

University of Tennessee

CROP TOLERANCE, EFFICACY AND YIELD OF DAS HERBICIDE PRODUCT WEED CONTROL PROGRAMS IN RR FIELD CORN

Trial ID: NA16R3K999 Location: Jackson, TN Trial Year: 2016
 Protocol ID: NA16R3K999 Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Haygood/ DOW

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Growth Unit	Stage	Appl Code	Rep 1	2	3	4	Notes
1	HERB FULTIME NXT	4.04	ZC	2.9	qt/a	PRE	A	101	203	301	406	
	HERB DURANGO DMA	4	SL	1	qt/a	2-4 IN WEEDS	C					
	HERB AATREX	4	SC	1	qt/a	2-4 IN WEEDS	C					
2	HERB DURANGO DMA	4	SL	1	qt/a	PRE	A	102	202	306	401	
	HERB AATREX	4	SC	1	qt/a	PRE	A					
	HERB RESICORE	3.298	SE	1.25	qt/a	2-4 IN WEEDS	C					
	-ACETOCHLOR	2.726048		1.03								
	-CLOYPRALID	0.2355098		0.089								
	-MESOTRIONE	0.2501752		0.095								
	-FURILAZOLE	0.08626732		0.0327								
	HERB DURANGO DMA	4	SL	1.5	pt/a	2-4 IN WEEDS	C					
	HERB AATREX	4	SC	1	qt/a	2-4 IN WEEDS	C					
3	HERB RESICORE	3.298	SE	1.25	qt/a	PRE	A	103	206	304	404	
	-ACETOCHLOR	2.726048		1.03								
	-CLOYPRALID	0.2355098		0.089								
	-MESOTRIONE	0.2501752		0.095								
	-FURILAZOLE	0.08626732		0.0327								
	HERB AATREX	4	SC	1.0	qt/a	PRE	A					
	HERB RESICORE	3.298	SE	1.25	qt/a	2-4 IN WEEDS	C					
	-ACETOCHLOR	2.726048		1.03								
	-CLOYPRALID	0.2355098		0.089								
	-MESOTRIONE	0.2501752		0.095								
	-FURILAZOLE	0.08626732		0.0327								
	HERB AATREX	4	SC	1	qt/a	2-4 IN WEEDS	C					
4	HERB RESICORE	3.298	SE	2.25	qt/a	V1 - V2 STAGE B		104	205	302	403	
	-ACETOCHLOR	2.726048		1.86								
	-CLOYPRALID	0.2355098		0.16								
	-MESOTRIONE	0.2501752		0.17								
	-FURILAZOLE	0.08626732		0.059								
	HERB DURANGO DMA	4	SL	1.0	qt/a	V1 - V2 STAGE B						
	HERB AATREX	4	SC	1.0	qt/a	V1 - V2 STAGE B						
5	HERB DURANGO DMA	4	SL	1.0	qt/a	PRE	A	105	201	305	402	
	HERB AATREX	4	SC	1.0	qt/a	PRE	A					
	HERB HALEX GT	4.368	SC	3.6	qt/a	2-4 IN WEEDS	C					
	HERB DURANGO DMA	4	SL	1.0	qt/a	2-4 IN WEEDS	C					
	HERB AATREX	4	SC	1.0	qt/a	2-4 IN WEEDS	C					
6	CHK NONTREATED						ABC	106	204	303	405	

Sort Order: Replicate 1

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CROP TOLERANCE, EFFICACY AND YIELD OF DAS HERBICIDE PRODUCT WEED CONTROL PROGRAMS IN RR FIELD CORN

Trial ID: NA16R3K999 Location: Jackson, TN Trial Year: 2016
 Protocol ID: NA16R3K999 Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Haygood/ DOW

General Trial Information

Study Director: Larry Steckel
Investigator: Dr. Larry Steckel

Conducted Under GLP: No
Conducted Under GEP: No

Objectives:

DAS Corn herbicide showcase treatments

Contacts

Study Director: Larry Steckel

Investigator: Dr. Larry Steckel

Crop Description

Crop 1: ZEAMX Zea mays **Crop Description:** Corn
Variety: PIONEER 1197 HR **BBCH Scale:** BCOR
Description: Herculex/LL/RR
Planting Rate, Unit: 32000 S/A **Planting Date:** 3-28-16
Depth, Unit: 1.5 IN **Planting Method:** PLANTD planted
Row Spacing, Unit: 30 IN **Planting Equipment:** PP Plot Planter
Spacing Within Row, Unit: 7 IN
Soil Temperature, Unit: 58 F
Soil Moisture: SLIWET slightly wet, moist
Seed Bed: MEDIUM medium

Pest Description

Pest 1 Type: W **Code:** ANNGR Annual Grasses

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT² **Treatments:** 6 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)
 -1869F

Field Prep./Maintenance:

Mar 7 - Roundup 32 oz/A + Clarity 8 oz/A
 Mar 18 - Gramoxone SL 48 oz/A + NIS 0.25%
 Mar 29 - Karate 2 oz/A
 Apr 12 - Karate 2 oz/A
 May 6 - Fertilized 180 lbs N/A using UAN

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CROP TOLERANCE, EFFICACY AND YIELD OF DAS HERBICIDE PRODUCT WEED CONTROL PROGRAMS IN RR FIELD CORN

Trial ID: NA16R3K999 Location: Jackson, TN Trial Year: 2016
 Protocol ID: NA16R3K999 Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Haygood/ DOW

