



St. Augustine Orchid Society

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Orchid Potting Mixes

by Sue Bottom, sbottom15@hotmail.com

Selecting the potting mix that is right for you and your orchid depends on so many variables, the amount of free time you can dedicate to your orchids, whether you are growing outdoors or under cover and the orchid's growth preferences.



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Organic vs. Inorganic Potting Materials. Organic potting materials like sphagnum moss, coconut husk, bark and, to a lesser extent tree fern, can be useful in a mix to increase the amount of water that is retained in a potting mix, as well as provide some pH buffering and hold nutrients to be absorbed later by the plant. If your time is very limited, organic materials may reduce the frequency with which your orchids must be watered. One of the major negatives of organic potting materials is that they will degrade, within a year for premium grade sphagnum and maybe two years for most coconut husk and bark. When your mix degrades, it is rotting and will cause the roots in the potting mix to rot too so you will have to repot more frequently, perhaps every year or two. Inert potting materials like charcoal, stalite, lava rock, clay pebbles (hydroton, aliflor) and to a lesser extent spongerok retain less moisture but they do not biodegrade (though they can accumulate salts). This means you will be watering more frequently but not having to repot your plant until it becomes unstable in the pot, perhaps every 3 or 4 years.

Growing Outdoors or Under Cover. The winter and summer homes for your orchids also play into the decision about which potting mix to use. In the winter, if you move your orchids indoors, watering can be difficult so you might be inclined to use a more water retentive mix. In the summer, if you grow outdoors and cannot control the amount of rain your orchid receives, you may worry about extended wet periods during the tropical storm season and be inclined to use a more freely draining mix. If your orchids are grown under cover and you control the amount of water they receive, you can match your mix to your watering habits.

Your Orchid's Preference. Different types of orchids have their own preferences as to how much water they like and how intolerant of root disturbance they are. Phalaenopsis can only store moisture in their thick leaves and roots so your tendency would be to use a more water retentive mix. Some orchids simply resent being repotting, like dendrobiums, so your tendency would be to use an inert potting mix.

I use several different potting mixes for different types of orchids. Within a given group, I like them all to be potted in the same material so I can water each group of orchids at the same time. All the cattleyas are in the same mix, all the phalaenopsis are in the same mix,



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etc. Here's a description of the different mixes I use, what orchids I pot in these mixes and why.

Coarse, Freely Draining Mix. This mix contains roughly 2 parts clay pebbles, 2 parts sponge rok, 1 part charcoal and 1 part tree fern (tree fern redwood bark is no longer available). This mix is primarily inorganic and the tree fern does not retain much water. During the summer growing season it can be watered every day or three without waterlogging your plants. Even during the tropical storm season, when it may rain 7 days in a row, the mix does not become sour. Cattleyas and dendrobiums thrive in this mix because they can be watered heavily during the growing season and the mix is porous enough for air to surround the roots. You can grow for 3 or 4 years in this mix without having to repot and waiting for the plant to recover from transplant shock, so you'll get more flowers.



Other orchids that resent repotting, like angraecums and psychopsis, also thrive in this mix.

Coco Mix. This mix contains roughly 2 parts clay pebbles, 2 parts spongerok, 1 part charcoal and 2 parts presoaked coconut husk (3-24 hour water flushes to remove salt). This mix has a higher organic content and tends to retain some water. During the summer growing season it can be watered every three to seven days, but you will have to protect your plants during the tropical storm season when it rains 7 days in a row, because the mix will become waterlogged. Oncidiums do well in this mix because they tend to like to be more moist than cattleyas or dendrobiums.



Sphagnum Moss. Sphagnum moss is a very water retentive mix that orchid growers either love or hate. The haters say the moss stays too wet and their roots rot, the lovers have probably learned to delay watering until the moss approaches dryness. Sphagnum moss comes in several grades. I have stopped buying the Premium grade because it degrades in less than a year. The AAA grade is much more expensive but will last for at least 2 years, the AAAAA grade is even more expensive but also has more longevity. Sphagnum can be mixed with spongerok, charcoal or other inerts to increase porosity. I use AAA sphagnum on my catasetums, which are repotted annually. Stanhopeas and gongoras are potted in sphagnum in baskets. When the moss in baskets starts to degrade, I water jet the old moss away from the roots and replace it with fresh moss. Zygopetalums, that tend to like cooler conditions than we can offer, grow very well in sphagnum in a clay pot because the porous clay wicks moisture away from the sphagnum





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and cools the pots providing some relief from the heat. If plants have lost their roots, I put them in a small pot with sphagnum moss to encourage root growth and then repot them after 6 months or so into the mix of choice.



Soiless Mix. This mix contains 1 part Promix HP (a sphagnum based peat that is finely milled and mixed with perlite) and 1 part spongerok. This mix tends to be long lasting and water retentive, but not nearly as water retentive as sphagnum moss. All my phalaenopsis are in this mix and growing incredibly well with great root growth. My only complaint is that some of the mix washes out of the pot after watering, so this year I will top dress the pots with a layer of sphagnum to hold the mix in place. Using this mix rather than sphagnum moss or coco mix may obviate the need for annual repotting of the phals so they will be

repotted only when they have lost bottom leaves and become top heavy, probably every two years. This mix works well for terrestrials too like phaius and ludisia.

Paphiopedilum Mix. The paph mix is 5 parts fine bark, 3 parts spongerok, 1 part fine charcoal and 1 part Promix HP. This fine mix is used for paphs in 4 inch and smaller pots. For paphs in larger pots, I'll replace half of the fine grade bark and charcoal with medium grade. The quality of bark has decreased over the years so I use a New Zealand Pinus bark. Paphs are repotted every second year after blooming.



You can grow just about any orchid in just about any mix or no mix at all if you adjust your watering habits to match the orchid and its growing conditions. If you were to plant all your orchids in the coarse, freely draining mix, they would do fine as long as you adjusted your watering habits to match your orchids. You might have to water some daily and some every second or third day during the growing season. I tend to water all my orchids at the same time (except the phals may only be watered every second or third time) so the different mixes work for me. You will have to experiment to discover the mix or mixes that will work for you, your orchids and your growing conditions.