



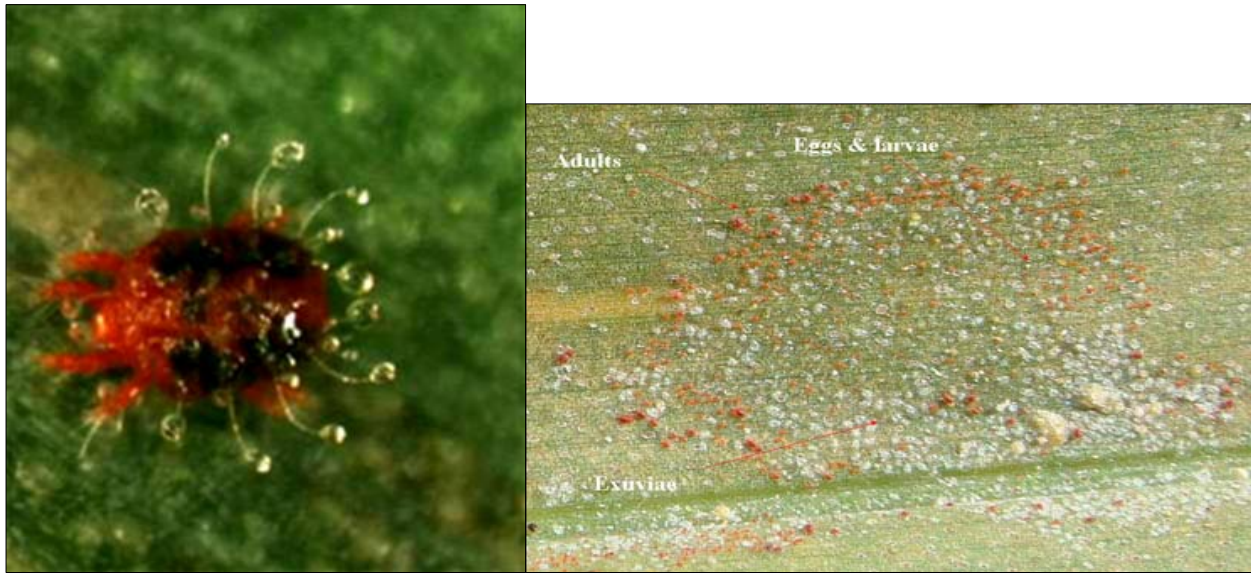
# Nevada Department of **AGRICULTURE**

405 South 21<sup>st</sup> Street Sparks, NV 89431  
www.agri.state.nv.us

## Pest Alert

### **Red Palm Mite**

*Raoiella indica* (Acari: Tenuipalpidae)



#### **Introduction**

Red palm mite, *Raoiella indica* Hirst (Acari: Tenuipalpidae) a serious pest of several fruiting and ornamental palms including date, coconut and Areca, has recently been found in two counties in Florida: Broward and Palm Beach. This pest is already established in Egypt, India, Iran, Israel, Mauritius, Oman, Pakistan, Philippines, Reunion, Saudi Arabia, Sri Lanka, Sudan, Thailand, and United Arab Emirates. It is also probably widespread in tropical and subtropical regions throughout the Eastern Hemisphere. The first Western Hemisphere report of the red palm mite was in 2004 from the eastern Caribbean island of Martinique. By 2007 the mite had spread through much of the Caribbean and most recently into Venezuela. It has caused substantial damage on coconut and other palms, bananas, ginger

and a few other plants. It is not yet known how far it has spread in Florida or where it will survive.

#### **Description**

The red palm mite is bright red with long body hairs with a droplet of liquid at the tip of most of the hairs. All life stages (including the eggs) are red, and adult females often exhibit black patches across their backs. The red palm mite can be distinguished from most spider mites (Tetranychidae) by their red color (including the legs), long spatulate hairs, flattened bodies, droplets on dorsal body hairs and absence of the webbing associated with many spider mites. Red palm mite adults, especially the females, are usually visible with the naked eye. They are found on the undersides of leaves in groups of a few

individuals to hundreds. Early infestations may have only one to a few females with eggs.

### Life Cycle

Eggs (.12 mm in size) are deposited in a circle or group on the underside of leaves. In established colonies the eggs are usually located around the perimeter of the colony. The length of the egg stage ranges from 6-9 days. Development time from egg to adult ranges from 20 – 28 days. The adult female (.32 mm in size) can live for approximately 30 days and lay 28 to 38 eggs. Studies on red palm mite indicated that populations were positively effected by sunshine and temperature while rainfall and high humidity negatively affects the mites.



### Symptoms

The red palm mite establishes colonies on the under sides of leaves, usually along the midrib, where they feed on cellular contents of the leaves. Feeding damage,

especially at high mite densities causes localized yellowing of the leaves followed by tissue necrosis. The symptoms caused by a heavy infestation of the red palm mite could be confused with nutritional deficiencies or possibly the disease “lethal yellowing”.

### Dispersal

Transport of infested plants or plant material is the most likely way that red palm mite would be brought into Nevada. With red palm mite populations reaching the millions of mites per coconut palm the impact of this mite could be devastating.

### Hosts

The red palm mite has been recorded from 32 palm species (Arecaceae), but in infested islands of the Caribbean region, the mite also feeds on banana (Musaceae), heliconias, ginger and a few other monocots. All palm species should be considered potential hosts for this mite until we have more data on the range of hosts in the Caribbean region.

***Please inspect all palms originating from Florida very carefully, particularly the undersides of the leaves!***

**What to do if you suspect you have found red palm mite on your palms or in a shipment.**

If suspect palms are in a shipment and still on the truck, please do not unload, call the Nevada Department of Agriculture at (702) 668-4690 and an inspector will be sent to your location. If the palms are already in your nursery or landscape, take several samples of the fronds, place them in a large sealed plastic bag, and bring them to the NDOA office at 2300 McLeod in Las Vegas. Isolate the palms until we contact you. If you cannot bring a sample to us, please contact the Department at (702) 668-4690. Do not ship the sample in the mail.

The Nevada Department of Agriculture plans to actively survey for this pest in southern Nevada nurseries and landscapes in 2008.

*Prepared by Jeff Knight, Entomologist and Peggy McKie, Nursery Program Manager  
Nevada Department of Agriculture 1/18/2008*

