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TO DETERMINE THE EFFICACY & SELECTIVITY OF CHA-2745 (PETHOXAMID) WHEN APPLIED PRE ALONE AND IN TANK MIX TO SOYBEAN IN 2015

Trial ID: SB-03-15 Location: PONDER FARM Trial Year: 2015
 Protocol ID: HGLXMAPET1502 Investigator: Eric P. Prostko
 Project ID: HGLXAMPET1502 Study Director: BRENT JACOBSON
 Sponsor Contact: ANDY KENDIG

Reps: 4 Plots: 5 by 25 feet
 Spray vol: 15 GAL/AC Mix Size: 1.5 liters (calculated mix size .74952)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Growth Stage	Appl Code	Amt Product to Measure	Rep			
								1	2	3	4
1	CHA-2745	5	EC	1.0 lb ai/a	PREMCR	A	20.0 ml/mx	101	209	307	412
2	CHA-2745	5	EC	1.25 lb ai/a	PREMCR	A	25.0 ml/mx	102	212	309	406
3	CHA-2745	5	EC	1.5 lb ai/a	PREMCR	A	30.0 ml/mx	103	206	303	408
4	CHA-2745 DAWN	5 2	EC AS	1.25 lb ai/a 0.30 lb ai/a	PREMCR PREMCR	A A	25.0 ml/mx 15.0 ml/mx	104	201	306	401
5	CHA-2745 CHA-060	5 25	EC WG	1.25 lb ai/a 0.026 lb ai/a	PREMCR PREMCR	A A	25.0 ml/mx 1.246 g/mx	105	207	312	404
6	CHA-2745 SPARTAN	5 4	EC F	1.25 lb ai/a 0.14 lb ai/a	PREMCR PREMCR	A A	25.0 ml/mx 3.5 ml/mx	106	205	301	411
7	CHA-2745 CHA-060 DAWN	5 25 2	EC WG AS	1.0 lb ai/a 0.023 lb ai/a 0.28 lb ai/a	PREMCR PREMCR PREMCR	A A A	20.0 ml/mx 1.102 g/mx 14.0 ml/mx	107	204	308	403
8	CHA-2745 CHA-060 SPARTAN	5 25 4	EC WG F	1.0 lb ai/a 0.02 lb ai/a 0.16 lb ai/a	PREMCR PREMCR PREMCR	A A A	20.0 ml/mx 0.9586 g/mx 4.0 ml/mx	108	211	302	407
9	DUAL MAGNUM	7.62	EC	1.0 lb ai/a	PREMCR	A	13.12 ml/mx	109	202	305	409
10	SPARTAN	4	F	0.14 lb ai/a	PREMCR	A	3.5 ml/mx	110	208	310	405
11	AUTHORITY ELITE	7	L	1.37 lb ai/a	PREMCR	A	19.57 ml/mx	111	210	311	410
12	UNTREATED							112	203	304	402

Sort Order: Treatment

Trial Comments

CHA-2745 = PETHOXAMID (VLCFA)
 CHA-060 = CHLORIMURON
 AUTHORITY ELITE = SULFENTRAZONE + S-METOLACHLOR

ANNUAL GRASS = TEXAS PANICUM + CRABGRASS

SUMMARY:

- 1) SLIGHT SOYBEAN STUNTING WAS OBSERVED FROM THE TANK MIX OF DAWN + CHA-2745 @ 1.25 LB AI/A (7.5% STUNTING AT 12 DAT).
- 2) AT 21 DAT, ALL TREATMENTS PROVIDED > 90% CONTROL OF PALMER AMARANTH.
- 3) AT 27 DAT, ALL TREATMENTS PROVIDED > 90% CONTROL OF PALMER AMARANTH EXCEPT THE FOLLOWING:
 - CHA-2745 @ 1 LB AI/A = 59% CONTROL
 - CHA-2745 @ 1.25 LB AI/A = 83% CONTROL
 - DUAL MAGNUM @ 1 LB AI/A = 87% CONTROL
- 4) AT 53 DAT, ALL TREATMENTS PROVIDED > 90% CONTROL OF PALMER AMARANTH EXCEPT THE FOLLOWING:
 - CHA-2745 @ 1 LB AI/A = 64% CONTROL
 - CHA-2745 @ 1.25 LB AI/A = 78% CONTROL
 - CHA-2745 @ 1.5 LB AI/A = 78% CONTROL
 - DUAL MAGNUM @ 1 LB AI/A = 80% CONTROL
 - SPARTAN @ 0.14 LB AI/A = 84% CONTROL
- 5) AT 21 DAT, ALL TREATMENTS PROVIDED 99% CONTROL OF CARPETWEED.
- 6) AT 21 DAT, ALL TREATMENTS PROVIDED AT LEAST 90% CONTROL OF ANNUAL GRASSES.

