

University of Georgia

PEANUT RESPONSE TO METRIBUZIN YEAR 2			
Trial ID: PE-04-18		Study Dir.: CULPEPPER	
Location: PONDER FARM		Investigator: Eric P. Prostko	

Reps: 4 Plots: 6 by 25 feet
 Spray vol: 15 GAL/AC Mix Size: 1.5 L (total for 4 plots; minimum=0.782 L)

Trt No.	Treatment Name	Form Conc Type	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Rep 1	2	3	4
1	TRICOR	4 F	16.0 oz/a	PRE	A	12.5 mL/mx	101	204	302	407
2	TRICOR	4 F	12.0 oz/a	PRE	A	9.374 mL/mx	102	201	303	404
3	TRICOR	4 F	8.0 oz/a	PRE	A	6.249 mL/mx	103	202	304	402
4	TRICOR	4 F	4.0 oz/a	PRE	A	3.125 mL/mx	104	207	305	406
5	TRICOR	4 F	2.0 oz/a	PRE	A	1.562 mL/mx	105	203	306	401
6	TRICOR	4 F	0.0 oz/a	PRE	A		107	206	301	405

Sort Order: Treatment

Trial Comments

PROWL H20 @ 32 OZ/A + STRONGARM @ 0.45 OZ/A - PRE (MAY 1, 2018)
 CADRE @ 4 OZ/A + DUAL MAGNUM @ 16 OZ/A + 2,4-DB @ 16 OZ/A (MAY 14, 2018)
 WEED-FREE

DIGGING DATE: SEPTEMBER 17
 HARVEST DATE: SEPTEMBER 20
 HARVEST MOISTURE: 12.5%
 YIELDS ADJUSTED TO 10%
 2% YIELD REDUCTION FOR FM (ROCKS. STEMS, ETC.)

MISSING DATA IN PLOTS 102, 106, 205, 207, 304, 403, AND 405 DUE TO MECHANICAL PROBLEMS THAT OCCURRED AT PLANTING.

SUMMARY:

1) 8, 12, AND 16 OZ/A OF METRIBUZIN CAUSED SIGNIFICANT PEANUT INJURY THROUGHOUT THE GROWING SEASON. BUT, 8 OZ/A WAS LESS INJURIOUS THAN 16 OZ/A.

2) PEANUT YIELDS WERE ONLY REDUCED BY THE 2 HIGHEST RATES OF TRICOR 4F (12 AND 16 OZ/A). YIELD RESPONSE WAS AS FOLLOWS:

