

University of Georgia

WEED CONTROL IN INZEN Z GRAIN SORGHUM WITH ZEST											
Trial ID: SG-01-14		Study Dir.: STANLEY ROYAL									
Location: PONDER FARM		Investigator: Eric P. Prostko									
Reps: 4		Plots: 6 by 25 feet									
Spray vol: 15 gal/ac		Mix size: 1.5 liters (min .78211)									
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Rep 1	2	3	4
1	ZEST	0.33	SC	12.0 oz/a	EPOST	B	9.374 ml/mx	101	208	312	410
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B	9.96 g/mx				
	COC			1.0 % v/v	EPOST	B	15.0 ml/mx				
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B	37.5 ml/mx				
2	ZEST	0.33	SC	12.0 oz/a	EPOST	B	9.374 ml/mx	102	203	309	405
	HUSKIE	2.08	EC	13.0 oz/a	EPOST	B	10.16 ml/mx				
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B	9.96 g/mx				
	COC			1.0 % v/v	EPOST	B	15.0 ml/mx				
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B	37.5 ml/mx				
3	ZEST	0.33	SC	12.0 oz/a	EPOST	B	9.374 ml/mx	103	207	303	406
	CLARITY	4	SL	8.0 oz/a	EPOST	B	6.249 ml/mx				
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B	9.96 g/mx				
	COC			1.0 % v/v	EPOST	B	15.0 ml/mx				
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B	37.5 ml/mx				
4	ZEST	0.33	SC	12.0 oz/a	EPOST	B	9.374 ml/mx	104	210	308	403
	2,4-D ESTER	4	EC	8.0 oz/a	EPOST	B	6.249 ml/mx				
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B	9.96 g/mx				
	COC			1.0 % v/v	EPOST	B	15.0 ml/mx				
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B	37.5 ml/mx				
5	ZEST	0.33	SC	12.0 oz/a	EPOST	B	9.374 ml/mx	105	204	311	408
	ALLY	60	DF	0.05 oz/a	EPOST	B	.03745 g/mx				
	2,4-D ESTER	4	EC	8.0 oz/a	EPOST	B	6.249 ml/mx				
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B	9.96 g/mx				
	COC			1.0 % v/v	EPOST	B	15.0 ml/mx				
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B	37.5 ml/mx				
6	CINCH ATZ	5.5	EC	51.0 oz/a	PRE	A	39.84 ml/mx	106	212	301	402
	ZEST	0.33	SC	12.0 oz/a	POST	C	9.374 ml/mx				
	2,4-D ESTER	4	EC	8.0 oz/a	POST	C	6.249 ml/mx				
	ATRAZINE	90	DF	13.3 oz/a	POST	C	9.96 g/mx				
	COC			1.0 % v/v	POST	C	15.0 ml/mx				
	AMS XTRA	3.4	SL	2.5 % v/v	POST	C	37.5 ml/mx				
7	CINCH ATZ	5.5	EC	51.0 oz/a	PRE	A	39.84 ml/mx	107	202	304	412
	ZEST	0.33	SC	12.0 oz/a	POST	C	9.374 ml/mx				
	HUSKIE	2.08	EC	13.0 oz/a	POST	C	10.16 ml/mx				
	ATRAZINE	90	DF	13.3 oz/a	POST	C	9.96 g/mx				
	COC			1.0 % v/v	POST	C	15.0 ml/mx				
	AMS XTRA	3.4	SL	2.5 % v/v	POST	C	37.5 ml/mx				
8	CINCH ATZ	5.5	EC	51.0 oz/a	PRE	A	39.84 ml/mx	108	209	305	411
	ZEST	0.33	SC	12.0 oz/a	POST	C	9.374 ml/mx				
	CLARITY	4	SL	8.0 oz/a	POST	C	6.249 ml/mx				
	ATRAZINE	90	DF	13.3 oz/a	POST	C	9.96 g/mx				
	COC			1.0 % v/v	POST	C	15.0 ml/mx				
	AMS XTRA	3.4	SL	2.5 % v/v	POST	C	37.5 ml/mx				
9	CINCH ATZ	5.5	EC	51.0 oz/a	PRE	A	39.84 ml/mx	109	201	307	404
10	DUAL II MAGNUM	7.62	EC	16.0 oz/a	PRE	A	12.5 ml/mx	110	206	302	401
	ZEST	0.33	SC	12.0 oz/a	POST	C	9.374 ml/mx				
	ATRAZINE	90	DF	13.3 oz/a	POST	C	9.96 g/mx				
	COC			1.0 % v/v	POST	C	15.0 ml/mx				
11	DUAL II MAGNUM	7.62	EC	16.0 oz/a	PRE	A	12.5 ml/mx	111	205	310	409
	ATRAZINE	4	L	48.0 oz/a	POST	C	37.5 ml/mx				
	COC			1.0 % v/v	POST	C	15.0 ml/mx				
12	WARRANT	3	CS	48.0 oz/a	PRE	A	37.5 ml/mx	112	211	306	407
	ZEST	0.33	SC	12.0 oz/a	POST	C	9.374 ml/mx				
	ATRAZINE	90	DF	13.3 oz/a	POST	C	9.96 g/mx				
	COC			1.0 % v/v	POST	C	15.0 ml/mx				

Sort Order: Treatment

Trial Comments

ZEST = LIQUID NICOSULFURON

HUSKIE = BROMOXYNIL (1.75 LBS/GAL) + PYRASULFOTOLE (0.31 LBS/GAL) + MEFENPYR (SAFENER)

HARVEST DATE: AUGUST 6

HARVEST MOISTURE: 23%

YIELDS ADJUSTED TO 13%

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ANNUAL GRASS = TEXAS PANICUM + CRABGRASS

A NTC WAS NOT INCLUDED IN THE TREATMENT LIST. HOWEVER, PLOTS WERE COMPARED TO UNTREATED AREAS IN ADJACENT PLOTS.

