## CYCAD TIPS TOOLS

## The Geo-Disc

## Article and photos by Tom Broome

One of the largest problems that nursery people, or anyone who grows plants in containers, for that matter, have to deal with is weeds in their containers. It is estimated that 20% of the total cost of running a nursery is spent eliminating weeds. Using pre-emergent herbicides in your containers can be helpful in keeping weeds under control, but many of us have found out the hard way that pre-emergent herbicides can cause problems when used with cycads. A couple of products seem to work fairly well on cycads with aboveground stems, but they can cause problems for cycads with subterranean stems. When I was testing different herbicides on cycads, plants with subterranean stems produced new leaves that were either stunted or monstrose. When using the the best products I have found, cycads that already had aboveground stems didn't initially seem to have problems. It took up to three years before visible effects of the best pre-emergent herbicides were seen on species like Cycas revoluta; in this case, this usually only amounted to a slight dwarfing of the leaves. I have had to rely on pulling weeds the best I can with my cycads, and I would usually get behind during the summer when the weeds are at their worst.

I have found a product called a Geo-Disc. It is a round disc made of a light fabric coated with a chemical that inhibits weed seed germination. It has slits already cut in it so that it can be placed all around the cycad stem and the leaves will grow through the middle. They come in most sizes that fit into the smaller containers typically used in a nursery. The small ones are 5", which will fit into a quart container, while the larger ones go up to 24" and fit in up to 25-gallon containers. It is a time-consuming process to put them on each plant, but in the long run they save quite a lot of work, especially if you are growing cycads that will remain in the same container for five or more years. I was just recently potting up some Ceratozamia hildae plants that I haven't paid much attention to over the that last four years; I was moving them from 1-gallon into 7-gallon containers. Even after all that time, the Geodiscs were in place and I couldn't find the first container with weeds in it.

In my estimation, Geodiscs are a very useful product for those growing cycads. Here in Florida, they can be purchased from many agricultural supply stores. I also found a few websites advertising them. I can't say which source would be the best, but here are a couple of links to get you started:

http://www.nyp-corp.com/nursery.htm

http://www.scsincorporated.com/Geodisc.htm



The "Geo-Disc," a godsend to those who grow their cycads in containers



Example of a weedless container with Cycas plant, thanks to the Geo-Disc