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7) AT 27 DAT, ALL TREATMENTS PROVIDED AT LEAST 90% CONTROL OF ANNUAL GRASSES EXCEPT THE FOLLOWING:

CHA-2745 @ 1 -1.25 LB AI/A = 85-86% CONTROL
SPARTAN @ 0.14 LB AI/A = 81% CONTROL
AUTHORITY ELITE @ 1.37 LB AI/A = 87% CONTROL

8) AT 53 DAT, ONLY 3 TREATMENTS PROVIDED > 90% CONTROL OF ANNUAL GRASSES:

CHA-2745 @ 1.25 LB AI/A +DAWN @ 0.30 LB AI/A = 94% CONTROL
CHA-2745 @ 1 LB AI/A + CHA-060 @ 0.02 LB AI/A + SPARTAN @ 0.16 LB AI/A = 93% CONTROL
DUAL MAGNUM @ 1 LB AI/A = 93% CONTROL

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TO DETERMINE THE EFFICACY & SELECTIVITY OF CHA-2745 (PETHOXAMID) WHEN APPLIED PRE ALONE AND IN TANK MIX TO SOYBEAN IN 2015

Trial ID: SB-03-15 Location: PONDER FARM Trial Year: 2015
 Protocol ID: HGLXMAPET1502 Investigator: Eric P. Prostko
 Project ID: HGLXAMPET1502 Study Director: BRENT JACOBSON
 Sponsor Contact: ANDY KENDIG

General Trial Information

Study Director: BRENT JACOBSON **Title:** _____
Investigator: Eric P. Prostko **Title:** PROFESSOR/EXTENSION WEED SPECIALIST

Discipline: _____
Trial Status: _____
Initiation Date: _____ **Trial Reliability:** _____
Completion Date: _____ **Planned Completion Date:** _____

Trial Location

City: _____ **Country:** _____
State/Prov.: _____
Postal Code: _____ **Climate Zone:** _____

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

Directions: _____

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

No.	Guideline	Description
1.		

Keywords: CHA-2745 5EC, PETHOXAMID, DAWN, FOMESAFEN, DUAL MAGNUM, S-METOLACHLOR, CHA-060, CHLORIMURON, SULFENTRAZONE, SOYBEAN, PRE, SELECTIVITY, EFFICACY

Objectives:

DETERMINE SAFETY OF CHA-2745 TO SOYBEAN APPLIED PRE
 DETERMINE WEED SPECTRUM OF CHA-2745 APPLIED PRE
 DETERMINE IF EITHER DAWN , CHLORIMURON, OR SULFENTRAZONE WILL BROADEN WEED SPECTRUM

Conclusions:

Contacts

Study Director: BRENT JACOBSON **Title:** _____
Organization: _____
Address: _____ **Phone No.:** _____
City+State/Prov: _____ **Mobile No.:** _____
Postal Code: _____ **E-mail:** _____
Country: _____

Investigator: Eric P. Prostko **Title:** PROFESSOR/EXTENSION WEED SPECIALIST
Organization: THE UNIVERSITY OF GEORGIA
Address: 104 RESEARCH WAY **Phone No.:** 2293921034
City+State/Prov: TIFTON, GA **Mobile No.:** _____
Postal Code: 31794 **E-mail:** EPROSTKO@UGA.EDU
Country: USA United States

Cooperator/Landowner

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

Other Contacts

Name	Role	Other

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Crop 1: GLXMA Variety: ASGROW AG 5935		Crop Description	Soybean
Description:		Glycine max	BBCH Scale: BSOY
Seed Size, Unit:	_____	Nursery Date:	_____
Seed Shape:	_____	Planting Date:	May-6-15
Planting Rate, Unit:	10 SEED/FT	Planting Method:	_____
Depth, Unit:	1.5 IN	Planting Equipment:	_____
Row Spacing, Unit:	30 IN	Emergence Date:	_____
Spacing Within Row, Unit:	_____	Harvest Date:	_____
Planting Density, Unit:	_____	Harvested Width, Unit:	_____
Soil Temperature, Unit:	_____	Harvested Length, Unit:	_____
Soil Moisture:	_____	Harvest Equipment:	_____
Seed Bed:	_____	% Standard Moisture:	_____
Perennial Age, Unit:	_____	Moisture Meter:	_____
		Weighing Equipment:	_____

Pest 1 Type: W		Code: AMAPA	Pest Description
		Common Name: Palmer amaranth	Amaranthus palmeri
Description:		_____	
Artificial Population:	_____	Establishment Date:	_____
Establishment Rate, Unit:	_____		
Concentration, Unit:	_____		
Establishment Method/Description: _____			
Pest 2 Type: W		Code: MOLVE	Mollugo verticillata
		Common Name: Carpetweed	
Description:		_____	
Artificial Population:	_____	Establishment Date:	_____
Establishment Rate, Unit:	_____		
Concentration, Unit:	_____		
Establishment Method/Description: _____			
Pest 3 Type: W		Code: AGRASS	TEXAS PANICUM + CRABGRASS
		Common Name: _____	
Description:		_____	
Artificial Population:	_____	Establishment Date:	_____
Establishment Rate, Unit:	_____		
Concentration, Unit:	_____		
Establishment Method/Description: _____			

Site and Design			
Treated Plot Width: 5	FT	Site Type:	_____
Treated Plot Length: 25	FT	Experimental Unit:	_____
Treated Plot Area: 125	FT2	Tillage Type:	_____
Replications: 4	Treatments: 12	Study Design:	RACOBL Randomized Complete Block (RCB)
% Slope: _____			
Trial Initiation Comments:			
No.	Previous Crop	Previous Pesticides	Year
1.			

