

(D12)

ORANGE: *Citrus sinensis* (L.) Osbeck, 'Pineapple'

EFFICACY OF NEW MITICIDE PRODUCTS ON CITRUS RUST MITE, 1999

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Citrus rust mite (CRM): *Phyllocoptruta oleivora* (Ashmead)

Citrus rust mite continues to be the major arthropod pest of citrus in Florida. The objective of this trial was to test miticide products against a present standard, Vendex. The trial was conducted at the Silver Strand North Grove, Collier County, FL, on 8-yr-old 'Pineapple' orange trees planted at 12 ft tree x 24 ft row spacing. An RCB design was used with four replications and six treatments including an untreated check. Each replicate was a single row with a 2-row unsprayed buffer between replicates and a 6-tree buffer between each plot in the rep. A pretreatment count made 25 Oct from 64 lens fields on 32 fruit from eight trees per replication produced a mean of 4 CRM = 3 per standard 10x lens field. Treatments were applied on 28 Oct using an air blast speed sprayer with seven ceramic HC Albus nozzles, in an array of two red and five blue per side, at a pressure of 300 psi which delivered 125 gpa. Treated trees were sprayed from both sides. Trees serving as check were sprayed with water. Sunspray 9E oil was tank mixed with the two experimental compounds at 3% vol/vol. Potassium nitrate was tank mixed with Vendex for one treatment. Sampling was conducted on 2, 17, and 30 Nov and 15 Dec from four trees in the middle of each 10 tree plot with four fruit, two per side, removed from each tree. All live CRM were counted in two lens fields of each fruit in 1.5-cm-diameter fields using a 10x Bausch and Lomb Hastings triplex lens on the partially shaded side of each fruit. Data on CRM counts were analyzed without transformation using ANOVA with mean separation by LSD.

Mite populations in the check decreased sharply in the last two evaluations. There were significant differences between treatments and the check until the last evaluation at 48 days. No significant differences were observed between acaricide treatments.

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Treatment/ formulation	Rate amt form/acre	No. CRM/lens field				Overall dates
		2 Nov	17 Nov	30 Nov	15 Dec	
GX00644-001 + Sunspray 9E oil	4 oz 3 % v/v	4.28 b	8.22 b	5.32 b	2.91 a	5.18 b
GX0644-002 + Sunspray 9E oil	4 oz 3 % v/v	5.66 b	6.13 b	7.22 b	5.25 a	6.07 b
Vendex 50 WP	2 lb	6.63 b	5.66 b	3.94 b	3.53 a	4.94 b
Vendex 50 WP	3 lb	6.03 b	4.85 b	6.10 b	4.66 a	5.41 b
Vendex 50 WP + Potassium nitrate	2 lb 25 lb	3.60 b	4.16 b	4.53 b	5.94 a	4.56 b
Untreated check		19.57 a	19.22 a	10.72 a	4.38 a	13.47 a

Means in columns followed by the same letter are not different significantly (LSD, $P < 0.05$)