mx				
09	ROUNDUP WEATHERMAX	3.4	SL	2.5 % v/v	POSPOS	A	37.5 ml/mx				
	ATRAZINE	4.5	SL	22 oz/a	POSPOS	A	17.19 ml/mx	109	210	302	401
	PROWL H20	4	F	1.5 qt/a	POSPOS	A	37.5 ml/mx				
10	LIBERTY	3.8	SC	32.0 oz/a	POSPOS	A	25.0 ml/mx				
	ATRAZINE	2.34	SL	29 oz/a	POSPOS	A	22.66 ml/mx	103	205	301	405
	PROWL H20	4	F	1.5 qt/a	POSPOS	A	37.5 ml/mx				

Sort Order: Treatment

Trial Comments

SEQUENCE = GLYPHOSATE (2.25 LBS/GAL) + S-MOC (3.0 LBS/GAL)
 HALEX GT = GLYPHOSATE (2.09 LBS/GAL) + MESOTRIONE (0.209 LBS/GAL) + S-MOC (2.09 LBS/GAL)
 STEADFAST Q = NICOSULFURON (25.2%) + RIMSULFURON (12.5%) + ISOXADIFEN (SAFENER)

NIS = ADEPT
 MSO = PREMIUM MSO

ANNUAL GRASS = TEXAS PANICUM + CRABGRASS + SIGNALGRASS + CROWFOOTGRASS + GOOSEGRASS

YIELDS ADJUSTED TO 15.5% MOISTURE.

SUMMARY:

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- 1) AT 10 DAT, SOME CROP INJURY WAS OBSERVED FROM MOST TREATMENTS. BY 25 DAT, INJURY WAS <9%.
- 2) AT 10 DAT, ALL TREATMENTS PROVIDED EXCELLENT CONTROL (95%+) OF PALMER AMARANTH AND ANNUAL GRASSES EXCEPT STEADFAST Q + ATRAZINE. ANNUAL GRASS CONTROL WITH THAT PARTICULAR TREATMENT WAS ONLY 65%.
- 3) AT 25 AND 52 DAT, PALMER AMARANTH CONTROL WITH ALL TREATMENTS WAS 99%
- 4) AT 25 DAT, THE ONLY TREATMENTS THAT PROVIDED >890% CONTROL OF ANNUAL GRASSES WERE AS FOLLOWS:
IMPACT + SEQUENCE + ATRAZINE - 81% CONTROL
ROUNDUP WMAX + ATRAZINE + PROWL 86%
- 5) ALL TREATMENTS RESULTED IN HIGHER GRAIN YIELDS THAN THE NTC. THERE WERE SOME DIFFERENCES IN YIELD BETWEEN CERTAIN TREATMENTS. FOR EXAMPLE:
HALEX GT + ATRAZINE YIELD > IMPACT + SEQUENCE + ATRAZINE , ROUNDUP WMAX + ATRAZINE + ZIDUA, ROUNDUP WMAX + ATRAZINE + PROWL, AND LIBERTY + ATRAZINE + PROWL.

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INFLUENCE OF IMPACT® PROGRAMS ON WEED CONTROL AND YIELD OF FIELD CORN IN SOUTHERN US (15C04H028XGA6010)

Trial ID: CN-09-15 Location: ATTAPULGUS Trial Year: 2015
 Protocol ID: 15C04H028 Investigator: Ned French, Ph.D.
 Project ID: Study Director: ERIC P. PROSTKO
 Sponsor Contact:

General Trial Information

Study Director: ERIC PROSTKO **Title:** PROFESSOR/EXTENSION WEED SPECIALIST
Investigator: Ned French, Ph.D. **Title:** _____

Discipline: H herbicide
Trial Status: _ **Trial Reliability:** _____
Initiation Date: _____ **Planned Completion Date:** Oct-1-15
Completion Date: _____

Trial Location

City: ATTAPULGUS **Country:** USA United States
State/Prov.: GEORGIA
Postal Code: _____ **Climate Zone:** EPOSE EPO South East

Latitude of LL Corner °: _____ -
Longitude of LL Corner °: _____ -
Altitude of LL Corner, Unit: _____
Angle y-axis to North °: _____ **Map Reference:** _____
Directions:

Conducted Under GLP: No **Official Trial ID:** _____
Conducted Under GEP: No **Other Trial ID:** _____
Study Rules: _____

No.	Guideline	Description
1.		

Keywords:

Objectives:

Evaluate influence of IMPACT and other herbicide programs on management of difficult to control weeds and yield in glyphosate-resistant field corn.

1. Compare performance of Impact programs to competitive programs.
2. Evaluate Impact tank mixes at full rate with PowerMax for quicker and more complete control.

Key measurements are plant stand count, crop phytotoxicity ratings, weed control ratings, and yield. Stand uniformity is a critical requirement. Corn should be planted and produced very uniformly.

See Application Directions section for details about treatment timing. Note: ARM PRT and DAT file include completed data headers.

This is a requested treatment list that can be melded with other planned treatment evaluations within your field trial program.

Conclusions:

Contacts

Study Director: ERIC PROSTKO **Title:** PROFESSOR/EXTENSION WEED SPECIALIST
Organization: UNIVERSITY OF GEORGIA
Address: 104 RESEARCH WAY **Phone No.:** _____
City+State/Prov: TIFTON **Mobile No.:** 229-392-1034
Postal Code: 31793 **E-mail:** EPROSTKO@UGA.EDU
Country: _____

Investigator: Ned French, Ph.D. **Title:** _____
Organization: _____
Address: _____ **Phone No.:** _____
City+State/Prov: _____ **Mobile No.:** _____
Postal Code: _____ **E-mail:** _____
Country: _____

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Cooperator/Landowner

Cooperator: _____ Organization: _____ Address 1: _____ City: _____ State/Prov: _____ Postal Code: _____ Country: _____	Role: _____ Org. Type: _____ Address 2: _____ Phone No.: _____ Fax No.: _____ Mobile No.: _____ E-mail: _____
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Other Contacts