12 OZ/A = 3495 LB/A OR 33% YIELD LOSS
 16 OZ/A = 2155 LB/A OR 62% YIELD LOSS

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GENERAL TRIAL INFORMATION																																																																																																																										
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Trial Status: _____ City: _____		Initiation Date: _____ State/Prov.: _____																																																																																																																								
Conducted Under GLP (Y/N): N		Country: _____ Postal Code: _____																																																																																																																								
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Objective: _____																																																																																																																										
Conclusions: _____																																																																																																																										
CROP AND PEST DESCRIPTION																																																																																																																										
Weed 1. _____ 2. _____																																																																																																																										
Crop 1: ARAHY PEANUT Variety: GA-06G Planting Date: Apr-30-18 Planting Method: MONOSEM TWIN ROW Rate: 3.1 SEED/FT Depth: 2 IN Perennial Age: _____ Row Spacing: _____ Seed Bed: _____ Soil Temperature: _____ Soil Moisture: OPTIMUM Emergence Date: _____																																																																																																																										
Plot Width, Unit: 6 FT Plot Length, Unit: 25 FT Reps: 4 Site Type: _____ Study Design: RACOB Tillage Type: CONVENTIONAL Trial Initiation Comments: THIMET INFR @ 7.5 LBS/A; DYNASTY PD SEED TRT; 36"-9" TWIN ROWS; 400 LBS/A 5-15-30 PREPLANT																																																																																																																										
Previous: Crops Pesticides Year 1. FIELD CORN 2017 _____																																																																																																																										
MAINTENANCE																																																																																																																										
Field Prep./Maintenance: _____ Form Form Form Rate No. Date Treatment Name Conc Unit Type Rate Unit 1. _____																																																																																																																										
SOIL DESCRIPTION																																																																																																																										
Texture: SAND % OM: 0.78 % Sand: 94 % Silt: 4 % Clay: 2 pH: 6.0 CEC: 3.3 Soil Name: TIFTON Fertility Level: GOOD																																																																																																																										
MOISTURE CONDITIONS																																																																																																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>On: Date</th> <th>Time</th> <th>Amount</th> <th>Unit</th> <th>Type</th> <th>Interval</th> <th>Unit</th> </tr> </thead> <tbody> <tr><td>1. May-2-18</td><td></td><td>0.5</td><td>IN</td><td>SPRINKLER - LATERAL MOVE</td><td></td><td></td></tr> <tr><td>2. May-8-18</td><td></td><td>0.5</td><td>IN</td><td>SPRINKLER - LATERAL MOVE</td><td></td><td></td></tr> <tr><td>3. May-14-18</td><td></td><td>0.02</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>4. May-15-18</td><td></td><td>0.35</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>5. May-16-18</td><td></td><td>0.69</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>6. May-17-18</td><td></td><td>0.26</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>7. May-20-18</td><td></td><td>0.10</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>8. May-21-18</td><td></td><td>0.07</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>9. May-22-18</td><td></td><td>0.22</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>10. May-23-18</td><td></td><td>0.91</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>11. May-24-18</td><td></td><td>0.01</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>12. May-26-18</td><td></td><td>0.23</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>13. May-27-18</td><td></td><td>0.34</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>14. May-28-18</td><td></td><td>0.32</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>15. May-29-18</td><td></td><td>1.69</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> <tr><td>16. May-30-18</td><td></td><td>0.07</td><td>IN</td><td>RAINFALL</td><td></td><td></td></tr> </tbody> </table>				On: Date	Time	Amount	Unit	Type	Interval	Unit	1. May-2-18		0.5	IN	SPRINKLER - LATERAL MOVE			2. May-8-18		0.5	IN	SPRINKLER - LATERAL MOVE			3. May-14-18		0.02	IN	RAINFALL			4. May-15-18		0.35	IN	RAINFALL			5. May-16-18		0.69	IN	RAINFALL			6. May-17-18		0.26	IN	RAINFALL			7. May-20-18		0.10	IN	RAINFALL			8. May-21-18		0.07	IN	RAINFALL			9. May-22-18		0.22	IN	RAINFALL			10. May-23-18		0.91	IN	RAINFALL			11. May-24-18		0.01	IN	RAINFALL			12. May-26-18		0.23	IN	RAINFALL			13. May-27-18		0.34	IN	RAINFALL			14. May-28-18		0.32	IN	RAINFALL			15. May-29-18		1.69	IN	RAINFALL			16. May-30-18		0.07	IN	RAINFALL		
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Overall Moisture Conditions: _____ Closest Weather Station: _____ Distance: _____ Unit: _____																																																																																																																										

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		APPLICATION DESCRIPTION					
		A	B	C	D	E	F
Application Date:	May-1-18						
Time of Day:	7:30 AM						
Application Method:	BROADCAST						
Application Timing:	PRE						
Applic. Placement:	SOIL						
Air Temp., Unit:	55 F						
% Relative Humidity:	89						
Wind Velocity, Unit:	1 MPH						
Dew Presence (Y/N):	N						
Water Hardness:	--						
Soil Temp., Unit:	64 F						
Soil Moisture:	ADEQUATE						
% Cloud Cover:	0						

		CROP STAGE AT EACH APPLICATION					
		A	B	C	D	E	F
Crop 1	Stage: ARAHY						
	Stage Scale:						
	Height, Unit:						

		WEED STAGE AT EACH APPLICATION					
		A	B	C	D	E	F
Weed 1	Stage:						
	Stage Scale:						
	Density, Unit:						

