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Growing Cool Growing Orchids in Florida

December 2012

by Dr. Courtney Hackney, hackneau@comcast.net

Winter, at least for those of us in Florida, came suddenly in November. Freezing temps were widespread in the northern third of the state. The first cold snap reminded me of an issue that seldom impacts those of us in Florida; using cold water on our warm orchids. For me now, this is not usually a problem because the water out of the hose in my greenhouse is always warmer than the temperature in the greenhouse in the early morning when I water. If, however, I wait until noon on a clear day, I could damage sensitive leaves and buds by applying water significantly colder than leaves. In the morning, the coldest the air temperature in the greenhouse is 58 F and the water from the tap is 68 F, thanks to the fact that our water flows some distance in the warm earth.

If your water is from a surface source, such as a lake or pond, be sure you check the water temperature before watering. Water colder than 5 degrees F than the plant can cause damage to new leaves and buds, especially on thin leaved or sensitive orchids, e.g., phals and jewel orchids. Depending on your water source, the temperature can vary greatly. Years ago, when I was using rainwater and there was a snow, the temperature of my water was so low that I could not use it for over a month, even though it was stored underground.

There is some good news this time of year despite heating bills. Thanks to lower day temperatures, I am able to bring my heat sensitive species and hybrids out from the dark areas and into more light. Even in a greenhouse where day temps often top out around 100 F near the ceiling in summer, there are places that stay cooler and where I put those orchids.

S. coccinea

My prize S. coccinea and many of its 1st, 2nd, and 3rd generation hybrids, e.g. Pot. Gene Crocker, are put into heavy shade where they stay at least a little cooler. Even some more complex cattleyas hybrids that have heavy doses of S. coccinea can be surprisingly intolerant of Florida's heat. There is still stress on those orchids and some clearly suffer, such as Phal. parishii and Phal. lindenii, but they survive and then thrive during the cool parts of the year. If a species or many of the parents in the background of a hybrid are from higher elevations, there is the likelihood that high temperatures in summer will be a problem.

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A few years ago, I received some heat intolerant hybrids in clay pots growing in New Zealand sphagnum. It was surprising how cool the outside of the pots were in the heat of the day. It turns out that the key is to keep the roots cool when the temperature is hot. Generally, high heat leads to faster decomposition of the medium, so I was surprised to find that the sphagnum lasted several years. When I finally repotted them, the sphagnum was still fresh and just a little decomposed. When I asked about the medium from the originator of the cross, I was told that it was high quality New Zealand sphagnum.

This was totally different than the Chilean sphagnum that I had been using on some orchids, which totally disintegrated after just six months. For my prized, heat intolerant orchids, I now use New Zealand sphagnum in new clay pots. I also found that flushing the pots with rainwater at least once a month prevented the buildup of salts. In addition, fertilizer on these orchids is minimal because I want to limit the soft summer growth that always seems to come with high temps.