Name	Role	Other

Crop Description

Crop 1: ZEAMX Zea mays Variety: NORTHRUP KING N83D-3000GT Description: glyphosate tolerant Seed Size, Unit: _____ Seed Shape: _____ Planting Rate, Unit: 34848 SEED/A Depth, Unit: 2 IN Row Spacing, Unit: 36 IN Spacing Within Row, Unit: _____ Planting Density, Unit: _____ Soil Temperature, Unit: _____ Soil Moisture: _____ Seed Bed: _____ Perennial Age, Unit: _____	Corn BBCH Scale: BCOR Nursery Date: _____ Planting Date: Apr-1-15 Planting Method: _____ Planting Equipment: _____ Emergence Date: _____ Harvest Date: _____ Harvested Width, Unit: 6 FT Harvested Length, Unit: 25 FT Harvest Equipment: _____ % Standard Moisture: 15.5 Moisture Meter: _____ Weighing Equipment: _____
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Pest Description

Pest 1 Type: W Code: AMAPA Amaranthus palmeri Common Name: Palmer amaranth Description: Description Artificial Population: _____ Establishment Rate, Unit: _____ Concentration, Unit: _____ Establishment Method/Description: _____	Establishment Date: _____ _____ _____
Pest 2 Type: _ Code: AGRASS ANNUAL GRASSES Common Name: _____ Description: MIXTURE OF CRABGRASS + TEXAS PANICUM Artificial Population: _____ Establishment Rate, Unit: _____ Concentration, Unit: _____ Establishment Method/Description: _____	Establishment Date: _____ _____ _____

Site and Design

Treated Plot Width: 6 FT Treated Plot Length: 25 FT Treated Plot Area: 150 FT2 Replications: 4 % Slope: _____ Untreated Arrangement: _____ Trial Initiation Comments: _____	Site Type: FIELD field Experimental Unit: 1 PLOT plot Tillage Type: CONTIL conventional-till Study Design: RACOB� Randomized Complete Block (RCB) Treatments: 10
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No.	Previous Crop	Previous Pesticides	Year
1.	COTTON		2014

Maintenance

No.	Date	Maintenance Product Name	Form Conc	Form Unit	Form Type	Description	Rate	Rate Unit	Tank Mix
1.									

Comment: _____

Field Prep./Maintenance: _____

Soil Description

Description Name: _____ % Sand: 84 % Silt: 6 % Clay: 10	% OM: 1.6 pH: 6.0 CEC: _____ Texture: LS loamy sand Soil Name: FACEVILLE Fert. Level: G good Soil Drainage: G good
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Analyzed By: _____

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Additional Measured Elements

Date	Element	Quantity	Unit

Moisture and Weather Conditions

Overall Moisture Conditions: _____
 Closest Weather Station: _____ Distance, Unit: _____

No.	Date	Time	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit	Relative Humidity
1.	Apr-2-15		0.5	IN	SPCEPI	sprinkler - center pivot						
2.	Apr-18-15		0.09	IN	RAIN	rain						
3.	Apr-19-15		1.49	IN	RAIN	rain						

Comment:

Application Description

A	
Application Date:	Apr-18-15
Appl. Start Time:	
Appl. Stop Time:	9:00 AM
Application Method:	SPRAY
Application Timing:	POSPOS
Application Placement:	BROADC
Applied By:	EPP
Air Temperature, Unit:	75 F
% Relative Humidity:	86
Wind Velocity, Unit:	2 MPH
Wind Direction:	EAST
Dew Presence (Y/N):	Y yes
Soil Temperature, Unit:	71 F
Soil Moisture:	OPTIMUM
% Cloud Cover:	
Next Moisture Occurred On:	
Time to Next Moisture, Unit:	

Crop Stage At Each Application

A	
Crop 1 Code, BBCH Scale:	ZEAMX BCOR
Stage Scale Used:	DESC
Stage Majority, Percent:	V4
Stage Minimum, Percent:	
Stage Maximum, Percent:	
Diameter, Unit:	
Height, Unit:	7 IN
Height Minimum, Maximum:	
Plant Foliage Height, Unit:	
Crop coverage (%):	

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Pest Stage At Each Application

A	
Pest 1 Code, Type, Scale:	AMAPA W
Stage Majority, Percent:	
Stage Minimum, Percent:	
Stage Maximum, Percent:	
Diameter, Unit:	
Height, Unit:	3 IN
Height Minimum, Maximum:	1 5
Density, Unit:	
Coverage, Unit:	
Pest 2 Code, Type, Scale:	AGRASS
Stage Majority, Percent:	
Stage Minimum, Percent:	
Stage Maximum, Percent:	
Diameter, Unit:	
Height, Unit:	3 IN
Height Minimum, Maximum:	2 4
Density, Unit:	
Coverage, Unit:	

Application Equipment

A	
Appl. Equipment:	
Equipment Type:	BACCAI
Operation Pressure, Unit:	38 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	11002DG
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	
Nozzle Calibration, Unit:	
Band Width, Unit:	
% Coverage:	
Row Sides Applied:	
Boom ID:	
Boom Length, Unit:	60 IN
Boom Height, Unit:	20 IN
Ground Speed, Unit:	3.5 MPH
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit	
Carrier:	WATER
Water Hardness (ppm CaCO3):	
Spray Volume, Unit:	15 GAL/AC
Mix Size, Unit:	1.5 Liters
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y yes
Equipment Comment:	

Trt No Treatment Application Comment

Date	By	Notes

No. Date	By	Deviations

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1. _____

Reasons:

