



St. Augustine Orchid Society

www.staugorchidsociety.org

Water Temperature

February 2005

by Dr. Courtney Hackney, hackneau@comcast.net

[Orchid Growing Tips](#)

Water related questions continue to be the most frequently asked one, especially watering frequency. This time of year there are also other water questions, specifically what should be the temperature of water for orchids. The general rule of thumb is that the water should be no less than 5 degrees F cooler than the plant temperature. This presents a real problem for those of us that use natural precipitation that spends time in a stream, lake, or pond. Even when supplied by a municipal water system, it can be very cold. Well water is nearly the same temperature year round when it leaves the ground, but can lose or gain heat quickly if stored above ground.

Some hobbyists "up North" run water through water heaters all year long because water is too cold, but the same problem arises locally as well during very cold periods. If you have your own well, it is prudent to use water after someone has showered or used a lot of water because the pipes will have been cleared of cold water and replaced by ground water. Water coming from the ground is usually warmer than water sitting in pipes or storage tanks all night. Watering early in the morning, when the greenhouse is cool, e.g. 60 F, means that water can be as cool as 55 F, with no problem. Later in the day when plants warm up, the same water may damage tender leaves.

The problem can be exacerbated if leaves have been in direct light before the cold water hits them. Cold water on warm leaves, especially new leaves can cause cells in the leaf to collapse and eventually become yellow or brown. It may be difficult to water plants without getting water on leaves.

If you grow indoors under lights realize that the same general problem can exist. Houses are usually kept warmer than the greenhouses and grow lights can really heat up the surface of a leaf. It is a good idea to keep some buckets filled with water inside and/or to water your orchids before turning on lights. After watering, turn on the lights to help dry the leaves.

This fall has been unusually dry, resulting in a limited rain water supply in local rivers and in my cistern. Cold rain, melting snow, and melting sleet have filled the cistern and limited the use of the already limited supply of water available in my cistern because it is too cold to use. Eventually, it will warm from its current 45 F to 62 F or so as heat from the earth is absorbed by water in the cistern. For now, well water must do. Remember, too, that warming plants quickly after applying cold water is desirable.

Over the Holidays, I was able to visit some great orchid nurseries in the Carolinas and discuss orchids with some real experts. It is always just a little humbling, and also overwhelming to be around people with so much knowledge. Names of plant species, hybrids, clones, pesticides, etc fly by until it seems my brain will explode. It is good to be reminded every now and then of what it feels like to be new to orchids, because most newcomers to this hobby feel the same way at orchid meetings.

Many reading this column do not consider themselves experts, but have already become comfortable rattling off names of favorite orchids. New orchid hobbyists, however, are often very good at explaining to an even more novice hobbyist how to care for their first orchid because they have only recently learned how themselves and they still remember what they



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did wrong or right. New hobbyists often defer to those with more expertise, but they are probably best at helping newcomers if they just remember a few things.