

University of Georgia

AUXIN NOZZLES VS FLAT FAN NOZZLES FOR PEANUT PEST MANAGEMENT - II		
Trial ID: NZ-02-18	Study Dir.: JAMES JACOBS AND JIM WATERS	
Location: PIERCE COUNTY	Investigator: Eric P. Prostko	

Reps: 3 Plots: 100 by 1000 feet
 Spray vol: 15 GAL/AC Mix Size: 3 L (total for 3 plots; minimum=391 L)

Trt No.	Treatment Name	Amt Product to Measure	Rep 1	Rep 2	Rep 3
1	XR11006-VP		101	201	301
2	TTI-11006-VP-C		102	202	302

Sort Order: Treatment

Trial Comments

MARCH 22, 2018
 JIM WATERS FARM
 PIERCE COUNTY
 JOHN DEERE JD 4730
 BOOM LENGTH = 100 FEET
 NOZZLE SPACING = 15 INCHES
 79 NOZZLES
 800 GALLON TANK
 GROUND SPEED = 11.6 MPH
 GPA = 16
 PSI = 21-23
 BOOM HEIGHT = 28"
 WIND = 4.3 MPH FROM WEST

FIELD ROTATION: 2016 = TOBACCO; 2017 = COTTON; 2018 = PEANUT

27 KROMEKOTE SPRAY CARDS WERE USED FOR ANALYSIS (3 REPS x 9 CARDS/REP).

PLANTING DATE: JUNE 8, 2018
 VARIETY: GA-06G
 APPLICATION DATES:
 JUNE 10 = VALOR + DUAL MAGNUM
 JULY 27 = CADRE + 2,4-DB + BORON
 AUGUST 10 = TEBUZOL + CHLOROTHALONIL + DIMILIN
 AUGUST 24 = CONVOY + CHLOROTHALONIL
 SEPTEMBER 21 = CONVOY + CHLOROTHALONIL

DIGGING DATE: OCTOBER 17
 HARVEST DATE: OCTOBER 31
 HARVEST MOISTURE: 7.3%
 YIELDS ADJUSTED TO 10% MOISTURE.

HARVESTED AREA WAS 6 ROWS (18') x FIELD LENGTH (1646' TO 1778' OR = 0.680 TO 0.735 ACRES/REP)

SUMMARY:

1) KROMEKOTE SPRAY CARD ANALYSIS INDICATED THE FOLLOWING:

A) XR-11006 NOZZLE PRODUCED SMALLER DROPLETS THAN THE TTI NOZZLE (374 VS. 525 MICRONS VMD50).

B) NO DIFFERENCE IN SPRAY COVERAGE BUT COMPUTER HAD DIFFICULTY READING LIGHTER DEPOSITIONS.

2) NO DIFFERENCES IN PEST CONTROL (WEED, INSECTS, DISEASES) OR PEANUT YIELD WERE OBSERVED BETWEEN NOZZLE TYPES (P>0.18).

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Weed Code	-----	-----	-----	-----	VELVET	SOYBEAN	3-CAH	GARDEN	-----	-----
Crop Code	VMD50 -	COVERAGE	ARAHY	ARAHY	BEAN	LOOPER		FLEA	ARAHY	ARAHY
Part Rated			EARLY I	LATE -					WHITE -	PLOT -
Rating Data Type			LF SPOT	LF SPOT	CP			HOPPER	MOLD	YIELD
Rating Unit	MICRONS	PERCENT	1-10	1-10	#/10SWPS	#/10SWPS	#/10SWPS	#/10SWPS	PERCENT	LBS/PLOT
Rating Date	Mar-22-18	Mar-22-18	Aug-28-18	Sep-18-18	Sep-19-18	Sep-19-18	Sep-19-18	Sep-19-18	Oct-18-18	Oct-31-18
PRM Data Type										
# Subsamples, Dec.	9 -	9 -								
Trt Treatment										
No. Name	1	2	3	4	5	6	7	8	9	10
1 XR11006-VP	374.117 b	4.075 a	1.67 a	3.17 a	0.7 a	2.0 a	5.0 a	8.3 a	15.50 a	3649.0 a
2 TTI-11006-VP-C	524.823 a	3.089 a	1.83 a	3.83 a	0.3 a	0.0 a	3.3 a	9.0 a	11.83 a	3580.0 a
Tukey's HSD P=.10	31.8861	1.5014	0.487	0.973	0.97	2.92	4.87	10.30	14.849	311.24
Standard Deviation	13.3742	0.6297	0.204	0.408	0.41	1.22	2.04	4.32	6.228	130.55
CV	2.98	17.58	11.66	11.66	81.65	122.47	48.99	49.85	45.57	3.61
Grand Mean	449.4697	3.5817	1.750	3.500	0.50	1.00	4.17	8.67	13.667	3614.50
Levene's F	0.332	0.824	0.00	0.00	0.20		0.50	0.545	0.078	0.359
Levene's Prob(F)	0.595	0.415	0.00*	0.00*	0.678		0.519	0.501	0.794	0.581
Replicate F	0.885	0.299	3.000	0.000	9.000	1.000	0.280	0.464	4.229	2.368
Replicate Prob(F)	0.5306	0.7699	0.2500	1.0000	0.1000	0.5000	0.7813	0.6829	0.1912	0.2969
Treatment F	190.467	3.680	1.000	4.000	1.000	4.000	1.000	0.036	0.520	0.419
Treatment Prob(F)	0.0052	0.1951	0.4226	0.1835	0.4226	0.1835	0.4226	0.8675	0.5458	0.5838

