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IMPACT Z WITH/WITHOUT PROWL H20 FOR
WEED CONTROL IN FIELD CORN
Trial ID: CN-17-18 Study Dir.: WEN "THIMET" CARTER
Location: PONDER FARM Investigator: Eric P. Prostko

Reps: 3 Plots: 6 by 25 feet
Spray vol: 15 GAL/AC Mix Size: 1.5 L (total for 3 plots; minimum=0.5866 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Rep 1	2	3
1	NTC								101	202	304
2	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	25.0 mL/mx	102	201	303
	ATRAZINE	4	L	64.0	oz/a	POST	A	49.99 mL/mx			
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A	25.0 mL/mx			
3	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	25.0 mL/mx	103	204	301
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A	6.249 mL/mx			
4	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	25.0 mL/mx	104	203	302
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A	6.249 mL/mx			
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A	25.0 mL/mx			

Sort Order: Treatment

Trial Comments

IMPACT Z = TOPRAMEZONE (0.26 LBS AI/GAL) + ATRAZINE (4.0 LBS AI/GAL)

ANNUAL GRASS = NON-UNIFORM MIXTURE OF ANNUL GRASSES INCLUDING TEXAS PANICUM, CRABGRASS, GOOSEGRASS, AND CROWFOOTGRASS.

HARVEST MOISTURE: 15.53%
YIELDS ADJUSTED TO 15.5%

SUMMARY:

1) ROUNDUP + IMPACT AND ROUNDUP + IMPACT + PROWL WERE MORE INJURIOUS THAN ROUNDUP + ATRAZINE + PROWL.

2) PALMER AMARANTH AND ANNUAL GRASS CONTROL WAS EXCELLENT (>97%) WITH ALL TREATMENTS.

3) ALL HERBICIDE TREATMENTS RESULTED IN HIGHER YIELDS THAN THE NTC BUT THERE WERE NO DIFFERENCES IN YIELD BETWEEN HERBICIDE TREATMENTS.

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GENERAL TRIAL INFORMATION

Study Director: WEN "THIMET" CARTER **Title:** _____
Affiliation: _____ **Postal Code:** _____

Investigator: Eric P. Prostko **Title:** _____
Affiliation: _____ **Postal Code:** _____

Trial Status: _____ **Initiation Date:** _____ **Country:** _____
City: _____ **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 CRAB/TX PANICUM/CROW/GOOSE

Crop 1: ZEAMA FIELD CORN **Variety:** DKC 70-27 **Planting Date:** Apr-2-18
Planting Method: MONOSEM **Rate:** 363000 SEED/A **Depth:** 2 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:** 3
Site Type: _____
Tillage Type: CONVENTIONAL **Study Design:** RACOBL
Trial Initiation Comments: 800 LBS/A 5-15-30 - PREPLANT;

Previous:	Crops	Pesticides	Year
1.	PEANUT	2017	____

MAINTENANCE

Field Prep./Maintenance: _____

No.	Date	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	_____	_____	____	_____	___	_____	_____

SOIL DESCRIPTION

Texture: SAND **% OM:** 0.51 **% Sand:** 92 **% Silt:** 4 **% Clay:** 4
pH: 6.2 **CEC:** 2.5 **Soil Name:** FUQUAY **Fertility Level:** GOOD

MOISTURE CONDITIONS

On:	Date	Time	Amount	Unit	Type	Interval	Unit
1.	May-4-18	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	___
2.	May-7-18	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	___
3.	_____	_____	_____	__	_____	_____	___

Overall Moisture Conditions: ABOVE NORMAL
Closest Weather Station: UGA PONDER FARM **Distance:** 2000 **Unit:** FT

APPLICATION DESCRIPTION

		A	B	C	D	E	F
Application Date:	Apr-30-18	_____	_____	_____	_____	_____	
Time of Day:	7:20 AM	_____	_____	_____	_____	_____	
Application Method:	BROADCAST	_____	_____	_____	_____	_____	
Application Timing:	POST	_____	_____	_____	_____	_____	
Applic. Placement:	FOLIAGE	_____	_____	_____	_____	_____	
Air Temp., Unit:	55 F	____ _	____ _	____ _	____ _	____ _	
% Relative Humidity:	67	_____	_____	_____	_____	_____	
Wind Velocity, Unit:	1 MPH	____ ____	____ ____	____ ____	____ ____	____ ____	
Dew Presence (Y/N):	N	_	_	_	_	_	
Water Hardness:	--	_____	_____	_____	_____	_____	
Soil Temp., Unit:	67 F	____ _	____ _	____ _	____ _	____ _	
Soil Moisture:	OPTIMUM	_____	_____	_____	_____	_____	
% Cloud Cover:	0	_____	_____	_____	_____	_____	

