

**(D3)**

**MANDARIN:** *Citrus reticulata* Blanco, 'W. Murcott Afourer'

**YUMA SPIDER MITE CONTROL IN CITRUS, 2004**

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Yuma spider mite: *Eotetranychus yumensis* (McGregor)

During 2004, Yuma spider mites were found infesting newly planted mandarin trees in the lower San Joaquin Valley, CA. This experiment evaluated the effects of miticides against this pest near McFarland, Kern Co. A total of 110 trees were organized into a RCB design with 10 replications of 10 treatments and a water-treated check. Treatments were applied on 8 Oct under approximately 80°F conditions with a CO<sub>2</sub> powered backpack sprayer with 8002 nozzles at 30 psi. Treatments were prepared by mixing miticides with water to a 200 gpa dilution and then spraying individual trees to runoff. The checks were sprayed with water. Treatments were evaluated by counting motile stages of Yuma spider mites on both sides of 6 randomly collected leaves per tree on 15 Oct, 22 Oct and 29 Oct. Mites per leaf were averaged for each tree and analyzed by ANOVA using transformed data (square root(mites+0.5)). Means were separated using Fisher's protected LSD ( $P \leq 0.05$ ).

All miticide treatments resulted in significant reductions in mite densities at each evaluation date. Some miticides such as Agri-mek, Danitol, FujiMite, Kanemite, Nexter and Vendex provided excellent control by 7 DAT whereas Acramite, Envidor, Onager and Zeal took longer to work. By 21 DAT, all miticides reduced the average mites per leaf to less than 0.2 compared to 5.7 for the water-treated check.

Treatment/ formulation	Rate amt product/acre	Average mites per leaf		
		7 DAT	14 DAT	21 DAT
Acramite 50WS	1.0 lb	1.08bc	0.30ab	0.10a
Agri-Mek 0.15EC <sup>a</sup>	15.0 fl oz	0.00a	0.17ab	0.00a
Danitol 2.4EC	20.0 fl oz	0.00a	0.00a	0.00a
Envidor 240SC	18.0 fl oz	0.94abc	0.33ab	0.00a
FujiMite 5EC	2.0 pt	0.04a	0.02a	0.00a
Kanemite 15SC	31.0 fl oz	0.00a	0.05a	0.00a
Nexter 75WP	10.0 oz	0.01a	0.08a	0.00a
Onager 1EC	20.0 fl oz	0.28ab	0.13ab	0.00a
Vendex 50WP	4.0 lb	0.04a	0.20ab	0.00a
Zeal 72WDG	3.0 oz	1.89c	1.13b	0.15a
Water-treated check	---	3.47d	4.93c	5.68b

Means in a given column followed by the same letter are not significantly different (Fisher's protected LSD,  $P > 0.05$ ).

Means were transformed using square root( $x + 0.5$ ) prior to analysis.

Untransformed means are presented.

<sup>a</sup>Included petroleum spray oil at 1.0% v/v.