



St. Augustine Orchid Society

www.staugorchidsociety.org

When You Water, Water!

January 2010

by Dr. Courtney Hackney, hackneau@comcast.net

[Orchid Growing Tips](#)

There are some topics that arise over and over again, both in my own greenhouse culture and from questions I receive from readers. The issue this time is water, not water quality, but quantity. One of the mistakes made most frequently by experienced growers is to not water adequately. This does not mean that the frequency is not appropriate, but the quantity of water delivered to each plant is not adequate.



It is not enough to just wet the orchid plant and surface of the medium, but to make sure water drains through pots. When an orchid is first repotted and water is passed through the medium, there will initially be a small quantity of fine material that exits the pot. Then, very little will exit until either the medium starts to degrade or decaying roots disintegrate. If an orchid is growing well it may outgrow the pot before this happens.

It is important during the time an orchid is in a pot that there is adequate flushing to remove the decomposing organic matter and byproducts, which include organic acids as well as particles of decaying bark and root material. Typically, once the process begins the decomposition of the bark and roots will release nutrients absorbed from fertilizers, which will help nourish the orchid. At some point, however, the buildup of decaying materials can be so great that the medium becomes sour, i.e. lacks oxygen.

When an orchid is first repotted it is important to flush thoroughly to be sure the medium throughout the pot is wetted so that roots will be attracted to the medium. As time passes, the medium will remain wet for a much longer period of time because the medium is degraded by bacteria and fungi. The medium at the surface of the pot may be very dry, but the medium within the pot will remain moist because of the surface buildup of bacteria and fungi. A thorough flushing tends to remove byproducts of decomposition that accumulate on the bottom of the pot.





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One of the best ways to tell how decomposed the medium in a pot has become is to flush the pot thoroughly in your sink and note the quantity of fine material that exits the pot. If you repeat the flushing and the same quantity of fine material exits, then your medium is nearing the end of its lifespan and it is almost time to repot.

There is also the "sniff test". Water the pot thoroughly and wait a few minutes. If the pot smells like bark or has a pleasant "earthy" smell the medium is ok. If there is a foul smell, then it is time to repot. While the sniff test may seem arbitrary, most people who try it have little doubt if they sniff a pot full of medium past its prime.

Of course, this does not work if you use an inorganic medium such as Stalite, lava rock, or one of the puffed clay products. It still is necessary to flush thoroughly and most of those who flush a plant in the sink are shocked at the quantity of fine organic particles that exits the pot, especially if the inorganic medium is coarse. If the medium is relatively fine, organics can accumulate in inorganic media and produce the same foul odor that can be found in degraded bark.

One does need to be aware that some fertilizers can also produce an unpleasant odor, particularly organic fertilizers such as fish emulsion. Do not perform the "sniff test" for a week or so after using these fertilizers, because the organic compounds in these products naturally produce a rather foul smelling scent.