Application Description

	A	B	C
Application Date:	3-29-16	4-18-16	5-10-16
Appl. Start Time:	8:17 AM	10:39 AM	8:34 AM
Appl. Stop Time:	8:23 AM	10:40 AM	8:41 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	V1-V2	2-4 IN WEEDS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	GM	GM	JR
Air Temperature, Unit:	57 F	76 F	74 F
% Relative Humidity:	55	42	72
Wind Velocity, Unit:	2 MPH	1.5 MPH	2 MPH
Wind Direction:	SW	SW	WSW
Dew Presence (Y/N):	Y yes	N no	Y yes
Soil Temperature, Unit:	52 F	61 F	67 F
Soil Moisture:	SLIWET	NORMAL	SLIWET
% Cloud Cover:	10	65	0

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	--	BBCH	BBCH
Stage Majority, Percent:		12	V4
Height, Unit:		2 IN	8 IN
Height Minimum, Maximum:		1.5 2	6 9

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ANNGR W --	ANNGR W 1LF	ANNGR W --
Stage Majority, Percent:	--		
Height, Unit:		1 IN	
Height Minimum, Maximum:		1 2	
Pest 2 Code, Type, Scale:	AMAPA W --	AMAPA W --	AMAPA W 4+L
Height, Unit:			3 IN
Height Minimum, Maximum:			2 4

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CROP TOLERANCE, EFFICACY AND YIELD OF DAS HERBICIDE PRODUCT WEED CONTROL PROGRAMS IN RR FIELD CORN

Trial ID: NA16R3K999 Location: Jackson, TN Trial Year: 2016
 Protocol ID: NA16R3K999 Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Haygood/ DOW

	Application Equipment		
	A	B	C
Appl. Equipment:	BACKPACK	BACKPACK	BACKPACK
Equipment Type:	BACCAI	BACCAI	BACCAI
Operation Pressure, Unit:	36 PSI	36 PSI	36 PSI
Nozzle Type:	AIXR	AIXR	AIXR
Nozzle Size:	110025	110025	110025
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
Boom Length, Unit:	6.33 FT	6.33 FT	6.33 FT
Boom Height, Unit:	16 IN	16 IN	16 IN
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	0.528 gallons	0.528 gallons	0.528 gallons
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

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ARMEZON PRO TANK MIX PARTNERS EFFICACY

Trial ID: JCRBASFC31-16
 Protocol ID: MKD-H-2016-US-C31-A-01.0
 Project ID:

Location: Jackson, TN Trial Year: 2016
 Investigator: Dr. Larry Steckel
 Study Director: Larry Steckel
 Sponsor Contact: Daniel Waldstein/Stapleton/BASF

Trt No. Type	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code	Rep 1	2	3	4	Notes
1	CHK NONTREATED							101	208	307	408	
2	HERB ARMEZON PRO (BAS 67703H)	5.26	EC	16.0	fl oz/a	V2 CORN A		102	203	305	402	
	HERB AATREX	480.0	SC	16.0	fl oz/a	V2 CORN A						
	ADJ COC	100	SL	1.0	% v/v	V2 CORN A						
	FERT AMS		WG	8.5	lb/100 gal	V2 CORN A						
3	HERB ARMEZON PRO	5.26	EC	16.0	fl oz/a	V2 CORN A		103	205	306	404	
	-TOPRAMEZON	0.01		0.0304								
	-DIMETHENAMID	5.25		16								
	HERB AATREX	480.0	SC	16.0	fl oz/a	V2 CORN A						
	HERB ROUNDUP POWERMAX	540.0	SL	16.0	fl oz/a	V2 CORN A						
	ADJ COC	100	SL	1.0	% v/v	V2 CORN A						
	FERT AMS		WG	8.5	lb/100 gal	V2 CORN A						
4	HERB ARMEZON PRO	5.26	EC	16.0	fl oz/a	V2 CORN A		104	210	308	407	
	-TOPRAMEZON	0.01		0.0304								
	-DIMETHENAMID	5.25		16								
	HERB AATREX	480.0	SC	16.0	fl oz/a	V2 CORN A						
	HERB ROUNDUP POWERMAX	540.0	SL	32.0	fl oz/a	V2 CORN A						
	ADJ COC	100	SL	1.0	% v/v	V2 CORN A						
	FERT AMS		WG	8.5	lb/100 gal	V2 CORN A						
5	HERB ARMEZON PRO		EC	16.0	fl oz/a	V2 CORN A		105	204	303	401	
	HERB CLARITY	480	SL	6.0	fl oz/a	V2 CORN A						
	HERB ROUNDUP POWERMAX	540.0	SL	32.0	fl oz/a	V2 CORN A						
	ADJ NIS	100	SL	0.25	% v/v	V2 CORN A						
	FERT AMS		WG	8.5	lb/100 gal	V2 CORN A						
6	HERB ACURON	3.44	SC	48.0	fl oz/a	V2 CORN A		106	202	304	410	
	HERB ROUNDUP POWERMAX	540	SL	32.0	fl oz/a	V2 CORN A						
	ADJ COC	100	SL	1.0	% v/v	V2 CORN A						
	FERT AMS		WG	8.5	lb/100 gal	V2 CORN A						
7	HERB SURPASS	768	EC	17.5	oz/a	V2 CORN A		107	201	309	403	
	HERB CALLISTO	480	SC	3.0	fl oz/a	V2 CORN A						
	HERB STINGER	360	SL	2.5	fl oz/a	V2 CORN A						
	HERB ROUNDUP POWERMAX	540.0	SL	32.0	fl oz/a	V2 CORN A						
	ADJ NIS	100	SL	0.25	% v/v	V2 CORN A						
	FERT AMS		WG	8.5	lb/100 gal	V2 CORN A						
8	HERB SURESTART	499.2	SL	32.0	fl oz/a	V2 CORN A		108	206	302	405	
	HERB ROUNDUP POWERMAX	540.0	SL	32.0	fl oz/a	V2 CORN A						
	ADJ NIS	100	SL	0.25	% v/v	V2 CORN A						
	FERT AMS		WG	8.5	lb/100 gal	V2 CORN A						
9	HERB HALEX GT	526.7	SE	57.6	fl oz/a	V2 CORN A		109	207	310	409	
	HERB AATREX	480.0	SC	16.0	fl oz/a	V2 CORN A						
	HERB ROUNDUP POWERMAX	540.0	SL	5.3	fl oz/a	V2 CORN A						
	ADJ NIS	100	SL	0.25	% v/v	V2 CORN A						
	FERT AMS		WG	8.5	lb/100 gal	V2 CORN A						
10	HERB ARMEZON PRO		EC	16.0	fl oz/a	V2 CORN A		110	209	301	406	
	HERB AATREX	480.0	SC	16.0	fl oz/a	V2 CORN A						
	HERB STATUS	56	WG	2.5	oz wt/a	V2 CORN A						
	HERB ROUNDUP POWERMAX	540.0	SL	32.0	fl oz/a	V2 CORN A						
	ADJ COC	100	SL	1.0	% v/v	V2 CORN A						
	FERT AMS		WG	8.5	lb/100 gal	V2 CORN A						

