



St. Augustine Orchid Society

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Watering When the Humidity is Low

June 2012

by Dr. Courtney Hackney, hackneau@comcast.net

Once again, I find that I have misjudged how quickly my orchids are drying out. The humidity has been low for the past few months with lots of bright sunny days, but it still surprises me how quickly pots dry each year when these conditions persist. This year, the wakeup call occurred when I began to repot cattleyas from a crowded bench. Despite watering earlier that morning, some of the pots were very dry. Clearly, I was not getting water into the interior of the bench. No matter what the time of year, it is important to thoroughly drench your orchids each time you water. The more plants you have, the more difficult this can be.



Many years ago, an old-time commercial grower demonstrated how his growers were instructed to water. It seemed silly at the time, but his method of watering at a sharp angle really does work. When cattleyas are placed on a bench and allowed to grow, their leaves will cover the surface above the pot to maximize light capture. Watering directly onto these plants from above allows water to flow around the pot and not wash through the medium. A good drenching means that the water flows generously through the pot. Watering at an angle can accomplish such a drench and soak the medium. Soaking the medium is necessary if you are going to deliver adequate water to roots.



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Some growers have a formula they use to decide when it is time to water, which takes into account temperature, light, air movement and especially humidity.

Watering at night or late afternoon is strongly discouraged in most “how to” books. However, this is what happens in Nature and is practiced by many commercial growers, especially in the tropics. It also works for me here in Florida if I can meet the following criteria. The daily humidity is relatively low, my greenhouse is open with great air movement, and night temperature is above 60 F. I water late afternoon and plants are still wet in the morning when I water again with a dilute dose of fertilizer. As soon as I began the practice this spring my orchids immediately perked up. Once humidity gets high again, usually in May or early June, the rate of drying declines and I begin the normal early morning soaking practice. When humidity is high and air movement low do not water at night.

Obviously, if other media are being used, e.g. sphagnum, it is relatively easy to wet your medium. While it is easy to wet sphagnum, some media that hold water well most of the year may be hard to wet. Media (and soil too) become hydrophobic if they are dry too long under low humidity. Fir bark is vulnerable, especially if a white mold appears on the surface. Once this appears, it becomes almost impossible to adequately wet the bark and repotting is necessary.

My experiments using sphagnum showed me that tightly packing sphagnum in the pot worked best for that medium, at least under my growing conditions. If packed properly, water will actually sit on the surface and only slowly drain through the medium. If you are growing in sphagnum, which is a common medium for pot plants, be sure you flush the pot at least once a month or high levels of salts will accumulate. This may require two passes through the greenhouse or in your sink.

Air conditioning has or will become necessary throughout the South soon. If you grow inside under lights or in a window, you will experience what those of us growing in a greenhouse have been experiencing, low humidity and rapid drying of pots and plants.

If there are spikes with a few flowers left on your phals, consider cutting the spikes off. First bloomed orchids will appreciate this and start their growth cycle earlier if you remove remaining flowers.

You should already be applying fertilizer so that increased light levels can be converted into more roots and leaves by your orchids. Remember, fertilize weakly weekly, using just on quarter of the recommended fertilizer concentration. This remains one of the hardest things for most new orchid hobbyists. If you are using Nutricote, also known as Dynamite, no additional fertilizing is necessary, but continue to flush once a month.