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					W Weed	W Weed AMAPA Amaranthus pal> Palmer amaranth	ANNUAL GRASS	W Weed		
					ZEAMD BCOR Zea mays inden>			ZEAMD BCOR Zea mays inden>		
					Dent corn Apr-28-15 STUNTING PERCENT	Apr-28-15 CONTROL PERCENT	Apr-28-15 CONTROL PERCENT	Dent corn May-13-15 STUNTING PERCENT		
					1	1	1	1		
					10 10	10 10	10 10	25 25		
					10 DA-A	10 DA-A	10 DA-A	25 DA-A		
					27 DP-1	27 DP-1	27 DP-1	42 DP-1		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Growth Stage	Appl Code				
							1	2	3	4
01	Untreated Check					A	0.0 g	0.0 b	0.0 d	0.0 a
02	IMPACT SEQUENCE	2.8	SC	0.75 fl oz/a	POSPOS	A	12.5 bc	99.0 a	99.0 a	6.3 a
	ATRAZINE	5.25	EW	2.5 pt/a	POSPOS	A				
	NIS	4	F	1.5 qt/a	POSPOS	A				
	AMS XTRA	100	SL	0.25 % v/v	POSPOS	A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS	A				
03	HALEX GT	4.389	SC	3.6 pt/a	POSPOS	A	11.3 cd	99.0 a	99.0 a	3.8 a
	ATRAZINE		4 F	1.5 qt/a	POSPOS	A				
	NIS	100	SL	0.25 % v/v	POSPOS	A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS	A				
04	IMPACT ROUNDUP WEATHERMAX	2.8	SC	0.75 fl oz/a	POSPOS	A	17.5 a	99.0 a	99.0 a	7.5 a
	ATRAZINE	4.5	SL	22 oz/a	POSPOS	A				
	ZIDUA	4	F	1.5 qt/a	POSPOS	A				
	MSO	85	WG	2 oz/a	POSPOS	A				
	AMS XTRA	100	L	0.5 % v/v	POSPOS	A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS	A				
05	IMPACT ATRAZINE	2.8	SC	0.75 fl oz/a	POSPOS	A	5.0 ef	99.0 a	99.0 a	1.3 a
	COC	4	F	1.5 qt/a	POSPOS	A				
	AMS XTRA	100	SL	0.25 % v/v	POSPOS	A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS	A				
06	SEQUENCE ATRAZINE	5.25	EW	2.5 pt/a	POSPOS	A	11.3 cd	99.0 a	99.0 a	8.8 a
	NIS	4	F	1.5 qt/a	POSPOS	A				
	AMS XTRA	100	SL	0.25 % v/v	POSPOS	A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS	A				
07	STEADFAST Q	37.7	WG	1.5 oz/a	POSPOS	A	0.0 g	99.0 a	65.0 c	2.5 a
	ATRAZINE		4 F	1.5 qt/a	POSPOS	A				
	NIS	100	SL	0.25 % v/v	POSPOS	A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS	A				
08	ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS	A	16.3 ab	99.0 a	99.0 a	6.3 a
	ATRAZINE		4 F	1.5 qt/a	POSPOS	A				
	ZIDUA	85	WG	2 oz/a	POSPOS	A				
	MSO	100	L	0.5 % v/v	POSPOS	A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS	A				
09	ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS	A	2.5 fg	99.0 a	98.0 b	2.5 a
	ATRAZINE		4 F	1.5 qt/a	POSPOS	A				
	PROWL H20	3.8	SC	32.0 oz/a	POSPOS	A				

Means followed by same letter do not significantly differ (P=.10, Duncan's New MRT)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Could not calculate LSD (% mean diff) for columns 2,5,7 because error mean square = 0.

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Pest Type Pest Code Pest Scientific Name Pest Name Crop Code BBCH Scale Crop Scientific Name Crop Name Rating Date Rating Type Rating Unit Sample Size, Unit Number of Subsamples SE Group No. Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval ARM Action Codes Number of Decimals	W Weed ZEAMD BCOR Zea mays inden>	W Weed AMAPA Amaranthus pal> Palmer amaranth	ANNUAL GRASS Apr-28-15 CONTROL PERCENT 1 2 10 10 10 DA-A 27 DP-1	W Weed ZEAMD BCOR Zea mays inden> Dent corn May-13-15 STUNTING PERCENT 1 4 25 25 25 DA-A 42 DP-1	
Trt Treatment No. Name	Form Conc Form Type Rate Rate Unit Unit Growth Stage Appl Code	1	2	3	4
10 LIBERTY ATRAZINE PROWL H20	2.34 SL 4 F 3.8 SC 29 oz/a 1.5 qt/a 32.0 oz/a POSPOS A POSPOS A POSPOS A	7.5 de	99.0 a	99.0 a	3.8 a
LSD P=.10 Standard Deviation CV Grand Mean Bartlett's X2 P(Bartlett's X2)	4.33 3.60 42.95 8.38 5.236 0.631	. 0.00 0.0 89.10 0.0 .	0.76 0.63 0.74 85.60 0.0 .	5.68 4.71 110.92 4.25 2.439 0.965	
Replicate F Replicate Prob(F) Treatment F Treatment Prob(F)	0.177 0.9110 12.564 0.0001	0.000 1.0000 0.000 1.0000	1.000 0.4079 10180.445 0.0001	1.313 0.2907 1.450 0.2168	

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Pest Type						W Weed	ANNUAL	W Weed	ANNUAL	
Pest Code						AMAPA	GRASS	AMAPA	GRASS	
Pest Scientific Name						Amaranthus pal>	CONTROL	Amaranthus pal>	CONTROL	
Pest Name						Palmer amaranth		Palmer amaranth		
Crop Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Rating Date						May-13-15	May-13-15	Jun-9-15	Jun-9-15	
Rating Type						CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT	
Sample Size, Unit										
Number of Subsamples						1	1	1	1	
SE Group No.						5	6	7	8	
Days After First/Last Applic.						25 25	25 25	52 52	52 52	
Trt-Eval Interval						25 DA-A	25 DA-A	52 DA-A	52 DA-A	
Plant-Eval Interval						42 DP-1	42 DP-1	69 DP-1	69 DP-1	
ARM Action Codes										
Number of Decimals										
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Growth Stage	Appl Code	5	6	7	8
01	Untreated Check				A		0.0 b	0.0 e	0.0 b	0.0 e
02	IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A		99.0 a	81.3 ab	99.0 a	66.3 bc
	SEQUENCE	5.25	EW	2.5 pt/a	POSPOS A					
	ATRAZINE	4	F	1.5 qt/a	POSPOS A					
	NIS	100	SL	0.25 % v/v	POSPOS A					
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
03	HALEX GT	4.389	SC	3.6 pt/a	POSPOS A		99.0 a	66.3 cd	99.0 a	52.5 d
	ATRAZINE	4	F	1.5 qt/a	POSPOS A					
	NIS	100	SL	0.25 % v/v	POSPOS A					
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
04	IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A		99.0 a	76.3 abc	99.0 a	58.8 cd
	ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A					
	ATRAZINE	4	F	1.5 qt/a	POSPOS A					
	ZIDUA	85	WG	2 oz/a	POSPOS A					
	MSO	100	L	0.5 % v/v	POSPOS A					
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
05	IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A		99.0 a	68.8 bcd	99.0 a	58.8 cd
	ATRAZINE	4	F	1.5 qt/a	POSPOS A					
	COC			1.0 % v/v	POSPOS A					
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
06	SEQUENCE	5.25	EW	2.5 pt/a	POSPOS A		99.0 a	66.3 cd	99.0 a	53.8 d
	ATRAZINE	4	F	1.5 qt/a	POSPOS A					
	NIS	100	SL	0.25 % v/v	POSPOS A					
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
07	STEADFAST Q	37.7	WG	1.5 oz/a	POSPOS A		99.0 a	62.5 d	99.0 a	52.5 d
	ATRAZINE	4	F	1.5 qt/a	POSPOS A					
	NIS	100	SL	0.25 % v/v	POSPOS A					
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
08	ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A		99.0 a	73.8 a-d	99.0 a	66.3 bc
	ATRAZINE	4	F	1.5 qt/a	POSPOS A					
	ZIDUA	85	WG	2 oz/a	POSPOS A					
	MSO	100	L	0.5 % v/v	POSPOS A					
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
09	ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A		99.0 a	86.3 a	99.0 a	78.8 a
	ATRAZINE	4	F	1.5 qt/a	POSPOS A					
	PROWL H20	3.8	SC	32.0 oz/a	POSPOS A					

