

## CLUB NEWS



**Allen Black**

### June 4, 2019 Monthly Meeting

by Janis Croft

**Welcome and Thanks.** President Tom Sullivan opened the meeting at 7:00 pm with 85 attendees. He asked Carolyn to announce our guests, new members Colin Cage and Teresa Sebring, and returning members Lisa and Cob Barrett, Cindy Hall and Linda MacDonald. Each received a free raffle ticket

for joining this month. Tom thanked Dianne and Dottie for bringing in desserts and welcomed Jeanette back after her knee replacement surgery. Everyone gave her a big round of applause. He then reminded all to drop a dollar in the basket while enjoying their refreshments. Tom next informed all that the Best of Show voting would occur after the Show Table discussion and the Silent Auction would end before the presentation. He encouraged all to vote for their favorite orchid on the Show Table.

**Club Business.** Spring shows are over and we all await the fall schedule. If you are jonesing for orchids, Sue announced that on June 22, Keiki Club Coordinator Doug Smith will be coordinating a field trip to Krull Smith Orchids. A sign up sheet was available at the Welcome Table for those that are interested in ride sharing. If you didn't get to sign up and would like to go, contact Doug at [doug4998@yahoo.com](mailto:doug4998@yahoo.com) asap.

**July Switcheroo** – Ignore your calendar that says we are going to have our July meeting on the 10<sup>th</sup>. Due to a scheduling opportunity, we will have our meeting at the regular time on the first Tuesday, July 2<sup>nd</sup> to host the legendary Andy Easton. It'll be like seeing the Beatles in 1964! He is going to talk to us about today's Orchid World, no powerpoint, no boring slides... should be a great conversation. And we'll ask him to reveal some of his secret orchid growing tips too. If you have any questions about



your orchids, this guy is the answer man! Change your calendar and come listen to one of the orchid greats visiting us from Colombia.

**Catasetum Raffle** - Sue held up her catasetum plug to show how the competition is growing. We should all be watering now and watching our plugs grow. She will continue to update us monthly on what to expect.

**Supplies** - email [info@staugorchidsociety.org](mailto:info@staugorchidsociety.org) if you need supplies.

**Birthdays this Month** - Our Sunshine Coordinator and Membership VP, Linda Stewart asked all of the June birthday people to raise their hand to receive their free raffle ticket. Then she announced that if you know of anyone in need of a cheering up or a get well card, let her know by emailing her at [info@staugorchidsociety.org](mailto:info@staugorchidsociety.org).

**Library** – Librarian Bea Orendorff brought in two generic books with chapters on Cattleyas and one DVD on Cattleyas for people to borrow. The library collection is listed on our [SAOS website](http://SAOS website). If you would like a book, send a request to [info@staugorchidsociety.org](mailto:info@staugorchidsociety.org) and Bea will bring the item(s) to the next meeting.



**Show Table.** Courtney Hackney started the Show Table by stating that he is going to try to talk about the array of plants by types. He expected to see many more Encyclias as this is the time they should be in full bloom but probably due to their size, very few were on the table. There were two forms of *Laelia purpurata*, var. *striata* and var. *schusteriana*. Both striking plants had purple striations on the petals. Courtney noted that *purpuratas* have been reclassified from *Laelia* to *Cattleya*. He then reminded us that the term Hybrid means two species that are crossed together.

During Courtney's review of the various plants, he often talked about the growing medium. He showed one cattleya that his wife found on a pile of discarded plants during their

Continued on page 3



# CLUB NEWS



## Upcoming Orchid Events

### June

- 8 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 11 JOS Meeting, Dendrobiums, 7 pm  
Mark Reinke, Marble Branch Orchids
- 22 Keiki Club, leave at 9 am for 11 am arrival  
Field Trip to Krull Smith Orchids  
2800 W. Ponkan Rd, Apopka, FL 32712  
If you want to carpool or caravan:  
email [info@staugorchidsociety.org](mailto:info@staugorchidsociety.org)

### July

- 2 SAOS Meeting, 6:30  
Andy Easton, New Horizon Orchids  
Today's Orchid World - An Open Discussion
- 6 Repotting at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine
- 9 JOS Meeting, Dozen Orchids, 7 pm  
Tom Wise, AOS Judge
- 13 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.