Sort Order: Replicate 1

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ARMEZON PRO TANK MIX PARTNERS EFFICACY

Trial ID: JCRBASFC31-16
 Protocol ID: MKD-H-2016-US-C31-A-01.0
 Project ID:

Location: Jackson, TN
 Investigator: Dr. Larry Steckel
 Study Director: Larry Steckel
 Sponsor Contact: Daniel Waldstein/Stapleton/BASF

Trial Year: 2016

General Trial Information

Study Director: Larry Steckel
Investigator: Dr. Larry Steckel

Conducted Under GLP: No
Conducted Under GEP: No

Objectives:

OBJECTIVES: 1. How does Armezon PRO perform vs. competitors? 2. How do Clarity and Status perform as tank mix partners with Armezon PRO? 3. How does Armezon PRO perform with different rates of glyphosate?

Contacts

Study Director: Larry Steckel

Investigator: Dr. Larry Steckel

Crop Description

Crop 1: ZEAMX Zea mays
Variety: PIONEER 1197 HR
Description: Herculex/LL/RR

BBCH Scale: BCOR

Planting Date: 3-28-16
Planting Method: PLANTD planted
Planting Equipment: PP Plot Planter

Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Spacing Within Row, Unit: 7 IN
Soil Temperature, Unit: 58 F
Soil Moisture: SLIWET slightly wet, moist
Seed Bed: MEDIUM medium

Pest Description

Pest 1 Type: W **Code:** SIDSP *Sida spinosa*
Common Name: Teaweed

Pest 2 Type: W **Code:** ERICA *Conyza canadensis*
Common Name: Horseweed

Site and Design

Treated Plot Width: 7.5 FT
Treated Plot Length: 10 FT

Site Type: FIELD field

Treated Plot Area: 75 FT² **Treatments:** 10 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Field Prep./Maintenance:

Mar 7 - Roundup 32 oz/A + Clarity 8 oz/A
 Mar 18 - Gramoxone SL 48 oz/A + NIS 0.25%
 Mar 29 - Karate 2 oz/A
 Apr 12 - Karate 2 oz/A
 May 6 - Fertilized 180 lbs N/A using UAN

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ARMEZON PRO TANK MIX PARTNERS EFFICACY

Trial ID: JCRBASFC31-16
 Protocol ID: MKD-H-2016-US-C31-A-01.0
 Project ID:

Location: Jackson, TN Trial Year: 2016
 Investigator: Dr. Larry Steckel
 Study Director: Larry Steckel
 Sponsor Contact: Daniel Waldstein/Stapleton/BASF

Application Description

	A
Application Date:	4-18-16
Appl. Start Time:	10:42 AM
Appl. Stop Time:	10:48 AM
Application Method:	SPRAY
Application Timing:	V2 CORN
Application Placement:	BROFOL
Applied By:	GM
Air Temperature, Unit:	76 F
% Relative Humidity:	42
Wind Velocity, Unit:	1.5 MPH
Wind Direction:	SW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	61 F
Soil Moisture:	NORMAL
% Cloud Cover:	65

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	ZEAMX BCOR
Stage Scale Used:	V2
Height, Unit:	2 IN
Height Minimum, Maximum:	2 3

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	SIDSP W COT-
Height, Unit:	0.25 IN
Pest 2 Code, Type, Scale:	ERICA W 1-2L
Height, Unit:	0.25 IN

Application Equipment

	A
Appl. Equipment:	BACKPACK
Equipment Type:	BACCAI
Operation Pressure, Unit:	27 PSI
Nozzle Type:	AIXR
Nozzle Size:	11003
Nozzle Spacing, Unit:	20 IN
Boom ID:	5 FT @ 15GPA
Boom Length, Unit:	5 FT
Boom Height, Unit:	16 IN
Ground Speed, Unit:	4 MPH
Spray Volume, Unit:	15 GAL/AC
Mix Size, Unit:	0.528 gallons
Spray pH:	0.528
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

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ACURON FLEXI VS COMPETITORS FOR WEED CONTROL AND CORN TOLERANCE (SOILS <3% OM)

Trial ID: JCRSYN4A-16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: HBI004A4-2016US Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Scott Cully/Vail/Syngenta