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: 94	% OM: 0.58	Texture: SAND	
% Silt: 2	pH: 6.2	Soil Name: FUQUAY	
% Clay: 4	CEC: 2.4	Fert. Level: G good	
		Soil Drainage: G good	
Analyzed By: _____			
Additional Measured Elements			
Date	Element	Quantity	Unit

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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.	May-8-15		0.5	IN	SPLAMO	sprinkler - lateral move						
2.	May-13-15		0.5	IN	SPLAMO	sprinkler - lateral move						
3.	May-18-15		0.5	IN	SPLAMO	sprinkler - lateral move						
4.	Jun-2-15		0.5	IN	SPLAMO	sprinkler - lateral move						

Comment:

Application Description

A	
Application Date:	May-7-15
Appl. Start Time:	
Appl. Stop Time:	8:50 AM
Application Method:	BROADCAST
Application Timing:	PRE
Application Placement:	SOIL
Applied By:	CH
Air Temperature, Unit:	71 F
% Relative Humidity:	70
Wind Velocity, Unit:	0 MPH
Wind Direction:	
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	71 F
Soil Moisture:	OPTIMUM
% Cloud Cover:	0
Next Moisture Occurred On:	
Time to Next Moisture, Unit:	

Crop Stage At Each Application

A	
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Stage Scale Used:	
Stage Majority, Percent:	
Stage Minimum, Percent:	
Stage Maximum, Percent:	
Diameter, Unit:	
Height, Unit:	
Height Minimum, Maximum:	
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:	
Height Minimum, Maximum:	
Density, Unit:	
Coverage, Unit:	
Pest 2 Code, Type, Scale:	MOLVE W
Stage Majority, Percent:	
Stage Minimum, Percent:	
Stage Maximum, Percent:	
Diameter, Unit:	
Height, Unit:	
Height Minimum, Maximum:	
Density, Unit:	
Coverage, Unit:	
Pest 3 Code, Type, Scale:	AGRASS W
Stage Majority, Percent:	
Stage Minimum, Percent:	
Stage Maximum, Percent:	
Diameter, Unit:	
Height, Unit:	
Height Minimum, Maximum:	
Density, Unit:	
Coverage, Unit:	

Application Equipment

	A
Appl. Equipment:	BACKPACK
Equipment Type:	
Operation Pressure, Unit:	28 PSI
Nozzle Type:	AIXR
Nozzle Size:	11002
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	
Band Width, Unit:	
% Coverage:	
Boom ID:	
Boom Length, Unit:	60 IN
Boom Height, Unit:	20 IN
Ground Speed, Unit:	3.0
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):	
Equipment Comment:	

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Trt No	Treatment Application	Comment
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Date	By	Notes
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No.	Date	By	Deviations
1.			

Reasons:

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							W Weed GLYMA	W Weed AMAPA	W Weed GLYMA	W Weed AMAPA	
Pest Type							Glyceria maxima	Amaranthus pal>	Glyceria maxima	Amaranthus pal>	
Pest Code							Great water gr>	Palmer amaranth	Great water gr>	Palmer amaranth	
Pest Scientific Name							STUNTING	CONTROL	STUNTING	CONTROL	
Pest Name							May-19-15	May-19-15	May-28-15	May-28-15	
Description							PERCENT	PERCENT	PERCENT	PERCENT	
Rating Date							1	1	1	1	
Rating Unit							12 12	12 12	21 21	21 21	
Number of Subsamples							12 DA-A	12 DA-A	21 DA-A	21 DA-A	
Days After First/Last Applic.							13 DP-1	13 DP-1	22 DP-1	22 DP-1	
Trt-Eval Interval											
Plant-Eval Interval											
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Growth Unit	Stage	Appl Code				
								1	2	3	4
1	CHA-2745	5 EC		1.0 lb ai/a		PREMCR A		0.0 b	99.0 a	0.0 a	91.0 b
2	CHA-2745	5 EC		1.25 lb ai/a		PREMCR A		0.0 b	99.0 a	0.0 a	97.0 a
3	CHA-2745	5 EC		1.5 lb ai/a		PREMCR A		0.0 b	99.0 a	0.0 a	98.0 a
4	CHA-2745 DAWN	5 EC 2 AS		1.25 lb ai/a 0.30 lb ai/a		PREMCR A PREMCR A		7.5 a	99.0 a	0.0 a	99.0 a
5	CHA-2745 CHA-060	5 EC 25 WG		1.25 lb ai/a 0.026 lb ai/a		PREMCR A PREMCR A		2.5 b	99.0 a	0.0 a	98.0 a
6	CHA-2745 SPARTAN	5 EC 4 F		1.25 lb ai/a 0.14 lb ai/a		PREMCR A PREMCR A		2.5 b	99.0 a	0.0 a	99.0 a
7	CHA-2745 CHA-060 DAWN	5 EC 25 WG 2 AS		1.0 lb ai/a 0.023 lb ai/a 0.28 lb ai/a		PREMCR A PREMCR A PREMCR A		2.5 b	99.0 a	0.0 a	99.0 a
8	CHA-2745 CHA-060 SPARTAN	5 EC 25 WG 4 F		1.0 lb ai/a 0.02 lb ai/a 0.16 lb ai/a		PREMCR A PREMCR A PREMCR A		2.5 b	99.0 a	0.0 a	99.0 a
9	DUAL MAGNUM	7.62 EC		1.0 lb ai/a		PREMCR A		0.0 b	99.0 a	0.0 a	96.0 a
10	SPARTAN	4 F		0.14 lb ai/a		PREMCR A		0.0 b	98.0 b	0.0 a	95.8 a
11	AUTHORITY ELITE	7 L		1.37 lb ai/a		PREMCR A		0.0 b	99.0 a	0.0 a	99.0 a
12	UNTREATED							0.0 b	0.0 c	0.0 a	0.0 c
LSD	P=.10							3.72	0.69	.	3.25
	Standard Deviation							3.11	0.58	0.00	2.71
	CV							213.11	0.64	0.0	3.04
	Grand Mean							1.46	90.67	0.00	89.23
	Bartlett's X2							0.0	0.0	0.0	11.688
	P(Bartlett's X2)							.	.	.	0.039*
	Replicate F							1.941	1.000	0.000	2.975
	Replicate Prob(F)							0.1421	0.4051	1.0000	0.0457
	Treatment F							2.098	9784.001	0.000	431.812
	Treatment Prob(F)							0.0495	0.0001	1.0000	0.0001