### August

- 2-3 Ninth Annual Cattleya Symposium  
Sponsored by Odom's Orchids  
Indian River Research & Education Ctr  
Fort Pierce
- 3 SAOS at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 6 SAOS Meeting, 6:30 pm  
Jim Roberts, Florida SunCoast Orchids  
Hybridizing Our Orchids
- 10 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 13 JOS Meeting, Orchid Propagation, 7 pm  
Steve Arthur, Steve Arthur Orchids

### September

- 3 SAOS Meeting, Catasetums, 6:30 pm  
Francisco Miranda, Miranda Orchids

- 7 SAOS at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 10 JOS Meeting, Repotting Session, 7 pm  
Jim Roberts, Florida SunCoast Orchids
- 14 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 21-22 Ridge Orchid Society Show  
Lake Mirror Center, Lakeland
- 22 Keiki Club for Orchid Beginners, 1 pm  
Growing Area Tour  
Leslie and Chip Brickell's Home  
1319 Wentworth Ave, Jax 32259
- 29-30? Breezy Hill Orchid Festival  
Steve Arthur Orchids, Graniteville, SC

## St. Augustine Orchid Society Organization

President	Tom Sullivan <a href="mailto:tomjs91@gmail.com">tomjs91@gmail.com</a>
Vice President Communications	Janis Croft <a href="mailto:croftie1984@gmail.com">croftie1984@gmail.com</a>
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Exhibit Committee Chair	Janis Croft <a href="mailto:croftie1984@gmail.com">croftie1984@gmail.com</a>
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# CLUB NEWS

## Continued from page 1

trip to Hawaii last November. There were no viable roots left but decent bulbs. He put it into an empty clay pot and after some time, roots appeared. He then showed us all of the multitude of roots (no media was used) that now filled the pot and the plant was flowering though the flower was much smaller than when they first saved the plant. That was due to all the plant's energy being used to grow new roots. Courtney does not like to repot often and therefore uses very little non-decomposing media if any.

There were four *Neofinitia falcata* plants (varieties Raikomaru, Gojou-Fukurim, Kibaba and Bankomaru) that were quite impressive. They were being grown in sphagnum wrapped around the root forming a mound. Courtney shared that some older lineage families in Japan would keep specific varieties to themselves and pass them down through the generations. These became highly sought after and would demand an extremely high price when the family decided to sell a coveted color form. If you are concerned that your sphagnum is getting old, he gently pulls the dark part apart and if it cracks and breaks, then you are ready to repot.

Another unusual plant was the *Dracula lotax* that likes cooler conditions than what Florida offers. Grower John Van Brocklin volunteered that he has a cool room for plants that don't like Florida heat. This plant has a miniature flower and if you look close, you can see a face of some sort in the flower. Check out the photos of our show table examples at the end of the newsletter and on the SAOS website.



**SAOS Program.** Sue Bottom introduced our evening's speaker, Allen Black, a hobbyist orchid grower from Richmond, VA. He has been growing orchids for 30 years. He is fascinated with "Spiders and Stars" and enjoys making novelty hybrids from plants in the Brassavola-Cattleya Alliance. His breeding goals are to entertain himself, have fun and produce interesting and unusual plants. The Brassavola species are his basic building blocks to produce primary hybrids (species x species). Allen has over 80 registered hybrids that he grows in a 16 ft x 10 ft greenhouse. He showed us a photo of his greenhouse covered in snow and one of the insides which was jam

packed. He does his own seed flashing for better control of the outcome. He showed us many slides of the crosses he has made which were remarkable. Many crosses carry over a parent's difficulty to thrive and he has lost several hybrids over the years. He said he was advised as a young grower that you don't know how to grow orchids until you've killed at least 100 of them. He laughingly said he was well over that so he must be a genius by now.

The Brassavola Yaki 'Black's Nova' won an HCC/AOS award and he is regrowing new seedlings because he has been sold out for some time. He showed several more slides of crosses with *B. nodosa*, all of which carry the evening time fragrance. Some of the hybrids would bloom in different colors. A particularly striking one was the Bl. Virginia Earthquake (*B. nodosa* x *Laelia Latona*) which had four different color forms. He also showed slides of crosses with *B. cucullata* which are more challenging for him to get full grown seedlings. The effort was well worth it evidenced by the slides of the plants he has created.

