

CLUB NEWS

**Suzanne Susko**

January 3 SAOS Meeting

by Janis Croft,
secy@staugorchidsociety.org

Welcome and Thanks.

President Bob Schimmel opened the meeting at 7:05 pm with 58 attendees. Bob thanked Dottie Sullivan and Joanne Stygles for the refreshments. Bob also thanked Jeanette Smith for managing the refreshments since the start of the club

and reported that Jeanette was commended in the paper for being one of our Great Community Volunteers. He then reminded all to drop a dollar in the jar when they enjoy the refreshments. We welcomed two guests along with 3 new members, Chris Guerreiro, Lois Muller and Jan Wulff. Sue Bottom then announced that Harry McElroy had been selected to be the President of the Jacksonville Orchid Society and he received a round of applause.

Our Membership Veep, Linda Stewart recognized our December and January birthday people with free raffle tickets. Bob informed all that the Best of Show voting should be finished by the end of the refreshment break and encouraged us to vote for our favorite orchid.

Club Business. It's time to renew your membership, \$15 for an individual and \$25 for a family. Linda, acting in Bill's absence, collected quite a few dues payments. You can also renew online using the PayPal membership links on the website or send money to friends and family on PayPal using the info@staugorchidsociety.org email address.

The Ace Repotting Clinic will resume on February 4th from 9 am until 1 pm at the Ace Hardware on US 1. We're there to answer questions and help you repot your orchids.



The Keiki Club will cover two topics: Staking Your Orchids by Terry Bottom and Orchid Toolbox by Mary Colee. We will meet on January 15 at Kathy and Mark Young's Garage Mahal, 160 West Genung Street, St. Augustine.

We'll be replenishing our fertilizer and potting supplies soon, email Sue Bottom (sbottom15@hotmail.com) with your request so she can bring it to the meeting.

SAOS Librarian Penny Halyburton brought in a general reference book on Orchids and reminded all to check out the club's library collection on the website and email Penny (librarian@staugorchidsociety.org) your request and she will bring the item(s) to the next meeting.

Our AOS Representative, Suzanne Susko noted that the latest AOS Orchids magazine had Terry Bottom's photo of one of Harry McElroy's Cymbidiums on the front cover. She then encouraged all to sign up for the AOS webinar, open to the general public, a Q&A session with Ron McHatton on January 10, 8:30 pm.

Orchid Events. Two really big shows in Florida this Month, check the website for details:

[Tamiami International Orchid Festival](#) from January 13 to 15

[A Galaxy of Orchids, Ft. Lauderdale Orchid Society](#) show from January 21 and 22



Show Table Review. Courtney Hackney stated that this evening's show table demonstrated the wide variety of colors and shapes that can occur when hybridizing, this month reflecting some of the spring blooming species in the parentage. We had many plants of the Lc. Hagans' Ace 'Mandarin Orange' clone exhibiting a beautiful rusty orange. Schomburgkia lueddemannii with its curly flowers can grow quite large. People in our area can even grow it outdoors where it survives temperatures into the 30's in full

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Upcoming Orchid Events

January

- 7-8 Sarasota Orchid Society Show
Sarasota Municipal Auditorium
- 10 JOS Meeting, *Sacoila lanceolata*, 7 pm
Jennifer Reinoso, Volusia County OS
- 13-15 Tamiami International Orchid Festival
Dade County Fair Expo Center
- 15 Keiki Club Get-Together, 1 pm
Staking Your Orchids, Terry Bottom
Orchid Toolbox, Mary Colee
Charles and Kathy Young
160 West Genung St, St. Aug 32086
- 20-22 Fort Lauderdale Orchid Society Show
War Memorial Auditorium

February

- 4 SAOS at Ace Hardware, 9 am til 1 pm
3050 US 1 S in St. Augustine
Repotting and Plant Clinic
- 4-5 Venice Area Orchid Society Show
Venice Community Center
- 7 SAOS Meeting, 7 pm
Unusual and Natural Mounts
Tom Kuligowski, Angraecum Blog
- 11-12 Boca Raton Orchid Society Show
Safe Schools Institute
- 14 JOS Meeting, Orchidata Bark, 7 pm
Graham Ramsey, Orchidata
- 19 Keiki Club Get-Together, 1 pm
A Winterizable Shade Structure, Janis
Designing a Rain Barrel System, Linda
Janis Croft and Alan Winer's Home
8311 County Road 208, St. Aug 32092
- 24-26 Naples Orchid Society Show
Moorings Presbyterian Church

March

- 4 SAOS at Ace Hardware, 9 am til 1 pm
3050 US 1 S in St. Augustine

- 4-5 Tampa Bay Orchid Society Show
Egypt Shrine Center
- 7 SAOS Meeting, 7 pm
Growing Orchids in Cypress Mulch
Steve Arthur, Orchid Hobbyist
- 12 Keiki Club Get-Together, 1 pm
Potting Mixes and Repotting Orchids
Sue and Terry Bottom's Home
6916 Cypress Lake Ct, St Aug 32086
- 14 JOS Meeting, JOS Show, 7 pm
Show Committee Update
- 18-19 Port St. Lucie Orchid Society Show
Port St. Lucie Community Center
342 Cracker Swamp Dirt Rd, E Palatka
- 24-26 Gulf Coast Orchid Alliance Show
Naples United Church of Christ

St. Augustine Orchid Society Organization

President	Bob Schimmel schimmelr55@bellsouth.net
Vice President Events	Dianne Batchelder ladydi9907@aol.com
Vice President Membership	Linda Stewart lindstew@hotmail.com
Vice President Programs	Sue Bottom sbottom15@hotmail.com
Secretary	Janis Croft croftie1984@gmail.com
Treasurer	Bill Gourley wgourley@bellsouth.net
Directors at Large	Mary Colee mcolee4@gmail.com Susan Smith 2manysmiths@comcast.net Suzanne Susko suzsuskso@bellsouth.net
Exhibit Committee Chair	Janis Croft croftie1984@gmail.com
Librarian	Penny Halyburton phalyburton@comcast.net
Newsletter Editors Webmasters	Sue and Terry Bottom sbottom15@hotmail.com tbottom14@hotmail.com



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sun, where the leaves will be more yellow than the plant on the table which was grown under shade-cloth. Next was the Blc. Great Hero 'Black Hole' with its flat flowers and lipstick pattern. As the flower ages, the color changes and remains pretty all the time. Courtney noted color variations can happen depending upon temperature during development. He has plants that when their buds develop during the cooler season, the color is more intense than when it reblooms in the hotter seasons. Another plant that is cold tolerant and from an older variety is the Lc. Santa Barbara Sunset 'Showtime'.

Courtney next discussed the value of growing plants to specimen size. He pointed out the Blc. Maikai 'Louise' which is a primary hybrid noted for its large number of spotted flowers. He has judged this plant and counted over 1000 flowers on just one plant. It is a prime example of a cultivar that improves as it matures. Paph. spicerianum is a cute plant and requires careful observation to see all of the details in the flower. His artistic wife paints this plant because of its delicate details. He noted that it should be repotted annually. The Dendrochilum filiforme was a mature plant with lots of beautiful inflorescences. It likes lots of good quality water. An example of the largest subgroup within the orchid world with unusual flowers is the Bulbophyllum arfakianum. Bulbos have cantilever lips so when the wind blows, the lip moves, enticing insects to land on it and collect pollen. We had two Fredclarkeara After Dark plants that show the different saturations of colors within the same hybrid. One was an intense black flower and the other had a more reddish spotted flower. Check out the photos of our show table examples at the end of the newsletter and on the SAOS website.

Growing Orchids in Palm Coast



SAOS Program. Linda Stewart introduced our evening's speaker, SAOS Director Suzanne Susko, assisted by her husband Robert, who grows her collection on her lanai in Palm Coast where temps run about 5° warmer than St. Augustine. Suzanne grows a wide variety of species and started by showing slides of her favorites. She loves growing Bulbophyllums and Neofinetias.

When the 2004 hurricanes damaged their lanai screen,

they replaced it with commercial grade screening which provides a 25% shade. She has all of her plants on mobile carts purchased at Home Depot. When it gets extremely hot she adds a floor fan to improve air flow. When there is bad weather, she can move the carts under the roof of her lanai. For hurricane protection, they purchased a Storm Force (brand name) windscreen rated for 140 mph. They also use it to protect their front porch area. It is much easier to set up than hurricane shutters.

During winter, she uses a pop up tent structure (brand name: Flower House) that will hold 200+ plants. She just rolls all of the carts in after Thanksgiving and doesn't move them out until the first of May. On colder evenings she adds a Lasco space heater set to 70°. She uses a temperature and humidity monitor (brand name: Oregon) along with a Taylor thermometer which displays the current, high and low temps for the past five days.

She uses clay pots, plastic baskets, wood flats, chicken wire and cypress knees and is always looking for other options for potting or mounting her orchids. When she gets a new plant, she resists repotting for one year to allow the plant to adjust to her growing conditions. She then pots it in her medium of choice and won't repot any plants until they are out of control or the media needs replacement. She also cuts off all of the flowers on her phalaenopsis at the beginning of June to allow the plant to put its energy into growing and she only repots them when they are crawling out of the pot. When she pots on a flat or in a wire basket, she uses a plastic craft mesh on the bottom. Next she adds wire through the mesh, places the media on top and then adds the plant, securing it with the wire coming up through the mesh below. In her presentation, she has listed her sources for potting mix. She also lists her fertilizers and process for using them along with her procedure for "Critter" control.

At the end, she showed a slide of the Zeuxine Lawn Orchid that grows in mulch in our shady gardens. She advised us to look for it in the upcoming months as it is an annual that grows naturally here. Suzanne's presentation was excellent with lots of information and sources of supplies, here's a link to where it is posted on the [website](#).

Meeting Conclusion. Harry McElroy announced the Member's Choice Award as a three way tie between Penny Halyburton and Michael Rourke's Lc. Hagans' Ace 'Mandarin Orange', Janis Croft's Paph. spicerianum, and Suzanne Susko's Bulb. arfakianum. The Raffle table closed out the evening. Thanks to those that volunteered to stay and clean up the room.

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



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January 15 Keiki Club Double Header at the Garage Mahal

The first Keiki Club get together of the year will be on Sunday, January 15 in the climate controlled Garage Mahal. We're going to start with a bang offering a double program.

Topic 1: Staking Your Orchids

Moderator: Terry Bottom

It's good to spend some quality time with your orchids, particularly if you take the time to stake the flower spikes for their best presentation. Staking techniques will be discussed, along with some other tricks for getting your plants ready to exhibit.

Topic 2: Orchid Toolbox

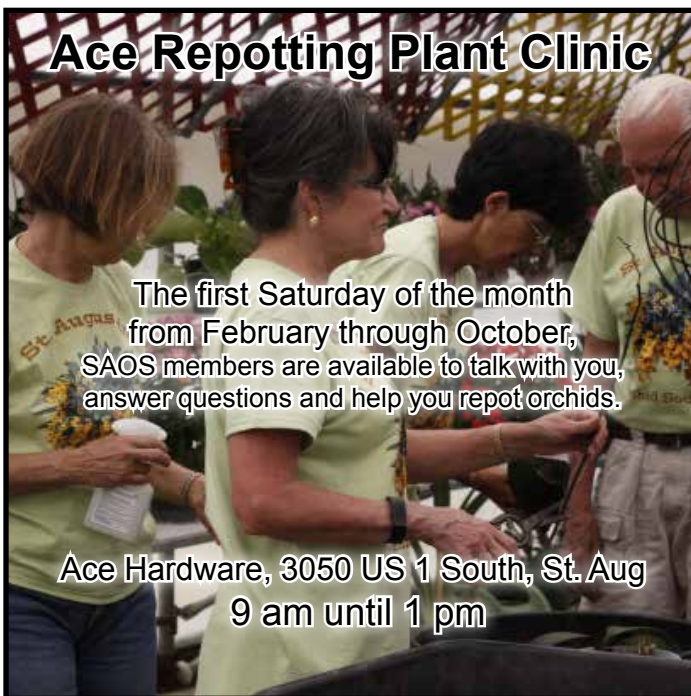
Moderator: Mary Colee

There are handy gadgets and tools that all orchid growers should have readily available. Keep them in a toolbox close to your growing area for instant access.

Where: Charles and Kathy Young's Home

160 West Genung Street, St. Aug 32086

When: January 15, 1 to 3 pm



Ace Repotting Plant Clinic

The first Saturday of the month from February through October, SAOS members are available to talk with you, answer questions and help you repot orchids.

Ace Hardware, 3050 US 1 South, St. Aug
9 am until 1 pm

Time to Pay Your 2017 Dues

It's that time again, membership dues for 2017 are now due. We'll be collecting dues through the March meeting, after which we'll update our 2017 SAOS roster and email distribution list. Dues are \$15 for an individual and \$25 for a family. If you can't come to the meeting, you can mail your membership check to SAOS c/o Bill Gourley, 807 Kalli Creek Lane, St. Augustine, FL 32080. You can also pay online using PayPal, using either the individual or family membership links on the website or the [PayPal send money to friends and family link](#) using the SAOS email address info@staugorchidsociety.org. Thanks, and welcome back!



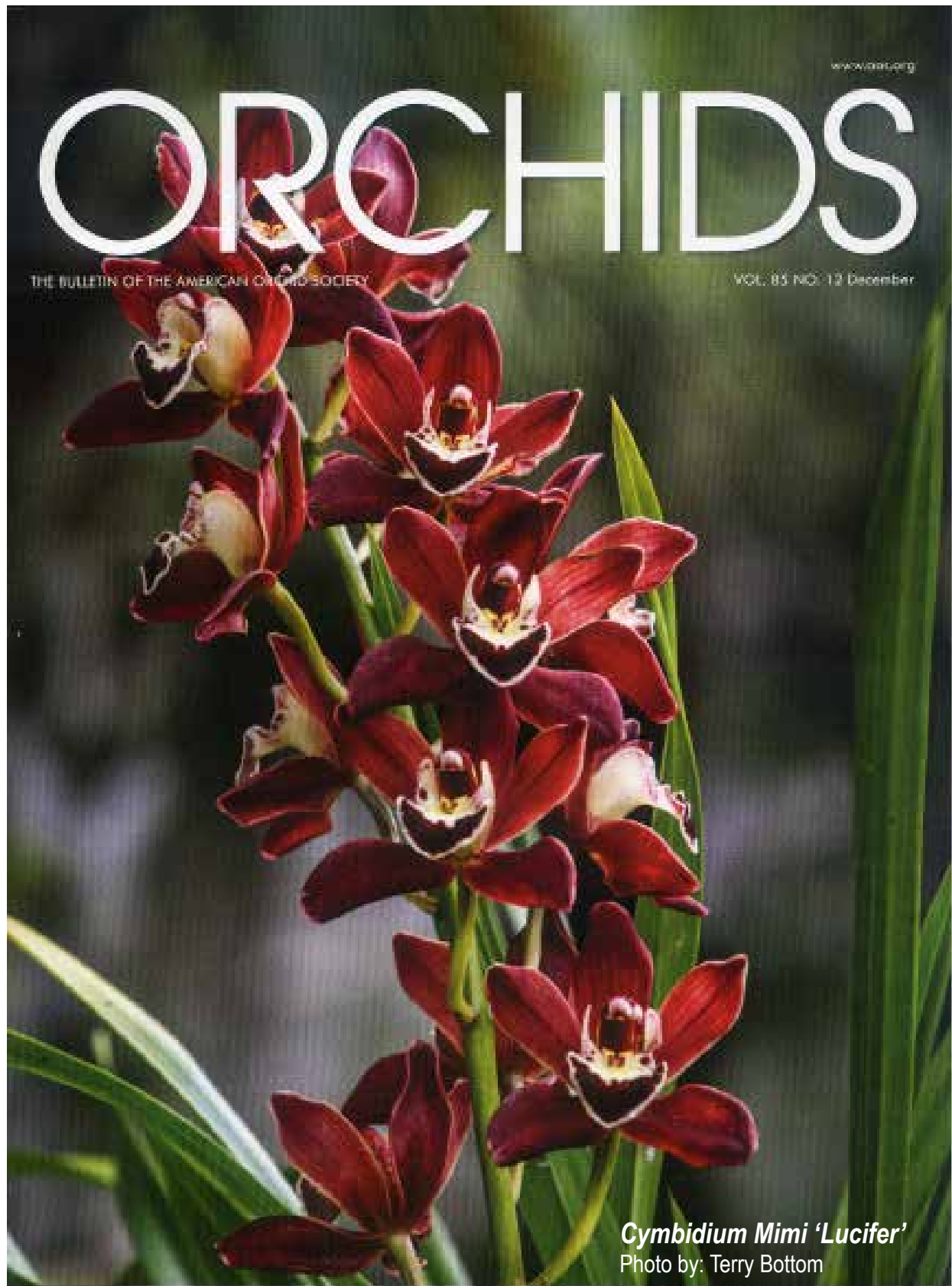
February 7 Monthly SAOS Meeting Natural and Unusual Mounts

Tom Kuligowski has been an orchid hobbyist for over twenty years. Like all hobbyists he is a firm believer that you learn from your mistakes. Therefore, your collection should increase in size as mortality decreases and the quality and number of blooms on your plants improves. Being a professional photographer, Tom has documented every aspect of his collections.

The "Unusual and Natural Mounts" presentation started as an idea to generate extra income from selling orchids mounted on unusual materials. He wanted to use materials representative of the orchid's natural settings or something completely different from the expected. Tom's idea was to get them established and sell them for a profit. But he is not a professional grower so why would he sell plants he has worked so hard to develop? You would never think of selling your children, so why should he sell his orchids? Once you see what he has accomplished, you'll understand why he hasn't sold any.

Orchids will be available on the sales and raffle tables. Friends and guests are always welcome.





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Orchid Questions & Answers

by Sue Bottom, sbottom15@hotmail.com

Q1. This phal keeps producing more blooms from the ends of the same spikes that had other blooms earlier. One spike now must be 2 ft long. Should I cut it or just keep letting it sprawl?



A1. That is a decision only you can make. Some phals will just keep on blooming, but you enjoy the flowers less and less because they are presented poorly. By keeping the old spike, the plant doesn't redirect its energy into producing a new spike where the flowers might be better arranged. I tend to cut the old or unmanageable spikes down at the base rather than waiting for them to throw off one of two new blooms. The plant takes a little break from blooming and then forms a new flower spike that I can really enjoy. Other folks won't cut the spike if it has any flowers. If you decide to cut, put the spike in a vase and enjoy it for another week.

Q2. A friend has many phalaenopsis rescues that are now in her greenhouse. Some have new leaves that are stiff, green, and very thick, but smaller than the older leaves. They look like they are on super steroids, what's going on?



A2. If the new leaves are smaller than the older leaves, your plant is telling you that it is getting less of what it wants than it used to get. I'm guessing it's purely a cultural thing, nothing to do with pests or diseases. She repotted them from moss into bark, and roots that were acclimated to the



moisture retentive moss will not thrive in the drier bark mix. Some growers add maybe 10% long fibered New Zealand moss to the bark mix to make the environment more amenable. If she repotted 6 months ago, the roots should have reestablished; gently tug on the plants and see if they are firm in the pot. If not, knock one out of the pot and take a look at the roots to decide on a course of action, perhaps top dressing the pots with moss or a monthly dose with seaweed or some other root stimulator can jump start root growth. That bark looks very dry, it may just be a simple case of watering more.

Q3. I am fairly new to dendrobiums and I was recently given a Den. Mangosteen. I repotted it into bark and noticed the roots, while numerous, were white and some very thin and string-like. I watered and weakly fertilized after repotting since it was very dry. Some leafless canes were yellow at the tips and one of the leaves on another cane was starting to turn yellow. I am not sure if this orchid goes dormant or if it's sick.



A3. That is a very complex hybrid you have. Its parentage is mostly phalaenopsis and spatulata section dendrobiums, neither of which require a winter rest, plus a dab of the dendrobium section dendrobiums that do. How much of which genes sorted into the plant you have is a big question mark. I'd guess it doesn't require a deep winter dormancy, just a normal winter rest.

It sounds like the roots were not in great shape when you got the plant. I think you are saying that the spongy velamen layer was absent and you saw only the wiry filament. Perhaps add a little root stimulator or seaweed when you water to help the plant recover from repotting.

Many dendrobiums lose the leaves on the older canes although they often continue to bloom from the leafless cane. Yellowing is probably not good but I think a more important diagnostic is whether the cane is hard or soft. When it starts to soften, that is when the plant is starting to go south. Sometimes water or dew can pocket on a new leaf causing it to be shed, or maybe the plant didn't have enough hydration to hold the leaf. The rest of the leaves look healthy. Just keep an eye on the plant.





Growing Different Orchids in One Space Courtney's Orchid Growing Tips

Each year there are many email questions related to problems with growing specific orchids or asking for help diagnosing some disease or pest. There is also the occasional general question which asks "what is the most difficult challenge I

face growing orchids?" It is also a question I get when I speak to orchid societies. The answer is growing many different species and hybrids, which come from many different habitats in one greenhouse.

Orchid species are always the most difficult because they evolved within a specific habitat and environment and often there is some critical need for rest, dryness, etc. during some part of the year that must be met or the orchid dies or does not flower. Some hybrids derived from these species may also have a similar requirement, but typically hybrids are more forgiving if one forgets to give them the appropriate conditions.

In many cases a dry period is required to coincide with drought in the orchid's native habitat. It is fairly easy to set plants requiring a dry period aside and limit watering if there is lots of space or there are just a few orchids, but more difficult if one has several thousand orchids in a relatively small space. Over the years I have developed several approaches that have allowed me to manage problematic orchids.

The primary approach has been to place plants that require dry conditions in extremely coarse media or even to mount them. They are grown in the brightest part of the greenhouse where they dry quickly even when they are in a growth mode. While they may dry out more than would be ideal during their growth cycle, they also are more than dry enough during their dry season as well. For most, the dry requirement coincides with winter when watering is reduced anyway. I also take advantage of the change in the angle of the sun so that these orchids get more direct light in winter.

More problematic are orchids that want more water in winter and less in summer. These have not fared well over the years, but lately they have been moved outside during summer where they get only the occasional shower and little or no fertilizer and then moved under vandas in baskets during winter as these get watered most during the cool part of the year.

There are also orchids in my collection that do not like summer heat. Some of these come from high elevations where nights regularly go down into the 40's F, but never above 80 F during the day. I grow these mounted or in very coarse media also and keep them under benches in summer where it is coolest. Admittedly, they do not thrive in summer, but survive. Once the Fall Equinox arrives, they are moved into more light and in winter they go right against the glass in places where water drips during the coldest nights. Typically, they grow well and flower before the heat returns and they are returned to their under bench hiding spot where lots of air movement is maintained. If I forget to move them under the bench in time they go downhill fast and have been lost.

Roaches have been my biggest enemy since arriving in Florida. After the last mention of this problem in the "Tips" column there were several suggestions regarding Diatomaceous Earth. I have used this before in the house, but not sure if it would help in a greenhouse. Nevertheless, I obtained a bag and spread it on tables, but not on plants. Within a week or two dead roaches appeared on the greenhouse floor. These were the larval stages that cannot fly, but this is the first time I have had any success against these vermin. Thanks to those who sent me the suggestion.

Note: Dr. Courtney Hackney wrote a monthly column of his orchid growing tips for about 20 years, we're reprinting some you might have missed, this one from January 2012.



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The Importance of Light for Orchid Growth

by Dr. Carl L. Withner, American Orchid Society

As a result of photosynthesis, plants manufacture sugars and starches and many other compounds in their green tissues during the day. These accumulate and are translocated about the plant, particularly at night, and are transformed by biochemical processes into all other plant constituents that are necessary for formation of new tissues and growth. The energy for the photosynthesis comes from the sunlight. The energy for maintenance and growth comes from the breaking down of sugars by the process called respiration. Respiration for maintenance occurs constantly in all cells, whether growth is occurring or not; whether they are green and in the light or not.

At the so-called "compensation point", only enough sugar is produced during daylight with its particular temperature and light intensity and duration, to provide the amount of energy (sugars) for maintaining the plant in a living condition. Respiration just balances photosynthesis. There is nothing left as a reserve, or for the formation of new cells and tissue, or to produce flowers or seeds. The problem is thus to increase photosynthesis to a point where it will not only provide for maintenance respiration but will also provide a reserve to be stored that will not be respired and will enable maximum growth to occur. Most growth, incidentally, takes place at night.



An easy way of aiding the growth process is to have lower temperatures at night than during the day. This slows down the rate at which reserves are respired by plant parts and conserves them for growth function instead of just burning them up to form carbon dioxide and water. Lowering the temperature slows down respiration faster than it slows down growth. For similar reasons, when weather is dull and light is at a premium, it is possible to help the plants along by lowering the day temperatures at which they are grown.

Since photosynthesis is first of all a photochemical

process not immediately affected by temperature, the decrease in temperature preferentially influences respiration and provides a more favorable balance for growth and reproductive processes. Respiration, in other words, is more affected by temperature than growth or photosynthesis and this difference may be put to advantage.

A question arises about the optimal temperatures to use and the best light intensities and durations to give the plants. Trial and error can teach you a lot, but there have been a few studies on orchids that can give you guidance. These were mostly done in air-conditioned greenhouses at Cal Tech, under the supervision of Professor Frits Went. They are written up in Went's book, "The Experimental Control of Plant Growth". Most plants, including orchids, may be divided into sun or shade plants, according to the conditions under which they grow best. *Phalaenopsis* and *Paphiopedilum* are shade plants with optimal light intensities of 700-750 foot-candles (fc) saturating the leaves; whereas *Cattleya* or *Cymbidium* are sun plants requiring about 1000 fc to produce full saturation of leaves. And with sufficient air-conditioning the *Cattleya* may be grown in "full" sunlight if there is efficient cooling of the leaf tissues.

"When growing conditions are poor, for instance, in low light intensities, the actively growing new shoot completely inhibits flower development on the mother shoot, but in high light intensity, both flower development and new growth can occur on the same shoot. This makes it seem as if there is active competition for photosynthesis by vegetative growth and developing flowers. When photosynthesis exceeds the demand for carbohydrates by storage organs or growing shoots, the excess sugar is excreted as liquid droplets on lower-stalks, flower-sheaths, and leaf-blades..." In addition, leaves may also develop a red color on the back or along the veins or margins.

Seedlings of *Cattleya* and *Cymbidium*, in their younger stages are usually grown as shade plants with conditions similar to those for *Phalaenopsis* or *Paphiopedilum*. Perhaps it would pay to reread Hager's article in the February 1954 *AOS Bulletin*. By taking maximum advantage of the *Cattleya* growth possibilities, he was able to raise seedlings to flower in 2 1/2 years! He used high light intensities up to 4,000 foot-candles, 16-hour days, and a continued high level of humidity, water and nutrients.

Note: Space limitations required us to abbreviate this excellent article by the late Dr. Carl L. Withner, published in the March 1964 American Orchid Society Bulletin



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Winter Dormant Orchids Needing Dry Rest

by Sue Bottom, sbottom15@hotmail.com

As summer fades into fall, the days shorten, the sun stays lower in the sky and temperatures start to cool. Your plants respond to these environmental triggers. Those orchids that struggled with the summer heat enjoy a second growth spurt when temperatures mediate in the early fall. While the cooler growers like the *Zygopetalums* may revel in the lower temperatures, many other orchids gradually slow their growth rate as temperatures and solar intensity decrease in late fall into winter and their need for water and fertilizer is lessened.

There are deciduous orchids that become dormant in winter due to the cool weather, like terrestrials and those from non-equatorial regions. These types can receive rainfall during their dormancy without detriment. Some of the *Cymbidium* relatives like *Eulophias* and *Cyrtopodiums* like to stay much drier during the winter although they enjoy an occasional watering even after they have lost their leaves. Then there are those winter dormant orchids that are native to habitats that have extended dry periods, and these orchids have adapted to the long droughty period without any rainfall. The *Catasetinae* and some of the *dendrobiums*, *Lycastes*, *Habenarias*, and *Calanthes* go into a very deep resting period during the dry season, often shedding their leaves and staying hydrated only from the occasional mists and dews. This dryish, coolish resting period is a natural part of their growth and flowering cycle.



There are some general rules for preparing these plants for their annual dormant period. The first step is to stop fertilizing them once they have finished their summer growths, usually sometime on or after the fall equinox depending on the type of orchid. Some growers advocate using a bloom booster during the late summer to early fall to prepare the plants for dormancy. This high phosphorus formulation may work because the excess phosphorus limits the amount of nitrogen that can be absorbed by the roots, although you can achieve this more simply by just not using



a nitrogen containing fertilizer. You'll keep watering as you did during the growing season, but eventually you'll start watering them less frequently as the seasons progress. You'll start to see some leaves yellow. Not a diseased sort of yellow with black necrotic spotting and streaking, but a general overall yellowing as the plant reabsorbs whatever minerals it can from the soon to be dropped leaves. You'll water a third or half as frequently as before by the late fall time frame. Once the leaves start to shed, you can restrict water almost completely. Root and bulb rots are a concern if these plants receive excess water during their dormant period. Some can last the whole winter without being watered. The bulbs may shrivel to some degree, but will plump up when watering is resumed in the spring. Others can be heavily misted rather than drenched with water if they begin to look overly desiccated, a watering practice more akin to the morning dews they might experience in their native habitats.