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 3,5 because error mean square = 0.

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Pest Type						W Weed	ANNUAL	W Weed	W Weed	A.GRASS
Pest Code						MOLVE	GRASS	GLYMA	AMAPA	Pante
Pest Scientific Name						Mollugo vertic>		Glyceria maxima	Amaranthus pal>	Crab
Pest Name						Carpetweed		Great water gr>	Palmer amaranth	
Description						CONTROL	CONTROL	STUNTING	CONTROL	CONTROL
Rating Date						May-28-15	May-28-15	Jun-3-15	Jun-3-15	Jun-3-15
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Number of Subsamples						1	1	1	1	1
Days After First/Last Applic.						21 21	21 21	27 27	27 27	27 27
Trt-Eval Interval						21 DA-A	21 DA-A	27 DA-A	27 DA-A	27 DA-A
Plant-Eval Interval						22 DP-1	22 DP-1	28 DP-1	28 DP-1	28 DP-1
Trt Treatment	Form	Form	Rate	Growth	Appl					
No. Name	Conc	Type	Unit	Stage	Code	5	6	7	8	9
1 CHA-2745	5	EC	1.0 lb ai/a	PREMCR	A	99.0 a	96.8 a	0.0 a	58.8 d	85.0 ab
2 CHA-2745	5	EC	1.25 lb ai/a	PREMCR	A	99.0 a	98.0 a	0.0 a	83.3 c	86.0 ab
3 CHA-2745	5	EC	1.5 lb ai/a	PREMCR	A	99.0 a	94.8 ab	0.0 a	91.0 abc	91.0 ab
4 CHA-2745	5	EC	1.25 lb ai/a	PREMCR	A	99.0 a	96.8 a	0.0 a	99.0 a	96.0 a
DAWN	2	AS	0.30 lb ai/a	PREMCR	A					
5 CHA-2745	5	EC	1.25 lb ai/a	PREMCR	A	99.0 a	99.0 a	2.5 a	96.8 ab	94.5 ab
CHA-060	25	WG	0.026 lb ai/a	PREMCR	A					
6 CHA-2745	5	EC	1.25 lb ai/a	PREMCR	A	99.0 a	93.5 ab	0.0 a	98.0 ab	87.0 ab
SPARTAN	4	F	0.14 lb ai/a	PREMCR	A					
7 CHA-2745	5	EC	1.0 lb ai/a	PREMCR	A	99.0 a	99.0 a	0.0 a	99.0 a	97.0 a
CHA-060	25	WG	0.023 lb ai/a	PREMCR	A					
DAWN	2	AS	0.28 lb ai/a	PREMCR	A					
8 CHA-2745	5	EC	1.0 lb ai/a	PREMCR	A	99.0 a	98.0 a	0.0 a	98.0 ab	97.0 a
CHA-060	25	WG	0.02 lb ai/a	PREMCR	A					
SPARTAN	4	F	0.16 lb ai/a	PREMCR	A					
9 DUAL MAGNUM	7.62	EC	1.0 lb ai/a	PREMCR	A	99.0 a	96.8 a	0.0 a	87.0 bc	89.5 ab
10 SPARTAN	4	F	0.14 lb ai/a	PREMCR	A	99.0 a	90.0 b	2.5 a	93.3 abc	81.3 b
11 AUTHORITY ELITE	7	L	1.37 lb ai/a	PREMCR	A	99.0 a	93.0 ab	0.0 a	99.0 a	86.8 ab
12 UNTREATED						0.0 b	0.0 c	0.0 a	0.0 e	0.0 c
LSD P=.10						.	5.12	2.33	10.26	12.57
Standard Deviation						0.00	4.28	1.95	8.58	10.51
CV						0.0	4.86	467.1	10.26	12.72
Grand Mean						90.75	87.96	0.42	83.58	82.58
Bartlett's X2						0.0	14.225	0.0	21.56	28.126
P(Bartlett's X2)						.	0.076	.	0.003*	0.002*
Replicate F						0.000	4.219	2.200	0.696	4.177
Replicate Prob(F)						1.0000	0.0125	0.1066	0.5609	0.0130
Treatment F						0.000	169.211	1.000	44.815	25.476
Treatment Prob(F)						1.0000	0.0001	0.4671	0.0001	0.0001