He ended his talk with a description of how he grows them. They like intermediate to hot temperatures. The *nodosa* varieties like bright to full sun while the *cucullata* prefer bright sun-slightly shadier than *nodosas*. He grows his seedlings in sphagnum but once the plant is larger, he moves to clay pots, baskets or mounts them. The only media he uses in the pots and baskets is a small amount of cork chunks. The roots like lots of air and he even uses a masonry bit to drill more holes in his clay pots. He then waters about every 4-5 days. Allen was quite an entertaining speaker and more information can be obtained on his website ([www.ABlackOrchid.com](http://www.ABlackOrchid.com)) or on his Facebook page.

**Meeting Conclusion.** Sue Bottom announced the Member's Choice Award as her very own *Laeliocattleya Pulcherrima* var. *alba*. The evening concluded with the Raffle Table. Thanks to the helpful hands that stayed to reset the tables and chairs and clean up the room.



Thanks to Watson Realty and Jeanette Smith for the use of their meeting space at 3505 US 1 South





# CLUB NEWS

## May Keiki Club Repotting and Potting Mixes

More than two dozen new and familiar faces convened at Sue and Terry Bottom's for the annual repotting party. We talked a bit about how your growing environment can dictate the best potting medium for your orchids. If you can control when and how much water they receive, you have a lot of flexibility in choosing how airy or water retentive you want your mix to be. For those growing outside where Mother Nature decides when to water your orchids, you have to make sure your mix won't become waterlogged during the tropical storm season and make sure you water when Mother Nature doesn't.

Then it was repotting madness, choosing our new orchid divisions and teaming up with a repotting mentor to assist in the process of slicing and dicing, choosing a suitable pot and then settling the orchid in its new home. We also repotted some orchids brought to the meeting. If you missed the potting party, we'll be at Ace on July 6.

## Catasetum Competition Grow

In January, we raffled off 20 plugs of this new hybrid, with the understanding that prizes will be awarded (1) the first to bloom, (2) the best bloom, and (3) the best grown plant. Each month we'll talk about what to do with your catasetum and show you how the plant is progressing. Let the contest begin!

In June: Now you can see those growths getting bigger every day. The pseudobulbs are plumping up, storing water and carbohydrates reserves. Water and fertilize heavily during the growing season to fuel their growth. After all, they have to do all their growing in 7 months while other orchids get a full 12 months.

## American Orchid Society Corner

### Webinars

June 5, 8:30-9:30 pm, AOS Members Only  
How to Grow Stanhopeas – Inge Poot  
June 13, 8:30-9:30 pm, Everyone Invited  
Greenhouse Chat Orchid, Q&A - Ron McHatton

### Orchids Magazine this month:

Catasetum Breeding & Culture, Fred Clarke  
Maxillarias, Estaban Gonzalez-Costa  
Oberonias, Daniel Geiger  
Orchid Buying Tips, Larry Sexton  
James Bateman, David Rosenfeld

### [Photos of Latest AOS Awards](#)

## June 22 Keiki Club Field Trip to Krull-Smith Orchids

The spring show season is over. If you need an orchid fix, the Krull-Smith orchid nursery is only about 2½ hours away. If we can get a group of people interested in going, we'll make arrangements to visit the nursery on June 22.

We had a sign up sheet at the last meeting. If you didn't sign up but would like to go, call or email Keiki Club coordinator Doug Smith at 301-606-9340 or [doug4998@yahoo.com](mailto:doug4998@yahoo.com). He will be handling the travel arrangements.

**Moderator:** Doug Smith, Keiki Club Coordinator

**Where:** [Krull Smith Orchids](#)

[2815 West Ponkan Road, Apopka 32712](#)

**When:** June 22, leave at 9 am, 2½ hr drive

## SAOS Picnic

We had about 30 members at our fourth annual picnic and orchid swap at the Memorial Lutheran Church. Events Veep Lady Di organized the event, and made sure there were plenty of hamburgers and hotdogs for Doug and Drake to grill. Members brought the accompaniments, incredible salads, sides and desserts. We knew it was 5 o'clock somewhere, so we enjoyed our favorite toddies with our orchid buddies. We had orchids and other plants to trade, and cash worked too!

## July 2 SAOS Meeting

Today's Orchid World

Andy Easton, New Horizon Orchids

Orchid legend Andy Easton is coming to town! Andy has grown orchids all over the world, in the US (Oregon, California, South Florida) to New Zealand and now Colombia. He is a world renowned hybridizer of cymbidiums and odontoglossums and has an incredible knowledge of orchid culture. He is going to talk to us about Today's Orchid World, no powerpoint, no boring slides... should be a great conversation. And we'll ask him to talk about orchid culture too. If you have any questions about your orchids, this guy is the answer man!

