



Central Florida *Palm & Cycad Society*

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Does Your Sago Have Asian Scale?

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Asian scale, or *Aulacaspis yasumatsui*, was brought into Miami from China in the mid 1990s, and since then, it has killed over 1 billion dollars worth of sagoes in Florida alone. The main reasons why these insects have not been kept in control is that most homeowners don't understand what they are looking at, and the general public doesn't know enough about these insects to put together a good eradication strategy.



King sago covered with Asian scale



Close up of Asian scale

The only cycads that are native to Asia are in the genus *Cycas*. King sagoes are *Cycas revoluta* and queen sagoes are *Cycas rumphii*. For the most part, other cycads that are not in this genus will not get the Asian scale to the point that they might die. The key to getting rid of these insects is that the immature scales, known as crawlers, will move down into the root system in the winter time. In mid to late spring, some of the crawlers will move up into the plant and by July or August, they are multiplying fast enough to totally cover a sago. There can be as many as 3000 scales per square inch at this time. During this time, there are still thousands of scales eating the roots which makes it more difficult for the plant to pump water and nutrients up into the leaves and stem. Sagoes that are clean of scales are usually infected during this warm period of the year. Male scales can fly from one plant to another. Immature female scales can become airborne and during a wind storm that has 30 mph winds, these scales can float as far as a half mile away. Some scales will fall close to the plant, but then crawl over to the plant from there.

There are many products you can use to kill the scales, but the key is, you need to treat the root system as well as what you see above ground. If you don't, the new crawlers will continue to move up into the plant. You can drench the roots with a systemic like Orthene, Cygon, or Advanced Garden Tree and Shrub Control. You also need to spray the stem and the leaves. You can use either one of these products, but I prefer to use one of the brands of horticultural oil which after being sprayed on the plant, smothers the insects. Horticultural oils should not be used in the middle of the hot day because it can burn the leaves. It is also advised to apply a good cycad fertilizer at the same time because the scales take a lot of energy out of the plant that needs to be replenished. Once your sago appears to be pest free, as a good preventative, it is good to treat the root area in early spring, which breaks the cycle and if no other scales try to re-infest your plant, you may not have to treat your sago again. Usually, treating the roots once a year, and if you see the scales starting to move up to the leaves, a spot spraying of horticultural oil should take care of the problem.

If you want a more natural approach, believe it or not, used coffee grounds can be used to kill Asian scale. The alkaloids in coffee are not all brewed away in a drip system and can be used to kill most common insects on any kind of plant. Starbucks gives away (for free), 6 to 7 pound bags through their Grounds For Your Garden program. To treat your sago, cover the entire root area with a fine layer (about 1/4 inch) of used coffee grounds and water it in. Once the alkaloids from the coffee reaches the bottom of the root system, all the scales will be killed. One treatment will last 4 to 5 months. This barrier around the plant will also keep any new scales from crawling onto your sago. If you take used coffee grounds and brew them again until the mixture is dark brown, this can be used in a pump sprayer to kill any scales on your sagoes. If you want to make a large amount of spray, you can brew something like "suntea" with 2 weighed out ounces per gallon of water to make your spray. If you use the grounds as a mulch in early spring and then again in July, you should be able to protect your sagoes all year. If new scales fly onto your sago, or if your sago is already infested, you can use the coffee spray as needed.

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