



*A healthy green sago will develop yellowish or brown fronds (inset)
when attacked by Cycad Scale ([Texas A&M Photos](#))*

MANY SAGO PALMS WILL DIE (if action by owners is not taken)

by Patrick Hudnall, Texas Gulf Coast Fern Society

Many homes are landscaped with Sago Palms. Not actually palms, these plants are cycads. (Cycads are very distant relatives of ferns but some are often mistaken for them.)

Over the past few years, an increasing number of sago fronds have developed a whitish substance, or have turned brown or yellow instead of dark green. This most likely is "Cycad Scale" (*Aulacaspis yasumatsui*) a native of Thailand and currently found in many US states. Populations of this scale readily reach high densities, causing necrosis of fronds and eventually plant death.

In nearly all cases your friendly yard maintenance guy will be of no help and may in fact bring the pest to your property from a previous customer.



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Researchers have found that horticultural oils applied to foliage and trunks of infested cycads greatly reduce the scale insect populations. Cycad scale management utilizing foliar Neem oil or d-Limonene treatments are effective, but control may not be achieved without several fall, winter and spring, applications.

Periodic use of oils may be required to help with subsequent re-infestations. Greater scale mortality can be achieved by mixing oils with a contact insecticide, such as spinosad or pyrethrum. Two natural enemies of cycad scale have been released in Florida. These are a predaceous beetle, and a parasitic wasp.

Homeowners should practice plant sanitation in pruning infested plants. In many cases the crawler stage, that look like small white specks, can be spread from plant to plant by pruning equipment or by infested clippings that are not discarded properly. A good practice is to clean pruning equipment before moving to new plants. Crawlers are readily carried by wind currents and can be blown for great distances to other Sago Palms. I experience good control by pruning all infested fronds, and thoroughly spraying the entire trunk, pouring some into the root zone.

Successive pruning to control the scale may stress the plant, though it may otherwise die. Unfortunately, the cycad scale insect is an unusually hard pest to control. The scale shell remains on the plant long after the insect itself dies and previous scale sites may still look chlorotic, so when control is achieved it may not be obvious to the observer. The scale can quickly re-infests plants. This may be at least partly due to its presence on the roots, where it is even harder to control.

If you have an infestation of this pest, and do nothing about it, it will spread from your house to your neighbor's Sago Palms.

LONG TERM OUTLOOK FOR CYCAD SCALE

A factor in this problem is that "Sago Palms" have for many years been grown as low maintenance



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plants. They are quite drought-resistant, have low fertilizer requirements, and had relatively few pest problems prior to the invasion of cycad scale.

Homeowners who prize their Sagos are willing to invest considerable effort in managing this scale, while others question whether such effort is justified for what they conceive as a 'low maintenance plant. A long-term strategy may involve the use of cycads that are resistant or not preferred by the cycad scale.

For example, *Dioon spinulosum* gives an effect in the landscape that is similar though larger to that of Sago Palms. This species is almost never attacked by cycad scale, though is less frost tolerant. *Dioon edule* is nearly as hardy, though smaller in stature. Increasingly popular and increasingly available Cardboard Palms *Zamia furfuracea* are equally susceptible to cycad scale as are the small Florida *Zamias*.

Primary Reference: University of Florida Pest Alert.