Bring your flowering orchids to exhibit on the Show Table. We will have our normal raffle at the end of the meeting. Friends and guests are always welcome!



# INSPIRATION

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*B. Jimminey Cricket*

© Terry Botta





# CULTIVATION



## Orchid Questions & Answers

by Sue Bottom,  
sbottom15@gmail.com

**Q1.** I'm having yellowing of Cattleya leaves. Mostly it is on older leaves. However, quite often the yellowing extends a lot closer to the front than I would expect from simple senescence. Sometimes it involves the second or third bulb back from the front, sparing the back of the plant - but this is not typical. Last year I took samples to the agricultural extension here in Nashville and was told it was nutritional, not insect or disease. It starts in the leaves and not in the bulbs. Generally it doesn't kill the plant and I have even seen leads break from eyes in the affected tissue. It occurs in a patchy fashion throughout the greenhouse.



**A1.** I used to see lots of leaf yellowing in the early spring when growth begins before I started using magnesium supplements with every watering. Now I use a calcium and magnesium supplements to maintain a Calcium:Magnesium ratio of about 2:1. The standard Cal Mag fertilizers don't seem to have enough magnesium for my water quality. Since I started using tons of Epsom salts, the leaf yellowing is significantly less, but I still get some, which I'm hoping is just senescence.

**Q2.** I am a newbie to orchids but purchased an a cattleya about 2 months ago on Ebay. It looks overall healthy but has developed brown/blackish splotches (not raised) on the



underside of the leaf and has a mottled yellow color to the top of the leaf. It looks most like brown spot (pseudomonas) or black rot (yikes!).

**A2.** That looks very much like Cymbidium Mosaic Virus on the leaves. If it is virus, it probably came to you that way. If the black leaf markings were present when you got the plant, you should contact the vendor about a refund.

If you want to be sure before tossing the plant, you can test it for virus. If you don't have a virus test kit, you can send a sample off to [Crittter Creek](#) and they'll analyze for \$5. Cut off a 2 inch or so section of leaf from the edge of the affected leaf and send it off to them for testing, that way you'll know for sure.



**Q3.** This phal species that I purchased at a recent orchid show died. My orchids are fine but I'm terrified of what I've introduced to my orchids. Is this bacterial or fungal?

**A3.** That is terrible news! The phal developed bacterial soft rot, caused by *Erwinia* (except now they call it *Pectobacterium*). As you have discovered, it is very fast moving and can destroy a plant within a day or two if it reaches the crown, which it sounds like it did.

It takes awhile for plants to acclimate to your growing conditions. They were probably growing in a greenhouse environment and getting sprayed regularly to prevent bacterial and fungal infections, and then they were placed in a truck and on sales benches for a couple days til they moved home with you. Perhaps you should consider a good spray with drugstore hydrogen peroxide over all the plants you brought home, undiluted, top to bottom but not on the roots. Keep them isolated to see if any problems develop over the next month or so.



# CULTIVATION

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## Poor Growers

by Dr. Courtney Hackney  
hackneau@comcast.net

The Summer Solstice occurs late this month indicating that the sun is at its peak even before the intense heat of summer arrives. Most hybrids of just about all the different groups of orchids are growing rapidly now. Do your best to

give them the water, fertilizer, and air movement they need to maximize that growth. Most repotting should be done by now because this is a time when orchids can quickly replace roots lost during repotting.

When you repotted your orchids this spring, did you note which ones did well and what media and pots were used? Observation of successful culture and poor culture will help you understand what it takes to grow better orchids with more flowers. Remember that all orchids are not created equal; some grow better and more easily than others. There are even orchids that commit suicide.

Most experienced growers will tell you that there are orchids that refuse to grow no matter what you do. They are not referring to difficult to grow species or orchids that come from very different habitats than exist in greenhouses, but to plants that should grow but do not. Why won't these plants grow? How do you know if there are "non-performers" in your collection?

If the majority of your orchids grow and flower well then you may want to examine those that do not and consider replacing them. Their poor performance may have little to do with their culture. Some hybrids lack vigor just because of their parentage. These will always be a challenge. If you see the same hybrid doing well in another grower's collection ask about their culture. Often it will not be a culture problem; instead they may simply have found a more vigorous clone of that hybrid.