YIELDS WERE OBTAINED WITH NEW PLOT COMBINE. HOWEVER, THIS WAS THE THE FIRST FULL DAY OF ITS USE AND NUMEROUS TECHNICAL PROBLEMS OCCURRED.

SUMMARY:

1) PRE APPLICATIONS OF CINCH ATZ, DUAL MAGNUM, AND WARRANT CAUSED SLIGHT SORGHUM STUNTING (3-10%).

2) PALMER AMARANTH CONTROL WAS GREATER THAN 90% WITH ALL TREATMENTS THROUGHOUT THE GROWING SEASON.

3) ON JUNE 19 (31 DAP), ANNUAL GRASS CONTROL WAS GREATER THAN 80% WITH ALL TREATMENTS EXCEPT THE FOLLOWING:

CINCH ATZ - PRE = 69% CONTROL

DUAL II MAGNUM - PRE FB ATRAZINE-POST = 73% CONTROL

4) THE HIGHEST LEVEL OF GRASS CONTROL ON JUNE 19 (91%) WAS PROVIDED BY THE FOLLOWING TREATMENT:

DUAL II MAGNUM-PRE FB ZEST + ATRAZINE-POST

5) NO DIFFERENCES IN SORGHUM YIELD WERE OBSERVED.

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WEED CONTROL IN INZEN Z GRAIN SORGHUM WITH ZEST	
Trial ID: SG-01-14	Study Dir.: STANLEY ROYAL
Location: PONDER FARM	Investigator: Eric P. Prostko

GENERAL TRIAL INFORMATION			
Study Director: STANLEY ROYAL		Title: _____	
Affiliation: _____		Postal Code: _____	
Investigator: Eric P. Prostko		Title: _____	
Affiliation: _____		Postal Code: _____	
Trial Status: _____		Initiation Date: _____	
City: _____		Country: _____	
State/Prov.: _____		Postal Code: _____	
Conducted Under GLP (Y/N): N		Conducted Under GEP (Y/N): N	
Objective: _____			
Conclusions: _____			

CROP AND PEST DESCRIPTION			
Weed 1. AMAPA PALMER AMARANTH 2. AGRASS TEXAS PANICUM + CRABGRASS			
Crop 1: SORBI	GRAIN SORGHU	Variety: YSA3527	Planting Date: May-5-14
Planting Method: MONOSEM		Rate: 87120 SEED/A	Depth: 1.5 IN
Perennial Age: _____	Row Spacing: 36 IN	Seed Bed: _____	
Soil Temperature: _____	Soil Moisture: OPTIMUM	Emergence Date: _____	
Plot Width, Unit: 6 FT	Plot Length, Unit: 25 FT	Reps: 4	
Site Type: _____			
Tillage Type: CONVENTIONAL		Study Design: RACOB	
Trial Initiation Comments: CONCEP II SEED TREATMENT:			
Previous: Crops PEANUT Pesticides 2013 Year _____			

MAINTENANCE							
Field Prep./Maintenance: _____							
No.	Date	Treatment Name	Form	Form	Form	Rate	Unit
1.	_____	_____	_____	_____	_____	_____	_____

SOIL DESCRIPTION				
Texture: LOAMY SAND	% OM: 0.61	% Sand: 94	% Silt: 4	% Clay: 2
pH: 6.2	CEC: 2.5	Soil Name: TIFTON	Fertility Level: GOOD	
MOISTURE CONDITIONS				
On: Date	Time	Amount	Unit	Interval Unit
1.	_____	_____	_____	_____
Overall Moisture Conditions: _____				
Closest Weather Station: _____		Distance: _____		Unit: _____

APPLICATION DESCRIPTION						
	A	B	C	D	E	F
Application Date:	May-6-14	May-19-14	Jun-5-14	_____	_____	_____
Time of Day:	8:00AM	7:20AM	6:30AM	_____	_____	_____
Application Method:	BROADCAST	BROADCAST	BROADCAST	_____	_____	_____
Application Timing:	PRE	EPOST	POST	_____	_____	_____
Applic. Placement:	SOIL	FOLIAGE	FOLIAGE	_____	_____	_____
Air Temp., Unit:	64 F	65 F	72 F	_____	_____	_____
% Relative Humidity:	70	78	92	_____	_____	_____
Wind Velocity, Unit:	4 MPH	3 MPH	0 MPH	_____	_____	_____
Dew Presence (Y/N):	Y	Y	Y	_____	_____	_____
Water Hardness:	_____	_____	_____	_____	_____	_____
Soil Temp., Unit:	68 F	67 F	76 F	_____	_____	_____
Soil Moisture:	OPT	OPT	OPT	_____	_____	_____
% Cloud Cover:	0	0	10	_____	_____	_____

