The ABCs of Watering
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by Dr. Courtney Hackney, hackneau@comcast.net Orchid Growing Tips

The most frequent question asked is how often should I water my Orchid? Unfortunately, there is no simple answer. Most novice growers want to be told "once a week" or "every other day". The only correct answer is "as frequently as they need water". The amount of water a plant needs depends on an array of different factors, which, like the weather, change daily. Good Orchid growers have learned how to answer this question for their own growing area. Knowing when to water requires knowledge of many factors that affect Orchids, which takes years to learn. Nevertheless, every hobbyist has gone through the same learning process and we all continue to learn. Here are the basic cultural elements each grower must understand and the questions you must ask before attempting an answer.

First, what "kind" of Orchid do you have? It may not be necessary to know the species or the name of the plant if it is a hybrid Phalaenopsis because this group will likely respond to the general culture of Phalaenopsis. On the other hand, members of the Dendrobium genus, including hybrids, may have very different water requirements. Some species require a dry rest period, while others need constant moisture. So, one must become an expert on the natural habitat of species or an expert on species in the background of hybrids to correctly answer the question.

How is the Orchid in question growing? Is it in a pot? What type of media is being used? How old is the media? Some media hold water, while others do not. Decomposing bark or old peat-dominated mixes become mushy once they reach a certain state of decomposition and may take twice as long to dry as when they are fresh. How is the novice to answer such a complex question? Even experienced growers have trouble answering this one. Novices growers often have the disadvantage of having purchased or received the plant and have never repotted an Orchid themselves so they are totally unfamiliar with the attributes of different media.

Are you growing your Orchids inside, under lights, or on a windowsill? Orchids growing inside are often subjected to much drier conditions than would be found in nature or in a greenhouse. Dry air can be a big problem when outside conditions are such that heaters or air conditioners run more. Heating air drops the relative humidity and air conditioning intentionally removes water from the air. In general, the greater the difference between the inside and outside temperatures, the greater the drying effect on the Orchid and the more water Orchids require. Also remember that Orchids obey a physiological law that dictates that growth rates increase 10 times every time temperature doubles. If your home is 60 deg. F your Orchid will require significantly less water than when grown at 78 deg. F.

Finally, what is the condition of the plant? A healthy plant with lots of live roots can remove water quickly from even a soggy media while a plant with only a few roots may rely on the drying effect of the surrounding air to dry the media. The more leaves, the greater the potential for water uptake if the roots are alive. Was the plant just repotted? Newly repotted

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plants will need time to grow roots to replace those lost to repotting and so may require less water. Remember too, different types of Orchids use more or less water. Almost never, however, do Orchids use as much water as the annuals we plant in gardens.

After fielding the "water question" dozens of times and seeing that puzzled look on the face of novice growers, I decided that a poor answer would be better than the one you just read, at least for new Orchid growers. Here is the short version that works (most of the time).

First, determine the general type of media in which your orchid is growing by pushing your finger into the media. How easily could you push into the media? If it was difficult to push a finger into the media then the media is likely some type of bark. If it is bark, determine if the media is dry. If the media feels dry and warm then it is time to water. If you are not sure if it is dry, then wait a day or two and water the plant. The types of Orchids potted in a bark mix can usually handle a little extra drying with no deleterious effect.

If it was easy to push your finger into the mix, then your Orchid is likely potted in either a "soilless mix" or Sphagnum. If you cannot tell if the media is wet then it is time to water. If the media is wet or soggy then do not water. Continue checking until it is difficult to tell if the media is wet or dry. If the media suddenly feels hard, like a pad of steel wool, then there is an excellent chance that the media has degraded. This plant needs repotting and should be repotted as soon as possible.

While overly simplistic, this procedure works most of the time. Now all the novice needs to learn is repotting, which will be the subject of next month's "Tips Column"