The same phenomenon can occur with mericlones. While mericlones are theoretically all the same, there are sometimes individual plants that grow better. This seems to be especially true of yellow Cattleyas, but can be found in any taxonomic group. If you are picking out a mericlone, pick plants in the largest pots, as they may be the most vigorous ones. The runts of the litter often never grow as well.

There are many reasons some plants do not grow as well as others. Hybrids close to original species are usually more vigorous than those many generations away from the species. Certain species in the background of a hybrid almost always mean that the plant will be more difficult to grow. This is true for many genera.

Do orchids have a maximum life span? Most of the books describe orchids as being immortal. While there are clones in cultivation that were originally pictured over 100 years ago, most individual plants seem to lose their vigor after 15 years or so. This is likely not caused by age, but by disease. Plants, unlike animals, do not have immune systems that destroy bacterial, fungal, and viral invaders. Instead, they tolerate and coexist with many of these infections. Each disease, however, takes a toll on the plant by using some of the energy captured by the plant from the sun. The plant's defense is to try and outgrow the disease. If the plant acquires enough different diseases, it can no longer outgrow the disease and eventually succumbs. The best way to avoid this problem is to acquire high quality plants and practice good hygiene in the greenhouse, especially when repotting.

Viruses are very important in plant vigor. Even when there are no obvious signs, they take a toll. There are reliable tests for only two Orchid viruses, while many others cannot be detected. When infected plants are mericloned they carry the virus with them. Vigorous seedling mericlones can quickly become difficult to grow mature plants after they bloom for the first time. Flowering takes a large store of energy from an Orchid and allows the virus to catch up with what had been a fast growing plant. Scale infestations can cause the same effect as flowering if a plant is virused. After scale is eliminated most orchids begin to grow well again while others never seem to recover. These plants typically test positive for virus and will never recover.

How do you solve this problem? Throw plants away! If the plant has some special memory or is a rare clone it may be worth keeping. Most, however, should be discarded and replaced by a less problematic plant. If you feel that it is not a disease problem, but a problem with your cultural conditions give the plant to another grower. Avoid giving diseased plants to novice growers, as it can be very discouraging to nurse an ailing plant. Novice growers also tend not to understand the need for good hygiene and may infect their other plants. Instead, give them divisions of your most vigorous orchids to insure that the only disease you will infect them with is the "Orchid Bug".

*Note: Dr. Courtney Hackney wrote a monthly column of his orchid growing tips for about 20 years; we are reprinting some you might have missed, this one from June 2001.*





# CULTIVATION

## Brassavolas

by Tom Mirenda, courtesy of the American Orchid Society

Lacking a pool, lake or nearby beach to plunge into this summer, the average person will just stay inside in the air conditioning and possibly venture out in the evening when it's less scorching. The same is true in many of the warmer habitats in the world where going out at midday puts you at risk of overheating or dehydration. Many plants that flower in these torrid climates evolved to take advantage of the insects and other creatures of the night shift. Brassavolas fall into this category, with their delicious nocturnal fragrances and their elegant pale colors that signal pollinators best in the moonlight. To survive the heat, plants such as this, including many cacti and succulents, also have developed an amazing physiological strategy known as CAM (crassulacean acid metabolism) to survive the heat. They transpire at night. If their stomata opened during the day, they would shrivel up. By respiring at night, they avoid losing excessive moisture to evaporation in the intense heat.

Named for Venetian nobleman and physician Antonio Musa Brassavola (b. 1500 in Ferrara, Italy), *Brassavola nodosa* is probably one of the first orchid species grown in Europe. Imported to Holland from Curacao in 1698, this species has a long history in cultivation. With its tough, succulent, coriaceous leaves, it was easily able to survive the long overseas voyage by ship. This species is by far the most commonly available and is highly adaptable. It will grow and bloom in warm or intermediate conditions as long as it's given adequate light, such as that given cattleyas.



*Brassavola acaulis* 'Crownfox', CCM/AOS, bears long whiplike pendent leaves. This Central American species grows in shadier conditions than most of the other *Brassavola* species. Grower: R.F. Orchids, courtesy of Greg Allikas.



*Brassia subulifolia* (syn. *cordata*) a small-flowered, multifloral species best grown in a basket under high-light situations. It increases flower count when used in hybrids. Grower: Smithsonian Institution, courtesy of James Osen.