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Pest Type							W Weed	
Pest Code							AMAPA	ANNUAL
Pest Scientific Name							Amaranthus pal>	GRASS
Pest Name							Palmer amaranth	
Description							CONTROL	CONTROL
Rating Date							Jun-29-15	Jun-29-15
Rating Unit							PERCENT	PERCENT
Number of Subsamples							1	1
Days After First/Last Applic.							53 53	53 53
Trt-Eval Interval							53 DA-A	53 DA-A
Plant-Eval Interval							54 DP-1	54 DP-1
Trt Treatment	Form Form	Rate	Growth	Appl				
No. Name	Conc Type	Unit	Stage	Code				
1 CHA-2745	5 EC	1.0 lb ai/a	PREMCR A					10 11
2 CHA-2745	5 EC	1.25 lb ai/a	PREMCR A					63.8 c 76.3 a
3 CHA-2745	5 EC	1.5 lb ai/a	PREMCR A					77.5 b 68.8 a
4 CHA-2745	5 EC	1.25 lb ai/a	PREMCR A					77.5 b 71.3 a
DAWN	2 AS	0.30 lb ai/a	PREMCR A					96.0 a 93.5 a
5 CHA-2745	5 EC	1.25 lb ai/a	PREMCR A					92.5 a 86.3 a
CHA-060	25 WG	0.026 lb ai/a	PREMCR A					92.5 a 86.3 a
6 CHA-2745	5 EC	1.25 lb ai/a	PREMCR A					92.5 a 86.3 a
SPARTAN	4 F	0.14 lb ai/a	PREMCR A					96.0 a 71.0 a
7 CHA-2745	5 EC	1.0 lb ai/a	PREMCR A					96.0 a 71.0 a
CHA-060	25 WG	0.023 lb ai/a	PREMCR A					96.0 a 71.0 a
DAWN	2 AS	0.28 lb ai/a	PREMCR A					94.8 a 92.5 a
8 CHA-2745	5 EC	1.0 lb ai/a	PREMCR A					94.8 a 92.5 a
CHA-060	25 WG	0.02 lb ai/a	PREMCR A					94.8 a 92.5 a
SPARTAN	4 F	0.16 lb ai/a	PREMCR A					94.8 a 92.5 a
9 DUAL MAGNUM	7.62 EC	1.0 lb ai/a	PREMCR A					80.0 b 92.5 a
10 SPARTAN	4 F	0.14 lb ai/a	PREMCR A					83.8 ab 73.8 a
11 AUTHORITY ELITE	7 L	1.37 lb ai/a	PREMCR A					96.0 a 87.3 a
12 UNTREATED							0.0 d	0.0 b
LSD P=.10							11.01	20.99
Standard Deviation							9.20	17.54
CV							11.62	23.4
Grand Mean							79.19	74.94
Bartlett's X2							36.432	26.576
P(Bartlett's X2)							0.001*	0.003*
Replicate F							2.828	0.144
Replicate Prob(F)							0.0536	0.9330
Treatment F							34.258	8.341
Treatment Prob(F)							0.0001	0.0001

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Sponsor Contact: ANDY KENDIG

Pest Type

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

Pest Code

GLYMA, Glyceria maxima, = US

AMAPA, Amaranthus palmeri, = US

MOLVE, Mollugo verticillata, = US

Rating Unit

PERCENT = percent

Plant-Eval Interval

13 DP-1 = 1 GLXMA May-6-15

22 DP-1 = 1 GLXMA May-6-15

28 DP-1 = 1 GLXMA May-6-15

54 DP-1 = 1 GLXMA May-6-15

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TO DETERMINE THE EFFICACY & SELECTIVITY OF CHA-2745 (PETHOXAMID) WHEN APPLIED PRE ALONE AND IN TANK MIX TO SOYBEAN IN 2015

Trial ID: SB-03-15	Location: PONDER FARM Trial Year: 2015
Protocol ID: HGLXMAPET1502	Investigator: Eric P. Prostko
Project ID: HGLXAMPET1502	Study Director: BRENT JACOBSON
Sponsor Contact: ANDY KENDIG	