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Pest Type Pest Code Pest Scientific Name Pest Name Crop Code BBCH Scale Crop Scientific Name Crop Name Rating Date Rating Type Rating Unit Sample Size, Unit Number of Subsamples SE Group No. Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval ARM Action Codes Number of Decimals	W Weed AMAPA Amaranthus pal-> Palmer amaranth	ANNUAL GRASS CONTROL	W Weed AMAPA Amaranthus pal-> Palmer amaranth	ANNUAL GRASS CONTROL
Crop Name Rating Date Rating Type Rating Unit Sample Size, Unit Number of Subsamples SE Group No. Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval ARM Action Codes Number of Decimals	May-13-15 CONTROL PERCENT	May-13-15 CONTROL PERCENT	Jun-9-15 CONTROL PERCENT	Jun-9-15 CONTROL PERCENT
Trt Treatment No. Name	5	6	7	8
Form Conc Type Rate Growth Stage Appl Code	2.34 SL 4 F 3.8 SC	29 oz/a 1.5 qt/a 32.0 oz/a	POSPOS A POSPOS A POSPOS A	99.0 a 78.8 abc 99.0 a 75.0 ab
LSD P=.10 Standard Deviation CV Grand Mean Bartlett's X2 P(Bartlett's X2)	. 0.00 0.0 89.10 0.0 .	11.90 9.88 14.97 66.00 14.591 0.068	. 0.00 0.0 89.10 0.0 .	10.92 9.07 16.12 56.25 13.096 0.109
Replicate F Replicate Prob(F) Treatment F Treatment Prob(F)	0.000 1.0000 0.000 1.0000	1.844 0.1630 24.347 0.0001	0.000 1.0000 0.000 1.0000	1.186 0.3337 23.074 0.0001

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Pest Type									
Pest Code									
Pest Scientific Name									
Pest Name									
Crop Code						ZEAMD	ZEAMD	ZEAMD	
BBCH Scale						BCOR	BCOR	BCOR	
Crop Scientific Name						Zea mays inden>	Zea mays inden>	Zea mays inden>	
Crop Name						Dent corn	Dent corn	Dent corn	
Rating Date						Aug-27-15	Aug-27-15	Aug-27-15	
Rating Type						YIELD	MOISTURE	YIELD	
Rating Unit						LBS/PLOT	PERCENT	BU/A	
Sample Size, Unit						1 PLOT		1 A	
Number of Subsamples						1	1	1	
SE Group No.						9	10	11	
Days After First/Last Applic.						131 131	131 131	131 131	
Trt-Eval Interval						131 DA-A	131 DA-A	131 DA-A	
Plant-Eval Interval						148 DP-1	148 DP-1	148 DP-1	
ARM Action Codes								TY1	
Number of Decimals						2	2	0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Growth Stage	Appl Code			
							9	10	
								11	
01	Untreated Check					A	28.84 e	13.86 a	153 e
02	IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A		39.43 bcd	12.31 a	212 bcd
	SEQUENCE	5.25	EW	2.5 pt/a	POSPOS A				
	ATRAZINE	4	F	1.5 qt/a	POSPOS A				
	NIS	100	SL	0.25 % v/v	POSPOS A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A				
03	HALEX GT	4.389	SC	3.6 pt/a	POSPOS A		46.32 a	13.24 a	247 a
	ATRAZINE	4	F	1.5 qt/a	POSPOS A				
	NIS	100	SL	0.25 % v/v	POSPOS A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A				
04	IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A		42.11 abc	12.14 a	227 abc
	ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A				
	ATRAZINE	4	F	1.5 qt/a	POSPOS A				
	ZIDUA	85	WG	2 oz/a	POSPOS A				
	MSO	100	L	0.5 % v/v	POSPOS A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A				
05	IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A		40.92 a-d	11.50 a	222 abc
	ATRAZINE	4	F	1.5 qt/a	POSPOS A				
	COC			1.0 % v/v	POSPOS A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A				
06	SEQUENCE	5.25	EW	2.5 pt/a	POSPOS A		42.63 abc	12.27 a	229 abc
	ATRAZINE	4	F	1.5 qt/a	POSPOS A				
	NIS	100	SL	0.25 % v/v	POSPOS A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A				
07	STEADFAST Q	37.7	WG	1.5 oz/a	POSPOS A		43.86 ab	13.19 a	234 ab
	ATRAZINE	4	F	1.5 qt/a	POSPOS A				
	NIS	100	SL	0.25 % v/v	POSPOS A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A				
08	ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A		37.36 cd	12.45 a	200 cd
	ATRAZINE	4	F	1.5 qt/a	POSPOS A				
	ZIDUA	85	WG	2 oz/a	POSPOS A				
	MSO	100	L	0.5 % v/v	POSPOS A				
	AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A				
09	ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A		39.88 bcd	11.95 a	215 bcd
	ATRAZINE	4	F	1.5 qt/a	POSPOS A				
	PROWL H20	3.8	SC	32.0 oz/a	POSPOS A				

