

Yuma Spider Mite (*Eotetranychus yumensis*)

The University of Arizona \$ College of Agriculture \$ Tucson, Arizona 85721 (part of the publication “Citrus Arthropod Pest Management in Arizona”)

David Kerns¹, Glenn Wright², and John Loghry³

¹Department of Entomology, Yuma Agricultural Center - Valley Station, 6425 W. 8th St., Yuma, AZ 85364

²Department of Plant Science, Yuma Agricultural Center - Mesa Station, RR1, Box 40M, Somerton, AZ 85350

³Arizona Crop Improvement Association, Yuma Agricultural Center - Mesa Station, RR1, Box 40M, Somerton, AZ 85350

DESCRIPTION AND LIFE HISTORY: The Yuma spider mite was first identified on lemon leaves in 1934 in Yuma, Arizona on the Yuma Mesa, but it occurs elsewhere in Arizona, Southern California and Mexico. There is little detailed information on the life history of this mite. The Yuma spider mite is omnivorous and will feed on plants and other arthropods as well. It is an important predacious mite in Arizona citrus and has been implicated in reducing populations of citrus thrips, woolly whitefly, and citrus leafminer. Among plant species, it has a very large host range including: citrus, almond, apple, arrowweed, grape, ironwood, puncture-vine, rose, and sorghum. Among citrus types, the Yuma spider mite tends to prefer lemons and grapefruit. Yuma spider mites favor warm, dry, dusty conditions. They are most abundant from January though June, but often can be found in July, and October through December.

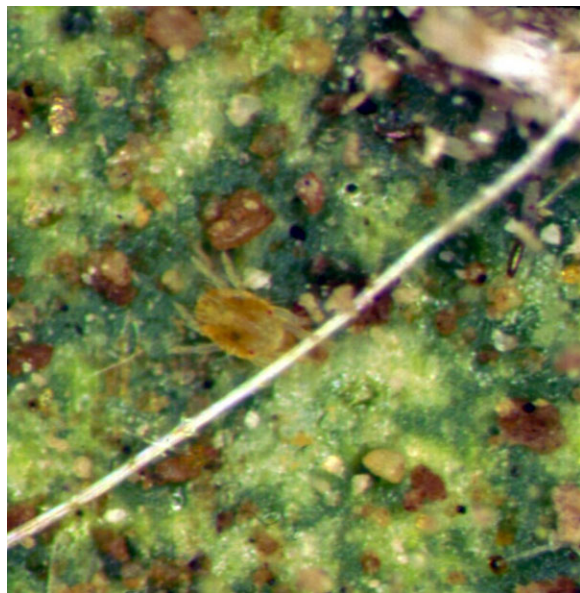


Figure 42. Yuma spider mites prefer to feed on the underside of leaves. Infestations are conspicuous due

to the light webbing that traps dirt and detritus.

Yuma spider mites are medium sized mites measuring about 0.25 mm in length, and are easily seen with the naked eye. They are yellowish to dark pink in appearance with dark pigmentation and red eyespots. The color may vary to some extent depending on their host. Yuma spider mite prefers the underside of leaves where it spins a considerable amount of very light webbing. Infestations of this mite are conspicuous because of dirt and detritus trapped in the webbing. Spherical peach-colored eggs are deposited under the webbing. Infestations are most common in, but not exclusive to, citrus adjacent to dusty roads.

DAMAGE: The Yuma spider mite primarily feeds on the lower surface of leaves. Feeding can cause stippling and leaf discoloration, and under high populations, can cause some leaf abscission, particularly during periods of high winds. The Yuma spider mite has been implicated in a condition known as “fall dieback” which is also associated with high winds, low humidity, and lack of adequate soil moisture. Most frequently this involves new growth resulting in “whiplike” branches devoid of leaves except at the terminal. However, severe foliar damage is not common and economic damage to mature trees is questionable. Because of their predaceous habits, having some Yuma spider mites is beneficial and far outweighs the minor leaf damage inflicted. However, when Yuma spider mites are abundant, they will infest the fruit which is far more serious than foliar infestations. Fruit attacked by Yuma spider mite will suffer rind pitting and scarring.

This document and others on citrus insect pests can be found at

<http://cals.arizona.edu/crops/citrus/insects/citrusinsect.html>



Figure 43. Pitting on a lemon (top) and leaf speckling (bottom) due to Yuma spider mite feeding. Mites prefer to feed on the underside of leaves.

MONITORING: Citrus should be monitored for Yuma spider mite beginning at petal fall through July. Currently there is no action threshold for Yuma spider mite but some general guidelines exist. It is probably not necessary to treat infestation relegated to the foliage unless populations are extremely high. Florida authorities recommend a miticide if spider mite populations reach 15 mites per leaf. Miticides may be necessary to control Yuma spider mites on the fruit when 10% of the fruit less than 1 inch in diameter is infested or when larger fruit averages 3 to 5 mites per fruit.

CONTROLS:

Cultural:

•**Dust Reduction.** Although reducing the incidence of dust by watering dirt roads adjacent to frequently infested groves may minimize an infestation of Yuma spider mites, this technique is rarely cost effective.

Biological:

•**Predators.** A number of predators that attack Yuma spider mites including predatory mites, lacewings, predacious thrips, etc.

Commonly used Chemicals: Yuma spider mites are fairly easy to control using miticides (see below for chemical control section for all mites).