							W Weed GLYMA	W Weed AMAPA	W Weed GLYMA	W Weed AMAPA					
Pest Type							Glyceria maxima	Amaranthus pal>	Glyceria maxima	Amaranthus pal>					
Pest Code							Great water gr>	Palmer amaranth	Great water gr>	Palmer amaranth					
Pest Scientific Name							STUNTING	CONTROL	STUNTING	CONTROL					
Pest Name							May-19-15	May-19-15	May-28-15	May-28-15					
Description							PERCENT	PERCENT	PERCENT	PERCENT					
Rating Date							1	1	1	1					
Rating Unit							12 12	12 12	21 21	21 21					
Number of Subsamples							12 DA-A	12 DA-A	21 DA-A	21 DA-A					
Days After First/Last Applic.							13 DP-1	13 DP-1	22 DP-1	22 DP-1					
Trt-Eval Interval															
Plant-Eval Interval															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Growth Unit	Appl Stage	Code	Plot							
1	CHA-2745	5 EC		1.0 lb ai/a		PREMCR A	101	1	0.0	2	99.0	3	0.0	4	95.0
							209		0.0		99.0		0.0		80.0
							307		0.0		99.0		0.0		99.0
							412		0.0		99.0		0.0		90.0
							Mean =		0.0		99.0		0.0		91.0
2	CHA-2745	5 EC		1.25 lb ai/a		PREMCR A	102	1	0.0	2	99.0	3	0.0	4	95.0
							212		0.0		99.0		0.0		95.0
							309		0.0		99.0		0.0		99.0
							406		0.0		99.0		0.0		99.0
							Mean =		0.0		99.0		0.0		97.0
3	CHA-2745	5 EC		1.5 lb ai/a		PREMCR A	103	1	0.0	2	99.0	3	0.0	4	99.0
							206		0.0		99.0		0.0		95.0
							303		0.0		99.0		0.0		99.0
							408		0.0		99.0		0.0		99.0
							Mean =		0.0		99.0		0.0		98.0
4	CHA-2745 DAWN	5 EC 2 AS		1.25 lb ai/a 0.30 lb ai/a		PREMCR A PREMCR A	104	1	0.0	2	99.0	3	0.0	4	99.0
							201		10.0		99.0		0.0		99.0
							306		10.0		99.0		0.0		99.0
							401		10.0		99.0		0.0		99.0
							Mean =		7.5		99.0		0.0		99.0
5	CHA-2745 CHA-060	5 EC 25 WG		1.25 lb ai/a 0.026 lb ai/a		PREMCR A PREMCR A	105	1	0.0	2	99.0	3	0.0	4	99.0
							207		0.0		99.0		0.0		99.0
							312		10.0		99.0		0.0		99.0
							404		0.0		99.0		0.0		95.0
							Mean =		2.5		99.0		0.0		98.0
6	CHA-2745 SPARTAN	5 EC 4 F		1.25 lb ai/a 0.14 lb ai/a		PREMCR A PREMCR A	106	1	0.0	2	99.0	3	0.0	4	99.0
							205		0.0		99.0		0.0		99.0
							301		10.0		99.0		0.0		99.0
							411		0.0		99.0		0.0		99.0
							Mean =		2.5		99.0		0.0		99.0
7	CHA-2745 CHA-060 DAWN	5 EC 25 WG 2 AS		1.0 lb ai/a 0.023 lb ai/a 0.28 lb ai/a		PREMCR A PREMCR A PREMCR A	107	1	0.0	2	99.0	3	0.0	4	99.0
							204		0.0		99.0		0.0		99.0
							308		0.0		99.0		0.0		99.0
							403		10.0		99.0		0.0		99.0
							Mean =		2.5		99.0		0.0		99.0
8	CHA-2745 CHA-060 SPARTAN	5 EC 25 WG 4 F		1.0 lb ai/a 0.02 lb ai/a 0.16 lb ai/a		PREMCR A PREMCR A PREMCR A	108	1	0.0	2	99.0	3	0.0	4	99.0
							211		0.0		99.0		0.0		99.0
							302		0.0		99.0		0.0		99.0
							407		10.0		99.0		0.0		99.0
							Mean =		2.5		99.0		0.0		99.0
9	DUAL MAGNUM	7.62 EC		1.0 lb ai/a		PREMCR A	109	1	0.0	2	99.0	3	0.0	4	99.0
							202		0.0		99.0		0.0		95.0
							305		0.0		99.0		0.0		95.0
							409		0.0		99.0		0.0		95.0
							Mean =		0.0		99.0		0.0		96.0
10	SPARTAN	4 F		0.14 lb ai/a		PREMCR A	110	1	0.0	2	99.0	3	0.0	4	99.0
							208		0.0		95.0		0.0		90.0
							310		0.0		99.0		0.0		99.0
							405		0.0		99.0		0.0		95.0
							Mean =		0.0		98.0		0.0		95.8