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Pest Type Pest Code Pest Scientific Name Pest Name Crop Code BBCH Scale Crop Scientific Name Crop Name Rating Date Rating Type Rating Unit Sample Size, Unit Number of Subsamples SE Group No. Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval ARM Action Codes Number of Decimals	ZEAMD BCOR Zea mays inden> Dent corn Aug-27-15 YIELD LBS/PLOT 1 PLOT 1 9 131 131 131 DA-A 148 DP-1 2	ZEAMD BCOR Zea mays inden> Dent corn Aug-27-15 MOISTURE PERCENT 1 10 131 131 131 DA-A 148 DP-1 2	ZEAMD BCOR Zea mays inden> Dent corn Aug-27-15 YIELD BU/A 1 A 1 11 131 131 131 DA-A 148 DP-1 TY1 0																																
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Trt No.</th> <th style="text-align: left;">Treatment Name</th> <th style="text-align: left;">Form Conc</th> <th style="text-align: left;">Form Type</th> <th style="text-align: left;">Rate Rate</th> <th style="text-align: left;">Rate Unit</th> <th style="text-align: left;">Growth Stage</th> <th style="text-align: left;">Appl Code</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>LIBERTY</td> <td>2.34</td> <td>SL</td> <td>29</td> <td>oz/a</td> <td>POSPOS</td> <td>A</td> </tr> <tr> <td></td> <td>ATRAZINE</td> <td>4</td> <td>F</td> <td>1.5</td> <td>qt/a</td> <td>POSPOS</td> <td>A</td> </tr> <tr> <td></td> <td>PROWL H20</td> <td>3.8</td> <td>SC</td> <td>32.0</td> <td>oz/a</td> <td>POSPOS</td> <td>A</td> </tr> </tbody> </table>	Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Growth Stage	Appl Code	10	LIBERTY	2.34	SL	29	oz/a	POSPOS	A		ATRAZINE	4	F	1.5	qt/a	POSPOS	A		PROWL H20	3.8	SC	32.0	oz/a	POSPOS	A	9 35.83 d	10 13.09 a	11 191 d
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Growth Stage	Appl Code																												
10	LIBERTY	2.34	SL	29	oz/a	POSPOS	A																												
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	PROWL H20	3.8	SC	32.0	oz/a	POSPOS	A																												
LSD P=.10 Standard Deviation CV Grand Mean Bartlett's X2 P(Bartlett's X2) Replicate F Replicate Prob(F) Treatment F Treatment Prob(F)	5.301 4.401 11.08 39.719 10.71 0.296 0.997 0.4090 4.943 0.0006	2.082 1.729 13.72 12.600 30.751 0.001* 0.528 0.6671 0.692 0.7097	26.8 22.2 10.44 213.0 9.885 0.36 0.997 0.4092 5.773 0.0002																																

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INFLUENCE OF IMPACT@ PROGRAMS ON WEED CONTROL AND YIELD OF FIELD CORN IN SOUTHERN US (15C04H028XGA6010)

Trial ID: CN-09-15 Location: ATTAPULGUS Trial Year: 2015
Protocol ID: 15C04H028 Investigator: Ned French, Ph.D.
Project ID: Study Director: ERIC P. PROSTKO
Sponsor Contact:

Pest Type

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

Pest Code

AMAPA, Amaranthus palmeri, = US

Crop Code

ZEAMD, BCOR, Zea mays indentata, = US

Rating Type

YIELD = yield

Rating Unit

PERCENT = percent

PLOT = total plot

A = acre

Plant-Eval Interval

27 DP-1 = 1 ZEAMX Apr-1-15

42 DP-1 = 1 ZEAMX Apr-1-15

69 DP-1 = 1 ZEAMX Apr-1-15

148 DP-1 = 1 ZEAMX Apr-1-15

ARM Action Codes

TY1 = $5.185714 * [9] * (100 - [10]) / 84.5$

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INFLUENCE OF IMPACT® PROGRAMS ON WEED CONTROL AND YIELD OF FIELD CORN IN SOUTHERN US (15C04H028XGA6010)

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 Sponsor Contact:

	W Weed	W Weed AMAPA Amaranthus pal> Palmer amaranth	ANNUAL GRASS
Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date			
Rating Type			
Rating Unit			
Sample Size, Unit			
Number of Subsamples	1	1	1
SE Group No.	1	2	3
Days After First/Last Applic.	10 10	10 10	10 10
Trt-Eval Interval	10 DA-A	10 DA-A	10 DA-A
Plant-Eval Interval	27 DP-1	27 DP-1	27 DP-1
ARM Action Codes			
Number of Decimals			
Trt Treatment			
Form Form			
Rate Rate			
Growth Growth			
Appl Appl			
No. Name	1	2	3
01 Untreated Check	0.0	0.0	0.0
	0.0	0.0	0.0
	0.0	0.0	0.0
	0.0	0.0	0.0
Mean =	0.0	0.0	0.0
02 IMPACT	15.0	99.0	99.0
SEQUENCE	15.0	99.0	99.0
ATRAZINE	10.0	99.0	99.0
NIS	10.0	99.0	99.0
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A
Mean =	12.5	99.0	99.0
03 HALEX GT	10.0	99.0	99.0
ATRAZINE	10.0	99.0	99.0
NIS	15.0	99.0	99.0
AMS XTRA	10.0	99.0	99.0
Mean =	11.3	99.0	99.0
04 IMPACT	20.0	99.0	99.0
ROUNDUP WEATHERMAX	20.0	99.0	99.0
ATRAZINE	15.0	99.0	99.0
ZIDUA	15.0	99.0	99.0
MSO	100 L	0.5 % v/v	POSPOS A
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A
Mean =	17.5	99.0	99.0
05 IMPACT	0.0	99.0	99.0
ATRAZINE	10.0	99.0	99.0
COC	0.0	99.0	99.0
AMS XTRA	10.0	99.0	99.0
Mean =	5.0	99.0	99.0
06 SEQUENCE	10.0	99.0	99.0
ATRAZINE	15.0	99.0	99.0
NIS	10.0	99.0	99.0
AMS XTRA	10.0	99.0	99.0
Mean =	11.3	99.0	99.0
07 STEADFAST Q	0.0	99.0	65.0
ATRAZINE	0.0	99.0	65.0
NIS	0.0	99.0	65.0
AMS XTRA	0.0	99.0	65.0
Mean =	0.0	99.0	65.0
08 ROUNDUP WEATHERMAX	15.0	99.0	99.0
ATRAZINE	15.0	99.0	99.0
ZIDUA	20.0	99.0	99.0
MSO	15.0	99.0	99.0
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A
Mean =	16.3	99.0	99.0

