



CLUB NEWS



Fred Clarke

October 4 Meeting

by Janis Croft

Welcome and Thanks. Past President Bob Schimmel opened the meeting at 6:50 pm with 59 attendees. He thanked Dianne Batchelder for the treats and coffee while reminding all to “Drop a Dollar” for the treats.

Club Business. Membership VP Linda Stewart welcomed our guests and introduced our new members, Mary

Richardson (LA), Mike Williams (St. Aug and NY) and returning member Tony Lombardino (NJ). Linda then asked the October birthday people to raise their hands for their free raffle ticket. As our Sunshine Coordinator also, Linda 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.

Like to Get More Involved? We need all the helping hands we can find. If you'd like to get more involved, reach out to our Nominating Committee of Linda Stewart, Sue Bottom and Howard Cushnir. They will be presenting recommendations for 2023 officers at the next meeting. In particular, we need help with setting up and monitoring our live stream efforts.

Orchid Shows in Florida this Month The Redland Orchid Festival is this weekend followed by Gainesville and Delray Beach on the 22nd/23rd. EFG will be holding an OrctoberFest Sale all month Check out the [SAOS calendar](#) for more details.

Show Table (Virtual and Live) We would love our show table to return to its former “live” glory. Start bringing your blooming plants to the meetings so we can appreciate them in person. We will continue conducting our Courtney Hackney led Virtual Show Table via Zoom. The next one will be Oct. 12 at 7 pm. Email invitations will be sent out. Each month's Virtual Show Table is recorded and posted on our website.



Repotting Clinics Our clinics are over for the season and will restart next spring.

Library Librarian Howard Cushnir brought in the AOS Guide to Orchids for loan. He encouraged all to use the library collection listed on our SAOS website. If you would like a book or magazine, send a request to info@staugorchidsociety.org and he will bring the item(s) to the next meeting.

Recognition Howard then highlighted the efforts of Terry Bottom noting all of his behind the scenes work. This includes facilitating the live streaming of our meetings, taking the beautiful orchid and meeting photos that appear in our newsletter and on the website, preparing the newsletter, and as our guest speaker pointed out, entertaining the speakers by taking them fishing.

SAOS Program. Our program was broadcast via Zoom to our offsite members. Courtney introduced our guest speaker, Fred Clarke, whose topic was on growing and hybridizing Catasetinae including Catasetums, Mormodes and Cycnoches. Fred started his breeding interests as a kid where he had free reign in a friend's nursery. He “tinkered around” making flasks of hybrids. He started working in the cut flower industry and later, opened his own nursery, Sunset Valley Orchids in Vista, California. His presentation went through each of the three genera, showing slides of some species and then slides of his hybrids pointing out their unique characteristics.

Cycnoches (sik NO keez) is often referred as the swan orchid due to its dramatic sculpture-like lip and column.

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Upcoming Orchid Events

October

- 7-9 Redland International Orchid Festival
Fruit and Spike Park, Homestead
- 8 Florida North-Central AOS Judging, 1 pm
Clermont Judging Ctr, 849 West Ave.
- 11 JOS Meeting, Mini and Compact Cattleyas
Fred Clarke, Sunset Valley Orchids
- 12 SAOS Virtual Show Table, 7:00 pm
Courtney Zooms into Cyberspace
An Invitation Will be Sent by Email
- 22-23 Gainesville Orchid Society Show
Kanapaha Gardens
- 22-23 Delray Beach Orchid Society Show
Fieldhouse at Old School Square

November

- 1 SAOS Meeting, Orchids in Winter, 6:30pm
St. Aug Orchid Society Members
- 4-5 Vanda and Slipper Symposium
Krull Smith Orchids, Apopka
- 8 JOS Meeting, Elections and Movie, 6 pm
Jax Orchid Society Members
- 9 SAOS Virtual Show Table, 7:00 pm
Courtney Zooms into Cyberspace
An Invitation Will be Sent by Email
- 12 Florida North-Central AOS Judging, 1 pm
Clermont Judging Ctr, 849 West Ave.
- 12-13 Deerfield Beach Orchid Society Show
Safe Schools Institute
- 13 East Everglades Orchid Society
RF Orchids, Homestead
- 26-27 Fort Pierce Orchid Society Show
Riverwalk Center

December

- 6 SAOS Christmas Auction, 6:30 pm
Memorial Lutheran Church
- 11 Florida North-Central AOS Judging, 1 pm
Clermont Judging Ctr, 849 West Ave.

