



Sometimes only one palm in a group of two or three goes off-color (left). This may seem to rule out a nutrient issue, but not so due to genetic variability or spotty nutrient availability and varying pH in the soil profile. The photo on the right shows manganese deficiency on a pygmy date palm. Look at the leaflets closest to the base of the frond for longitudinal yellow and brown streaking on the leaflets (right).

## **Pygmy Date Palms.....Going Anemic---Fatally!**

Doug Caldwell, Commercial Landscape Horticulture

As I drive around and look at our local pygmy date palms (*Phoenix roebelenii*) this spring and summer (2008) many are droopy and blatantly off-color, a light green instead of their vigorous dark green. They are the victims of manganese (Mn) deficiency. During the early stages of the deficiency the upper part of the canopy appears frayed with withered leaflets and the basal leaflets have yellow and brown longitudinal streaks. As time goes on the newly emerging fronds will be grey and stunted and eventually die. This final symptom is referred to as frizzletop and is fairly common on queen and occasionally on royal palms.

Fortunately, there is a remedy for this. Apply manganese sulfate at 8 to 24 ounces or more per palm, four times per year or until the symptoms cease. Follow the label of this fertilizer supplement carefully. If not corrected, this nutrient deficiency will result in palm mortality due to manganese starvation!

Results may take two to three months when new growth emerges. The discolored fronds will not green up. Avoid using composted sewage sludge or manure products near palms as they may lock up micronutrients such as manganese and iron.

Applying a complete palm fertilizer with 8N-2P-12K-4Mag plus Mn and Fe (iron) and B (boron) three or four times per year is recommended as a routine practice. But don't overdo it and it is better to watch palm color to determine when they need a dose of fertilizer. See the flrec web site below for more details.

As a point of interest, unlike its cousin the true date palm (*Phoenix dactylifera*) varieties such as the 'Medjool' which is found in desert-like environments, the pygmy date palm is at home along river banks which periodically flood in southern China and Vietnam. So, water-soaked soils are an issue the pygmy date palm is adapted to dealing with, but during this truly rainy, rainy season, water-logged soils will slow nutrient uptake and may cause root death if prolonged for several months.

Other plagues that may be affecting our pygmy date palms include: root mealybugs and aphids, red date scale and root rot diseases and rachis blight diseases. Another recent introduction, the grey with black markings Sri Lanka weevil, is notching the edges of the pygmy date palm leaflets. These day feeding weevils aren't a serious threat, as the damage is limited to the aesthetically annoying notching (see: <http://trec.ifas.ufl.edu/mannion/pdfs/SriLankaWeevil.pdf> . More information on proper palm fertilizing and diagnosing palm problems can be found at: [http://flrec.ifas.ufl.edu/palm\\_prod/palm\\_problems.shtml](http://flrec.ifas.ufl.edu/palm_prod/palm_problems.shtml) . Landscape maintenance companies and other professionals may call me to schedule a property inspection/consultation to help in diagnosing plant problems. If you don't have access to the internet, our Master Gardener Plant Clinic staff can help you out, call 353-2872 on Mon., Wed., and Friday, 9 to 12 a.m. and 1 to 4 p.m.



*Manganese deficiency symptoms are similar with the new growth exhibiting "frizzle top" on the queen palm (left, photo: Andrea Stetson) and royal palm (right, photo: Dawn Cameron).*

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