

Beginners' Newsletter



Welcome to the AOS Beginner's Newsletter. We will be sending you monthly tips on how to grow orchids and help you get them to bloom again. In addition to the information presented here, we invite you to visit the AOS website at www.aos.org and check out the information found under ORCHID INFORMATION > ORCHID BASICS.

Talking to Your Orchids

For those of you old enough to remember the 1973 best seller, *The Secret Life of Plants* by Peter Tompkins and Christopher Bird, the concept of "talking" to your plants is probably as natural as talking to your dog. The main difference is that you may practice the former only in private. Even your best friend might think you a little touched if they found you carrying on a conversation with your favorite *Phalaenopsis*. Today the idea of talking to our orchids has a broader connotation. More correctly, our orchids "talk" to us. We just have to understand what they are saying. This newsletter will cover some recognizable orchid symptoms, both benign and acute, and what they mean and how to treat them when necessary.

Diagnosing orchid symptoms is a mixed bag. Because they are slow growing plants, it often takes some time before the symptoms of an ailment are actually evident enough to alert the grower to the problem. On one hand, this can be an advantage: due to the slow growth, the grower has time to remedy the problem. On the other hand, sometimes the problem may be too far along to cure when the grower finally notices. As if that were not confusing enough, some orchid ailments move very quickly, such as Black Rot (caused by *Pythium ultimum* and *Phytophthora cactorum*). By the time you notice Black Rot on a cattleya, it has already infected the plant and only surgery may save what has not been already destroyed.

CULTURAL PROBLEMS

Shriveled, desiccated leaves can indicate both overwatering, and underwatering. The plant is not able to take up sufficient water and so the leaves take on a shriveled appearance. This may simply be due to the fact that you are not providing enough water for the orchid-pot-media combination such as this bare-basket *Cattleya* shown at right. This is easy to solve: water the plant more frequently or switch to a different media and pot. An orchid can also be water-starved because its roots are in poor condition, or absent, and cannot take up water. This is usually the result of overwatering, or old, spent potting media that has broken down and compacted around the roots. You can determine the condition of the roots and media by leveraging the plant out of the pot on one side with a tool such as an oyster knife or dull chisel. With experience, working your index finger into the pot can also tell you a lot about the condition of the media.



If root loss is the cause of shriveled leaves, such as this overwatered orchid at left, remove the plant from the pot and using a pair of sterilized garden shears or scissors, cut off all of the dead roots. It's a good idea to spray the remaining root mass (if any) with a broad spectrum fungicide or algacide such as Captan or Physan. We then like to place the orchid into an empty clay pot, or a pot with a small wad of sphagnum in the bottom. The orchid is kept shadier than normal (but watered along with the other orchids) until roots



begin to emerge. When they are a half-inch long, the plant can be repotted in fresh media. There are a few "tricks" that may help encourage growth, Spraying the plant every other day with liquid seaweed (1tsp per quart of water) does not hurt and can provide organic nutrients and hormones for a weak plant. We have had some success getting cattleyas to push growth from dormant eyes by applying a film of a cytokinin growth hormone like Keikigrow Plus.

Although these shriveled leaves resemble the symptoms above, the bleached color of the leaves indicates that the plant is heat-stressed

because of too much light. The fact that the orchid was mounted made the problem worse.



Other problems can create symptoms that look similar. Heat stress can cause orchid leaves to shrivel. Heat stress is due to excessive temperatures as the name suggests. Usually though, shriveled leaves are accompanied by bleaching and often, sun burn. Although orchids can show signs of heat stress just by being in an enclosed area of high temperatures for an extended period of time, the usual cause of the problem is too much light. If you suspect that an orchid is suffering from heat stress, hold a leaf on a sunny day. If the leaf is much warmer than your other hand, you need to give the plant more shade. If it is close to a greenhouse roof, move it lower. Putting an electric fan nearby will also help keep leaf temperatures down.

If you use agricultural chemicals for any of the problems we will cover in future newsletters, don't think "more is better". Follow label recommendations closely and do not be tempted to "put in a little extra, just to be sure". Agricultural chemicals are powerful tools that should be used only when necessary, and with extreme caution. Many orchids are sensitive and can be severely damaged by improper use of chemicals. Plants damaged by chemicals can show signs of leaf spotting that mimic fungal infections. Be aware of phytotoxicity and do not spray agricultural chemicals during the heat of midday and be sure plants have been thoroughly watered beforehand. Often the carrier used in emulsifiable concentrates (EC) will cause damage to orchids so use wettable powders (WP) if available. And protect yourself as well. Wear long sleeves and a respirator. Wash face and hands thoroughly after using agricultural chemicals and be sure to store them out of reach of children.

*Greg Allikas
July 2010*

Resources

The [monthly checklists](#) on the AOS website provide a convenient guide for orchid care on a month-to-month basis. Like all plants, orchids have seasonal growth patterns. Recognizing these patterns is an enjoyable part of the orchid hobby and gives us a closer tie to the natural cycles of life.

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Award Index and select magazine article reprints.

ORCHIDS magazine upcoming features...



THIS MONTH

- AOS visits Canadian grower Mario Ferrusi
- Story of Reichenbachia
- Orchids on Maui
- Jewel and Painted Leaf Orchids, Part 5

left: *Phalaenopsis lobbii* fma. *flava* 'Fajen Too', AM/AOS. Photo - Dan C. Backhaus

AUGUST

- Micro *Phalaenopsis* hybrids
- Woolly orchid, *Isabelia virginalis*
- *Epipactis helleborine*; Weed or wildflower?

send comments to - newsflash@aos.org

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