CROP STAGE AT EACH APPLICATION						
	A	B	C	D	E	F
Crop 1 Stage: SORBI	_____	3-4LEAF	7-8 LEAF	_____	_____	_____
Stage Scale:	_____	_____	_____	_____	_____	_____
Height, Unit:	_____	4 IN	17 IN	_____	_____	_____

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		WEED STAGE AT EACH APPLICATION					
		A	B	C	D	E	F
Weed 1	Stage: AMAPA	_____	1"	2"	_____	_____	_____
	Stage Scale:	_____	_____	_____	_____	_____	_____
	Density, Unit:	_____	_____	_____	_____	_____	_____
Weed 2	Stage: AGRASS	_____	1"	2"-6"	_____	_____	_____
	Stage Scale:	_____	_____	_____	_____	_____	_____
	Density, Unit:	_____	_____	_____	_____	_____	_____

		APPLICATION EQUIPMENT					
		A	B	C	D	E	F
Appl. Equipment:	BACKPACK	BACKPACK		SAME	_____	_____	_____
Operating Pressure:	32	39		_____	_____	_____	_____
Nozzle Type:	AIXR	DG		_____	_____	_____	_____
Nozzle Size:	11002	11002		_____	_____	_____	_____
Nozzle Spacing, Unit:	20	IN	20	IN	_____	_____	_____
Nozzles/Row:	_____	_____		_____	_____	_____	_____
Band Width, Unit:	_____	_____		_____	_____	_____	_____
Boom Length, Unit:	60	IN	60	IN	_____	_____	_____
Boom Height, Unit:	20	IN	20	IN	_____	_____	_____
Ground Speed, Unit:	3	MPH	3.5	MPH	_____	_____	_____
Incorporation Equip.:	_____	_____		_____	_____	_____	_____
Hours to Incorp.:	_____	_____		_____	_____	_____	_____
Incorp. Depth, Unit:	_____	_____		_____	_____	_____	_____
Carrier:	WATER	15		_____	_____	_____	_____
Spray Volume, Unit:	15	GPA	15	GPA	_____	_____	_____
Spray pH:	_____	_____		_____	_____	_____	_____
Propellant:	CO2	CO2		_____	_____	_____	_____
Tank Mix (Y/N):	—	—		—	—	—	—

Trt No	Treatment Application Comment
_____	_____

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WEED CONTROL IN INZEN Z GRAIN SORGHUM WITH ZEST														
Trial ID: SG-01-14					Study Dir.: STANLEY ROYAL									
Location: PONDER FARM					Investigator: Eric P. Prostko									
Weed Code							-----	AMAPA	ANNUAL	-----	AMAPA	ANNUAL	AMAPA	
Crop Code							SORBI	-----	GRASS	SORBI	-----	GRASS	-----	
Part Rated							PLANT -			PLANT -				
Rating Data Type							STUNT			STUNT				
Rating Unit							PERCENT	CONTROL	CONTROL	PERCENT	CONTROL	CONTROL	PERCENT	
Rating Date							May-19-14	May-19-14	May-19-14	May-30-14	May-30-14	May-30-14	Jun-19-14	
PRM Data Type														
# Subsamples, Dec.														
Trt	Treatment	Form	Form	Rate	Grow	Appl								
No.	Name	Conc	Type	Rate	Unit	Stg	Code	1	2	3	4	5	6	7
1	ZEST	0.33	SC	12.0	oz/a	EPOST	B	0.0 d	0.0 a	0.0 b	0.0 a	99.0 a	92.0 abc	98.0 a
	ATRAZINE	90	DF	13.3	oz/a	EPOST	B							
	COC			1.0	% v/v	EPOST	B							
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST	B							
2	ZEST	0.33	SC	12.0	oz/a	EPOST	B	0.0 d	0.0 a	0.0 b	6.3 a	99.0 a	94.5 ab	94.5 bc
	HUSKIE	2.08	EC	13.0	oz/a	EPOST	B							
	ATRAZINE	90	DF	13.3	oz/a	EPOST	B							
	COC			1.0	% v/v	EPOST	B							
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST	B							
3	ZEST	0.33	SC	12.0	oz/a	EPOST	B	0.0 d	0.0 a	0.0 b	7.5 a	99.0 a	95.5 a	95.5 ab
	CLARITY	4	SL	8.0	oz/a	EPOST	B							
	ATRAZINE	90	DF	13.3	oz/a	EPOST	B							
	COC			1.0	% v/v	EPOST	B							
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST	B							
4	ZEST	0.33	SC	12.0	oz/a	EPOST	B	0.0 d	0.0 a	0.0 b	2.5 a	99.0 a	90.8 abc	97.0 ab
	2,4-D ESTER	4	EC	8.0	oz/a	EPOST	B							
	ATRAZINE	90	DF	13.3	oz/a	EPOST	B							
	COC			1.0	% v/v	EPOST	B							
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST	B							
5	ZEST	0.33	SC	12.0	oz/a	EPOST	B	0.0 d	0.0 a	0.0 b	2.5 a	99.0 a	91.0 abc	92.0 c
	ALLY	60	DF	0.05	oz/a	EPOST	B							
	2,4-D ESTER	4	EC	8.0	oz/a	EPOST	B							
	ATRAZINE	90	DF	13.3	oz/a	EPOST	B							
	COC			1.0	% v/v	EPOST	B							
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST	B							
6	CINCH ATZ	5.5	EC	51.0	oz/a	PRE	A	2.5 cd	99.0 a	89.5 a	2.5 a	99.0 a	84.8 cde	98.0 a
	ZEST	0.33	SC	12.0	oz/a	POST	C							
	2,4-D ESTER	4	EC	8.0	oz/a	POST	C							
	ATRAZINE	90	DF	13.3	oz/a	POST	C							
	COC			1.0	% v/v	POST	C							
	AMS XTRA	3.4	SL	2.5	% v/v	POST	C							
7	CINCH ATZ	5.5	EC	51.0	oz/a	PRE	A	7.5 ab	99.0 a	90.5 a	2.5 a	99.0 a	87.0 bcd	97.0 ab
	ZEST	0.33	SC	12.0	oz/a	POST	C							
	HUSKIE	2.08	EC	13.0	oz/a	POST	C							
	ATRAZINE	90	DF	13.3	oz/a	POST	C							
	COC			1.0	% v/v	POST	C							
	AMS XTRA	3.4	SL	2.5	% v/v	POST	C							
8	CINCH ATZ	5.5	EC	51.0	oz/a	PRE	A	5.0 bc	99.0 a	93.0 a	2.5 a	99.0 a	86.3 bcd	98.0 a
	ZEST	0.33	SC	12.0	oz/a	POST	C							
	CLARITY	4	SL	8.0	oz/a	POST	C							
	ATRAZINE	90	DF	13.3	oz/a	POST	C							
	COC			1.0	% v/v	POST	C							
	AMS XTRA	3.4	SL	2.5	% v/v	POST	C							
9	CINCH ATZ	5.5	EC	51.0	oz/a	PRE	A	10.0 a	99.0 a	89.5 a	0.0 a	99.0 a	81.0 de	95.8 ab
10	DUAL II MAGNUM	7.62	EC	16.0	oz/a	PRE	A	5.0 bc	99.0 a	95.5 a	0.0 a	99.0 a	86.0 cd	98.0 a
	ZEST	0.33	SC	12.0	oz/a	POST	C							
	ATRAZINE	90	DF	13.3	oz/a	POST	C							
	COC			1.0	% v/v	POST	C							
11	DUAL II MAGNUM	7.62	EC	16.0	oz/a	PRE	A	10.0 a	99.0 a	87.0 a	5.0 a	98.0 a	81.0 de	97.0 ab
	ATRAZINE	4	L	48.0	oz/a	POST	C							
	COC			1.0	% v/v	POST	C							