- 13 JOS Christmas Auction
Enza's in Mandarin

January 2022

- 3 SAOS Meeting, 6:30 pm
Kristen Uthus, New World Orchids
Honey, I Shrunk the 'chids
- 7 Florida North-Central AOS Judging, 1 pm
Clermont Judging Ctr, 849 West Ave.
- 7-8 Sarasota Orchid Society Show
Sarasota Municipal Auditorium
- 10 JOS Meeting, Topic TBA, 7 pm
Speaker TBA
Mandarin Garden Club
- 11 SAOS Virtual Show Table, 7:00 pm
Courtney Zooms into Cyberspace

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They are easy to grow, with beautiful foliage and have both male and female flowers. When the male and female flowers look alike, the plant is considered a Eu-Cycnoches. *Cyc. cooperi* has two color forms, the more common bronze and the green flower form of subspecies *ayacuchoensis*. The next slide showed a *Cyc. barthiorum* from Colombia and is a *Heteranthe* form meaning it bears male flowers that are radically different from the female flowers. Both Eu-Cycnoches and *Heteranthe* Cycnoches have female flowers with a rostellum that is like a veil that prevents self-pollination. The rostellum does aid in pollination by snagging the pollen from a bee as it struggles to fly out from inside the flower. The *Cyc. warszewiczii* (referred to as a swan neck orchid) is one of his favorites. He has three generations of breeding which represents over 20 years of work. He then showed slides of beautiful Cycnoches hybrids including *Cyc. Jean E. Monnier*, Kevin Clarke and the tangerine flowering Martha Clarke (the last two named after his son and wife).

The next genus was *Mormodes*, commonly referred to as the "goblin orchid", due to the asymmetrical flowers with a twisted and contorted shape. The petals come forward and the laterals grow backwards. *Mormodes* bear perfect flowers with both male and female reproductive parts. The twisted and protruding column contains both pollen and a stigma. Fred then told a story of a grower in South America that was the first to flower one of his seedlings, and he asked if he could name the orchid *Virgen del Valle*. Fred (noting that it was a cross between *Morm. sinuata* and *Morm. hookeri*) thought a more appropriate name would be *Morm. Sinful Hooker*. Fred noted that *Mormodes* make good hybrids and showed a slide of *Morm. Nitty Gritty* with spectacular color. He breeds Cycnoches (with their large flower size and shape) with *Mormodes* (with their high flower count and varied colors) to produce *Cycnodes*, an artificial genus that boasts multiple flowers, vigorous growth and the possibility of flowering two to three times a year. Slides of *Cyco. Jem's Dragon*, *Cyco. Spotted Hornet* and *Cyco. John Naugle* demonstrated these traits.

Catasetums were the next genus Fred discussed stating that they were the easiest for hobbyist to grow. They have waxy large male flowers that often have the habit of discharging their pollen masses (pollinia) onto pollinators. Fred played a YouTube video that showed a bee getting slammed by a mass of ejected pollen. *Catasetums* are sexually dimorphic meaning they have both male and female flowers. The male flowers are short lived and beautiful. The female flowers look like green helmets and the female flowers of most species and hybrids look the same. The *Ctsm. pileatum* has a lip that can be 4" wide. *Ctsm. expansum* has a broad lip and the *Ctsm. tenebrosum*

has a distinct chartreuse lip. *Ctsm. sanguineum* has what looks like a monkey face in the center of the flower. Fred has made many award-winning hybrids from this genus including *Ctsm. Chuck Taylor* and *Ctsm Fong Cing*.

