St. Augustine Orchid Society
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Coco Chips

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Orchid Growing Tips

Most repotting should be complete by now except for plants that have special requirements. Repotting is a great time to assess how well your orchids have grown by simply examining roots, old media, and the size of the plant. If all of your repotted orchids are requiring larger pots then last year's, then media, fertilizing, watering, etc have been successful. If repotted orchids had few roots and smaller leaves it may be necessary to change one or more of your cultural practices. If you keep records of what you do each month, e.g. what fertilizer was used or how frequently plants were watered, the task of assessing what went wrong will be easier.

Orchid culture involves many facets from light to water. Changing any one variable requires that others be altered as well. More light usually requires more frequent watering, while conversion to plastic pots from clay may require less. New media may require more or less fertilizer. Most cultural problems revolve around water; too much, too little, or water of poor quality. Orchids need better water quality than do humans. People have various organs to rid their bodies of unwanted salts, but plants must live with what you provide. That is why water free of salt (dissolved stuff) is so important. Ideally, the only salts you want in the water you give your plants are those needed for growth, which are macronutrients (N, P, K) and micronutrients (about 30 other elements needed in tiny quantities). Unless you use Reverse Osmosis or deionized water most micronutrients are already there. Fertilizers recommended for orchids supply the macronutrients.

If a problem was noted with your culture the solution typically involves water. If you cannot stop over watering, switch to a media that is more porous or one that degrades more slowly. Clay pots dry faster than plastic and offer another solution. If you often forget to water consider the opposite or growing orchids tolerant of drought. Paphs and Phals do not like their roots to totally dry out, while many groups with pseudobulbs require drying. Some of this is learned by "trial and error" or "survival of the fittest". If Paphs grow well for you, but Cattleyas grow well for a year or two then stop blooming you can conclude that the needs of the low light, water-loving Paphs are being met, but the higher light Cattleyas are not. Growing Orchids begins with advice from books or friends, but ultimately is trial and error learning tempered by availability of water, media and other supplies.

The past year's repotting has revealed some strikingly successful experiments in my greenhouse with both time-released fertilizers and with coconut chips. Both had been tried before, but were not successful under my cultural conditions. One well-known Paph grower recently published an article noting successful use of coconut chips added to Paph mixes in place of fir bark. Several area Phal growers had added coconut chips to their mixes years ago with mixed results. The addition of coconut chips to the traditionally heavy Paph mixes seemed to prevent the compaction of the mix and the required repotting. The secret was in removing salt from the coconut chips before using them by repeated soaking. My first batch of coconut chips required several weeks of soaking to decrease the salt content from over 10,000 to less than 20 ppm. Using the coconut chips right out of the box would have meant

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disaster. I already did that once. The salt purged chips did just what was suggested in the article and Paphs grown in the mix with coconut chips had far better roots and better yet, did not require repotting after 6-8 months.

An experiment using coconut chips in Cattleya mixes, while not complete, found one problem, mold. There is a common white-colored mold that occurs in fir bark that makes the bark water repellent. This appeared in mixes with coconut bark. The addition of small amounts of redwood bark should eliminate mold as it does with fir bark. Next year's repotting will reveal if this works or not.

Another success was the near elimination of small flies whose maggot larvae live in the media. While not a real problem, these flies can be a nuisance and accelerate media breakdown. A few small butterworts (carnivorous plants) was all that was required. I do not have a commercial source for butterworts, but Carter & Holmes has a species of sundew, another carnivorous plant, which should also work well in greenhouses. Carnivorous plants are excellent indicators of water quality as well and will die quickly if water quality is poor.

The last successful experiment is one that seems too good to be true. Slow release fertilizers such as Osmacote have been around for years, but tend to release too much fertilizer at once damaging roots. A new product, Nutricote, has proven remarkable because it did no damage to roots or even leaves when accidentally left on them. Best yet, Cattleyas grew faster, bloomed better, and still had the thick hard leaves desired. This product is not available in small quantities locally, but has been repackaged into smaller quantities and is available at Carter & Holmes for the hobbyist. For growers with just a few plants and that do not want to spend time mixing fertilizers, this is the product for you. It lasts a long time and is still working over a year after it was first applied. My experiment involved Cattleyas Nutricote has not been used on other genera, at least in my greenhouse, so be cautious if you use this on other genera in more dense media.