Means followed by same letter do not significantly differ (P=.10, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=9,10

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.							----- SORBI PLANT - STUNT PERCENT May-19-14	AMAPA ----- CONTROL PERCENT May-19-14	ANNUAL GRASS CONTROL PERCENT May-19-14	----- SORBI PLANT - STUNT PERCENT May-30-14	AMAPA ----- CONTROL PERCENT May-30-14	ANNUAL GRASS CONTROL PERCENT May-30-14	AMAPA ----- CONTROL PERCENT Jun-19-14
Trt Treatment No. Name	Form Conc	Form Type	Rate Rate	Grow Unit	Stg	Appl Code	1	2	3	4	5	6	7
12 WARRANT	3 CS	48.0 oz/a	PRE	A			5.0 bc	99.0 a	90.5 a	0.0 a	99.0 a	77.5 e	98.0 a
ZEST	0.33 SC	12.0 oz/a	POST	C									
ATRAZINE	90 DF	13.3 oz/a	POST	C									
COC		1.0 % v/v	POST	C									
LSD (P=.10)							4.22	0.00	10.95	6.05	0.69	8.38	3.31
Standard Deviation							3.52	0.00	9.12	5.04	0.58	6.99	2.76
CV							93.8	0.0	17.23	193.51	0.58	8.01	2.86
Grand Mean							3.75	57.75	52.96	2.6	98.92	87.27	96.56
Bartlett's X2							0.139	0.0	2.659	2.136	0.0	10.08	20.99
P(Bartlett's X2)							0.998	.	0.85	0.952	.	0.523	0.033*
Replicate F							1.122	0.000	7.871	0.403	1.000	39.918	16.848
Replicate Prob(F)							0.3541	1.0000	0.0004	0.7515	0.4051	0.0001	0.0001
Treatment F							4.959	0.000	105.245	1.005	1.000	2.619	1.802
Treatment Prob(F)							0.0002	1.0000	0.0001	0.4631	0.4671	0.0160	0.0941