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Pest Type Pest Code Pest Scientific Name Pest Name Crop Code BBCH Scale Crop Scientific Name Crop Name Rating Date Rating Type Rating Unit Sample Size, Unit Number of Subsamples SE Group No. Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval ARM Action Codes Number of Decimals	W Weed ZEAMD BCOR Zea mays inden> Dent corn Apr-28-15 STUNTING PERCENT 1 1 10 10 10 DA-A 27 DP-1	W Weed AMAPA Amaranthus pal> Palmer amaranth Apr-28-15 CONTROL PERCENT 1 2 10 10 10 DA-A 27 DP-1	ANNUAL GRASS Apr-28-15 CONTROL PERCENT 1 3 10 10 10 DA-A 27 DP-1																																																																																																																																		
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code	Plot																																																																																																																													
09	ROUNDUP WEATHERMAX	4.5	SL	22	oz/a	POSPOS A	109																																																																																																																														
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						W Weed	W Weed AMAPA Amaranthus pal> Palmer amaranth	ANNUAL GRASS CONTROL
						ZEAMD BCOR Zea mays inden> Dent corn	May-13-15 CONTROL PERCENT	May-13-15 CONTROL PERCENT
						1 4 25 25 25 DA-A 42 DP-1	1 5 25 25 25 DA-A 42 DP-1	1 6 25 25 25 DA-A 42 DP-1
Trt Treatment	Form Form	Rate	Growth	Appl				
No. Name	Conc Type	Rate Unit	Stage	Code Plot		4	5	6
01 Untreated Check				A 107		0.0	0.0	0.0
				201		0.0	0.0	0.0
				305		0.0	0.0	0.0
				408		0.0	0.0	0.0
				Mean =		0.0	0.0	0.0
02 IMPACT	2.8 SC	0.75 fl oz/a	POSPOS A	102		5.0	99.0	95.0
SEQUENCE	5.25 EW	2.5 pt/a	POSPOS A	203		10.0	99.0	85.0
ATRAZINE	4 F	1.5 qt/a	POSPOS A	307		0.0	99.0	60.0
NIS	100 SL	0.25 % v/v	POSPOS A	403		10.0	99.0	85.0
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A					
				Mean =		6.3	99.0	81.3
03 HALEX GT	4.389 SC	3.6 pt/a	POSPOS A	108		0.0	99.0	65.0
ATRAZINE	4 F	1.5 qt/a	POSPOS A	209		10.0	99.0	65.0
NIS	100 SL	0.25 % v/v	POSPOS A	306		0.0	99.0	60.0
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A	410		5.0	99.0	75.0
				Mean =		3.8	99.0	66.3
04 IMPACT	2.8 SC	0.75 fl oz/a	POSPOS A	110		0.0	99.0	85.0
ROUNDUP WEATHERMAX	4.5 SL	22 oz/a	POSPOS A	202		10.0	99.0	95.0
ATRAZINE	4 F	1.5 qt/a	POSPOS A	308		10.0	99.0	60.0
ZIDUA	85 WG	2 oz/a	POSPOS A	406		10.0	99.0	65.0
MSO	100 L	0.5 % v/v	POSPOS A					
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A					
				Mean =		7.5	99.0	76.3
05 IMPACT	2.8 SC	0.75 fl oz/a	POSPOS A	104		5.0	99.0	65.0
ATRAZINE	4 F	1.5 qt/a	POSPOS A	206		0.0	99.0	50.0
COC		1.0 % v/v	POSPOS A	304		0.0	99.0	75.0
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A	402		0.0	99.0	85.0
				Mean =		1.3	99.0	68.8
06 SEQUENCE	5.25 EW	2.5 pt/a	POSPOS A	105		0.0	99.0	75.0
ATRAZINE	4 F	1.5 qt/a	POSPOS A	208		10.0	99.0	60.0
NIS	100 SL	0.25 % v/v	POSPOS A	310		15.0	99.0	60.0
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A	404		10.0	99.0	70.0
				Mean =		8.8	99.0	66.3
07 STEADFAST Q	37.7 WG	1.5 oz/a	POSPOS A	106		0.0	99.0	65.0
ATRAZINE	4 F	1.5 qt/a	POSPOS A	204		0.0	99.0	65.0
NIS	100 SL	0.25 % v/v	POSPOS A	309		10.0	99.0	60.0
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A	407		0.0	99.0	60.0
				Mean =		2.5	99.0	62.5
08 ROUNDUP WEATHERMAX	4.5 SL	22 oz/a	POSPOS A	101		5.0	99.0	85.0
ATRAZINE	4 F	1.5 qt/a	POSPOS A	207		0.0	99.0	60.0
ZIDUA	85 WG	2 oz/a	POSPOS A	303		15.0	99.0	75.0
MSO	100 L	0.5 % v/v	POSPOS A	409		5.0	99.0	75.0
AMS XTRA	3.4 SL	2.5 % v/v	POSPOS A					
				Mean =		6.3	99.0	73.8