Trt No.	Treatment Type	Form Conc	Form Type	Rate Unit	Growth Stage	Appl Code	Rep 1	2	3	4	Notes
1	CHK	NONTREATED									
2	HERB ACURON	3.43274999	ZC	2.5 qt/a	PREPRE A		101	209	304	408	
3	HERB ACURON	3.43274999	ZC	2 qt/a	PREPRE A		102	203	306	401	
4	HERB ACURON FLEXI	3.24674988	ZC	2 qt/a	PREPRE A		103	212	308	406	
5	HERB ACURON FLEXI	3.24674988	ZC	1.51 qt/a	PREPRE A		104	204	313	414	
6	HERB ACURON FLEXI HERB PRINCEP	3.24674988	ZC 4 SC	2 qt/a 1 qt/a	PREPRE A PREPRE A		105	215	311	411	
7	HERB LUMAX EZ	3.66499996	ZC	2.7 qt/a	PREPRE A		106	214	310	415	
8	HERB LEXAR EX	3.69833326	ZC	3 qt/a	PREPRE A		107	211	301	403	
9	HERB CALLISTO HERB HARNESS HERB STINGER	6.99166679	4 SC EC 3 SL	4.7 oz/a 1.47 pt/a 3.2 oz/a	PREPRE A PREPRE A PREPRE A		108	202	307	410	
10	HERB CALLISTO HERB HARNESS HERB STINGER	6.99166679	4 SC EC 3 SL	5.9 oz/a 1.84 pt/a 4 oz/a	PREPRE A PREPRE A PREPRE A		109	210	303	413	
11	HERB CORVUS	2.625	SC	5.6 oz/a	PREPRE A		110	208	315	402	
12	HERB CORVUS HERB AATREX	2.625	SC 4 SC	5.6 oz/a 1 qt/a	PREPRE A PREPRE A		111	201	309	405	
13	HERB VERDICT	5.5583334	EC	0.5 qt/a	PREPRE A		112	207	302	412	
14	HERB SURESTART II	4.24383354	SC	3.02 pt/a	PREPRE A		113	206	305	404	
15	HERB INSTIGATE HERB CINCH ATZ LITE	45.84	WG 6 SC	5.5 oz wt/a 1.5 qt/a	PREPRE A PREPRE A		114	213	312	409	
							115	205	314	407	

Sort Order: Replicate 1

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ACURON FLEXI VS COMPETITORS FOR WEED CONTROL AND CORN TOLERANCE (SOILS <3% OM)

Trial ID: JCRSYN4A-16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: HBI004A4-2016US Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Scott Cully/Vail/Syngenta

General Trial Information

Study Director: Larry Steckel
Investigator: Dr. Larry Steckel

Conducted Under GLP: No
Conducted Under GEP: No

Objectives:

TX_RTF32 17.0.540.501; Do Acuron and Acuron Flexi provide better preemergence control of difficult broadleaf weeds compared to current and new competitive products?

Does the tank mix of Acuron Flexi plus Princep provide the same level of preemergence control of difficult weeds as Acuron?

Contacts

Study Director: Larry Steckel

Investigator: Dr. Larry Steckel

Crop Description

Crop 1: ZEAMX Zea mays
Variety: PIONEER 1319 HR
Description: Herculex/LL/RR

BBCH Scale: BCOR

Corn

Planting Date: 3-28-16

Planting Method: PLANTD planted

Planting Equipment: PP Plot Planter

Planting Rate, Unit: 32000 S/A

Depth, Unit: 1.5 IN

Row Spacing, Unit: 30 IN

Spacing Within Row, Unit: 7 IN

Soil Temperature, Unit: 58 F

Soil Moisture: SLIWET slightly wet, moist

Seed Bed: MEDIUM medium

Site and Design

Treated Plot Width: 10 FT

Treated Plot Length: 30 FT

Treated Plot Area: 300 FT² **Treatments:** 15

Replications: 4

Site Type: FIELD field

Tillage Type: NOTILL no-till

Study Design: RACOB� Randomized Complete Block (RCB)

Comment:

NW corner
 N35.63238
 W088.85604

SW corner
 N35.63197
 W088.85638

SE corner
 N35.63172
 W088.85596

NE corner
 N35.63219
 W088.85560

Field Prep./Maintenance:

Mar 18 - Gramoxone SL 48 oz/A + NIS 0.25%

Mar 29 - Karate 2 oz/A

Apr 12 - Karate 2 oz/A

May 6 - Fertilized 180 lbs N/A using UAN

University of Tennessee

ACURON FLEXI VS COMPETITORS FOR WEED CONTROL AND CORN TOLERANCE (SOILS <3% OM)

Trial ID: JCRSYN4A-16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: HBI004A4-2016US Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Scott Cully/Vail/Syngenta

Application Description

	A
Application Date:	3-29-16
Appl. Start Time:	7:55 AM
Appl. Stop Time:	8:15 AM
Application Method:	SPRAY
Application Timing:	PRE
Application Placement:	BROSOL
Applied By:	GM
Air Temperature, Unit:	50 F
% Relative Humidity:	80
Wind Velocity, Unit:	0
Dew Presence (Y/N):	Y yes
Soil Temperature, Unit:	51 F
Soil Moisture:	SLIWET
% Cloud Cover:	10

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	ZEAMX BCOR

Application Equipment

	A
Appl. Equipment:	BACKPACK
Equipment Type:	BACCAI
Operation Pressure, Unit:	30 PSI
Nozzle Type:	TTI
Nozzle Size:	003
Nozzle Spacing, Unit:	19 IN
Boom Length, Unit:	6.33 FT
Boom Height, Unit:	16 IN
Ground Speed, Unit:	4 MPH
Incorporation Equip.:	4
Hours to Incorp.:	0
Carrier:	WATER
Spray Volume, Unit:	15 gal/ac
Mix Size, Unit:	0.528 gallons
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Tennessee

CROP PROTECTION MARKET DEVELOPMENT CORN TRIAL

Trial ID: 2016-01-2415 Location: Jackson, TN Trial Year: 2016
 Protocol ID: 2016-01-24-15 Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Paul G Ratliff/Monsanto/Bob