CROP STAGE AT EACH APPLICATION

		A	B	C	D	E	F
Crop 1	**Stage:** ZEAMA	_____	_____	_____	_____	_____	
Stage Scale:	V5;8"	_____	_____	_____	_____	_____	
Height, Unit:		____ ____	____ ____	____ ____	____ ____	____ ____	

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WEED STAGE AT EACH APPLICATION

			A	B	C	D	E	F
Weed 1	**Stage:** AMAPA	1-2" TALL						
Stage Scale:								
Density, Unit:								
Weed 2	**Stage:** AGRASS	1-2" TALL						
Stage Scale:								
Density, Unit:								

APPLICATION EQUIPMENT

			A	B	C	D	E	F
Appl. Equipment:	BACKPACK							
Operating Pressure:	40							
Nozzle Type:	AIXR							
Nozzle Size:	11002							
Nozzle Spacing, Unit:	20	IN						
Nozzles/Row:								
Band Width, Unit:								
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							
Spray Volume, Unit:	15	GPA						
Spray pH:								
Propellant:	CO2							
Tank Mix (Y/N):								

Trt No	Treatment Application Comment

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Location: PONDER FARM Investigator: Eric P. Prostko

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6	7
	Weed Code							-----	AMAPA	AGRASS	-----	AMAPA	AGRASS	AMAPA
	Crop Code							ZEAMA	-----	-----	ZEAMA	-----	-----	-----
	Part Rated							PLANT -			PLANT -			
	Rating Data Type							STUNTING	CONTROL	CONTROL	STUNTING	CONTROL	CONTROL	CONTROL
	Rating Unit							PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
	Rating Date							May-10-18	May-10-18	May-10-18	May-21-18	May-21-18	May-21-18	Jun-6-18
	Trt-Eval Interval							10 DA-A	10 DA-A	10 DA-A	21 DA-A	21 DA-A	21 DA-A	37 DA-A
	PRM Data Type													
	# Subsamples, Dec.													
1	NTC							0.0 c	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b
2	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	1.7 c	99.0 a	94.7 a	0.0 b	99.0 a	99.0 a	99.0 a
	ATRAZINE	4	L	64.0	oz/a	POST	A							
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A							
3	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	18.3 a	99.0 a	96.3 a	10.0 a	99.0 a	99.0 a	99.0 a
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A							
4	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	11.7 b	99.0 a	93.0 a	0.0 b	99.0 a	99.0 a	99.0 a
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A							
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A							
	Tukey's HSD P=.10							5.53	.	7.72	.	.	.	.
	Standard Deviation							2.36	0.00	3.29	0.00	0.00	0.00	0.00
	CV							29.77	0.0	4.63	0.0	0.0	0.0	0.0
	Grand Mean							7.92	74.25	71.00	2.50	74.25	74.25	74.25
	Levene's F							0.00	0.00	0.644	0.00	0.00	0.00	0.00
	Levene's Prob(F)							0.00*	0.00*	0.608	0.00*	0.00*	0.00*	0.00*
	Replicate F							1.500	0.000	1.874	0.000	0.000	0.000	0.000
	Replicate Prob(F)							0.2963	1.0000	0.2332	1.0000	1.0000	1.0000	1.0000
	Treatment F							40.375	0.000	622.540	0.000	0.000	0.000	0.000
	Treatment Prob(F)							0.0002	1.0000	0.0001	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.10, Tukey's HSD)
Could not calculate Tukey's HSD (% mean diff) for columns 2,4,5,6,7 because error mean square = 0.