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Pest Type Pest Code Pest Scientific Name Pest Name Crop Code BBCH Scale Crop Scientific Name Crop Name Rating Date Rating Type Rating Unit Sample Size, Unit Number of Subsamples SE Group No. Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval ARM Action Codes Number of Decimals	W Weed ZEAMD BCOR Zea mays inden> Dent corn May-13-15 STUNTING PERCENT 1 4 25 25 25 DA-A 42 DP-1	W Weed AMAPA Amaranthus pal> Palmer amaranth May-13-15 CONTROL PERCENT 1 5 25 25 25 DA-A 42 DP-1	ANNUAL GRASS CONTROL May-13-15 CONTROL PERCENT 1 6 25 25 25 DA-A 42 DP-1																																																																																																												
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Trt Treatment</th> <th style="text-align: left;">Form</th> <th style="text-align: left;">Form</th> <th style="text-align: left;">Rate</th> <th style="text-align: left;">Growth</th> <th style="text-align: left;">Appl</th> <th></th> <th></th> <th></th> </tr> <tr> <th style="text-align: left;">No. Name</th> <th style="text-align: left;">Conc</th> <th style="text-align: left;">Type</th> <th style="text-align: left;">Rate Unit</th> <th style="text-align: left;">Stage</th> <th style="text-align: left;">Code Plot</th> <th style="text-align: center;">4</th> <th style="text-align: center;">5</th> <th style="text-align: center;">6</th> </tr> </thead> <tbody> <tr> <td>09 ROUNDUP WEATHERMAX</td> <td>4.5</td> <td>SL</td> <td>22 oz/a</td> <td>POSPOS A</td> <td>109</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">85.0</td> </tr> <tr> <td> ATRAZINE</td> <td>4</td> <td>F</td> <td>1.5 qt/a</td> <td>POSPOS A</td> <td>210</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">85.0</td> </tr> <tr> <td> PROWL H20</td> <td>3.8</td> <td>SC</td> <td>32.0 oz/a</td> <td>POSPOS A</td> <td>302</td> <td style="text-align: center;">10.0</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">85.0</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>401</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">90.0</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Mean =</td> <td style="text-align: center;">2.5</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">86.3</td> </tr> <tr> <td>10 LIBERTY</td> <td>2.34</td> <td>SL</td> <td>29 oz/a</td> <td>POSPOS A</td> <td>103</td> <td style="text-align: center;">5.0</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">90.0</td> </tr> <tr> <td> ATRAZINE</td> <td>4</td> <td>F</td> <td>1.5 qt/a</td> <td>POSPOS A</td> <td>205</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">65.0</td> </tr> <tr> <td> PROWL H20</td> <td>3.8</td> <td>SC</td> <td>32.0 oz/a</td> <td>POSPOS A</td> <td>301</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">85.0</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>405</td> <td style="text-align: center;">10.0</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">75.0</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Mean =</td> <td style="text-align: center;">3.8</td> <td style="text-align: center;">99.0</td> <td style="text-align: center;">78.8</td> </tr> </tbody> </table>	Trt Treatment	Form	Form	Rate	Growth	Appl				No. Name	Conc	Type	Rate Unit	Stage	Code Plot	4	5	6	09 ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A	109	0.0	99.0	85.0	ATRAZINE	4	F	1.5 qt/a	POSPOS A	210	0.0	99.0	85.0	PROWL H20	3.8	SC	32.0 oz/a	POSPOS A	302	10.0	99.0	85.0						401	0.0	99.0	90.0						Mean =	2.5	99.0	86.3	10 LIBERTY	2.34	SL	29 oz/a	POSPOS A	103	5.0	99.0	90.0	ATRAZINE	4	F	1.5 qt/a	POSPOS A	205	0.0	99.0	65.0	PROWL H20	3.8	SC	32.0 oz/a	POSPOS A	301	0.0	99.0	85.0						405	10.0	99.0	75.0						Mean =	3.8	99.0	78.8			
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						W Weed AMAPA Amaranthus pal> Palmer amaranth	ANNUAL GRASS		
						Jun-9-15 CONTROL PERCENT	Jun-9-15 CONTROL PERCENT	ZEAMD BCOR Zea mays inden> Dent corn Aug-27-15 YIELD LBS/PLOT 1 PLOT	
						1 7 52 52 52 DA-A 69 DP-1	1 8 52 52 52 DA-A 69 DP-1	1 9 131 131 131 DA-A 148 DP-1	
								2	
Trt Treatment No. Name	Form Conc	Form Type	Rate Rate Unit	Growth Stage	Appl Code Plot	7	8	9	
01 Untreated Check					A 107	0.0	0.0	28.25	
					201	0.0	0.0	24.20	
					305	0.0	0.0	26.06	
					408	0.0	0.0	36.86	
					Mean =	0.0	0.0	28.84	
02 IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A	102	99.0	85.0	36.02	
SEQUENCE	5.25	EW	2.5 pt/a	POSPOS A	203	99.0	65.0	37.59	
ATRAZINE	4	F	1.5 qt/a	POSPOS A	307	99.0	50.0	46.72	
NIS	100	SL	0.25 % v/v	POSPOS A	403	99.0	65.0	37.38	
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
					Mean =	99.0	66.3	39.43	
03 HALEX GT	4.389	SC	3.6 pt/a	POSPOS A	108	99.0	50.0	46.78	
ATRAZINE	4	F	1.5 qt/a	POSPOS A	209	99.0	50.0	46.03	
NIS	100	SL	0.25 % v/v	POSPOS A	306	99.0	50.0	45.65	
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A	410	99.0	60.0	46.82	
					Mean =	99.0	52.5	46.32	
04 IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A	110	99.0	50.0	46.27	
ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A	202	99.0	80.0	42.13	
ATRAZINE	4	F	1.5 qt/a	POSPOS A	308	99.0	50.0	41.70	
ZIDUA	85	WG	2 oz/a	POSPOS A	406	99.0	55.0	38.35	
MSO	100	L	0.5 % v/v	POSPOS A					
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
					Mean =	99.0	58.8	42.11	
05 IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A	104	99.0	65.0	34.22	
ATRAZINE	4	F	1.5 qt/a	POSPOS A	206	99.0	50.0	45.21	
COC			1.0 % v/v	POSPOS A	304	99.0	55.0	43.73	
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A	402	99.0	65.0	40.53	
					Mean =	99.0	58.8	40.92	
06 SEQUENCE	5.25	EW	2.5 pt/a	POSPOS A	105	99.0	55.0	40.32	
ATRAZINE	4	F	1.5 qt/a	POSPOS A	208	99.0	50.0	45.95	
NIS	100	SL	0.25 % v/v	POSPOS A	310	99.0	50.0	44.89	
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A	404	99.0	60.0	39.34	
					Mean =	99.0	53.8	42.63	
07 STEADFAST Q	37.7	WG	1.5 oz/a	POSPOS A	106	99.0	50.0	43.92	
ATRAZINE	4	F	1.5 qt/a	POSPOS A	204	99.0	60.0	39.06	
NIS	100	SL	0.25 % v/v	POSPOS A	309	99.0	50.0	46.85	
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A	407	99.0	50.0	45.62	
					Mean =	99.0	52.5	43.86	
08 ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A	101	99.0	85.0	32.11	
ATRAZINE	4	F	1.5 qt/a	POSPOS A	207	99.0	55.0	43.61	
ZIDUA	85	WG	2 oz/a	POSPOS A	303	99.0	65.0	32.44	
MSO	100	L	0.5 % v/v	POSPOS A	409	99.0	60.0	41.29	
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A					
					Mean =	99.0	66.3	37.36	

