

Pictorial of Fusarium Wilt Symptoms of Queen Palm

About the Disease

- Fusarium wilt is very host specific, with the primary hosts being *Syagrus romanzoffiana* (queen palm) and *Washingtonia robusta* (Mexican fan palm or Washington palm).
- The disease can be identified in the landscape.
- It is caused by the fungus *Fusarium oxysporum* f. sp. *palmarum*
- The canopy looks as if it is freeze-dried in place due to the rapid decline and death of the palm (two to three months after symptoms are first noticed). All fronds will eventually collapse.
- The leaf symptoms include a one-sided chlorosis (yellowing) or necrosis (brown due to death) of the leaf blades, with distinct reddish brown or dark brown stripes on the petiole and rachis.
- The disease symptoms normally appear first on the oldest (lowest) leaves, and then progressively move upward in the canopy until the palm is killed.
- It is not known exactly how the fungus spreads so widely in the landscape, but wind-blown spores are strongly suspected as a primary method.
- Local transmission of the fungus from palm to palm is possibly caused by contaminated pruning tools.
- There is no cure for this lethal palm disease.



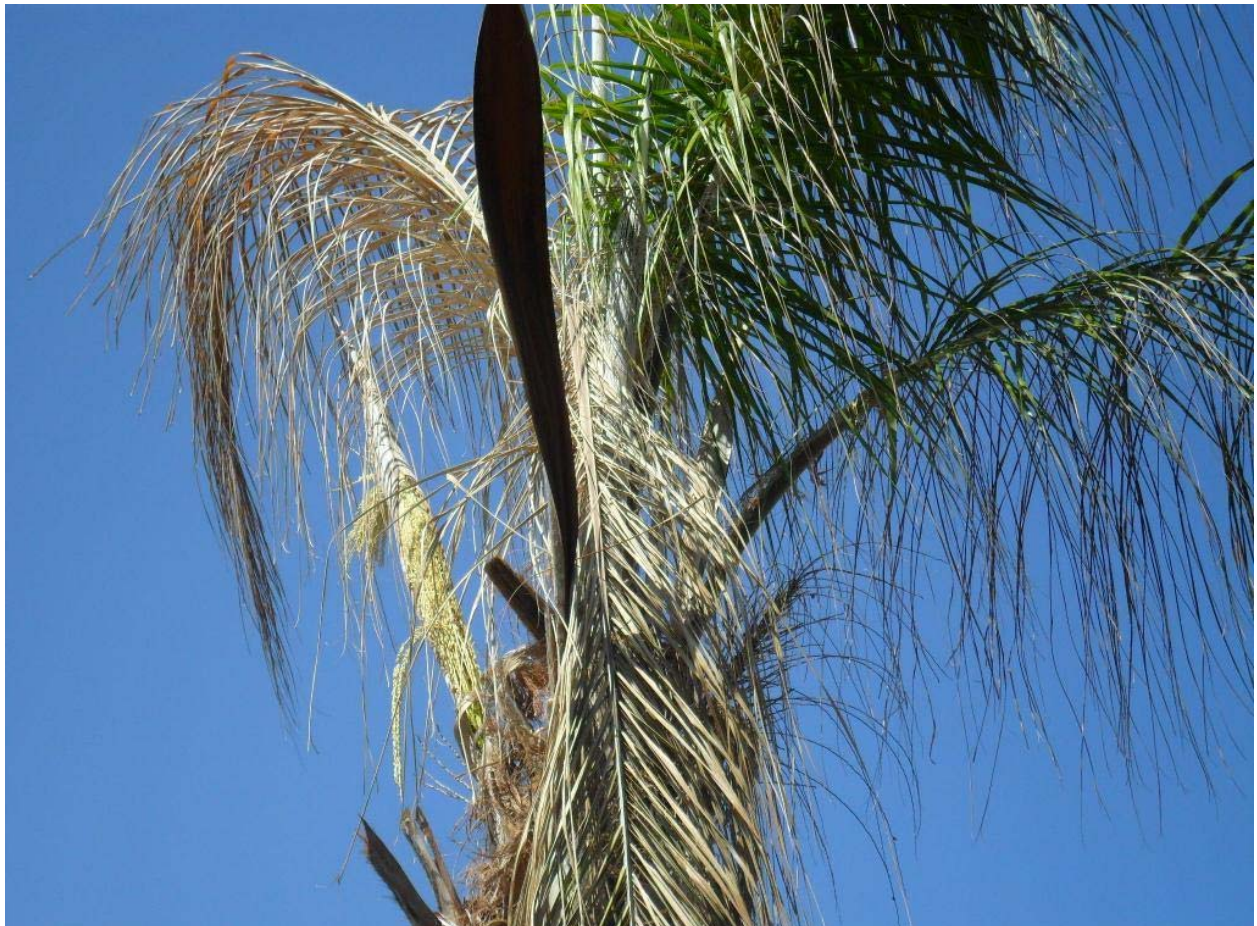
A seemingly healthy palm on the left and a Fusarium affected palm on the right

Fusarium Wilt of Queen and Mexican Palms
All palms pictured are queen palms



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A seemingly healthy palm on the left and a Fusarium affected palm on the right

Once the palm is affected by this disease there is no cure. Currently, there is also no method for preventing this disease. Once the disease is established, it is thought that it may be transmitted from palm to palm by leaf-pruning equipment. Pruning should be restricted to removal of dead or dying fronds only. Severe pruning weakens the palms and may increase risk of pathogen transmission. Equipment used to remove leaves from an infected palm will have fungus-infested leaf material (wood dust, plant sap) remaining on the blades. If equipment is not cleaned and disinfected, the next queen or Mexican fan palm pruned by this equipment will be exposed to fungus-infested leaf material. If in a landscape some palms are symptomatic, be sure to disinfect the pruning tool between each palm whether or not the palm shows symptoms of the disease. Some symptomless palms may have already been infected and are capable of spreading the disease if equipment used for pruning them is not properly sanitized.

The table below provides a list of suggested materials that can be used as disinfecting agents. Brush the tool blades clean of debris before placing in disinfectant solution. For chain saws, it is recommended that they be taken apart and both the chain and bar soaked. By using multiple pruning tools, one tool can be soaking in the disinfectant solution while the other tool is used for pruning. The disinfectant solution should be replaced at least every 10 palms or every 2 hours. Rinse tools with clean water before pruning.

| Material | Percent solution | Soaking time |
|----------------------------------|-------------------------------------|--------------|
| Household bleach (e.g. Chlorox) | 25% (1 part bleach + 3 parts water) | 5-10 minutes |
| Pine oil cleaner (e.g. Pine Sol) | 25% (1part cleaner + 3 parts water) | 5-10 minutes |
| Rubbing alcohol (70% isopropyl) | 50% (1 part alcohol + 1 part water) | 5-10 minutes |
| Denatured ethanol (95%) | 50% (1 part alcohol + 1 part water) | 5-10 minutes |

Reference

Elliott, Monica, L 6/2010. [Fusarium Wilt of Queen and Mexican Fan Palm](#). EDIS, Publication #PP278. University of Florida, Gainesville

Useful Palm Links

[Palm Diseases Publications](#)

[Nutrition and Fertilization of Palms](#)

[Proper Palm Pruning Practices](#)

[Root Initiation of Some Palms](#)

[Royal Palm Recovery After Hurricane Charlie](#)

[Right Palm for the Right Place Video Clip](#)

[Buccaneer Palm Fact Sheet](#)

[Cabbage Palm Fact Sheet](#)

[Cabbage Palm Pictorial](#)

[Normal "Abnormalities" in Palms](#)