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.							ANNUAL GRASS CONTROL PERCENT Jun-19-14	----- SORBI PLOT - YIELD LBS/PLOT Aug-6-14	----- SORBI PLOT - YIELD BU/A Aug-6-14 TY1
Trt	Treatment	Form	Form	Rate	Grow	Appl	8	9	10
No.	Name	Conc	Type	Unit	Stg	Code			
1	ZEST	0.33	SC	12.0 oz/a	EPOST	B	81.3 a	9.9 a	45 a
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B			
	COC			1.0 % v/v	EPOST	B			
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B			
2	ZEST	0.33	SC	12.0 oz/a	EPOST	B	82.5 a	11.8 a	54 a
	HUSKIE	2.08	EC	13.0 oz/a	EPOST	B			
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B			
	COC			1.0 % v/v	EPOST	B			
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B			
3	ZEST	0.33	SC	12.0 oz/a	EPOST	B	90.8 a	12.1 a	56 a
	CLARITY	4	SL	8.0 oz/a	EPOST	B			
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B			
	COC			1.0 % v/v	EPOST	B			
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B			
4	ZEST	0.33	SC	12.0 oz/a	EPOST	B	88.5 a	12.1 a	56 a
	2,4-D ESTER	4	EC	8.0 oz/a	EPOST	B			
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B			
	COC			1.0 % v/v	EPOST	B			
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B			
5	ZEST	0.33	SC	12.0 oz/a	EPOST	B	85.0 a	11.5 a	53 a
	ALLY	60	DF	0.05 oz/a	EPOST	B			
	2,4-D ESTER	4	EC	8.0 oz/a	EPOST	B			
	ATRAZINE	90	DF	13.3 oz/a	EPOST	B			
	COC			1.0 % v/v	EPOST	B			
	AMS XTRA	3.4	SL	2.5 % v/v	EPOST	B			
6	CINCH ATZ	5.5	EC	51.0 oz/a	PRE	A	88.5 a	11.0 a	50 a
	ZEST	0.33	SC	12.0 oz/a	POST	C			
	2,4-D ESTER	4	EC	8.0 oz/a	POST	C			
	ATRAZINE	90	DF	13.3 oz/a	POST	C			
	COC			1.0 % v/v	POST	C			
	AMS XTRA	3.4	SL	2.5 % v/v	POST	C			
7	CINCH ATZ	5.5	EC	51.0 oz/a	PRE	A	86.3 a	11.1 a	51 a
	ZEST	0.33	SC	12.0 oz/a	POST	C			
	HUSKIE	2.08	EC	13.0 oz/a	POST	C			
	ATRAZINE	90	DF	13.3 oz/a	POST	C			
	COC			1.0 % v/v	POST	C			
	AMS XTRA	3.4	SL	2.5 % v/v	POST	C			
8	CINCH ATZ	5.5	EC	51.0 oz/a	PRE	A	86.3 a	12.3 a	56 a
	ZEST	0.33	SC	12.0 oz/a	POST	C			
	CLARITY	4	SL	8.0 oz/a	POST	C			
	ATRAZINE	90	DF	13.3 oz/a	POST	C			
	COC			1.0 % v/v	POST	C			
	AMS XTRA	3.4	SL	2.5 % v/v	POST	C			
9	CINCH ATZ	5.5	EC	51.0 oz/a	PRE	A	68.8 a	10.5 a	48 a
10	DUAL II MAGNUM	7.62	EC	16.0 oz/a	PRE	A	91.0 a	12.0 a	55 a
	ZEST	0.33	SC	12.0 oz/a	POST	C			
	ATRAZINE	90	DF	13.3 oz/a	POST	C			
	COC			1.0 % v/v	POST	C			
11	DUAL II MAGNUM	7.62	EC	16.0 oz/a	PRE	A	72.5 a	11.7 a	54 a
	ATRAZINE	4	L	48.0 oz/a	POST	C			
	COC			1.0 % v/v	POST	C			

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Weed Code							ANNUAL	-----	-----
Crop Code							GRASS	SORBI	SORBI
Part Rated								PLOT -	PLOT -
Rating Data Type							CONTROL	YIELD	YIELD
Rating Unit							PERCENT	LBS/PLOT	BU/A
Rating Date							Jun-19-14	Aug-6-14	Aug-6-14
PRM Data Type								TY1	
# Subsamples, Dec.								- 1	- 0
Trt	Treatment	Form	Form	Rate	Grow	Appl			
No.	Name	Conc	Type	Rate	Unit	Stg	Code		
							8	9	10
12	WARRANT	3	CS	48.0	oz/a	PRE	A		
	ZEST	0.33	SC	12.0	oz/a	POST	C		
	ATRAZINE	90	DF	13.3	oz/a	POST	C		
	COC			1.0	% v/v	POST	C		
LSD (P=.10)							12.72	2.27	10.4
Standard Deviation							10.60	1.89	8.7
CV							12.72	16.4	16.4
Grand Mean							83.33	11.52	52.89
Bartlett's X2							7.431	14.576	14.576
P(Bartlett's X2)							0.763	0.203	0.203
Replicate F							20.825	0.502	0.502
Replicate Prob(F)							0.0001	0.6839	0.6839
Treatment F							1.758	0.702	0.702
Treatment Prob(F)							0.1034	0.7267	0.7267

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WEED CONTROL IN INZEN Z GRAIN SORGHUM WITH ZEST	
Trial ID: SG-01-14	Study Dir.: STANLEY ROYAL
Location: PONDER FARM	Investigator: Eric P. Prostko
<u>Weed Code</u> AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.	
<u>Part Rated</u> PLANT = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf)	
<u>PRM Data Type</u> TY1 = 4.589655*[C9]	