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	8	9	10
	Weed Code							AGRASS	-----	-----
	Crop Code							-----	ZEAMA	ZEAMA
	Part Rated								PLOT -	PLOT -
	Rating Data Type							CONTROL	YIELD	YIELD
	Rating Unit							PERCENT	LBS/PLOT	BU/A
	Rating Date							Jun-6-18	Sep-7-18	Sep-7-18
	Trt-Eval Interval							37 DA-A	130 DA-A	130 DA-A
	PRM Data Type									TY1
	# Subsamples, Dec.									- 0
1	NTC							0.0 b	30.7 b	157 b
2	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	97.7 a	39.3 a	201 a
	ATRAZINE	4	L	64.0	oz/a	POST	A			
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A			
3	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	97.7 a	37.3 a	191 a
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A			
4	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	99.0 a	39.3 a	201 a
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A			
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A			
	Tukey's HSD P=.10							3.13	2.95	15.1
	Standard Deviation							1.33	1.26	6.4
	CV							1.81	3.43	3.43
	Grand Mean							73.58	36.67	187.8
	Levene's F							0.00	0.185	0.185
	Levene's Prob(F)							0.00*	0.904	0.904
	Replicate F							3.000	21.211	21.211
	Replicate Prob(F)							0.1250	0.0019	0.0019
	Treatment F							4061.547	32.000	32.000
	Treatment Prob(F)							0.0001	0.0004	0.0004

Means followed by same letter or symbol do not significantly differ (P=.10, Tukey's HSD)
Could not calculate Tukey's HSD (% mean diff) for columns 2,4,5,6,7 because error mean square = 0.

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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 = 5.122504*[9]

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	1	2	3	4	5	6
	Weed Code								-----	AMAPA	AGRASS	-----	AMAPA	AGRASS
	Crop Code								ZEAMA	-----	-----	ZEAMA	-----	-----
	Part Rated								PLANT -			PLANT -		
	Rating Data Type								STUNTING	CONTROL	CONTROL	STUNTING	CONTROL	CONTROL
	Rating Unit								PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
	Rating Date								May-10-18	May-10-18	May-10-18	May-21-18	May-21-18	May-21-18
	Trt-Eval Interval								10 DA-A	10 DA-A	10 DA-A	21 DA-A	21 DA-A	21 DA-A
	PRM Data Type													
	# Subsamples, Dec.													
1	NTC							101	0.0	0.0	0.0	0.0	0.0	0.0
								202	0.0	0.0	0.0	0.0	0.0	0.0
								304	0.0	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	102	0.0	99.0	99.0	0.0	99.0	99.0
	ATRAZINE	4	L	64.0	oz/a	POST	A	201	0.0	99.0	95.0	0.0	99.0	99.0
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A	303	5.0	99.0	90.0	0.0	99.0	99.0
								Mean =	1.7	99.0	94.7	0.0	99.0	99.0
3	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	103	20.0	99.0	95.0	10.0	99.0	99.0
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A	204	15.0	99.0	99.0	10.0	99.0	99.0
								301	20.0	99.0	95.0	10.0	99.0	99.0
								Mean =	18.3	99.0	96.3	10.0	99.0	99.0
4	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	104	15.0	99.0	99.0	0.0	99.0	99.0
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A	203	10.0	99.0	90.0	0.0	99.0	99.0
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A	302	10.0	99.0	90.0	0.0	99.0	99.0
								Mean =	11.7	99.0	93.0	0.0	99.0	99.0

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	7	8	9	10
	Weed Code								AMAPA	AGRASS	-----	-----
	Crop Code								-----	-----	ZEAMA	ZEAMA
	Part Rated										PLOT -	PLOT -
	Rating Data Type								CONTROL	CONTROL	YIELD	YIELD
	Rating Unit								PERCENT	PERCENT	LBS/PLOT	BU/A
	Rating Date								Jun-6-18	Jun-6-18	Sep-7-18	Sep-7-18
	Trt-Eval Interval								37 DA-A	37 DA-A	130 DA-A	130 DA-A
	PRM Data Type											TY1
	# Subsamples, Dec.											- 0
1	NTC							101	0.0	0.0	33.0	169
								202	0.0	0.0	30.0	154
								304	0.0	0.0	29.0	149
								Mean =	0.0	0.0	30.7	157
2	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	102	99.0	99.0	43.0	220
	ATRAZINE	4	L	64.0	oz/a	POST	A	201	99.0	99.0	38.0	195
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A	303	99.0	95.0	37.0	190
								Mean =	99.0	97.7	39.3	201
3	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	103	99.0	99.0	40.0	205
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A	204	99.0	99.0	35.0	179
								301	99.0	95.0	37.0	190
								Mean =	99.0	97.7	37.3	191
4	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	A	104	99.0	99.0	44.0	225
	IMPACT Z	4.26	SC	8.0	oz/a	POST	A	203	99.0	99.0	36.0	184
	PROWL H2O	3.8	SC	32.0	oz/a	POST	A	302	99.0	99.0	38.0	195
								Mean =	99.0	99.0	39.3	201

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