All *Brassavola* species have their charms, and most are easily grown and bloomed, often forming large and impressive specimen plants in few years. Aside from *B. nodosa*, there is *Brassavola subulifolia* (syn. *cordata*), a floriferous subject with its apple-green tepals (sepals and petals that look alike) and heart-shaped lip. Although the flowers are smaller than those of *B. nodosa*, there will often be more than a dozen per inflorescence. Their hybrid, *Brassavola* Little Stars, is intermediate between the two and easy to grow.

Many hybrids have been made with these two species and colorful members of the *Cattleya* alliance. The results are usually shaped like brassavolas, but with the colors of the other parent, curiously often with amazing spots such as those seen on *Brassocattleya* (syn. *Potinara*) Hoku Gem 'Super Spots' (Tangerine Jewel x Richard Mueller).

Other species are trickier, but worth the effort. *Brassavola acaulis* is an outstanding Central American beauty With fascinating and incredibly long, terete and pendent growths. Said to be found on the north side of trees, these

Continued on page 9





# CULTIVATION

Continued from page 8



*Ribbony flowers that grow larger after they mature, fine fragrance and narrow, terete foliage are the hallmarks of Brassavola cucullata. Grower: Smithsonian Institution, courtesy of James Osen.*



*Large-flowered forms of Brassavola nodosa are among the most beautiful and elegant of orchids. Shown here is B. nodosa 'Godzilla', AM/AOS. Grower; Whimsy Orchids, courtesy of Greg Allikas.*

leaves would be shaded most of the day. In cultivation, this plant should be grown cooler and shadier than most of the other species. The lovely basal flowers cluster on a short peduncle emerging from the newest growths.

*Brassavola martiana* from Brazil shares the torrid habitat of *Cattleya violacea* and should be grown warm (85 F days and 65 F nights). Its flowers have fringed lips. Other species with long whiplike leaves include *Brassavola tuberculata* and *Brassavola flagellaris*, both of which grow into spectacular specimens.



*Brassavola Little Stars 'Henbest's Passion', CCM/AOS (nodosa x subulifolia), is one of the best and easiest hybrids to grow and flower. Grower: H & R Orchids, courtesy of Greg Allikas.*



*Hybrids made with Brassavola often keep their general form but imprint them with the colors of the other parent. Tiny spots in the lip of B. nodosa are transformed into spectacular blotches in such hybrids, including this Brassocattleya (syn. Potinara) Hoku Gem (Tangerine Jewel X Richard Mueller) Grower; Smithsonian Institution, courtesy of James Osen.*

*This article appeared in the American Orchid Society Orchids magazine, in July 2009 (Vol. 78:7, pp.400-401), reprinted with permission.*



# CULTIVATION

## Orchid Potting Media

by Sue Bottom



There are no orchid pots dangling from trees in the wild. They naturally grow mounted to some surface where they get the amount of light, air, and water they need to thrive. Some people can mimic these situations and grow beautiful plants on orchid mounts. I have better results growing orchids in pots rather than mounts, so a lot of time is spent creating the 'perfect' potting mix. In addition to supporting the orchid in its pot, your potting mix has to do several things well:

- The mix should hold some moisture while being well drained and providing ample air around the roots
- The mix should hold and supply some nutrients, usually accomplished by having some organic material
- It should maintain its physical structure for two or more years

Orchid growers are always creating and recreating the potting mixes they use for their orchids. Some people use a purely inorganic mix while others use a purely organic mix. We use a blend of organic and inert substances in our mixes. These are the basic components used and why.

**Inert Materials** used in orchid potting mixes include substances like charcoal, clay pebbles (Hydroton, Aliflor, LECA), lava rock, perlite/sponge rock and styrofoam. They are sold in various grades and sizes. The coarser the material, the more pockets of air there will be around the roots. The basic purpose of the inert materials is to improve drainage in the pot. These materials are not particularly water retentive so more frequent irrigations are required, although lava rock holds more water than the other materials. These inert materials tend to be stable over time. They don't contain biodegradable constituents so they will not decompose, compact and suffocate the roots. They often have large surface areas on which salts can be

adsorbed so it is important to flush the excess salts from the pots once or twice a month, or by routinely watering and then watering a second time an hour later.