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	GLYMA	AMAPA	GLYMA	AMAPA
Pest Scientific Name	Glyceria maxima	Amaranthus pal>	Glyceria maxima	Amaranthus pal>
Pest Name	Great water gr>	Palmer amaranth	Great water gr>	Palmer amaranth
Description	STUNTING	CONTROL	STUNTING	CONTROL
Rating Date	May-19-15	May-19-15	May-28-15	May-28-15
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	12 12	12 12	21 21	21 21
Trt-Eval Interval	12 DA-A	12 DA-A	21 DA-A	21 DA-A
Plant-Eval Interval	13 DP-1	13 DP-1	22 DP-1	22 DP-1
Trt Treatment	Form Form	Rate Growth	Appl	
No. Name	Conc Type	Rate Unit Stage	Code Plot	
11 AUTHORITY ELITE	7 L	1.37 lb ai/a	PREMCR A	
			111	1
			210	2
			311	3
			410	4
			Mean =	
12 UNTREATED			112	1
			203	2
			304	3
			402	4
			Mean =	

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Pest Type						W Weed	ANNUAL	W Weed	W Weed		
Pest Code						MOLVE	GRASS	GLYMA	AMAPA		
Pest Scientific Name						Mollugo vertic>		Glyceria maxima	Amaranthus pal>		
Pest Name						Carpetweed		Great water gr>	Palmer amaranth		
Description						CONTROL	CONTROL	STUNTING	CONTROL		
Rating Date						May-28-15	May-28-15	Jun-3-15	Jun-3-15		
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT		
Number of Subsamples						1	1	1	1		
Days After First/Last Applic.						21 21	21 21	27 27	27 27		
Trt-Eval Interval						21 DA-A	21 DA-A	27 DA-A	27 DA-A		
Plant-Eval Interval						22 DP-1	22 DP-1	28 DP-1	28 DP-1		
Trt	Treatment	Form	Form	Rate	Growth	Appl					
No.	Name	Conc	Type	Rate	Unit	Stage	Code	Plot			
							5	6	7	8	
1	CHA-2745	5 EC		1.0 lb ai/a		PREMCR A	101	99.0	99.0	0.0	70.0
							209	99.0	90.0	0.0	50.0
							307	99.0	99.0	0.0	65.0
							412	99.0	99.0	0.0	50.0
							Mean =	99.0	96.8	0.0	58.8
2	CHA-2745	5 EC		1.25 lb ai/a		PREMCR A	102	99.0	99.0	0.0	75.0
							212	99.0	99.0	0.0	99.0
							309	99.0	99.0	0.0	60.0
							406	99.0	95.0	0.0	99.0
							Mean =	99.0	98.0	0.0	83.3
3	CHA-2745	5 EC		1.5 lb ai/a		PREMCR A	103	99.0	95.0	0.0	95.0
							206	99.0	90.0	0.0	99.0
							303	99.0	95.0	0.0	85.0
							408	99.0	99.0	0.0	85.0
							Mean =	99.0	94.8	0.0	91.0
4	CHA-2745	5 EC		1.25 lb ai/a		PREMCR A	104	99.0	99.0	0.0	99.0
	DAWN	2 AS		0.30 lb ai/a		PREMCR A	201	99.0	99.0	0.0	99.0
							306	99.0	99.0	0.0	99.0
							401	99.0	90.0	0.0	99.0
							Mean =	99.0	96.8	0.0	99.0
5	CHA-2745	5 EC		1.25 lb ai/a		PREMCR A	105	99.0	99.0	10.0	99.0
	CHA-060	25 WG		0.026 lb ai/a		PREMCR A	207	99.0	99.0	0.0	99.0
							312	99.0	99.0	0.0	99.0
							404	99.0	99.0	0.0	90.0
							Mean =	99.0	99.0	2.5	96.8
6	CHA-2745	5 EC		1.25 lb ai/a		PREMCR A	106	99.0	95.0	0.0	99.0
	SPARTAN	4 F		0.14 lb ai/a		PREMCR A	205	99.0	85.0	0.0	99.0
							301	99.0	95.0	0.0	95.0
							411	99.0	99.0	0.0	99.0
							Mean =	99.0	93.5	0.0	98.0
7	CHA-2745	5 EC		1.0 lb ai/a		PREMCR A	107	99.0	99.0	0.0	99.0
	CHA-060	25 WG		0.023 lb ai/a		PREMCR A	204	99.0	99.0	0.0	99.0
	DAWN	2 AS		0.28 lb ai/a		PREMCR A	308	99.0	99.0	0.0	99.0
							403	99.0	99.0	0.0	99.0
							Mean =	99.0	99.0	0.0	99.0
8	CHA-2745	5 EC		1.0 lb ai/a		PREMCR A	108	99.0	99.0	0.0	99.0
	CHA-060	25 WG		0.02 lb ai/a		PREMCR A	211	99.0	99.0	0.0	99.0
	SPARTAN	4 F		0.16 lb ai/a		PREMCR A	302	99.0	95.0	0.0	95.0
							407	99.0	99.0	0.0	99.0
							Mean =	99.0	98.0	0.0	98.0
9	DUAL MAGNUM	7.62 EC		1.0 lb ai/a		PREMCR A	109	99.0	99.0	0.0	99.0
							202	99.0	90.0	0.0	85.0
							305	99.0	99.0	0.0	99.0
							409	99.0	99.0	0.0	65.0
							Mean =	99.0	96.8	0.0	87.0
10	SPARTAN	4 F		0.14 lb ai/a		PREMCR A	110	99.0	90.0	10.0	99.0
							208	99.0	85.0	0.0	85.0
							310	99.0	95.0	0.0	99.0
							405	99.0	90.0	0.0	90.0
							Mean =	99.0	90.0	2.5	93.3