Trt No. Type	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code	Rep 1	2	3	4	Notes
1	HERB HARNESS XTRA HERB ROUNDUP POWERMAX ADJ CLASS ACT NEXT GENERATION	6 4.5 100	SE SL AD	2.6 32 2.5	qt/a oz/a % v/v	PRE 4IN WEEDS 4IN WEEDS	A C C	101	210	305	412	
2	HERB DEGREE XTRA HERB ROUNDUP POWERMAX ADJ CLASS ACT NEXT GENERATION	4.04 4.5 100	CS SL AD	3 32 2.5	qt/a oz/a % v/v	PRE 4IN WEEDS 4IN WEEDS	A C C	102	205	309	401	
3	HERB TRIPLEFLEX HERB AATREX HERB ROUNDUP POWERMAX ADJ CLASS ACT NEXT GENERATION	4.25 4 4.5 100	EC SC SL AD	1.5 1 32 2.5	qt/a qt/a oz/a % v/v	PRE PRE 4IN WEEDS 4IN WEEDS	A A C C	103	211	313	410	
4	HERB HARNESS XTRA HERB BALANCE FLEXX HERB ROUNDUP POWERMAX ADJ CLASS ACT NEXT GENERATION	6 2 4.5 100	SE SC SL AD	2 3 32 2.5	qt/a oz/a oz/a % v/v	PRE PRE 4IN WEEDS 4IN WEEDS	A A C C	104	201	310	408	
5	HERB DEGREE XTRA HERB BALANCE FLEXX HERB ROUNDUP POWERMAX ADJ CLASS ACT NEXT GENERATION	4.04 2 4.5 100	CS SC SL AD	2.3 3 32 2.5	qt/a oz/a oz/a % v/v	PRE PRE 4IN WEEDS 4IN WEEDS	A A C C	105	203	311	413	
6	HERB CORVUS HERB AATREX	2.63 4	SC SC	4 1	oz/a qt/a	PRE PRE	A A	106	214	307	406	
7	HERB LUMAX EZ	3.674	EC	3	qt/a	PRE	A	107	204	301	409	
8	HERB HALEX GT ADJ NIS	4.389 100	SL AD	2 0.25	qt/a % v/v	4IN WEEDS 4IN WEEDS	B B	108	212	308	411	
9	HERB AATREX HERB HALEX GT ADJ CLASS ACT NEXT GENERATION	4 4.389 100	SC SL AD	1 5.5 2.5	qt/a % v/v % v/v	PRE 4IN WEEDS 4IN WEEDS	A C C	109	206	312	402	
10	HERB REALM Q HERBICIDE HERB CINCH ATZ HERB ABUNDIT EXTRA ADJ CLASS ACT NEXT GENERATION	38.75 5.5 3 100	DF SC SL AD	4 2.6 1.1 2.5	oz/a qt/a lb ae/a % v/v	PRE PRE 4IN WEEDS 4IN WEEDS	A A C C	110	209	304	414	
11	HERB DEGREE XTRA HERB ROUNDUP POWERMAX HERB IMPACT HERB WARRANT ADJ CLASS ACT NEXT GENERATION	4.04 4.5 2.8 3 100	CS SL EC CS AD	2.5 32 0.75 48 2.5	qt/a oz/a oz/a oz/a % v/v	PRE 4IN WEEDS 4IN WEEDS 4IN WEEDS 4IN WEEDS	A C C C C	111	202	314	405	
12	HERB DEGREE XTRA HERB ROUNDUP POWERMAX HERB IMPACT ADJ CLASS ACT NEXT GENERATION	4.04 4.5 2.8 100	CS SL EC AD	3 32 0.75 2.5	qt/a oz/a oz/a % v/v	PRE 4IN WEEDS 4IN WEEDS 4IN WEEDS	A C C C	112	207	303	407	
13	HERB DEGREE XTRA HERB ROUNDUP POWERMAX HERB STATUS ADJ CLASS ACT NEXT GENERATION	4.04 4.5 61.1 100	CS SL WG AD	3 32 3 2.5	qt/a oz/a oz/a % v/v	PRE 4IN WEEDS 4IN WEEDS 4IN WEEDS	A C C C	113	208	306	403	
14	HERB DEGREE XTRA HERB ROUNDUP POWERMAX HERB TRIPLEFLEX ADJ CLASS ACT NEXT GENERATION	4.04 4.5 4.25 100	CS SL EC AD	3 32 1.5 2.5	qt/a oz/a qt/a % v/v	PRE 4IN WEEDS 4IN WEEDS 4IN WEEDS	A C C C	114	213	302	404	

Sort Order: Replicate 1

University of Tennessee

CROP PROTECTION MARKET DEVELOPMENT CORN TRIAL

Trial ID: 2016-01-2415 Location: Jackson, TN Trial Year: 2016
 Protocol ID: 2016-01-24-15 Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Paul G Ratliff/Monsanto/Bob

General Trial Information

Study Director: Larry Steckel
Investigator: Dr. Larry Steckel

Trial Location

Country: USA United States

Conducted Under GLP: No
Conducted Under GEP: No

Objectives:

Demonstrate various corn herbicide weed control systems common to the midwest.