Fred concluded his talk by defining the best cultural practices. Pot using an open, well-drained media such as sphagnum moss, fine bark and perlite. All *Catasetinae* are heavy feeders during active growth and he suggested including 1/2 tsp/gal fertilizer every time you water and water like a "monsoon". They also require a dry rest period after flowering, specifically, once the plants start to drop leaves. When leaves turn yellow, slow down watering and fertilizing. When all of the leaves drop, quit watering. Repot and divide just as new growth starts to show but don't water until new growth reaches 4 inches and new roots reach 3 to 6 inches long. This can occur at different times depending upon the genus so you need to start watching after January for new growth. *Catasetinae* like it hot and wet in the summer and cool and dry in the winter. Fred is a lively speaker and often reminded us that orchids have been here for over a 20 to 30 million years while humans only appeared 300,000 years ago. He ended by stating that the *Catasetums*, *Mormodes* and Cycnoches are really great plants for hobby orchidists to grow.

Show Table Review. Courtney reviewed the show table



plants with Sue and Steve Hawkins assisting. The first plant was an orchid that Ben Oliveros donated the naming rights to our club for auctioning. The *Blc. Harriet Brickell* is a complex hybrid with a species cross that produces a deep rusty red brown flower. Chip named the cross *Harriet Brickell* for his mother, after winning the naming rights with his \$2000 bid. There were several beautiful plants including vandas, cattleyas, *dendrochilums*, *habenarias*, as well as our speaker's famous cross, *Fdk. After Dark 'SVO Black Pearl'*, with two inflorescences.

Meeting Conclusion. The evening concluded with the Raffle table. Thanks to the helpful hands that stayed to help clean and store the tables, chairs and room.



CLUB NEWS



Growing Area Tour Sue and Terry Bottom's New Greenhouse

We had a nice group of orchid addicts visit the new 'White House' at the Bottom orchid complex. Terry did a fantastic job planning the structure, the fencing material lining the interior walls, the hanging superstructure and the movable benches. The design offers maximum flexibility, for both summer and winter growing areas. We talked about how you organize your growing area, by placing the sun loving orchids in the brightest area and shading the low light orchids, and then co-locating those that have similar watering requirements. There is plenty of room (so far) for bringing in the orchids currently summering in the shade house. Love the new greenhouse!

American Orchid Society Corner

Webinars

October 5, 8:30 pm, AOS Members Only
Amazing Masdevallias – Sandra Svoboda

October 13, 8:30 pm, Everyone Invited
Greenhouse Chat - Ron McHatton

Orchids Magazine this Month

Splash Petal Enigmas – Jason Harpster
Bacterial vs. Fungal Infections – Sue Bottom
October Supplement on Hybridizers, articles by
Fred Clarke, Allen Black, Roy Tokunaga, Leon
Glicenstein, Rob Shepherd and others

Photos of Latest AOS Awards

November 1 Monthly Meeting

Orchids in Winter – with SAOS Members

Sue and Terry Bottom, Courtney Hackney and Linda Stewart

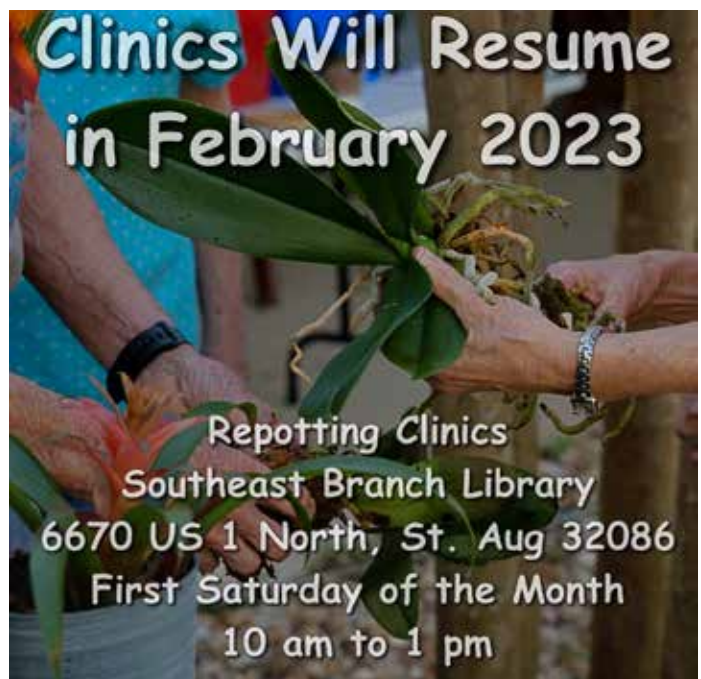
SAOS members have put together a program to help you with planning your winter growing areas. Sue and Courtney will talk about the cold hardiness of various groups of orchids. Linda will discuss how she organizes her mixed collection of orchids in summer and in winter. Terry will wrap up the program talking about shade structures that can be winterized. We'll also have our election for officers and directors next year. Be sure to bring your blooming orchids for the show table!

We will have plants available on the raffle and sales table. Friends and guests are always welcome.

When: Tuesday November 1, 6:30 til 9 pm

Where: Memorial Lutheran Church
3375 US 1 South, St. Aug 32086

Shop **Smile**.Amazon.com
Not Amazon.com



INSPIRATION



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Ctsm. Jamie Lawson XOXO



CULTIVATION



Orchid Questions & Answers

by Sue Bottom,
sbottom15@gmail.com

Q1. This growth is the strangest I've seen. The new growth is growing straight out at an angle and there are aerial roots. I thought I'd risk cutting this new growth off that has its roots airborne, although there are bud sheaths.



A1. As long as you have three or four pseudobulbs, I would cut away the new growth just above where it is rising out of the pot. That piece that is horizontal will ultimately turn upward toward the light, particularly if you gently encourage it to do so with some twist ties. You might consider putting that rambling growth in a basket. Leave the rest of the plant in the pot and hopefully you'll get back bulbs to sprout.

Q2. I have an enormous Epicatt that has always grown and bloomed fine but I recently noticed black leaf tips. Any ideas?



A2. At first glance, I thought this was an issue with water pooling in the new growth and causing a rot, but the black discoloration begins on the leaf tip and moves down the leaf. This looks more like a calcium deficiency in the new growth. Perhaps consider using calcium supplements,



particularly during the rainy season. The Miracle Gro Shake 'N Feed for tomatoes, fruit trees and vegetables is a time release fertilizer containing calcium, for those that don't have a regular fertilizing schedule.

Q3. Almost all flowers on this Catt opened with a strange problem. It mostly affected the lip but some petals as well, even though the buds looked fine and the outer petals were not always affected.



A3. That looks like bacterial blighting on the flowers, probably caused by all the rain we have been having. Either water condensed in the bud or soaked into the bud before it opened, and an opportunistic bacteria started the infection. The flowers are ruined, but you can remove them easily and eliminate the problem from your growing area. If you can move your budding plants to a covered area when we're having these extensive rain events, you'll be able to protect the blooms.



CULTIVATION



Orchids in Fall by Dr. Courtney Hackney

Many people have a difficult time sleeping this time of year because day length is changing so fast. Not only is the day length changing, but the sun's angle has also changed dramatically since mid-summer. This is the time to reexamine the location of plants and shading and be sure you are optimizing light. Cooler day

temperatures also mean that orchids can handle higher light levels than they can in mid-summer without burning leaves. Some growers begin to remove greenhouse shading now. Windowsill growers must determine whether too much light is now entering their growing area and may have to add some shading or move their orchids just a little farther from the window, depending on the exposure.

Many orchids begin to initiate their flowering cycle as the day length decreases. Fall blooming Cattleyas, especially those with *Cattleya labiata* in their ancestry, have started to develop flowers deep in their sheaths. Many of the Cattleyas with the darkest flowers bloom in the fall. Cooler temperatures intensify pigments in some orchid flowers and begin the flowering cycle in others. Standard type Phalaenopsis require at least a 20-degree day/night temperature change and a week or two of nights into the upper 50s or low 60s to begin the blooming process. Hobbyists growing under lights should place Phals on an outside porch or open windows for a couple of weeks in fall to initiate spikes. Small Phal seedlings should be kept warmer so that they will continue summer's growth as long as possible. They will flower later without your help and carry more flowers thanks to their larger size. Once phalaenopsis have had a couple of weeks of cool night temperatures, keep them at least 65 F at night for best growth and to prevent rots.

As days get cooler, move Cymbidiums into higher light. They can be moved into full sun if exposed to higher light levels gradually. Hybrids in this group of orchids generally like cooler fall weather and most require it to bloom well. In California, growers do not take Cymbidiums inside until nights get frosty. Similarly, many members of the Zygopetalum group, including intergeneric hybrids, will initiate new growths and flower spikes only when night temperatures dip into the 50s. Once new growths appear with spikes, take plants inside or into the greenhouse.

Dendrobiums are such a diverse group that hobbyists must



Phal. Paradise Lost

learn to recognize different types before following advice about inducing blooms. Many of the soft-leaved species and forms, including Nobile-types need cool nights, less water, and no fertilizer to flower properly. Some will lose all their leaves, while others will respond with some leaf loss and a slight shriveling of bulbs. Consult local experts or books specializing in Dendrobiums if you are unsure what type you have.

Many species of bulbophyllums are also beginning to flower. The vast majority of these come from very warm climates and will continue to require warmer temperatures if they are to flower and grow well. It can be difficult to maintain the variety of conditions necessary for a wide variety of orchids in a small growing area so compromises may lead to fewer and/or smaller flowers.

Phragmipediums, especially Phrag besseae hybrids, love cooler temperatures and will often begin new growths and grow at an increased rate in the fall. Check media to be sure it is fresh enough to get through the winter, as repotting most orchids in winter is not a good idea. Paphs are especially vulnerable to losing root systems during winter if the medium is already in the late stages of decay so repot any that may need repotting now.

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 October.



CULTIVATION

Catasetums in October

Fred Clarke, Sunset Valley Orchids



Clowesia Grace Dunn 'Chadds Ford' AM/AOS

As we can all tell the weather is changing and your Catasetinae should now be in their final stages of growth. This was an excellent year for Catasetinae; many growers from around the country reported a fantastic flowering season. The first signs of dormancy will soon be evident, with some areas of the country already see the start of the dormancy. Soon it will be time to stop fertilizing and begin to decrease irrigation frequency, in effect lengthening the dry period in-between watering, mimicking the end of the rainy season.

In nature the rainy season is nearing its end, the rains are less frequent, nights are cooler and day length is shortening. These

are the environmental factors that start the dormancy process. With less rainfall, fewer nutrients are moved to the root system (thus stop fertilizing) and the roots stay dryer longer (thus reduce irrigation frequency). This increasing dryness is an indicator to the plant to harden off their pseudobulbs in preparation for the 2-4 month winter dry period. Hardened off bulbs are better at storing water through dormancy. Humidity should be maintained



Catasetum pileatum

at 40-60% however brief periods outside this range is not a problem. Maintain light levels and keep night temperatures at or above 55 degrees.



Catasetum Frilly Doris 'SVO' AM/AOS

No repotting at this time, the roots are well-developed and will resent being disturbed. If you were negligent (how could that be?) it is better to wait until next spring at this point. As soon the new growth begins in the spring, that's the time to repot, as you can now see the best way to position your plant in its new pot. With Catasetinae, the roots follow the new growth usually several weeks behind. In nature, the roots grow out and then the rains start. So, as I have said many times, "wait to water until the new growth has new roots 3-4" long." This gives the best results as large healthy root systems make for strong healthy bulbs and better yet, excellent flowering.

One of the great attributes of the Catasetinae is their deciduous nature, if you experienced leaf damage, don't worry, as those leaves are going to drop off and next spring/summer you will have a new set. How many orchids are that forgiving when the leaves are damaged?

When walking around the greenhouses these days it looks like almost everything is blooming! This is my favorite time of year as there are Catasetums in flower, the Cynoches are blooming, and the first of the Mormodes are in spike! But there is still more to look forward to as the blooming season for Clowesia rosea hybrids begin flowering in December and January. These late season plants bloom on deciduous bulbs, with inflorescences cascading over the side of the pot with many fragrant flowers.



CULTIVATION

Fertilize Weakly Weekly

by Sue Bottom, sbottom15@hotmail.com

The instructions on most water soluble fertilizer package usually say something like apply at the rate of 1 teaspoon per gallon. They don't give specific application rates for your philodendrons, your roses or your orchids. Many of the orchid books recommend you fertilize your orchids weakly, weekly. How much fertilizer should you apply to your orchids? Well, it's complicated and there are quite a few factors to consider.

Are Your Orchids in Active Growth? Most orchids accelerate their growth rate when the days lengthen and the sun intensity increases in the spring. Your goal is to match the fertilizer application rate to the growth rate, so the availability of nutrients is not a limiting factor. Many, but by now means all, orchids rest during the winter months. Most cattleyas don't require much, if any, fertilizer in winter. The winter dormant orchids like habenarias and catasetums should be kept mostly dry, with no water or fertilizer in winter. The soft cane dendrobiums like a coolish, dryish winter with occasional waterings but no fertilizer; the fertilizer will encourage the formation of keikis rather than flowers. Alternatively, phalaenopsis continue growing in winter and should be fertilized, albeit at a lower rate

What Media Are You Using? Sphagnum moss and peat based mixes like Pro-Mix tend to hold the fertilizer salts more tightly than coarse or inorganic media, so salts can build up in the mix. The nature of the mix makes it very difficult to flush, so more dilute fertilizer should be used with salt retentive media. Organic mixes like bark will hold onto some nutrients, which can be absorbed over time by the orchid. Many orchid books recommend a high nitrogen fertilizer like 30-10-10 be used with bark-based mixes, but this has the unintended impact of hastening the

degradation of the bark by the microbial population that consumes the extra nitrogen. Inorganic mixes like clay pebbles and charcoal may adsorb salts onto their surface, but this is generally not available to the plant later. The SAOS coarse mix is about 30% bark, 30% coarse perlite, 30% clay pebbles and 10% charcoal, so it will provide some nutrient retention while providing airy open pore spaces for the roots.

How many soluble salts are in your water? If you are using well water typical in St. Augustine, you notice lots of white hard water marks on your plant leaves from all the calcium bicarbonate in the water. This water tends to be very alkaline, has plenty of calcium and not much magnesium, and can increase the pH around the root zone of your orchids that leads to nutrient deficiencies. This water also tends to be high in soluble salts, and the addition of fertilizer, which is basically another salt, just increases the salt content of the water so the conventional wisdom is to try to minimize fertilizer additions to prevent salt toxicity. The different salts compete with each other for uptake, so you may actually have to increase fertilizer rates so the plant receives enough of each of the nutrients it requires. If you have pure water like rainwater or reverse osmosis water, you have to supply all the nutrients to your plants. If you have tap water, you are likely somewhere between these extremes. You should consider selecting your fertilizer and nutrient supplements based on your water quality.

How Often Do You Fertilize? If you fertilize once a month, you should apply fertilizer at a higher concentration than if you would if you fertilize more regularly. Many of the orchid books recommend you fertilize weekly flushing with plain water monthly, or fertilize every other time you water, flushing with plain water in between. Other orchid growers use a continuous liquid feed, in which they fertilize with

	Well Water	Tap Water	Rainwater or RO Water
Water Quality	Your water is likely very alkaline with many dissolved salts including high levels of the beneficial calcium, low levels of magnesium ions and possibly low to high levels of toxic sodium and chloride ions.	Your water is likely slightly alkaline with an acceptable to borderline level of dissolved salts, some beneficial calcium and magnesium and possibly low to high levels of toxic sodium and chloride ions.	Your water contains no dissolved constituents so you will have to supply all the building blocks your plants desire, including calcium, magnesium and micronutrients that are not found in all fertilizers.
Preferred Fertilizer	Acid reaction fertilizer like Jack's or Peter's Classic 20-10-20 or Peter's 20-10-20 plus Epsom salts	Jack's 15-5-20 Tap water formula, or alternate between rainwater and well water fertilizers	Cal Mag fertilizer like Peter's Excel 15-5-15 or Jack's 12-4-16 RO formula

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a dilute solution each time the orchids are watered. More dilute solutions more frequently seems to be closer to the natural environment in which orchids evolved.

Are Your Orchids Heavy Feeders? Vandas and cymbidiums tend to be heavy feeders desiring more fertilizer than light feeders like paphiopedilums and cattleyas. The drought enduring orchids that use the CAM photosynthesis pathway tend to grow more slowly than many other plants. They keep their stomata closed during the day to limit water loss, and open them at night to absorb carbon dioxide that is stored until daylight when photosynthesis begins. This adaptation allows them to endure drought, but it requires the expenditure of extra energy, so they grow more slowly than their counterparts that absorb carbon dioxide and photosynthesize concurrently.

How Do You Balance These Factors? Many of us have mixed collections of orchids and it is impractical to use one fertilization rate for one group and a different rate for another. Instead, select an application rate that is suitable for all of your orchids, perhaps ¼ to ½ teaspoon per gallon weekly in summer and ⅛ to ¼ teaspoon per gallon weekly in winter. Then, you can supplement the heavy feeders with some time-release fertilizer. Blend in some time-release fertilizer with your potting mix when repotting your catasetums, or top dress your spring blooming phals in the fall to encourage blooming.

The purpose of fertilizer is to supply your plants with the building blocks they need as they harvest energy from the sun to produce new growths and flowers. Some of these building blocks, like calcium, magnesium and micronutrients, may be naturally present in your water unless you are using a pure water source like rainwater. Some water-soluble fertilizers contain calcium and magnesium, while others do not, and even those with calcium and magnesium may not have enough. You should select a fertilizer that is best for your water quality.

Then you have to decide how much fertilizer to give your plants. Most people make this decision on the basis of the nitrogen content, the first number in a fertilizer formula, although the levels of calcium and magnesium are just as important for your plant health. For my mixed collection of orchids using reverse osmosis water, I try to provide 60 ppm nitrogen, 50 ppm calcium and 20 ppm magnesium in summer with every watering, and 40 ppm nitrogen, 30 ppm calcium and 15 ppm magnesium in winter. With my RO water, I have to add calcium nitrate and magnesium sulfate supplements in addition to fertilizer to get to the desired concentrations.

Overfertilizing your orchids means you are giving them more fertilizer than they can use efficiently given the amount of light, air and temperatures they are exposed to.

You run the risk of having lush, soft growth that is more easily attacked by pests and diseases. Plants grown with less fertilizer will not grow as fast perhaps, but should be stronger and more resistant to problems.

Fertilizer is probably the least important aspect of orchid growing. The legendary Rebecca Northen wrote that beginners should not fertilize at all, they should master the elements of light, temperature, air and watering first, and only then start fertilizing their orchids. Dave Off of Waldor Orchids, who grows the most immaculate mature cattleyas, says they don't fertilize their orchids except for after repotting when they are top dressed with some time-release fertilizer. Start your fertilizer program at a quarter or eighth strength for several months, after which you can decide if more or less fertilizer is better under your growing conditions.

Application Rate	Nitrogen (ppm)	Calcium (ppm)	Magnesium (ppm)
Peter's 20-10-20 or 20-20-20 GP**			
¼ tsp/gal	75	0	0
½ tsp/gal	150	0	0
1 tsp/gal	300	0	0
Magnesium Sulfate (MgSO ₄)**			
¼ tsp/gal	0	0	35
½ tsp/gal	0	0	70
1 tsp/gal	0	0	140
Jack's 15-5-20 Tap*			
¼ tsp/gal	50	10	5
½ tsp/gal	100	20	10
1 tsp/gal	200	40	20
Peter's Excel 15-5-15 Cal-Mag*			
¼ tsp/gal	50	15	6
½ tsp/gal	100	30	13
1 tsp/gal	200	65	26
Jack's 12-4-16 RO*			
¼ tsp/gal	40	25	7
½ tsp/gal	75	45	15
1 tsp/gal	150	90	25
Calcium Nitrate (Ca(NO ₃) ₂)*			
¼ tsp/gal	60	70	0
½ tsp/gal	115	140	0
1 tsp/gal	230	280	0
Items marked with one asterisk can be mixed together, and items marked with two asterisks can be mixed together			



CULTIVATION

Habenarias in Fall

by Sue Bottom, sbottom15@hotmail.com



Habenaria medusa in bloom. Who could resist this flower? During the growing season, Habenarias like to stay evenly moist. Good quality water and plenty of dilute fertilizer will help produce beautiful blooms.



Reduce watering frequency once the flowers begin to fade. Let the plant dry slightly between waterings. The leaves will start to yellow as the nutrients are reabsorbed back into the tuberoids.



Once the leaves have browned, let the plant and potting media dry out. Once the leaves and the base of the growths are dry and crispy and the media has dried out, the stems pull away easily from the pot with no resistance. The tuberoids are ready to be stored for dormancy.



It is easier to bring habenarias through dormancy if you unpot the tuberoids and store them either in clear plastic bags or an empty pot during the winter months. Find a warm, somewhat humid area where you can easily see new growth sprouting in the spring. This is Sarah Hurdel's photo of her set up.



ORCHID ADVENTURES



Jacksonville Fall Orchid Festival

The Jacksonville Orchid Society hosts a fall orchid festival with many of our favorite vendors, including Thanh with Springwater, Mac with Mac's Orchids, Phillip with Bredren, Rob with Odom's, Jordon with Krull Smith, Segundo and Yolanda with Quest, and the Ritter ladies. We enjoyed talking with our orchid buddies and admiring the ladies with their decorative orchid hats. We always enjoy an orchid show, and Coral gets lots of attention!



SHOW TABLE



Grower Courtney Hackney
C. bicolor var. grossi



Grower Suzanne Susko
Blc. Hawaii Stars 'Pink Lace'



Grower Sue & Jimmy Broussard
Lc. Allen Condo
(*'The Bob'* x *'Hackneau'*)



Grower Suzanne Susko
Ctism. José Abalo 'Claire' AM/AOS



Grower Allen Black
Bc. Mary Dodson



Grower Janis Croft
Lc. Lake Tahoe 'Blue Sky'



Grower Bob Schimmel
Bc. Blu Flamingo



SHOW TABLE



Grower Leslie Brickell
Bulb. mastersianum



Grower Courtney Hackney
C. Chocolate Drop 'Kodama' AM/AOS



Grower Sue Bottom
Microcoelia exilis 'Gold Country'



Grower Leslie Brickell
Bulb. Crownpoint



Grower Allen Black
Blc. Miya's Fascination 'Odom's Wildfire' AM/AOS



Grower Sue Bottom
Pararenanthera Shim Phyu Fah 'Chilli Pepper'

Link to all Submissions: <https://flic.kr/s/aHBqjA9GFd>