		APPLICATION EQUIPMENT					
		A	B	C	D	E	F
Appl. Equipment:	BACKPACK						
Operating Pressure:	27						
Nozzle Type:	AIXR						
Nozzle Size:	11002						
Nozzle Spacing, Unit:	15 IN						
Nozzles/Row:	2						
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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PEANUT RESPONSE TO METRIBUZIN YEAR 2											
Trial ID: PE-04-18				Study Dir.: CULPEPPER							
Location: PONDER FARM				Investigator: Eric P. Prostko							
Weed Code				-----	-----	-----	-----	-----	-----	-----	-----
Crop Code				ARAHY	ARAHY	ARAHY	ARAHY	ARAHY	ARAHY	ARAHY	ARAHY
Part Rated				CROP C	CROP -	CROP -	CROP C	STAND -	PLANT -	STAND -	STAND -
Rating Data Type				INJURY	INJURY	INJURY	STUNTING	LOSS	STUNTING	LOSS	LOSS
Rating Unit				PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date				May-9-18	May-18-18	May-24-18	Jun-21-18	Jun-21-18	Jul-24-18	Jul-24-18	Jul-24-18
Trt-Eval Interval				8 DA-A	17 DA-A	23 DA-A	51 DA-A	51 DA-A	84 DA-A	84 DA-A	84 DA-A
PRM Data Type											
# Subsamples, Dec.											
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Rate	Unit	Stg	Code	1	2	3	4
1	TRICOR	4 F	16.0 oz/a	PRE	A			7.5 a	40.0 a	71.3 a	71.3 a
2	TRICOR	4 F	12.0 oz/a	PRE	A			3.3 ab	30.0 a	56.7 ab	55.0 ab
3	TRICOR	4 F	8.0 oz/a	PRE	A			1.7 b	26.7 a	36.7 bc	36.7 bc
4	TRICOR	4 F	4.0 oz/a	PRE	A			0.0 b	6.7 b	16.7 cd	6.7 cd
5	TRICOR	4 F	2.0 oz/a	PRE	A			0.0 b	5.0 b	5.0 d	7.5 cd
6	TRICOR	4 F	0.0 oz/a	PRE	A			0.0 b	0.0 b	0.0 d	0.0 d
Tukey's HSD P=.10				4.25	17.28	27.83	31.45	25.62	21.18	29.65	29.65
Standard Deviation				2.02	8.22	13.23	14.96	12.19	10.07	14.10	14.10
CV				96.98	45.51	42.64	50.68	34.95	52.73	73.32	73.32
Grand Mean				2.08	18.06	31.04	29.51	34.86	19.10	19.24	19.24
Levene's F				0.00	0.543	2.568	1.407	1.115	1.432	2.639	2.639
Levene's Prob(F)				0.00*	0.741	0.075	0.281	0.396	0.273	0.07	0.07
Replicate F				1.096	1.436	0.841	0.992	0.720	0.887	1.839	1.839
Replicate Prob(F)				0.3915	0.2852	0.4993	0.4321	0.5605	0.4780	0.1983	0.1983
Treatment F				8.641	15.696	18.970	15.448	30.539	20.373	12.506	12.506
Treatment Prob(F)				0.0015	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003	0.0003

Means followed by same letter or symbol do not significantly differ (P=.10, Tukey's HSD)
Missing data estimates are included in columns: Average=1,2,3,4,5,6,7,8,9,10,11

