



# Landscape Notes

By James Downer, Farm Advisor

669 County Square Dr., Suite 100, Ventura, CA 93003-5401 - 805-645-1458

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## The Wintersmith Was Here!



January 13 and 14 were cold nights for Ventura County. Inland valleys sustained several hours of cold temperatures in the low 20°F range. In my town of Ojai, specifically my own yard, I recorded a low temperature of 15 degrees on Saturday morning of this period. Any sustained temperature in the teens will mean death for the kinds of plants we are used to growing in Southern California. Freeze damage is rapid and immediate for some plants such as *Ficus* and *Tupidanthus* and slow to develop over a period of days on palms like *Washingtonia robusta* or Laurel Sumac (*Rhus laurina*)

Freeze injury varies among different plant species according to their own genetic tolerance of low temperatures. Some plants will be killed to the ground and not recover. For others only the foliage may be affected while the stems remain alive to resprout in the spring. In many cases, it is not possible to tell where the plant will recover from, so we do not recommend pruning until the plant starts to regrow. There is also a distinct possibility of another frost before the end of March, so it is a good strategy to leave the old dead plant matter in place to protect underlying stems in case we have another freeze.

Freeze injury is an important predisposing factor for invasion of facultative pathogens. We can expect to see increased cases of *Dothiorella*, *Botryosphaeria*, *Botrytis cinerea*, *Alternaria* and other leaf and stem invading fungi. This will be somewhat contingent on future rain or irrigation practices, but these fungi will invade wounds and rapidly colonize freeze-injured tissues if they have a chance.

The following plants were damaged in the Ojai Valley. It is still a bit early to tell what is going to recover but the following had significant damage to all or most leaves and smaller woody stems. An \* indicates species with extreme or severe damage.

<i>Agapanthus africanus</i>	Lily of the Nile
<i>Citrus</i> spp	Lemon, Orange and Lime*
<i>Clivia miniata</i>	Clivia
<i>Crinum</i>	Crinum lily
<i>Cyathea Cooperi</i>	Australian Tree Fern
<i>Chamaedorea metalica</i>	*
<i>Duranta stenostachya</i>	Brazillian Sky Flower*
<i>Eucalyptus camaldulensis</i>	Red Gum
<i>Ficus</i> spp.	Rubber trees*
<i>Fraxinus uhdei</i>	Shamel or Evergreen Ash
<i>Howea forsteriana</i>	Kentia palm*
<i>Jacaranda mimosifolia</i>	Jacaranda
<i>Lantanna camara</i>	bush lantana
<i>Lantanna montevidensis</i>	trailing lantana
<i>Myoporum laetum</i>	Myoporum
<i>Nerium oleander</i> dwarf var.	Dwarf Oleander
<i>Persea</i> spp.	Avocado
<i>Phoenix roebelenii</i>	Pygmy date palm
<i>Phoenix canariensis</i>	Canary island date palm
<i>Pellea falcata</i>	Australian cliff brake
<i>Philodendron</i> spp.	Philodendron*
<i>Rhus laurina</i>	Laurel Sumac*
<i>Salvia splendens</i>	scarlet sage*
<i>Salvia</i> spp.	Many ornamental shrub salvias
<i>Schinus mole</i>	California Pepper
<i>Tupidanthus calyptratus</i>	Tupidanths*
<i>Washingtonia robusta</i>	Mexican Fan Palm

If there is any bright side to this, it is that the freeze may have also killed out some of our insect pests. The new *Myoporum* thrips had to be hit hard because all the new growth on *Myoporum* was also killed. So, perhaps regrowth will be free of this pest for a time. We have to wait and see. As late as the end of February, we recorded a temperature of 28°F in Ojai. The chance for additional cold will remain with us until the end of March. Do not prune too early or severely until all danger of frost is past.

## Research Results: Palm Fertility

Southern California is increasingly planted with palms that are not well adapted to our climate. One example is the queen palm. Queen palms (*Syagrus rommanzoffiana*) come from southern Brazil and Argentina. In a recent study of a palm special fertilizer, only queen palm responded to fertilization in field soil. Queen palms are often observed in poor condition in southern California landscapes with apparent fertilizer deficiency symptoms (yellowed old leaves). We applied Apex Palm Plus (J.R. Simplot, Co.) at planting and intermittently for over a year as a surface application to queen palms and found that at the end of the study fertilized palms were greener and had better quality ratings than unfertilized queen palms. The other four species under study (King Palm, Mexican Fan Palm, Windmill Palm and Mediterranean Fan Palm) did not respond significantly to fertilizer applications. To discover which element in the palm plus was responsible for the green-up, we fertilized another set of palms that had no fertility previously applied (and were showing deficiency symptoms) with the following fertilizer salts: magnesium sulfate, ammonium sulfate, calcium sulfate or potassium sulfate. Only palms fertilized with ammonium sulfate greened up. We conclude that Queen palm has a higher nitrogen demand than previously realized and would benefit from nitrogen fertilization.

Below: left is unfertilized; right is ammonium sulfate (1pound).



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