



## Topic: Frizzletop in Foxtail Palms

**Question:** Attached are three pictures taken today. We have applied the recommended 8-2-12 fertilizer. The fertilizer also includes 8% Magnesium, 8% Sulfur, 5% Iron and 2% Manganese. I was told to apply it every 2 to 3 months but so far it does not seem to be working. All other foxtail palms in the neighborhood are doing well, are greener, taller and thicker. What is your recommendation?  
Heinz, Estero

**Answer:** These photos illustrate classical Manganese deficiency also known as frizzletop. This is the most common problem on foxtails growing in alkaline soils. The problem can become apparent where ever soil pH is above 7.0. However, not all foxtail palms will be symptomatic even under this condition. On the most severely alkaline soils, this problem may occur and persist even if the recommended 8-2-12 fertilizer is regularly applied, although this product will usually keep it under control. Foxtail palm is usually not recommended for alkaline soils for this reason. However, if you keep these palms it is recommended that you apply about 3 lbs of TecMangam (manganese sulfate) per palm every 3 months or so in addition to the 8-2-12 every 2 to 3 months. TecMangam contains 32% manganese, well above the 2% in your current fertilizer.



**Useful Link:**  
[Palm Nutritional Deficiencies](#)

. Stephen Brown is a horticulture agent with the Lee County Extension Service. Submit questions by calling the horticulture desk at 533-7504 between 9 a.m. and 4:00 p.m. or by e-mailing [brownsh@leegov.com](mailto:brownsh@leegov.com). Visit his Web page at <http://lee.ifas.ufl.edu/hort/GardenHome.shtml>. For native plants click on Publications A-Z.