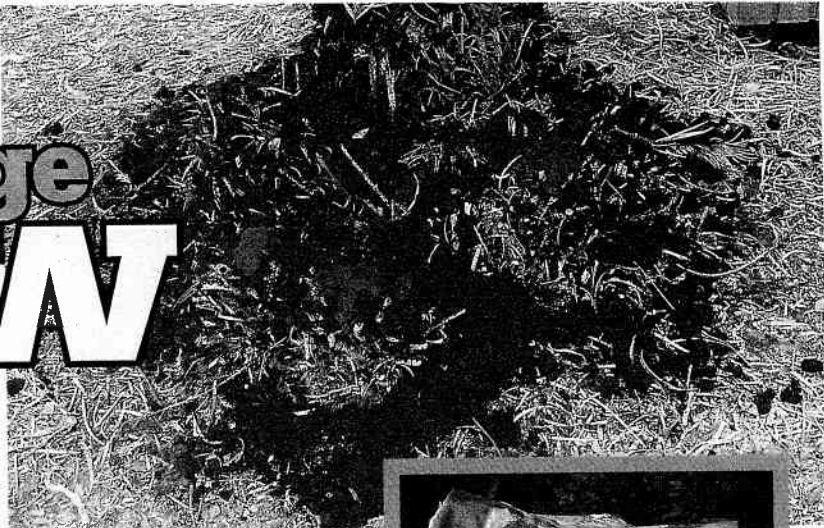


# Strange Brew

An unorthodox, natural method of pest control is working in the fight against Asian cycad scale.



Since Asian cycad scale go down into the root system, it's important to mulch surrounding the entire root area.

By Paul Rusnak  
Managing Editor

It's often thought and said that desperate times call for desperate measures. This feeling can consume growers, especially when they are challenged with a persistent pest. Case in point, the Asian cycad scale has weighed heavily on the Florida landscape ever since it was first found in the U.S. near Miami in 1996. A native of Thailand and southern China, the insect is believed to have been accidentally introduced into Florida through the legal importation of cycads. Since then, it has made its way across the state and devastated this group of plants, which includes cardboard palms, coonties, and especially king and queen sagos.

Tom Broome, owner of The Cycad Jungle in Lakeland, FL, knows how big a problem this pest has grown to be.

"We used to go down to South Florida and be able to see these 20-foot plants,

and now they are just gone," he says. "It took about four to five years to eradicate about 80% of the king and 90 to 95% of the queen sagos in Miami."

Asian cycad scale are particularly active starting in spring and into the summer. Broome says it takes three to four months for a plant to become infested and turn white from all the scale feeding on it.

"The first place you look are the petioles," he says. "You can look at the bottoms of the leaves and see how bad it is."

Admittedly someone who likes to try different experiments, Broome has found a natural remediation in the component of a morning beverage staple — coffee grounds. After noticing an absence of mealybugs on one grower's field of coffee-ground-treated coonties and a few years later reading an article by a Harvard professor about how caffeine could be used as an insecticide, inspiration hit.

"That's where I started doing my own experimenting," Broome says.



Photos courtesy of Tom Broome

**Growers, landscapers, and anyone else who asks can obtain bags of spent coffee grounds for free at Starbucks.**

Coffee grounds, due to their organic nature and magnesium and nitrogen content, have been used in gardens for years.

"I learned a lot more by studying all the different alkaloids in coffee plants, and it can easily be used as an insecticide."

## Where Have You Bean?

Eager to test the coffee-ground method out, Broome tried it on an area that had mealybugs and scale. He didn't have to wait long for results: no mealybugs and all the scale were dead within two days.

"In the first few hours, I knew something was working," he says.

Wanting to continue and expand his experiments, a lot more coffee would be needed. According to Broome, an organic source for a potential answer to controlling Asian cycad scale is as close as your nearest Starbucks. The coffeehouse conglomerate's "Grounds For Your Garden" program is an



After treating an infested king sago with coffee grounds, marked improvement was the result.

initiative to reuse its coffee grounds. The program, which was started almost 10 years ago, offers bags of used coffee grounds for composting — free of charge — to nurseries or anyone who asks for it.

Broome notes that Starbucks uses a lot of espresso beans, which has a higher caffeine (a strong alkaloid in coffee) content.

"There are still all these alkaloids left over in the coffee grounds and that's what kills the insects," Broome says.

### Grinding It Out

From the beginning, efforts were made to learn more about Asian cycad scale and how to fight it. Broome says the key to solving the pest puzzle was to understand that it goes down into the root system.

## Landscapers And Labels

Tom Broome says landscapers have to be wary how they use coffee grounds in the field. He points out that it's OK if landscapers use it as a soil supplement only, but they cannot use it solely as an insecticide and charge for it.

"It comes down to labeling," he says. "If you're using it to kill an insect, it has to be labeled and go through the whole process. The product itself is not registered as an insecticide."

"They were going dormant in the roots, and everyone thought they were dying," he says. "The people who just treat the tops aren't doing a whole lot except making their plants look good."

Knowing this, Broome says it's essential to use the coffee grounds as a mulch and to surround the entire root area.

"Every time it rains or irrigation runs, some of those alkaloids are being leached into the soil."

In addition to mulching, coffee grounds can be used in liquid form, too. Broome says by putting a bag of spent coffee grounds into a barrel with water and letting it sit in the sun for five days, you'll end up with a concoction that can be used in a sprayer.

Beside Asian cycad scale, Broome says he has tried and has had success in battling other pests, including mealybugs, other types of scale, and aphids. While the experiments have gone well on sagos, Broome says other plants would probably benefit from the coffee control.

"There's no reason why it would be toxic to any particular plants," he says.

Among Broome's list of promising plant results are bamboo and clivias (mealybugs) and bromeliads (mosquito larvae in the storage cups).

"It does not kill ants or beneficials, just the lower lifeform type of insects," he says.

There are some conditions, however, that aren't conducive to the mulch treatment, but the spray would suffice.

"If you mulch the pots in a really wet area, it gets mold growing on top of it. That's the only downside I've seen."

### Perking Up

Although coffee grounds are a relatively new option in the pest-control arsenal, Broome says Fairchild Gardens in Coral Gables, FL, is using it on all its *Cycas* species, and other growers he knows have been successful with it.

"This can be used in a lot of different applications," he says. "It would be good for organic gardening and also for interiorscapes, where they don't want to use chemicals inside the building."

Broome says, not counting the gas it takes to go to the store to pick up the coffee grounds, you can't beat the price.

"As long as Starbucks gives away coffee grounds, you're treating your plants for free." ■


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