University of Georgia

WEED CONTROL IN INZEN Z GRAIN SORGHUM WITH ZEST														
Trial ID: SG-01-14		Study Dir.: STANLEY ROYAL												
Location: PONDER FARM		Investigator: Eric P. Prostko												
Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.							----- SORBI PLANT - STUNT PERCENT May-19-14	AMAPA ----- CONTROL PERCENT May-19-14	ANNUAL GRASS CONTROL PERCENT May-19-14	----- SORBI PLANT - STUNT PERCENT May-30-14	AMAPA ----- CONTROL PERCENT May-30-14	ANNUAL GRASS CONTROL PERCENT May-30-14		
Trt	Treatment	Form	Form	Rate	Grow	Appl								
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	1	2	3	4	5	6
1	ZEST	0.33	SC	12.0	oz/a	EPOST B	101		0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	90	DF	13.3	oz/a	EPOST B	208		0.0	0.0	0.0	0.0	99.0	99.0
	COC			1.0	% v/v	EPOST B	312		0.0	0.0	0.0	0.0	99.0	85.0
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST B	410		0.0	0.0	0.0	0.0	99.0	85.0
							Mean =		0.0	0.0	0.0	0.0	99.0	92.0
2	ZEST	0.33	SC	12.0	oz/a	EPOST B	102		0.0	0.0	0.0	0.0	99.0	95.0
	HUSKIE	2.08	EC	13.0	oz/a	EPOST B	203		0.0	0.0	0.0	10.0	99.0	99.0
	ATRAZINE	90	DF	13.3	oz/a	EPOST B	309		0.0	0.0	0.0	0.0	99.0	99.0
	COC			1.0	% v/v	EPOST B	405		0.0	0.0	0.0	15.0	99.0	85.0
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST B								
							Mean =		0.0	0.0	0.0	6.3	99.0	94.5
3	ZEST	0.33	SC	12.0	oz/a	EPOST B	103		0.0	0.0	0.0	0.0	99.0	99.0
	CLARITY	4	SL	8.0	oz/a	EPOST B	207		0.0	0.0	0.0	15.0	99.0	99.0
	ATRAZINE	90	DF	13.3	oz/a	EPOST B	303		0.0	0.0	0.0	15.0	99.0	99.0
	COC			1.0	% v/v	EPOST B	406		0.0	0.0	0.0	0.0	99.0	85.0
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST B								
							Mean =		0.0	0.0	0.0	7.5	99.0	95.5
4	ZEST	0.33	SC	12.0	oz/a	EPOST B	104		0.0	0.0	0.0	0.0	99.0	99.0
	2,4-D ESTER	4	EC	8.0	oz/a	EPOST B	210		0.0	0.0	0.0	0.0	99.0	99.0
	ATRAZINE	90	DF	13.3	oz/a	EPOST B	308		0.0	0.0	0.0	0.0	99.0	85.0
	COC			1.0	% v/v	EPOST B	403		0.0	0.0	0.0	10.0	99.0	80.0
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST B								
							Mean =		0.0	0.0	0.0	2.5	99.0	90.8
5	ZEST	0.33	SC	12.0	oz/a	EPOST B	105		0.0	0.0	0.0	0.0	99.0	95.0
	ALLY	60	DF	0.05	oz/a	EPOST B	204		0.0	0.0	0.0	10.0	99.0	99.0
	2,4-D ESTER	4	EC	8.0	oz/a	EPOST B	311		0.0	0.0	0.0	0.0	99.0	85.0
	ATRAZINE	90	DF	13.3	oz/a	EPOST B	408		0.0	0.0	0.0	0.0	99.0	85.0
	COC			1.0	% v/v	EPOST B								
	AMS XTRA	3.4	SL	2.5	% v/v	EPOST B								
							Mean =		0.0	0.0	0.0	2.5	99.0	91.0
6	CINCH ATZ	5.5	EC	51.0	oz/a	PRE	A	106	0.0	99.0	95.0	0.0	99.0	95.0
	ZEST	0.33	SC	12.0	oz/a	POST	C	212	0.0	99.0	99.0	0.0	99.0	99.0
	2,4-D ESTER	4	EC	8.0	oz/a	POST	C	301	10.0	99.0	99.0	10.0	99.0	85.0
	ATRAZINE	90	DF	13.3	oz/a	POST	C	402	0.0	99.0	65.0	0.0	99.0	60.0
	COC			1.0	% v/v	POST	C							
	AMS XTRA	3.4	SL	2.5	% v/v	POST	C							
							Mean =		2.5	99.0	89.5	2.5	99.0	84.8
7	CINCH ATZ	5.5	EC	51.0	oz/a	PRE	A	107	10.0	99.0	99.0	10.0	99.0	99.0
	ZEST	0.33	SC	12.0	oz/a	POST	C	202	0.0	99.0	99.0	0.0	99.0	99.0
	HUSKIE	2.08	EC	13.0	oz/a	POST	C	304	10.0	99.0	99.0	0.0	99.0	85.0
	ATRAZINE	90	DF	13.3	oz/a	POST	C	412	10.0	99.0	65.0	0.0	99.0	65.0
	COC			1.0	% v/v	POST	C							
	AMS XTRA	3.4	SL	2.5	% v/v	POST	C							
							Mean =		7.5	99.0	90.5	2.5	99.0	87.0
8	CINCH ATZ	5.5	EC	51.0	oz/a	PRE	A	108	10.0	99.0	99.0	0.0	99.0	95.0
	ZEST	0.33	SC	12.0	oz/a	POST	C	209	0.0	99.0	99.0	0.0	99.0	95.0
	CLARITY	4	SL	8.0	oz/a	POST	C	305	0.0	99.0	99.0	10.0	99.0	90.0
	ATRAZINE	90	DF	13.3	oz/a	POST	C	411	10.0	99.0	75.0	0.0	99.0	65.0
	COC			1.0	% v/v	POST	C							
	AMS XTRA	3.4	SL	2.5	% v/v	POST	C							
							Mean =		5.0	99.0	93.0	2.5	99.0	86.3
9	CINCH ATZ	5.5	EC	51.0	oz/a	PRE	A	109	10.0	99.0	99.0	0.0	99.0	99.0
								201	10.0	99.0	99.0	0.0	99.0	95.0
								307	10.0	99.0	95.0	0.0	99.0	70.0
								404	10.0	99.0	65.0	0.0	99.0	60.0
							Mean =		10.0	99.0	89.5	0.0	99.0	81.0

