



Look for woody conks or small developing marshmallow stage of the conk.



Canary Island date palm on left shows typical wilting caused by ganoderma butt rot.

BASAL STEM ROT/GANODERMA BUTT ROT OF PALMS

Doug Caldwell, U.F. Commercial Horticulture Extension, Collier County

Symptoms: Wilt symptoms are caused by the fungus rotting the xylem and other trunk tissues (lignin and cellulose). The lower fronds turn dark green/gray, droop, and eventually die. The symptoms progress upwards to younger fronds until the entire crown collapses. Presence of large fruiting bodies (annual conks) usually close to the base of the stem is characteristic of this disease. However, the palm may die before the conks appear. The conk starts out as a 1 to 2 inch marshmallow-like structure and develops into a woody shelf fungus. These conks will disseminate spores into the air while they are still white and long before they turn reddish brown. Butt rot is a disease of mature palms.

Cause: This disease is caused by the fungus, *Ganoderma zonatum*. It is now believed that wounds are not likely a factor in disease occurrence. The fungus may grow internally in the tree for 3 years or more before symptoms are observed. Landscape practices, such as too much mulch against the trunk, irrigation striking the trunk, flower or shrubs planted too close to the trunk, have not been associated with this disease. It has been observed on palms that are nutritionally maintained as well as those that are severely stressed by nutrient deficiencies. Ganoderma has been found on palms in well-drained and soggy soil locations as well as palms in silica, calcareous, peat soils and limestone rock. Palms in natural settings have been killed by this disease as well. The contributing factors to this disease remain elusive. Observations to date indicate that the fungus probably enters palm trunks by way of dead roots or palm stumps if it is a clump-type palm.

What to Do: Fungicides are **not** effective against this disease. Keep the tree healthy and prevent root wounding.

Remove infected palms as soon as possible, this means removing the stump and as much of the root ball as possible.

Do not replant with another palm because this disease infects all palms. Possible exceptions may be *Sabal minor* which does not have the woody stem tissue that this pathogen attacks.

A general reminder, trimming of the fronds should be done with a ladder or a bucket truck. Do not use climbing spikes on living trees or palms. Spiking trees damages vascular tissues and may serve as entry sites for certain pathogens.

Doug Caldwell is a Certified Arborist and the commercial horticulture extension agent and landscape entomologist with the University of Florida Collier County Extension Service. The Cooperative Extension Service is an off-campus branch of the University of Florida, Institute of the Food and Agricultural Sciences and a department of the Public Services Division of Collier County government. E-mail dlcaldwell@mail.ifas.ufl.edu; Call 914-353-4244. Extension programs are open to all persons without regard to race, color, creed, sex, handicap or national origin. For updates on the Southwest Florida Horticulture Learning Center visit: <http://collier.ifas.ufl.edu>.