

Influence of Nematicide Treatment and Pre-Plant Insecticide Treatments on Sweet Potato Yield

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2006

Methods: Plots were planted to the sweet potato variety Beauregard, on a Commerce silt loam soil on 23 May. Plot size was four rows (40 inch centers) by 20 feet. Treatments were replicated four times in a split plot arrangement within a randomized complete block design. Fall Telone II treatments (3 gal/acre) were applied on 18 Nov, 2005 and spring Telone II treatments (3 gal/acre) were applied on 4 Apr, 2006 with a coulter applicator at ca. 12 inches below the soil surface. Pre-plant insecticide treatments were applied with a tractor mounted boom and CO₂ charged spray system calibrated to deliver 10 gpa through Teejet 80015 flat fan nozzles (2/row) on 22 May, 2006. Pre-plant insecticide treatments were immediately incorporated with a row conditioner and the rows reformed. One center row of each plot was harvested on 7 Sep, 2006. The yield from each plot was partitioned into grades, # 1s, canners, and jumbos, and the weights for # 1s were recorded.

Comments: There were no significant interactions observed between nematicide treatment and foliar insecticide treatment for yield of # 1's. There were no significant differences among nematicide treatments or pre-plant insecticide treatments for yield of # 1's.

Table 1. Influence of nematicide treatment and pre-plant insecticides on sweet potato yield.

Telone II Treatment	Insecticide Treatment	Rate/acre lb/AI	# 1's bu/acre
Fall	Baythroid 2EC	0.3	271.4
	Lorsban 4EC	2.0	212.6
	Capture 2EC	0.3	205.4
	Non-Treated	-	276.0
Spring	Baythroid 2EC	0.3	241.3
	Lorsban 4EC	2.0	266.9
	Capture 2EC	0.3	244.0
	Non-Treated	-	304.8
Fall and Spring	Baythroid 2EC	0.3	363.7
	Lorsban 4EC	2.0	215.8
	Capture 2EC	0.3	302.2
	Non-Treated	-	257.1
Non-Treated	Baythroid 2EC	0.3	169.4
	Lorsban 4EC	2.0	217.2
	Capture 2EC	0.3	140.6
	Non-Treated	-	217.2
<i>P>F</i>			0.31

Means within columns followed by a common letter are not significantly different (FPLSD, P=0.05).

Table 2. Influence of nematicide treatment on sweet potato yield.

Treatment	# 1's bu/acre
Telone II	
Fall	241.3
Spring	264.2
Fall and Spring	284.7
Non-Treated	192.8
<i>P>F</i>	0.33

Means within columns followed by a common letter are not significantly different (FPLSD, P=0.05).

Table 3. Influence of pre-plant insecticides on sweet potato yield.

Insecticide Treatment	Rate/acre lb/AI	# 1's bu/acre
Baythroid 2EC	0.3	261.5
Lorsban 4EC	2.0	228.1
Capture 2EC	0.3	223.0
Non-Treated	-	270.5
<i>P>F</i>		0.28

Means within columns followed by a common letter are not significantly different (FPLSD, P=0.05).