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.						----- SORBI PLANT - STUNT PERCENT May-19-14	AMAPA ----- CONTROL PERCENT May-19-14	ANNUAL GRASS CONTROL PERCENT May-19-14	----- SORBI PLANT - STUNT PERCENT May-30-14	AMAPA ----- CONTROL PERCENT May-30-14	ANNUAL GRASS CONTROL PERCENT May-30-14
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot			
10	DUAL II MAGNUM	7.62	EC	16.0	oz/a	PRE	A	110	0.0	99.0	99.0
	ZEST	0.33	SC	12.0	oz/a	POST	C	206	0.0	99.0	99.0
	ATRAZINE	90	DF	13.3	oz/a	POST	C	302	10.0	99.0	99.0
	COC			1.0	% v/v	POST	C	401	10.0	99.0	85.0
								Mean =	5.0	99.0	86.0
11	DUAL II MAGNUM	7.62	EC	16.0	oz/a	PRE	A	111	10.0	99.0	99.0
	ATRAZINE	4	L	48.0	oz/a	POST	C	205	10.0	99.0	99.0
	COC			1.0	% v/v	POST	C	310	10.0	99.0	65.0
								409	10.0	99.0	65.0
								Mean =	10.0	99.0	81.0
12	WARRANT	3	CS	48.0	oz/a	PRE	A	112	0.0	99.0	95.0
	ZEST	0.33	SC	12.0	oz/a	POST	C	211	10.0	99.0	95.0
	ATRAZINE	90	DF	13.3	oz/a	POST	C	306	0.0	99.0	70.0
	COC			1.0	% v/v	POST	C	407	10.0	99.0	50.0
								Mean =	5.0	99.0	77.5