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Weed Code	----	----	-----	-----
Crop Code	ARAHY	ARAHY	ARAHY	ARAHY
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Data Type	LENGTH	AREA	YIELD	YIELD
Rating Unit	FEET	ACRES	LBS/A	LBS/A
Rating Date	Oct-31-18	Oct-31-18	Oct-31-18	Oct-31-18
PRM Data Type		T1	T2	T3
# Subsamples, Dec.		- 3	- 0	- 0
Trt Treatment				
No. Name	11	12	13	14
1 XR11006-VP	1762.7 a	0.728 a	5010 a	5160 a
2 TTI-11006-VP-C	1684.3 b	0.696 b	5143 a	5297 a
Tukey's HSD P=.10	44.36	0.0183	364.2	375.1
Standard Deviation	18.61	0.0077	152.8	157.4
CV	1.08	1.08	3.01	3.01
Grand Mean	1723.50	0.7122	5076.5	5228.8
Levene's F	0.622	0.622	0.235	0.235
Levene's Prob(F)	0.475	0.475	0.653	0.653
Replicate F	5.557	5.557	2.873	2.873
Replicate Prob(F)	0.1525	0.1525	0.2582	0.2582
Treatment F	26.589	26.589	1.131	1.131
Treatment Prob(F)	0.0356	0.0356	0.3990	0.3990

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Location: PIERCE COUNTY Investigator: Eric P. Prostko	
PRM Data Type	
T1 = ([11]*18)/43560	
T2 = [10]/[12]	
T3 = ([13]*0.927)/0.9	

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Weed Code		-----	-----	-----	-----	VELVET	SOYBEAN	3-CAH	GARDEN	-----
Crop Code			COVERAGE	ARAHY	ARAHY	BEAN	LOOPER		FLEA	ARAHY
Part Rated		VMD50 -		EARLY I	LATE -					WHITE -
Rating Data Type				LF SPOT	LF SPOT	CP				MOLD
Rating Unit		MICRONS	PERCENT	1-10	1-10	#/10SWPS	#/10SWPS	#/10SWPS	#/10SWPS	PERCENT
Rating Date		Mar-22-18	Mar-22-18	Aug-28-18	Sep-18-18	Sep-19-18	Sep-19-18	Sep-19-18	Sep-19-18	Oct-18-18
PRM Data Type										
# Subsamples, Dec.		9 -	9 -							
Trt Treatment										
No. Name	Plot	1	2	3	4	5	6	7	8	9
1 XR11006-VP	101	381.874	3.542	1.50	3.00	0.0	3.0	6.0	14.0	24.50
	201	373.881	4.839	1.50	3.00	2.0	0.0	4.0	5.0	3.00
	301	366.594	3.843	2.00	3.50	0.0	3.0	5.0	6.0	19.00
	Mean =	374.117	4.075	1.67	3.17	0.7	2.0	5.0	8.3	15.50
2 TTI-11006-VP-C	102	532.613	3.344	2.00	4.00	0.0	0.0	1.0	8.0	22.00
	202	505.657	2.887	1.50	4.00	1.0	0.0	4.0	11.0	7.50
	302	536.198	3.034	2.00	3.50	0.0	0.0	5.0	8.0	6.00
	Mean =	524.823	3.089	1.83	3.83	0.3	0.0	3.3	9.0	11.83

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Weed Code		-----	-----	-----	-----	-----
Crop Code		ARAHY	ARAHY	ARAHY	ARAHY	ARAHY
Part Rated		PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Data Type		YIELD	LENGTH	AREA	YIELD	YIELD
Rating Unit		LBS/PLOT	FEET	ACRES	LBS/A	LBS/A
Rating Date		Oct-31-18	Oct-31-18	Oct-31-18	Oct-31-18	Oct-31-18
PRM Data Type				T1	T2	T3
# Subsamples, Dec.				- 3	- 0	- 0
Trt Treatment						
No. Name	Plot	10	11	12	13	14
1 XR11006-VP	101	3619.0	1738.0	0.718	5039	5190
	201	3779.0	1772.0	0.732	5161	5316
	301	3549.0	1778.0	0.735	4830	4975
	Mean =	3649.0	1762.7	0.728	5010	5160
2 TTI-11006-VP-C	102	3348.0	1646.0	0.680	4922	5070
	202	3752.0	1677.0	0.693	5414	5577
	302	3640.0	1730.0	0.715	5092	5245
	Mean =	3580.0	1684.3	0.696	5143	5297

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PRM Data Type
T1 = ([11]*18)/43560
T2 = [10]/[12]
T3 = ([13]*0.927)/0.9