There are many ways to use these inert materials, either alone or as a component in your potting mixes. Charcoal can be used as a potting mix. Fine grades are often used in very small pots for *Tolumnias*, while large chunks can be used in pots or baskets for vandaceous orchids. Lava rock can be used for many types of orchids, usually alone in the pot with a top dressing of cypress mulch or sphagnum moss for more moisture retention. You have to grade the lava rock as it is removed from the bag and use smaller pieces with seedlings and young plants and the larger chunks for larger plants. Clay pebbles are often used in semihydroponic culture for a wide variety of orchids. Outdoor growers often elect to use clay pebbles with no organic matter to prevent the mix from breaking down during extended rainy periods. Sponge rock is most commonly used as additive to potting mixes to open the mix and promote drainage. Styrofoam in the form of Styrofoam packing peanuts is often used for drainage in the bottom of the pot. The softer Styrofoam from packing materials can also be used this way, or it can be broken into smaller pieces and used as a component in your potting mix to promote drainage, as is often done in Australia.

**Organic Components.** While the inert components tend to have similar properties, the organic components often used in mixes are highly variable. The primary purpose of the organic material is to increase moisture and nutrient holding capacity. You have to balance the water holding ability of a mix with its aeration capacity to ensure the roots can breathe.

**Bark.** Bark, a waste product from the timber industry, became a popular orchid media when *Osmunda* fiber became rare. There are a variety of barks made from Monterrey pine (*Orchiata*, Kiwi Bark), Douglas fir (*Rexius*), Sequoia, etc. that undergo various levels of heat treatment, chemical addition and sorting. The current darling is *Orchiata* bark made from Monterrey Pine (*Pinus radiata*), which is supplemented with dolomite to stabilize the pH and provide calcium and magnesium. Bark tends to be difficult to wet at first, and you may see recommendations to presoak the bark. However, a newly repotted orchid requires less water while the root system recovers from the transplant shock. This initial period of dryness actually encourages the growth of new roots that are seeking out moisture. Keeping the root mass drier until the repotting wounds seal over also prevents water borne pathogens from entering the plant. After a few weeks, the bark will hold a little moisture around the roots. As the bark starts to slowly break down, it will begin to retain more and more

**Continued on page 11**





# CULTIVATION

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## Continued from page 10

moisture until it ultimately becomes spongy at which point the roots are at risk of becoming sodden. Most barks will resist degradation for at least 18 to 24 months. Fred Clarke says his Kiwi bark lasts for 3 to 4 years under his growing conditions.

Some orchid growers have had success growing in a pure bark mixture, but I am not among their ranks. Bark is usually about 30% of the SAOS coarse mix used to grow cattleyas, dendrobiums, etc. The other 70% is clay pebbles, sponge rock and charcoal. This mix is very open and freely draining so the environment around the roots is airy. The bark helps retain some moisture, and being a serial overwaterer, the plants get plenty of water and nutrients. For those that water less frequently, more bark or perhaps some shredded sphagnum moss would increase the mix's water holding capacity.

**Sphagnum Moss.** There is only one kind of sphagnum moss you should ever consider buying or using for your orchids, and that is long fibered New Zealand sphagnum moss. If it does not say those magic words, do not buy it. Besgrow is the largest purveyor of this high-grade sphagnum moss. Unless you are doing Japanese Fukuran, search for the Premier Besgrow moss (AAA grade), rather than the more widely available and minimally acceptable Classic Besgrow moss (AA grade). Fluff the compressed moss and wet it before repotting. Sphagnum moss has good moisture and nutrient availability encouraging good plant growth. Watering does not have to be as frequent because the moss does not dry out quickly. If packed loosely, it will hold more water than when it is tightly packed. Lower fertilization rates may be used because the moss retains nutrients. The higher the quality of the moss and the purer the water, the longer the life of the moss, typically 2 to 4 years for AAA moss. Long fibered New Zealand Sphagnum Moss is an ideal potting material in certain situations and for certain types of orchids. It is great for deflasking seedlings, compromised root systems, winter dormant orchids like catasetums, phalaenopsis, in smaller pots and as a top dressing.

