



**St. Augustine Orchid Society**

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## **Repotting Paphs and Phrags**

**May 2012**

by Dr. Courtney Hackney, [hackneau@comcast.net](mailto:hackneau@comcast.net)

Paphs and phrags are largely terrestrial plants, which require more constant moisture. They have roots that do not have the hard protective covering found on epiphytes. Let these orchids sit bare-root for any length of time and the roots dry up and die. You can imagine my surprise when an experiment with a paph planted in lava rock yielded fantastic growth and flowers. Admittedly, the experiment was initially done because I am lazy and did not want to repot my paphs every year. Most paphs are grown in some kind of bark mix that holds more moisture, which is ideal for their fine roots. As terrestrial plants, they do not need roots that will survive the drying that epiphytes experience. Unlike some orchid groups, paphs and phrags can grow very fast under the right conditions, i.e. good light and nutrients.



Most expert paph growers repot these orchids at least annually, but there are ways of extending the time between repotting besides growing them in some rock mixture. If your paphs are potted in an organic mix, a simple approach that will extend the time between repotting is to spray a fine jet of water into the top of each pot to wash away the fine products of decay. Often, what are left are larger particles of bark, perlite and charcoal. Once all of the fine material is washed out, add some additional bark on the top and dress with pelletized dolomite lime on the surface to raise the pH of the medium. If the paph just falls from the pot at this time, it needed repotting anyway.



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It is the acidity that comes from decomposing bark that causes problems for paphs and phrags. The slow release type of dolomite lime lasts longer, but needs to be added every month or so depending on the pH of your water. Most paph species naturally grow in limestone outcrops or soils derived from limestone, so the addition of the extra calcium and magnesium found in dolomite lime is beneficial to the paph as well as a pH buffer.

Being basically lazy, my approach is to avoid organic media and use lava rock. Lava rock holds water and grows paphs and even phrags well as long as adequate fertilizer is applied. I put



larger lava rocks in the bottom of the pot, ½-1" and smaller ones on top, depending on the pot size. My large paphs are in 6" deep plastic pots where 1-2" lava rock goes on the bottom. Even here in Florida where water is very basic, it is necessary to add dolomite lime. If you use an organic medium, follow the same procedure, except use plastic peanuts for drainage at the bottom and be aware that organic media can sour quickly.

The only modification I have made since I began using lava rock 8 or 9 years ago is the addition of 10% or so of lime rock to the lava rock. I try to match the size of the lava rock when I add lime rock.

The only issue that results from growing large paphs in lava rock is that old growths and their roots eventually decay, producing the acid conditions around roots that can cause problems. Sometimes, a sterile cutting tool can be used to simply cut the old growth from new growths. If done when the orchid is wet the old roots will come out with the old growth, removing a source of decaying organic matter. A jet of water directed at the hole where the old growth was removed will get most of the decaying roots out. I also put a teaspoon of dolomite lime in the hole and cover it with new lava rock.

The only other issue so far with lava rock medium is the plant pushing up and out of the pot. As new roots fill the pot they seem to push the whole plant out and up. It does make it easy to move the whole plant, roots rocks and all into a new pot, but my goal is to not repot.