

University of Georgia

NOZZLE TYPE EFFECTS ON VMD AND SPRAY COVERAGE

Trial ID: NZ-01A-17 Study Dir.: GLEN RAINS/BROCK WARD
 Location: MILLER COUNTY Investigator: Eric P. Prostko

Reps: 3 Plots: 10 by 40 feet
 Spray vol: 20 GAL/AC Mix Size: 3 liters (2.0856 liters calculated mix size)

Trt No.	Treatment Name	Amt Product to Measure	Rep		
			1	2	3
1	XRC-11005VP		101	202	301
2	TTI60-11005VP		102	201	302

Sort Order: Treatment

Trial Comments

GROWER: KIM HENLEY/AUSTIN/HENLEY/JOEY DRAKE

TEST DATE: APRIL 10, 2017

TIME: 3:30 PM

AIR TEMP: 82 F

SOIL TEMP:

RH: 32-35%

WIND: 4-6 MPH (BLOWING SE TO NW)

ALL TREATMENTS AT 15 GPA, 40 PSI, 9.8 MPH, 36" BOOM HEIGHT IN WATER

JOHN DEERE R4030 SPRAYER

20" NOZZLE SPACING

110' BOOM LENGTH

66 TOTAL NOZZLES

MEANS ARE AVERAGE OF 30 KROMEKOTE WATER SENSITIVE CARDS

SUMMARY:

1) BETTER COVERAGE WAS OBTAINED WITH THE TTI60-11005VP NOZZLE WHEN COMPARED TO THE XRC-11005VP NOZZLE TIP (8.4% COVERAGE VS. 6.6% COVERAGE)

2) LARGER (I.E. COARSER) DROPLETS WERE PRODUCED WITH THE TTI60 NOZZLE (514 MICRONS, EXTREMELY COARSE) WHEN COMPARED TO THE XRC NOZZLE (302 MICRONS, MEDIUM).

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Weed Code	-----	-----
Crop Code	CARD	DROPLET
Part Rated	SPRAY -	SIZE -
Rating Data Type	COVERAGE	VMD50
Rating Unit	PERCENT	MICRONS
Rating Date	Apr-10-17	Apr-10-17
# Subsamples, Dec.	10 2	10 2
Trt Treatment		
No. Name	1	2
1 XRC-11005VP	6.63 b	301.96 b
2 TTI60-11005VP	8.40 a	514.25 a
LSD P=.10	1.563	19.508
Standard Deviation	0.655	8.182
CV	8.72	2.0
Grand Mean	7.514	408.103
Bartlett's X2	0.014	2.827
P(Bartlett's X2)	0.904	0.093
Replicate F	0.990	0.417
Replicate Prob(F)	0.5024	0.7058
Treatment F	10.898	1009.787
Treatment Prob(F)	0.0808	0.0010

Means followed by same letter or symbol 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.

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Part Rated		SPRAY -	SIZE -
Rating Data Type		COVERAGE	VMD50
Rating Unit		PERCENT	MICRONS
Rating Date		Apr-10-17	Apr-10-17
# Subsamples, Dec.		10 2	10 2
Trt Treatment			
No. Name	Plot	1	2
1 XRC-11005VP	101	6.65	301.04
	202	7.24	300.29
	301	6.00	304.53
	Mean =	6.63	301.96
2 TTI60-11005VP	102	9.19	521.95
	201	7.98	517.13
	302	8.03	503.67
	Mean =	8.40	514.25