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Pest Type						A. GRASS	W Weed	ANNUAL
Pest Code							AMAPA	GRASS
Pest Scientific Name						Pante	Amaranthus pal>	
Pest Name						Crab	Palmer amaranth	
Description						CONTROL	CONTROL	CONTROL
Rating Date						Jun-3-15	Jun-29-15	Jun-29-15
Rating Unit						PERCENT	PERCENT	PERCENT
Number of Subsamples						1	1	1
Days After First/Last Applic.						27 27	53 53	53 53
Trt-Eval Interval						27 DA-A	53 DA-A	53 DA-A
Plant-Eval Interval						28 DP-1	54 DP-1	54 DP-1
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Growth Stage	Appl Code	Plot	
1	CHA-2745	5 EC		1.0 lb ai/a	PREMCR A	101	9	65.0
						209		85.0
						307		95.0
						412		95.0
						Mean =		85.0
2	CHA-2745	5 EC		1.25 lb ai/a	PREMCR A	102	10	75.0
						212		85.0
						309		99.0
						406		85.0
						Mean =		86.0
3	CHA-2745	5 EC		1.5 lb ai/a	PREMCR A	103	11	90.0
						206		80.0
						303		99.0
						408		95.0
						Mean =		91.0
4	CHA-2745	5 EC		1.25 lb ai/a	PREMCR A	104		95.0
	DAWN	2 AS		0.30 lb ai/a	PREMCR A	201		95.0
						306		99.0
						401		95.0
						Mean =		96.0
5	CHA-2745	5 EC		1.25 lb ai/a	PREMCR A	105		85.0
	CHA-060	25 WG		0.026 lb ai/a	PREMCR A	207		99.0
						312		99.0
						404		95.0
						Mean =		94.5
6	CHA-2745	5 EC		1.25 lb ai/a	PREMCR A	106		85.0
	SPARTAN	4 F		0.14 lb ai/a	PREMCR A	205		65.0
						301		99.0
						411		99.0
						Mean =		87.0
7	CHA-2745	5 EC		1.0 lb ai/a	PREMCR A	107		95.0
	CHA-060	25 WG		0.023 lb ai/a	PREMCR A	204		99.0
	DAWN	2 AS		0.28 lb ai/a	PREMCR A	308		99.0
						403		95.0
						Mean =		97.0
8	CHA-2745	5 EC		1.0 lb ai/a	PREMCR A	108		95.0
	CHA-060	25 WG		0.02 lb ai/a	PREMCR A	211		95.0
	SPARTAN	4 F		0.16 lb ai/a	PREMCR A	302		99.0
						407		99.0
						Mean =		97.0
9	DUAL MAGNUM	7.62 EC		1.0 lb ai/a	PREMCR A	109		95.0
						202		65.0
						305		99.0
						409		99.0
						Mean =		89.5
10	SPARTAN	4 F		0.14 lb ai/a	PREMCR A	110		85.0
						208		85.0
						310		90.0
						405		65.0
						Mean =		81.3

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Pest Type	A. GRASS	W Weed	ANNUAL
Pest Code	Pante	AMAPA	GRASS
Pest Scientific Name	Crab	Amaranthus pal>	
Pest Name	CONTROL	Palmer amaranth	CONTROL
Description	Jun-3-15	Jun-29-15	Jun-29-15
Rating Date	PERCENT	PERCENT	PERCENT
Rating Unit	1	1	1
Number of Subsamples	27 27	53 53	53 53
Days After First/Last Applic.	27 DA-A	53 DA-A	53 DA-A
Trt-Eval Interval	28 DP-1	54 DP-1	54 DP-1
Plant-Eval Interval			
Trt Treatment	Form Form	Rate	Growth Appl
No. Name	Conc Type	Rate Unit	Stage Code Plot
11 AUTHORITY ELITE	7 L	1.37 lb ai/a	PREMCR A
			111
			210
			311
			410
			Mean =
12 UNTREATED			112
			203
			304
			402
			Mean =

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TO DETERMINE THE EFFICACY & SELECTIVITY OF CHA-2745 (PETHOXAMID) WHEN APPLIED PRE ALONE AND IN TANK MIX TO SOYBEAN IN 2015

Trial ID: SB-03-15 Location: PONDER FARM Trial Year: 2015
Protocol ID: HGLXMAPET1502 Investigator: Eric P. Prostko
Project ID: HGLXAMPET1502 Study Director: BRENT JACOBSON
 Sponsor Contact: ANDY KENDIG

Pest Type

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

Pest Code

GLYMA, Glyceria maxima, = US
AMAPA, Amaranthus palmeri, = US
MOLVE, Mollugo verticillata, = US

Rating Unit

PERCENT = percent

Plant-Eval Interval

13 DP-1 = 1 GLXMA May-6-15
22 DP-1 = 1 GLXMA May-6-15
28 DP-1 = 1 GLXMA May-6-15
54 DP-1 = 1 GLXMA May-6-15