**Pro-Mix.** Peat based soilless mixtures like Pro-Mix are a blend of chunky peat moss and perlite. Pro-Mix HP is a high porosity peat-based growing medium that has high air capacity and extra drainage. Some blends contain beneficial mycorrhizal inoculum (*Glomus intraradices*) and/or biofungicide (*Bacillus pumilus* - strain GHA-180). When dry, Pro-Mix is difficult to wet properly, but with several waterings, it can hold large amounts of water. For those looking for an alternative to growing phals in sphagnum moss, Pro-Mix is a good choice. It is water retentive, but not as water retentive as sphagnum moss so the potential

danger of overwatering is lessened. Roots adapted to sphagnum moss can transition easily to a Pro-Mix blend. We create a custom blend of half Pro-Mix and half coarse sponge rock to improve aeration and drainage. Water as the Pro-Mix approaches dryness. Top dressing with sphagnum moss or cypress mulch will help prevent its tendency to wash out of the pot.

In "At the Root of Growing Healthy Orchids." Xavier Garreau de Loubresse compares the roots of phalaenopsis grown in different media, comparing one in coarse charcoal to one in Sphagnum moss:

*As an example, charcoal does not retain water well, therefore irrigation will need to be more frequent to provide both water and nutrients to the roots. The plant may end up producing more roots to provide a higher amount of surface area on which to absorb water and nutrients required. Both the leaves and the roots will become tougher which helps prevent water loss. Phalaenopsis will also grow tougher aerial roots in other potting types too, these roots allow the plant to survive well and cope with extremely dry conditions. However, under stress the plant will not grow to its optimum. Many growers also believe that charcoal can 'freshen' the medium but it has been shown that over time charcoal may absorb salts and water impurities. This may have a detrimental effect on plant growth after six months.*

*For plants grown in Sphagnum moss and rockwool where there is good moisture and nutrient availability, the roots do not have to go far in search of water. The roots will be softer and able to take up nutrients and water more easily as it becomes available. The roots will not require fat 'skin layers', technically known as 'velamen' as the water is constantly available. Overall growth will be fast and the plant is likely to produce fewer roots in a 'lazy' manner. Irrigation will not need to be as frequent as the medium does not dry out as quickly. However these roots are not protected from dry conditions as they are soft so the plant must never dry out or the roots will shrivel. Plants such as this are not able to withstand small amounts of stress e.g. in the orchid growing industry these plants may not transport well and not last as well if not looked after properly by the consumer.*

Root health is the ultimate test of how well your mix performs. Media that is fresh in the pot may encourage glorious root growth initially, but its characteristics can change over time depending on salt accumulation, organic material degradation, pathogen growth, etc. If your orchid looks like it is taking a turn for the worse, knock it out of the pot and inspect the roots. Then you can make an informed decision on whether it needs to be repotted, put into a different kind of mix or some other aspect of your orchid culture modified.



# CULTIVATION



## 2019 Redland International Orchid Festival

by Janis Croft

Alan and I made the drive to the festival at the Fruit and Spice Park in Florida's Redland district ready to restock my orchid collection. The variety of plant offerings and growing supplies from over 60 vendors is overwhelming. I visited with and purchased from the familiar vendors that have talked to our society but I also found new vendors with unusual orchids featuring my favorite colors— greens and purples. The Show Tent had some wonderful winners including a red Schomburgkia that extended to the top of the ceiling and a large Brassavola nodosa with well over fifty flowers. Plan a trip next year if you've never been and try to save time to attend the lectures and demonstrations after you are all shopped out.





# SHOW TABLE



**Grower Joanne Stygles**  
***Neofinetia falcata* var. *Raikomaru***



**Grower Joanne Stygles**  
***Neofinetia falcata* var. *Gojou-Fukurin***



**Grower Joanne Stygles**  
***Neofinetia falcata* var. *Bankomaru***



**Grower Courtney Hackney**  
***Bc. Toshie Aoki* x *Bc. Florence Feary***



**Grower John Van Brocklin**  
***Dracula lotax***



**Grower Harry & Celia McElroy**  
***Paph. Black on Black***



**Grower Sue Bottom**  
***Lc. Canhamiana* 'Azure Skies' AM/AOS**



# SHOW TABLE



**Grower Tom & Dottie Sullivan**  
*Bc. Digbyano-mossiae*



**Grower Sue Bottom**  
*Laelia Pulcherrima var. alba*



**Grower Courtney Hackney**  
*Laelia purpurata var. striata*



**Grower Suzanne Susko**  
*C. luteola*



**Grower Art & Jane Russell**  
*Pleurothallis grobyi*



**Grower Glo MacDonald**  
*Aerides flabellata*

Link to all Pictures. <https://flic.kr/s/aHsmE3sTAW>