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.						AMAPA ----- CONTROL PERCENT Jun-19-14	ANNUAL GRASS CONTROL PERCENT Jun-19-14	----- SORBI PLOT - YIELD LBS/PLOT Aug-6-14	----- SORBI PLOT - YIELD BU/A Aug-6-14 TY1
Trt Treatment	Form Form	Rate Grow	Appl						
No. Name	Conc Type	Rate Unit	Stg	Code Plot		7	8	9	10
1 ZEST	0.33 SC	12.0 oz/a	EPOST B	101		95.0	95.0	9.1	42
ATRAZINE	90 DF	13.3 oz/a	EPOST B	208		99.0	95.0	10.7	49
COC		1.0 % v/v	EPOST B	312		99.0	70.0	12.2	56
AMS XTRA	3.4 SL	2.5 % v/v	EPOST B	410		99.0	65.0	7.4	34
				Mean =		98.0	81.3	9.9	45
2 ZEST	0.33 SC	12.0 oz/a	EPOST B	102		85.0	95.0	8.7	40
HUSKIE	2.08 EC	13.0 oz/a	EPOST B	203		95.0	85.0	12.7	58
ATRAZINE	90 DF	13.3 oz/a	EPOST B	309		99.0	90.0	12.9	59
COC		1.0 % v/v	EPOST B	405		99.0	60.0	13.0	60
AMS XTRA	3.4 SL	2.5 % v/v	EPOST B						
				Mean =		94.5	82.5	11.8	54
3 ZEST	0.33 SC	12.0 oz/a	EPOST B	103		85.0	95.0	12.7*	58*
CLARITY	4 SL	8.0 oz/a	EPOST B	207		99.0	99.0	10.3	47
ATRAZINE	90 DF	13.3 oz/a	EPOST B	303		99.0	99.0	12.9	59
COC		1.0 % v/v	EPOST B	406		99.0	70.0	12.6	58
AMS XTRA	3.4 SL	2.5 % v/v	EPOST B						
				Mean =		95.5	90.8	12.1	56
4 ZEST	0.33 SC	12.0 oz/a	EPOST B	104		95.0	95.0	14.3	66
2,4-D ESTER	4 EC	8.0 oz/a	EPOST B	210		95.0	99.0	9.8	45
ATRAZINE	90 DF	13.3 oz/a	EPOST B	308		99.0	85.0	12.4	57
COC		1.0 % v/v	EPOST B	403		99.0	75.0	11.9	55
AMS XTRA	3.4 SL	2.5 % v/v	EPOST B						
				Mean =		97.0	88.5	12.1	56
5 ZEST	0.33 SC	12.0 oz/a	EPOST B	105		85.0	95.0	10.8	50
ALLY	60 DF	0.05 oz/a	EPOST B	204		85.0	85.0	11.4	52
2,4-D ESTER	4 EC	8.0 oz/a	EPOST B	311		99.0	65.0	11.3	52
ATRAZINE	90 DF	13.3 oz/a	EPOST B	408		99.0	95.0	12.3	56
COC		1.0 % v/v	EPOST B						
AMS XTRA	3.4 SL	2.5 % v/v	EPOST B						
				Mean =		92.0	85.0	11.5	53
6 CINCH ATZ	5.5 EC	51.0 oz/a	PRE	A 106		95.0	95.0	13.6	62
ZEST	0.33 SC	12.0 oz/a	POST	C 212		99.0	99.0	12.4	57
2,4-D ESTER	4 EC	8.0 oz/a	POST	C 301		99.0	95.0	7.1	33
ATRAZINE	90 DF	13.3 oz/a	POST	C 402		99.0	65.0	10.7*	49*
COC		1.0 % v/v	POST	C					
AMS XTRA	3.4 SL	2.5 % v/v	POST	C					
				Mean =		98.0	88.5	11.0	50
7 CINCH ATZ	5.5 EC	51.0 oz/a	PRE	A 107		95.0	95.0	10.9	50
ZEST	0.33 SC	12.0 oz/a	POST	C 202		95.0	95.0	11.7	54
HUSKIE	2.08 EC	13.0 oz/a	POST	C 304		99.0	90.0	11.3	52
ATRAZINE	90 DF	13.3 oz/a	POST	C 412		99.0	65.0	10.6	49
COC		1.0 % v/v	POST	C					
AMS XTRA	3.4 SL	2.5 % v/v	POST	C					
				Mean =		97.0	86.3	11.1	51
8 CINCH ATZ	5.5 EC	51.0 oz/a	PRE	A 108		95.0	95.0	11.1	51
ZEST	0.33 SC	12.0 oz/a	POST	C 209		99.0	95.0	12.6	58
CLARITY	4 SL	8.0 oz/a	POST	C 305		99.0	90.0	13.3	61
ATRAZINE	90 DF	13.3 oz/a	POST	C 411		99.0	65.0	12.0*	55*
COC		1.0 % v/v	POST	C					
AMS XTRA	3.4 SL	2.5 % v/v	POST	C					
				Mean =		98.0	86.3	12.3	56
9 CINCH ATZ	5.5 EC	51.0 oz/a	PRE	A 109		90.0	95.0	12.1	56
				201		95.0	90.0	9.4	43
				307		99.0	60.0	10.0	46
				404		99.0	30.0	10.3	47
				Mean =		95.8	68.8	10.5	48

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Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date PRM Data Type # Subsamples, Dec.							AMAPA ----- CONTROL PERCENT Jun-19-14	ANNUAL GRASS CONTROL PERCENT Jun-19-14	----- SORBI PLOT - YIELD LBS/PLOT Aug-6-14 - 1	----- SORBI PLOT - YIELD BU/A Aug-6-14 TY1 - 0
Trt Treatment	Form Form	Rate	Grow	Appl						
No. Name	Conc Type	Rate Unit	Stg	Code Plot						
					7	8	9	10		
10 DUAL II MAGNUM	7.62 EC	16.0 oz/a	PRE	A 110	95.0	95.0	14.3	66		
ZEST	0.33 SC	12.0 oz/a	POST	C 206	99.0	99.0	14.3	66		
ATRAZINE	90 DF	13.3 oz/a	POST	C 302	99.0	90.0	8.7	40		
COC		1.0 % v/v	POST	C 401	99.0	80.0	10.8	50		
				Mean =	98.0	91.0	12.0	55		
11 DUAL II MAGNUM	7.62 EC	16.0 oz/a	PRE	A 111	95.0	95.0	12.8	59		
ATRAZINE	4 L	48.0 oz/a	POST	C 205	95.0	95.0	10.2	47		
COC		1.0 % v/v	POST	C 310	99.0	50.0	11.8	54		
				409	99.0	50.0	11.9	55		
				Mean =	97.0	72.5	11.7	54		
12 WARRANT	3 CS	48.0 oz/a	PRE	A 112	95.0	90.0	14.7	67		
ZEST	0.33 SC	12.0 oz/a	POST	C 211	99.0	95.0	9.9	45		
ATRAZINE	90 DF	13.3 oz/a	POST	C 306	99.0	65.0	13.4	62		
COC		1.0 % v/v	POST	C 407	99.0	65.0	11.8	54		
				Mean =	98.0	78.8	12.5	57		

University of Georgia

WEED CONTROL IN INZEN Z GRAIN SORGHUM
WITH ZEST

Trial ID: SG-01-14 Study Dir.: STANLEY ROYAL
Location: PONDER FARM Investigator: Eric P. Prostko

Weed Code

AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.

Part Rated

PLANT = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf)

PRM Data Type

TY1 = 4.589655*[C9]