St. Augustine Orchid Society
www.staugorchidsociety.org

Trust, but Verify

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Everybody's got an opinion, and orchid growers are no different. When you read or hear orchid cultural advice, you can assume that the recommendations work for that individual. Before adopting those tips as your own, you should reflect on how your growing conditions may differ, and whether those differences suggest the advice may or may not work for you.

An obvious example is when an orchid society speaker recommends a certain fertilizer. If you have similar water quality, that recommendation might be worth following. But, irrigation water can vary widely in quality, from the amount of soluble salts present, the availability of calcium and magnesium, the potential toxicity from too much sodium, chlorides, iron or sulfates, etc. If the speaker is irrigating with rainwater and you are using well water with lots of dissolved lime, the speaker's fertilizer may not be the magic potion you were hoping for. If you are using a pure water source, you'll want a Michigan State formula type fertilizer containing calcium and magnesium. If you have well water that has lots of lime salts, you'll want an acid generating formula like 20-20-20 and also add Epsom salts for supplemental magnesium. The water you use to irrigate, potting mix you grow in and fertilizer all interact to create a root zone environment where water and nutrients are absorbed by the plant.

Choose potting mixes that balance a high porosity for airiness against organic matter for water and nutrient retention.

One of the most repeated orchid proclamations is that overwatering is the number one reason why orchids die in cultivation. A more correct statement would be that the lack of sufficient air around the roots can cause orchids to die. Many people enjoying mounting their orchids because they can water them with wild abandon and the roots are always open to the atmosphere. But if you prefer growing your orchids in a pot, you have to be cognizant of how the components of your potting mix age. For those that pot in bark, the bark is initially very hydrophobic repelling water, so the mix tends to be airier and drier encouraging root growth on newly repotted plants. But, with regular watering and fertilizing, the bark softens and ultimately begins to degrade over time, much like the mulch that you place around your outdoor plants. When it degrades, the bark compacts and less and less air is available to the roots, which can smother them unless the plant is repotted before the mix adversely affects the roots. Conversely, those that only use clay pebbles or other inorganic components in their potting mix may not have to worry about the bark rotting and compacting but they don't enjoy the organic matter benefits of buffering pH and retaining moisture and nutrients for ultimate uptake by the plant. The SAOS coarse mix attempts to strike a balance between the nutrient and water holding capacity of bark, and the porosity and airiness afforded by substances like sponge rock, charcoal and clay pebbles.

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Only use high quality long fibered New Zealand sphagnum moss (seen to the left), that has both air and moisture holding capacity, and learn to water only as the moss approaches dryness.

Orchid growers seem to have a love/hate relationship with sphagnum moss. Some individuals advise others to remove all the sphagnum moss from around the roots the moment you bring a plant home, because they say it will kill your plant. Of course, the plants they bring home may be growing and blooming perfectly well in the moss under the care of the commercial orchid grower, who is growing under cover and might only be watering every 3 weeks. When you bring that plant home and let it grow outdoors with rain provided at the whim of Mother Nature, there can be problems with root rot because keeping the moss too wet ends up smothering the roots. So it is the watering habits and growing conditions of the new plant owner that create the problem rather than the sphagnum moss itself.

Water early in the morning so your leaves are dry by nighttime, but if you find your plants look dehydrated during the low humidity, warm spring months, you might consider watering at sunset.

Another rule you hear is you should water early in the morning so the leaves are dry at night. That is probably good advice during the cooler months when excess leaf wetness, rots and fungal infections go hand in hand. But, during the low humidity months when the pots dry out so rapidly, you might follow Courtney's advice and try watering at sunset in order to hydrate your plants, after all it does rain at night in nature. You just wouldn't add fertilizer to your nighttime watering regime because that fertilizer is also food for bacteria and fungus on the wet vegetation, so you would water at night to hydrate and then feed in the morning.

Many of these oft repeated adages are probably good starting points for the new orchid grower. Once you become more confident in your growing skills, you will have observed your orchids under different conditions, and come to understand some of the reasons you have failed and killed plants, as well as succeeded and had glorious blooms. That's when you start to sort through the whys and the wherefores, and learn what works best for you and your growing conditions. Don't be afraid to bend the rules if it seems like the right thing to do.

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