



St. Augustine Orchid Society

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Summer Heat and Humidity

August 2011

by Dr. Courtney Hackney, hackneau@comcast.net

Supposedly, the living should be easy now, for people, and those of us growing orchids. For sure, we do not have to worry about cold weather or the diseases that come with it. Of course, summer presents another set of issues that must be managed.

If you grow in a greenhouse you must be sure you have proper ventilation and air circulation to prevent an array of bacterial rots. Many greenhouses pull air through wet pads to cool their greenhouse. This can be very effective in avoiding those extreme temperatures. One problem in summer is that the outside humidity gets so high that cooling pads become ineffective and only serve to maintain very high humidity in the greenhouse.



Most orchids we grow thrive in humidity around 60%. When humidity is high, cooling pads maintain a higher than ideal humidity, which promotes bacterial rots. Each summer there are new growths or leaves that suddenly get soft and turn black when temperature



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and humidity are at their maximum. The key to avoiding these rots is to properly space orchids, have continual air exchange during day and night, and stop fertilizer applications that contain ammonia.

If your orchids grow outside without a roof protecting them, air circulation is not a problem. You will, however, need to watch for rots when there is a stretch of rain every day that keeps the medium in the pots saturated. The only orchids I put outside are those in open baskets, mounted or in lava rock. If you grow in bark, sphagnum or other media that retain moisture, growing outside requires careful diligence.

Many years ago, I purchased a greenhouse that had removable sides. In winter, sides were secured and a warm environment maintained, while in summer air flowed freely through the greenhouse day and night. My greenhouse today utilizes the same approach with the addition of 12' height in the greenhouse and ceiling fans to keep air moving when it is really hot.

At the other end of the spectrum are hobbyists that grow indoors, in windows or under lights. When heat is greatest outside, air conditioners run more to keep your home cool. Unless there is special machinery that maintains humidity at a specific level, the humidity inside becomes extremely low, which causes both your orchids and sinuses to dry out fast. The drying is obvious if one looks carefully at roots along the edge of the pot. Instead of having green root tips, they will be black or brown, indicating that there is not enough moisture in the air even though the medium may be saturated.

There are some solutions. Place your orchid in its pot inside a larger clay pot. Place a few small rocks or marbles in the clay pot first so there is some space between the bottom of the orchid and the clay pot. Sit the clay pot in a saucer of water; enough to wet the bottom of the clay pot, but not the orchid pot. The clay pot will wick water up and maintain higher humidity around your orchid. It is best to use RO, distilled or deionized water. If not, the clay pot will turn white from evaporation of water which leaves the salts behind; the harder the water, the faster this will occur.

It is always surprising to visit a long-time orchid hobbyist whose growing conditions violate all of the basic rules that promote orchid growth. These hobbyists employ the "survival of the fittest" approach. They buy orchids and if they do not grow under their conditions they are discarded and replaced by others. Often, one will find many divisions of the same clone in these collections because they survive. This is a good place to find hardy orchids, perfect for the new hobbyist. Be aware though, the normal progression of hobbyists is to start with a few very hardy orchids slowly adding harder to grow orchids and finally adding impossible to grow orchid species. That is what makes this such an "enjoyable" hobby.