Contacts

Study Director: Larry Steckel

Investigator: Dr. Larry Steckel

Crop Description

Crop 1: ZEAMX Zea mays **Corn**
Variety: PIONEER 1319 HR **BBCH Scale:** BCOR
Description: Herculex/LL/RR
Planting Rate, Unit: 32000 S/A **Planting Date:** 3-28-16
Depth, Unit: 1.5 IN **Planting Method:** PLANTD planted
Row Spacing, Unit: 30 IN **Planting Equipment:** FE Field Equipment
Spacing Within Row, Unit: 7 IN
Soil Temperature, Unit: 58 F
Soil Moisture: SLIWET slightly wet, moist
Seed Bed: MEDIUM medium

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** ANNGR Annual Grasses

Pest 3 Type: W **Code:** IPOLA *Ipomoea lacunosa*
Common Name: Pitted morningglory

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT² **Treatments:** 14 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Field Prep./Maintenance:

Mar 18 - Gramoxone SL 48 oz/A + NIS 0.25%
 Mar 29 - Karate 2 oz/A
 Apr 12 - Karate 2 oz/A
 May 6 - Fertilized 180 lbs N/A using UAN

University of Tennessee

CROP PROTECTION MARKET DEVELOPMENT CORN TRIAL

Trial ID: 2016-01-2415 Location: Jackson, TN Trial Year: 2016
 Protocol ID: 2016-01-24-15 Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Paul G Ratliff/Monsanto/Bob

Application Description

	A	B	C
Application Date:	3-29-16	5-4-16	5-10-16
Appl. Start Time:	8:44 AM	11:36 AM	8:46 AM
Appl. Stop Time:	9:04 AM	11:38 AM	9:19 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	4 IN WEED	4 IN WEED
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	GM	GM	JR
Air Temperature, Unit:	54 F	73 F	74 F
% Relative Humidity:	57	60	72
Wind Velocity, Unit:	5 MPH	2 MPH	5 MPH
Wind Direction:	SW	N	WSW
Dew Presence (Y/N):	N no	N no	Y yes
Soil Temperature, Unit:	50 F	67 F	67 F
Soil Moisture:	SLIWET	SLIWET	SLIWET
% Cloud Cover:	5	15	0

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:		V3	V4
Height, Unit:		8 IN	8 IN
Height Minimum, Maximum:		7 9	6 9

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMAPA W --	AMAPA W 4LF	AMAPA W 6=L
Height, Unit:		2 IN	3 IN
Height Minimum, Maximum:		2 3	2 4
Pest 2 Code, Type, Scale:	ANNGR W --	ANNGR W 2LF	ANNGR W --
Height, Unit:		1 IN	
Height Minimum, Maximum:		1 2	
Pest 3 Code, Type, Scale:	IPOLA W --	IPOLA W --	IPOLA W COT
Height, Unit:			1.5 IN
Height Minimum, Maximum:			1 3

University of Tennessee

CROP PROTECTION MARKET DEVELOPMENT CORN TRIAL

Trial ID: 2016-01-2415 Location: Jackson, TN Trial Year: 2016
 Protocol ID: 2016-01-24-15 Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Paul G Ratliff/Monsanto/Bob

Application Equipment			
	A	B	C
Appl. Equipment:	BACKPACK	BACKPACK	BACKPACK
Equipment Type:	BACCAI	BACCAI	BACCAI
Operation Pressure, Unit:	36 PSI	36 PSI	36 PSI
Nozzle Type:	AIXR	AIXR	AIXR
Nozzle Size:	110025	110025	110025
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
Boom Length, Unit:	6.33 FT	6.33 FT	6.33 FT
Boom Height, Unit:	16 IN	16 IN	16 IN
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	0.528 gallons	0.528 gallons	0.528 gallons
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Tennessee

ANTHEM MAXX / SOLSTICE - CORN PRE/POST PROGRAM

Trial ID: JCRFMC16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: JCRFMC16 Investigator: Dr. Larry Steckel
 Project ID: Study Director:
 Sponsor Contact: R. Mitchell

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Growth Stage	Appl Code	Rep				Notes
							1	2	3	4	
1	CHK NONTREATED						101	208	309	403	
2	HERB ANTHEM MAXX	4.3	SE	3 oz/a	PRE	A	102	206	311	412	
	HERB AATREX	4	L	1 qt/a	PRE	A					
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
3	HERB ANTHEM MAXX	4.3	SE	2.5 oz/a	PRE	A	103	211	301	409	
	HERB SOLSTICE	4	SC	2.5 oz/a	POST	B					
	HERB AATREX	4	L	1 qt/a	POST	B					
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
	ADJ AGRIDEX	100	SL	0.5 % v/v	POST	B					
4	HERB ANTHEM MAXX	4.3	SE	3 oz/a	PRE	A	104	210	306	407	
	HERB SOLSTICE	4	SC	2.5 oz/a	POST	B					
	HERB AATREX	4	L	1 qt/a	POST	B					
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
	ADJ AGRIDEX		L	0.5 % v/v	POST	B					
5	HERB ANTHEM MAXX	4.3	SE	3 oz/a	PRE	A	105	209	307	402	
	HERB AATREX	4	L	1 qt/a	PRE	A					
	HERB SOLSTICE	4	SC	2.5 oz/a	POST	B					
	HERB AATREX	4	L	1 qt/a	POST	B					
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
	ADJ AGRIDEX		L	0.5 % v/v	POST	B					
6	HERB BICEP II MAGNUM	5.5	SC	21 oz/a	POST	B	106	203	310	406	
	HERB SOLSTICE	4	SC	2.5 oz/a	POST	B					
	HERB AATREX	4	L	1 qt/a	POST	B					
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
	ADJ AGRIDEX		L	0.5 % v/v	POST	B					
7	HERB ACURON	3.43274999	ZC	2.5 qt/a	PRE	A	107	201	312	405	
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
8	HERB SOLSTICE	4	SC	3.15 oz/a	POST	B	108	202	303	411	
	HERB AATREX	4	L	1 qt/a	POST	B					
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
	ADJ AGRIDEX		L	0.5 % v/v	POST	B					
9	HERB SOLSTICE	4	SC	2.5 oz/a	POST	B	109	212	304	410	
	HERB ANTHEM MAXX	4.3	SE	2 oz/a	POST	B					
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
	ADJ AGRIDEX		L	0.5 % v/v	POST	B					
10	HERB SOLSTICE	4	SC	2.5 oz/a	POST	B	110	207	305	408	
	HERB ANTHEM MAXX	4.3	SE	2 oz/a	POST	B					
	HERB AATREX	4	L	1 qt/a	POST	B					
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
	ADJ AGRIDEX		L	0.5 % v/v	POST	B					
11	HERB HALEX GT	4.375	CS	3.6 pt/a	POST	B	111	205	308	401	
	ADJ AGRIDEX	100	SL	1 % v/v	POST	B					
12	HERB ACURON	3.43274999	ZC	2.5 qt/a	POST	B	112	204	302	404	
	HERB ROUNDUP POWERMAX	5.5	SL	32 oz/a	POST	B					
	ADJ AGRIDEX	100	SL	0.5 % v/v	POST	B					