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Weed Code	-----	-----	-----	-----
Crop Code	ARAHY	ARAHY	ARAHY	ARAHY
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Data Type	YIELD	YIELD	YIELD	YLDLOSS
Rating Unit	LBS/PLOT	LBS/PLOT	LBS/A	PERCENT
Rating Date	Sep-20-18	Sep-20-18	Sep-20-18	Sep-20-18
Trt-Eval Interval	142 DA-A	142 DA-A	142 DA-A	142 DA-A
PRM Data Type	T1	TY2		
# Subsamples, Dec.	- 2	- 2	- 0	
Trt Treatment Form Form Rate Grow Appl				
No. Name Conc Type Rate Unit Stg Code	8	9	10	11
1 TRICOR 4 F 16.0 oz/a PRE A	7.79 c	7.63 c	2155 c	62.15 a
2 TRICOR 4 F 12.0 oz/a PRE A	12.63 bc	12.38 bc	3495 bc	32.97 ab
3 TRICOR 4 F 8.0 oz/a PRE A	20.38 ab	19.98 ab	5640 ab	1.63 bc
4 TRICOR 4 F 4.0 oz/a PRE A	25.03 a	24.53 a	6926 a	0.00 c
5 TRICOR 4 F 2.0 oz/a PRE A	24.86 a	24.37 a	6879 a	0.00 c
6 TRICOR 4 F 0.0 oz/a PRE A	20.47 a	20.06 a	5663 a	0.00 c
Tukey's HSD P=.10	7.831	7.674	2166.8	32.340
Standard Deviation	3.724	3.650	1030.5	15.381
CV	20.1	20.1	20.1	95.38
Grand Mean	18.528	18.157	5126.4	16.125
Levene's F	0.862	0.862	0.862	2.75
Levene's Prob(F)	0.53	0.53	0.53	0.062
Replicate F	1.846	1.846	1.846	1.031
Replicate Prob(F)	0.1973	0.1973	0.1973	0.4167
Treatment F	13.828	13.828	13.828	11.471
Treatment Prob(F)	0.0002	0.0002	0.0002	0.0005

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PEANUT RESPONSE TO METRIBUZIN YEAR 2	
Trial ID: PE-04-18	Study Dir.: CULPEPPER
Location: PONDER FARM Investigator: Eric P. Prostko	
Part Rated	
PLANT = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf)	
C = Crop is Part Rated	
PRM Data Type	
T1 = [8]*0.98	
TY2 = 282.3333*[9]	

University of Georgia

PEANUT RESPONSE TO METRIBUZIN YEAR 2															
Trial ID: PE-04-18			Study Dir.: CULPEPPER												
Location: PONDER FARM			Investigator: Eric P. Prostko												
Weed Code							----- ARAHY CROP C INJURY PERCENT May-9-18 8 DA-A	----- ARAHY CROP - INJURY PERCENT May-18-18 17 DA-A	----- ARAHY CROP - INJURY PERCENT May-24-18 23 DA-A	----- ARAHY CROP C STUNTING PERCENT Jun-21-18 51 DA-A	----- ARAHY STAND - LOSS PERCENT Jun-21-18 51 DA-A	----- ARAHY PLANT - STUNTING PERCENT Jul-24-18 84 DA-A	----- ARAHY STAND - LOSS PERCENT Jul-24-18 84 DA-A		
Crop Code															
Part Rated															
Rating Data Type															
Rating Unit															
Rating Date															
Trt-Eval Interval															
PRM Data Type															
# Subsamples, Dec.															
Trt	Treatment	Form	Form	Rate	Grow	Appl									
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	1	2	3	4	5	6	7
1	TRICOR	4 F	16.0 oz/a	PRE	A		101		5.0	30.0	50.0	40.0	60.0	30.0	30.0
							204		10.0	40.0	85.0	75.0	90.0	50.0	75.0
							302		5.0	50.0	85.0	85.0	90.0	65.0	80.0
							407		10.0	40.0	65.0	85.0	85.0	60.0	50.0
							Mean =		7.5	40.0	71.3	71.3	81.3	51.3	58.8
2	TRICOR	4 F	12.0 oz/a	PRE	A		102		.	.	.	.	.	.	.
							201		5.0	40.0	60.0	50.0	70.0	50.0	50.0
							303		5.0	40.0	80.0	85.0	85.0	50.0	60.0
							404		0.0	10.0	30.0	30.0	40.0	20.0	10.0
							Mean =		3.3	30.0	56.7	55.0	65.0	40.0	40.0
3	TRICOR	4 F	8.0 oz/a	PRE	A		103		0.0	30.0	40.0	40.0	50.0	20.0	10.0
							202		5.0	30.0	40.0	40.0	50.0	30.0	30.0
							304		.	.	.	.	.	.	.
							402		0.0	20.0	30.0	30.0	35.0	20.0	10.0
							Mean =		1.7	26.7	36.7	36.7	45.0	23.3	16.7
4	TRICOR	4 F	4.0 oz/a	PRE	A		104		0.0	10.0	20.0	10.0	5.0	0.0	0.0
							207		.	.	.	.	.	.	.
							305		0.0	10.0	10.0	10.0	10.0	0.0	0.0
							406		0.0	0.0	20.0	0.0	5.0	0.0	0.0
							Mean =		0.0	6.7	16.7	6.7	6.7	0.0	0.0
5	TRICOR	4 F	2.0 oz/a	PRE	A		105		0.0	0.0	0.0	0.0	5.0	0.0	0.0
							203		0.0	0.0	10.0	10.0	5.0	0.0	0.0
							306		0.0	10.0	0.0	10.0	0.0	0.0	0.0
							401		0.0	10.0	10.0	10.0	15.0	0.0	0.0
							Mean =		0.0	5.0	5.0	7.5	6.3	0.0	0.0
6	TRICOR	4 F	0.0 oz/a	PRE	A		107		0.0	0.0	0.0	0.0	5.0	0.0	0.0
							206		0.0	0.0	0.0	0.0	5.0	0.0	0.0
							301		0.0	0.0	0.0	0.0	5.0	0.0	0.0
							405		.	.	.	.	.	.	.
							Mean =		0.0	0.0	0.0	0.0	5.0	0.0	0.0

