



<p>1. Magnesium (Mg)</p> <p>2. Canary Island Date</p> <p>3. Old</p>	<p><b>Moderate/Severe:</b></p> <p>i) In feather palms, broad chlorotic (yellow) bands along the margins with the central portion of the leaves remaining distinctly green (Figure 17).</p> <p>ii) In fan palms the chlorosis may appear as broad yellow bands along the margins of individual leaflets or the leaf as a whole.</p> <p>iii) Symptomatic leaves will never recover.</p> <p>iv) Mg deficiency is rarely fatal in palms.</p>	<p>Difficult to correct once symptoms are present.</p> <p><b>Mild/Moderate:</b> In neutral to alkaline soils use magnesium sulfate preferably the less soluble prilled kieserite form in addition to routine applications of the 8-2-12-4Mg maintenance fertilizer.</p> <p><b>Severe:</b> Supplement regular 8-2-12-4Mg applications by broadcasting magnesium sulfate (preferably in the prilled kieserite form) at rates of 2 to 5 pounds per palm 4 to 6 times per year under the canopy. Stagger regular and supplemental applications by 6 weeks. Correcting Mg deficiency may take two or more years.</p>
<p>1. Manganese (Mn)</p> <p>2. Foxtail, paurotis, queen, pygmy date, royal</p> <p>3. New</p>	<p><b>Mild/Moderate:</b></p> <p>Emerging leaflets are chlorotic with longitudinal necrotic streaking. Leaflet tips become necrotic, withered and curled giving the leaf a frizzled appearance commonly called “frizzletop.”</p> <p><b>Severe:</b></p> <p>On coconut palm, necrotic leaflet tips fall off and the leaf has a singed appearance. On all affected palms, growth stops and newly emerging leaves consist solely of necrotic petiole stubs. Palm death often follows (Figures 18, 19 and 20).</p>	<p>Supplement regular soil applications of 8-2-12-4Mg with routine applications of soluble manganese sulfate (Figure 21) on soils. Foliar application of 0.3 lbs of manganese sulfate in 10 gallon of water gives quicker response. Soil application rates range from as low as 8 oz for a small palm to 8 lbs for a large palm growing on a limestone soil. Applications can be repeated every 2 to 3 months, depending on the severity of the problem and soil type. Response seen in 3 to 6 months after applications.</p>

UF/IFAS recommends the routine use of a palm maintenance fertilizer with an 8-2-12-4Mg analysis and to include micronutrients. However, not all fertilizers having an analysis of 8-4-12-4Mg with micronutrients are effective, and if improperly formulated, may be worse for palm health than no fertilizer at all. It is essential that 100% of N, K, and Mg in such a fertilizer be in slow release form. A water soluble source applied one day could be completely leached out of the root zone the next day by a heavy rainfall and the palm would receive no benefit from the application. Controlled-release fertilizers are not greatly affected by rainfall or irrigation intensity. Since they release more slowly than water-soluble fertilizers, they are also less likely to burn plant roots during periods of drought.

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