Sort Order: Replicate 1

University of Tennessee

ANTHEM MAXX / SOLSTICE - CORN PRE/POST PROGRAM

Trial ID: JCRFMC16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: JCRFMC16 Investigator: Dr. Larry Steckel
 Project ID: Study Director:
 Sponsor Contact: R. Mitchell

General Trial Information

Investigator: Dr. Larry Steckel

Conducted Under GLP: No
Conducted Under GEP: No

Investigator: Dr. Larry Steckel

Crop Description

Crop 1: ZEAMX Zea mays **Corn**
Variety: PIONEER 1197 HR **BBCH Scale:** BCOR
Description: Herculex/LL/RR

Planting Date: 3-28-16
Planting Method: PLANTD planted
Planting Equipment: FE Field Equipment

Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Spacing Within Row, Unit: 7 IN
Soil Temperature, Unit: 58 F
Soil Moisture: SLIWET slightly wet, moist
Seed Bed: MEDIUM medium

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** ANNGR Annual Grasses

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT² **Treatments:** 12 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Field Prep./Maintenance:

Mar 7 - Roundup 32 oz/A + Clarity 8 oz/A
 Mar 18 - Gramoxone SL 48 oz/A + NIS 0.25%
 Mar 29 - Karate 2 oz/A
 Apr 12 - Karate 2 oz/A
 May 6 - Fertilized 180 lbs N/A using UAN

Application Description

	A	B
Application Date:	3-29-16	4-28-16
Appl. Start Time:	9:15 AM	7:38 AM
Appl. Stop Time:	9:20 AM	7:54 AM
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Application Placement:	BROSOL	BROFOL
Applied By:	GM	GM
Air Temperature, Unit:	57 F	69 F
% Relative Humidity:	57	79
Wind Velocity, Unit:	6 MPH	2.5 MPH
Wind Direction:	SW	SW
Dew Presence (Y/N):	N no	Y yes
Soil Temperature, Unit:	52 F	64 F
Soil Moisture:	SLIWET	NORMAL
% Cloud Cover:	10	0

University of Tennessee

ANTHEM MAXX / SOLSTICE - CORN PRE/POST PROGRAM

Trial ID: JCRFMC16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: JCRFMC16 Investigator: Dr. Larry Steckel
 Project ID: Study Director:
 Sponsor Contact: R. Mitchell

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	--	4LF
Height, Unit:		6 IN
Height Minimum, Maximum:		5 7

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMAPA W --	AMAPA W 4+LF
Height, Unit:		2 IN
Height Minimum, Maximum:		2 3
Pest 2 Code, Type, Scale:	ANNGR W --	ANNGR W 2+LF
Height, Unit:		2 IN
Height Minimum, Maximum:		2 3

Application Equipment

	A	B
Appl. Equipment:	BACKPACK	BACKPACK
Equipment Type:	BACCAI	BACCAI
Operation Pressure, Unit:	36 PSI	36 PSI
Nozzle Type:	AIXR	AIXR
Nozzle Size:	110025	110025
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
Boom Length, Unit:	6.33 FT	6.33 FT
Boom Height, Unit:	16 IN	16 IN
Ground Speed, Unit:	4 MPH	4 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA
Mix Size, Unit:	0.528 gallons	0.528 gallons
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Tennessee

WEED CONTROL PROGRAMS IN CORN / DIFLEXX DUO/ MPOST/ EFFICACY / TOLERANCE IN FIELD CORN

Trial ID: JCRBAY-16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: HP16USAWMV Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Jones/Bayer