Weed Code	-----	-----	-----	-----					
Crop Code	ARAHY	ARAHY	ARAHY	ARAHY					
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -					
Rating Data Type	YIELD	YIELD	YIELD	YLDLOSS					
Rating Unit	LBS/PLOT	LBS/PLOT	LBS/A	PERCENT					
Rating Date	Sep-20-18	Sep-20-18	Sep-20-18	Sep-20-18					
Trt-Eval Interval	142 DA-A	142 DA-A	142 DA-A	142 DA-A					
PRM Data Type	T1	T1	TY2						
# Subsamples, Dec.	- 2	- 2	- 0						
Trt Treatment Form Form Rate Grow Appl									
No. Name Conc Type Rate Unit Stg Code Plot	8	9	10	11					
1 TRICOR	4 F	16.0 oz/a	PRE	A	101	14.85	14.55	4109	34.30
					204	4.20	4.12	1162	70.00
					302	4.60	4.51	1273	80.90
					407	7.50	7.35	2075	63.40
					Mean =	7.79	7.63	2155	62.15
2 TRICOR	4 F	12.0 oz/a	PRE	A	102	.	.	.	.
					201	10.05	9.85	2781	28.20
					303	8.00	7.84	2213	67.70
					404	19.85	19.45	5492	3.00
					Mean =	12.63	12.38	3495	32.97
3 TRICOR	4 F	8.0 oz/a	PRE	A	103	21.50	21.07	5949	4.90
					202	18.15	17.79	5022	0.00
					304	.	.	.	.
					402	21.50	21.07	5949	0.00
					Mean =	20.38	19.98	5640	1.63
4 TRICOR	4 F	4.0 oz/a	PRE	A	104	25.85	25.33	7152	0.00
					207	.	.	.	.
					305	25.05	24.55	6931	0.00
					406	24.20	23.72	6696	0.00
					Mean =	25.03	24.53	6926	0.00
5 TRICOR	4 F	2.0 oz/a	PRE	A	105	25.40	24.89	7028	0.00
					203	23.60	23.13	6530	0.00
					306	25.35	24.84	7014	0.00
					401	25.10	24.60	6945	0.00
					Mean =	24.86	24.37	6879	0.00
6 TRICOR	4 F	0.0 oz/a	PRE	A	107	22.60	22.15	6253	0.00
					206	14.00	13.72	3874	0.00
					301	24.80	24.30	6862	0.00
					405	.	.	.	.
					Mean =	20.47	20.06	5663	0.00

University of Georgia

PEANUT RESPONSE TO METRIBUZIN YEAR 2	
Trial ID: PE-04-18	Study Dir.: CULPEPPER
Location: PONDER FARM	Investigator: Eric P. Prostko
<u>Part Rated</u> PLANT = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf) C = Crop is Part Rated <u>PRM Data Type</u> T1 = [8]*0.98 TY2 = 282.3333*[9]	