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Pest Type Pest Code Pest Scientific Name Pest Name Crop Code BBCH Scale Crop Scientific Name Crop Name Rating Date Rating Type Rating Unit Sample Size, Unit Number of Subsamples SE Group No. Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval ARM Action Codes Number of Decimals	W Weed AMAPA Amaranthus pal-> Palmer amaranth	ANNUAL GRASS	ZEAMD BCOR Zea mays inden-> Dent corn Aug-27-15 YIELD LBS/PLOT 1 PLOT 1 9 131 131 131 DA-A 148 DP-1 2				
	Jun-9-15 CONTROL PERCENT	Jun-9-15 CONTROL PERCENT					
	1 7 52 52 52 DA-A 69 DP-1	1 8 52 52 52 DA-A 69 DP-1	1 9 131 131 131 DA-A 148 DP-1 2				
Trt Treatment No. Name	Form Form Conc Type	Rate Rate Unit	Growth Stage	Appl Code Plot	7	8	9
09 ROUNDUP WEATHERMAX ATRAZINE PROWL H20	4.5 SL 4 F 3.8 SC	22 oz/a 1.5 qt/a 32.0 oz/a	POSPOS A POSPOS A POSPOS A	109 210 302 401 Mean =	99.0 99.0 99.0 99.0 99.0	80.0 75.0 80.0 80.0 78.8	40.32 45.40 38.83 34.97 39.88
10 LIBERTY ATRAZINE PROWL H20	2.34 SL 4 F 3.8 SC	29 oz/a 1.5 qt/a 32.0 oz/a	POSPOS A POSPOS A POSPOS A	103 205 301 405 Mean =	99.0 99.0 99.0 99.0 99.0	85.0 75.0 80.0 60.0 75.0	29.74 41.92 33.95 37.71 35.83

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						ZEAMD	ZEAMD
						BCOR	BCOR
						Zea mays inden>	Zea mays inden>
						Dent corn	Dent corn
						Aug-27-15	Aug-27-15
						MOISTURE	YIELD
						PERCENT	BU/A
						1	1
						10	11
						131 131	131 131
						131 DA-A	131 DA-A
						148 DP-1	148 DP-1
							TY1
						2	0
Trt Treatment	Form	Form	Rate	Growth	Appl		
No. Name	Conc	Type	Rate Unit	Stage	Code Plot	10	11
01 Untreated Check					A 107	12.56	152
					201	10.35	133
					305	19.30	129
					408	13.24	196
					Mean =	13.86	153
02 IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A	102	11.40	196
SEQUENCE	5.25	EW	2.5 pt/a	POSPOS A	203	10.69	206
ATRAZINE	4	F	1.5 qt/a	POSPOS A	307	15.20	243
NIS	100	SL	0.25 % v/v	POSPOS A	403	11.95	202
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A			
					Mean =	12.31	212
03 HALEX GT	4.389	SC	3.6 pt/a	POSPOS A	108	13.14	249
ATRAZINE	4	F	1.5 qt/a	POSPOS A	209	13.21	245
NIS	100	SL	0.25 % v/v	POSPOS A	306	13.47	242
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A	410	13.15	250
					Mean =	13.24	247
04 IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A	110	12.57	248
ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A	202	11.45	229
ATRAZINE	4	F	1.5 qt/a	POSPOS A	308	12.15	225
ZIDUA	85	WG	2 oz/a	POSPOS A	406	12.38	206
MSO	100	L	0.5 % v/v	POSPOS A			
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A			
					Mean =	12.14	227
05 IMPACT	2.8	SC	0.75 fl oz/a	POSPOS A	104	11.08	187
ATRAZINE	4	F	1.5 qt/a	POSPOS A	206	12.37	243
COC			1.0 % v/v	POSPOS A	304	11.58	237
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A	402	10.98	221
					Mean =	11.50	222
06 SEQUENCE	5.25	EW	2.5 pt/a	POSPOS A	105	11.84	218
ATRAZINE	4	F	1.5 qt/a	POSPOS A	208	13.30	244
NIS	100	SL	0.25 % v/v	POSPOS A	310	12.62	241
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A	404	11.32	214
					Mean =	12.27	229
07 STEADFAST Q	37.7	WG	1.5 oz/a	POSPOS A	106	12.72	235
ATRAZINE	4	F	1.5 qt/a	POSPOS A	204	13.86	206
NIS	100	SL	0.25 % v/v	POSPOS A	309	13.27	249
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A	407	12.91	244
					Mean =	13.19	234
08 ROUNDUP WEATHERMAX	4.5	SL	22 oz/a	POSPOS A	101	11.09	175
ATRAZINE	4	F	1.5 qt/a	POSPOS A	207	14.26	229
ZIDUA	85	WG	2 oz/a	POSPOS A	303	11.94	175
MSO	100	L	0.5 % v/v	POSPOS A	409	12.52	222
AMS XTRA	3.4	SL	2.5 % v/v	POSPOS A			
					Mean =	12.45	200

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INFLUENCE OF IMPACT@ PROGRAMS ON WEED CONTROL AND YIELD OF FIELD CORN IN SOUTHERN US (15C04H028XGA6010)

Trial ID: CN-09-15 Location: ATTAPULGUS Trial Year: 2015
Protocol ID: 15C04H028 Investigator: Ned French, Ph.D.
Project ID: Study Director: ERIC P. PROSTKO
Sponsor Contact:

Pest Type

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

Pest Code

AMAPA, Amaranthus palmeri, = US

Crop Code

ZEAMD, BCOR, Zea mays indentata, = US

Rating Type

YIELD = yield

Rating Unit

PERCENT = percent

PLOT = total plot

A = acre

Plant-Eval Interval

27 DP-1 = 1 ZEAMX Apr-1-15

42 DP-1 = 1 ZEAMX Apr-1-15

69 DP-1 = 1 ZEAMX Apr-1-15

148 DP-1 = 1 ZEAMX Apr-1-15

ARM Action Codes

TY1 = $5.185714 \cdot [9] \cdot (100 - [10]) / 84.5$