Trt No. Type	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code	Rep 1	2	3	4	Notes
1	CHK NONTREATED							101	210	309	404	
2	HERB DIFLEXX DUO		L	24 oz/a		POST	A	102	207	302	409	
	HERB AATREX	4	L	16 oz/a		POST	A					
	ADJ COC	100	EC	1 % v/v		POST	A					
	FERT AMS		WG	8.5 lb/100 gal		POST	A					
3	HERB DIFLEXX DUO		L	24 oz/a		POST	A	103	208	303	406	
	HERB ROUNDUP WEATHERMAX	5.5	SC	32 oz/a		POST	A					
	HERB AATREX	4	L	16 oz/a		POST	A					
	FERT AMS		WG	8.5 lb/100 gal		POST	A					
4	HERB DIFLEXX DUO		L	24 oz/a		POST	A	104	206	308	405	
	HERB LIBERTY 280	2.34	SL	22 oz/a		POST	A					
	HERB AATREX	4	L	16 oz/a		POST	A					
	FERT AMS		WG	8.5 lb/100 gal		POST	A					
5	HERB CAPRENO	3.45	SL	3 oz/a		POST	A	105	209	304	410	
	HERB ROUNDUP WEATHERMAX	5.5	SC	32 oz/a		POST	A					
	HERB AATREX	4	L	16 oz/a		POST	A					
	FERT AMS		WG	8.5 lb/100 gal		POST	A					
6	HERB HALEX GT	4.375	CS	3.6 pt/a		POST	A	106	201	310	401	
	HERB AATREX	4	L	16 oz/a		POST	A					
	ADJ NIS	100	SL	0.25 % v/v		POST	A					
	FERT AMS		WG	8.5 lb/100 gal		POST	A					
7	HERB ARMEZON	2.8	SL	0.57 oz/a		POST	A	107	205	307	408	
	HERB OUTLOOK	6	SC	14 oz/a		POST	A					
	HERB AATREX	4	L	16 oz/a		POST	A					
	ADJ NIS	100	SL	0.25 % v/v		POST	A					
	FERT AMS		WG	8.5 lb/100 gal		POST	A					
8	HERB ARMEZON	2.8	SL	0.57 oz/a		POST	A	108	204	305	402	
	HERB STATUS	56	WG	3 oz/a		POST	A					
	HERB AATREX	4	L	16 oz/a		POST	A					
	ADJ NIS	100	SL	0.25 % v/v		POST	A					
	FERT AMS		WG	8.5 lb/100 gal		POST	A					
9	HERB ARMEZON	2.8	SL	0.57 oz/a		POST	A	109	202	301	407	
	HERB OUTLOOK	6	SC	14 oz/a		POST	A					
	HERB ROUNDUP WEATHERMAX	5.5	SC	32 oz/a		POST	A					
	HERB AATREX	4	L	16 oz/a		POST	A					
	FERT AMS		WG	8.5 lb/100 gal		POST	A					
10	HERB ARMEZON	2.8	SL	0.57 oz/a		POST	A	110	203	306	403	
	HERB STATUS	56	WG	3 oz/a		POST	A					
	HERB ROUNDUP WEATHERMAX	5.5	SC	32 oz/a		POST	A					
	HERB AATREX	4	L	16 oz/a		POST	A					
	FERT AMS		WG	8.5 lb/100 gal		POST	A					

Sort Order: Replicate 1

University of Tennessee

WEED CONTROL PROGRAMS IN CORN / DIFLEXX DUO/ MPOST/ EFFICACY / TOLERANCE IN FIELD CORN

Trial ID: JCRBAY-16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: HP16USAWMV Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Jones/Bayer

General Trial Information

Study Director: Larry Steckel
Investigator: Dr. Larry Steckel

Trial Location

Country: USA United States

Conducted Under GLP: No
Conducted Under GEP: No

Keywords: DEMO EFFICACY COMBTIBILITY

Objectives:
 Please Read:

1.

Contacts

Study Director: Larry Steckel

Investigator: Dr. Larry Steckel

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: PIONEER 1197 HR **BBCH Scale:** BCOR
Description: Herculex/LL/RR

Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Spacing Within Row, Unit: 7 IN
Soil Temperature, Unit: 58 F
Soil Moisture: SLIWET slightly wet, moist
Seed Bed: M

Planting Date: 3-28-16
Planting Method: PLANTD planted
Planting Equipment: FE Field Equipment

Pest Description

Pest 1 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** ANNGR Annual Grasses

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT² **Treatments:** 10 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Field Prep./Maintenance:

Mar 7 - Roundup 32 oz/A + Clarity 8 oz/A
 Mar 18 - Gramoxone SL 48 oz/A + NIS 0.25%
 Mar 29 - Karate 2 oz/A
 Apr 12 - Karate 2 oz/A
 May 6 - Fertilized 180 lbs N/A using UAN

University of Tennessee

WEED CONTROL PROGRAMS IN CORN / DIFLEX DUO/ MPOST/ EFFICACY / TOLERANCE IN FIELD CORN

Trial ID: JCRBAY-16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: HP16USAWMV Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Jones/Bayer

Application Description

	A
Application Date:	4-28-16
Appl. Start Time:	7:55 AM
Appl. Stop Time:	8:07 AM
Application Method:	SPRAY
Application Timing:	POST
Application Placement:	BROFOL
Applied By:	GM
Air Temperature, Unit:	70 F
% Relative Humidity:	80
Wind Velocity, Unit:	2.5 MPH
Wind Direction:	SW
Dew Presence (Y/N):	Y yes
Soil Temperature, Unit:	64 F
Soil Moisture:	NORMAL
% Cloud Cover:	0

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	ZEAMD BCOR
Stage Scale Used:	BBCH
Stage Majority, Percent:	14
Height, Unit:	6 IN
Height Minimum, Maximum:	5 7

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMAPA W 4+L
Height, Unit:	2 IN
Height Minimum, Maximum:	2 3
Pest 2 Code, Type, Scale:	ANNGR W 2LF
Height, Unit:	2 IN
Height Minimum, Maximum:	2 3

University of Tennessee

WEED CONTROL PROGRAMS IN CORN / DIFLEXX DUO/ MPOST/ EFFICACY / TOLERANCE IN FIELD CORN

Trial ID: JCRBAY-16 Location: Jackson, TN Trial Year: 2016
 Protocol ID: HP16USAWMV Investigator: Dr. Larry Steckel
 Project ID: Study Director: Larry Steckel
 Sponsor Contact: Jones/Bayer

Application Equipment

	A
Appl. Equipment:	BACKPACK
Equipment Type:	BACCAI
Operation Pressure, Unit:	36 PSI
Nozzle Type:	AIXR
Nozzle Size:	110025
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
Boom Length, Unit:	6.33 FT
Boom Height, Unit:	16 IN
Ground Speed, Unit:	4 MPH
Carrier:	WATER
Spray Volume, Unit:	15 GAL/AC
Mix Size, Unit:	0.528 gallons
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes