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Watering Orchids

By: Nancy DuBrule-Clemente

In my last column, I introduced the basic classifications of orchids. Briefly, there are epiphytic orchids that grow attached to tree trunks and there are terrestrial orchids that grow with their roots anchored in the ground. Sympodial orchids have a creeping growth habit and form rhizomes. When the rhizomes are large and swollen, they are called pseudobulbs and are water and food storage organs. Monopodial orchids do not form rhizomes and grow from a single stem. They do not store a lot of water.

Once you have identified the classification of orchids that you have or want to grow, the next step is to learn about the ways you can modify your home environment to suit them. Epiphytic orchids are usually grown in orchid bark (a type of clean, chunky chipped fir bark), or chopped tree fern root. Perlite or vermiculite are sometimes added for extra aeration. The purpose of this media is merely to support the orchid roots, just as the trunk of a tree would do in the jungle. It is very difficult to tell by the traditional method of sticking your finger in the soil if an orchid growing in bark or tree fern fiber is dry since the media itself is designed to NOT hold water. I was taught a great trick when I took care of an orchid collection one winter. Take a sharpened pencil and stick the writing end into the orchid pot. Look at the wooden part of the tip. If it is wet, do not water. If it is dry or slightly moist at the lower end, then water the plant. Use your judgment. Orchids that are sympodial and have swollen pseudobulbs store water for a long time. They need to be watered much less often. You will actually see the pseudobulb get a bit wrinkled when it starts to use up the stored water. Monopodial orchids, that do not have swollen water-storage parts, will need to be checked for water much more often. When watering epiphytic orchids, the ideal way is to fill a bucket with room temperature water and plunge the root ball and the aerial roots in the water. Remember that the thick waxy coating, called velamen, on the outside of the aerial roots contributes greatly to the plant's ability to absorb water and nutrients so it should be soaked too. Never let an orchid sit in water for hours on end. Because the roots are used to growing into air, they will easily rot. Your goal is to duplicate a quick downpour in a tropical jungle!

Terrestrial orchids need a different media in which to grow. Your goal is to duplicate the highly organic, porous, humusy material found on the jungle floor. This is done by combining orchid bark with sterilized compost or a rich potting soil. Terrestrial orchids are often mulched with shredded sphagnum moss. This category of plants does derive water and nutrients from the potting mix and will need to be checked for water fairly often.

Unlike traditional houseplants, you do not have to repot orchids just because you see the roots growing out of the pot. As you now know, this is normal. Also, sympodial orchids, whose rhizomes crawl across the top of a pot, may appear to be outgrowing their container, but they are really just spreading as they would in their native environment. The main reason to repot an orchid is if the media in which it is growing has decomposed and is no longer porous. If it begins to hold water and remain waterlogged, the orchid could rot. A second reason would be if the plant is simply so heavy that it tips over. Using heavier clay pots helps to offset this problem.

What kinds of pots do orchids like? As you can imagine, they like to be in pots that breathe, so terra cotta or porous ceramic pots are ideal. True orchid pots not only have a hole in the bottom of the container, they also have vertical slits up the sides so more oxygen can flow to the roots. Some epiphytic orchids are sold attached to slabs of tree fern fiber or osmunda fiber and have no pots at all. Be aware that many orchids are now sold in big box stores. For ease of shipping and to reduce weight and breakage, I have seen many of these plants sold in plastic containers. If you buy one of these "bargain plants" be sure to repot it into a proper orchid pot as soon as possible.

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