Dendrobiums. Hobbyists often wonder which of their *dendrobiums* might enjoy a cooler, drier winter rest. When you first start growing, one *dendrobium* looks pretty much like another when they are not in bloom. Eventually you'll learn to distinguish the different groups or sections of *dendrobiums* based on their shape, growth and flowering habit. Until you can tell one type from another, simply add a predetermined color plant tag in the pot to remind you of the ones that need different treatment during the fall and winter. If you have more than a couple of these, group

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them together in the growing area so you don't mistakenly water or fertilize them when you are watering your other plants.

The Dendrobium section Dendrobiums is a group of winter dormant dendrobiums, often called the soft cane dendrobiums, with club-shaped, lightly ribbed stems bearing very showy flowers in groups of 2 to 5 along the stems in the spring. The other winter dormant group of dendrobiums is the Densiflora section, sometimes referred to as the Callista section. This group has bulbous ribbed pseudobulbs with leathery leaves at the apex, bearing showy but short-lived pendent golden grapelike flowers in the spring. The Dendrobium section plants are often deciduous, losing their leaves while the Densiflora section do not drop their leaves during the winter. These dendrobiums are cold tolerant, with cooler night time temperatures below 50°F (10°C) spurring the development of flower buds. These types can withstand temperatures into the upper 30's (around 3°C). During their dormancy, you should severely restrict watering. Some growers keep them bone dry, others prefer to heavily mist them perhaps once or twice a month. Once you notice flower buds, you can increase the frequency of misting, but regular watering and fertilization should not be begun until flowering is complete and new growths have started. The Dendrobium section dendrobiums freely form keikis, but if you get only keikis rather than flowers, perhaps they were not sufficiently chilled and/or fertilizer was not restricted during the cool months.



Catasetinae Subtribe. Almost all of the Catasetums, Clowesias, Cycnoches, Mormodes and their hybrids enter a distinct dormancy period. Some bloom in the summer and early fall before entering dormancy and others bloom from leafless bulbs during their winter dormancy. When the leaves of your plant start to yellow and brown, it is time to stop fertilizing, normally in mid to late fall. You can continue watering at a reduced rate until all the leaves drop, generally by the winter solstice. If your plants still have green leaves after the first day of winter, you can force them into dormancy by restricting all water. These plants generally have stored up enough reserves that you can withhold all water during the dormant period, watering only if the bulbs are severely shriveled. You can repot during the dormant period or once you see the signs of new growth, don't wait until after the new roots have entered the potting mix. Don't water the new growth or the newly repotted orchid until the plant is between 3 and 5 inches (8 – 13 cm) tall and the leaves have unfurled. Otherwise water can become trapped in the emerging leaves and rot the growing point at the apical tip of the bulb. Gradually increase water and fertilizer in concert with the growth rate of these fast growing orchids.

Lycastes. Of the two groups of commonly cultivated Lycastes, it is the small flowered Mexican and Central American species with yellow to greenish flowers that are winter dormant, including *Lyc. aromatica*, *Lyc. bradeorum*, *Lyc. cruenta* and *Lyc. deppei*. They come from locales



CULTIVATION

that have a distinct wet season/dry season so they shed their leaves in late fall or winter during the dry season of their native habitat. They remain dormant during the early spring when your other orchids have woken up and are in their growth phase, so you begin to wonder whether or not they have breathed their last. The flower stems emerge from the base of the most recently grown pseudobulbs in mid to late spring, often at the same time as the new leafy growths begin. They grow fast once they start growing, so you'll start watering and fertilizer but be careful to not get water in the unfurling leaves as they are prone to rot, similar to the *Catasetinae*.

Calanthes. *Calanthes* are terrestrial orchids that can be separated into two groups, the evergreen *calanthes* that keep their leaves year-round and the deciduous *calanthes* that drop their leaves in the droughty season. The deciduous *Calanthes* like *Cal. rosea* and *vestita* make rapid growth during the summer and fall, maturing the new bulbs which sometimes are pinched in the middle. When the leaves start to yellow in the late fall let the surface of the potting medium dry between waterings instead of keeping it constantly moist and restrict fertilizer. The flower spikes emerge from the base of the bulbs in late autumn soon after the leaves start to yellow. Once the blooms are finished and the leaves have dropped, restrict all water and give them a cool, dry rest. As soon as new root growth begins, the plants can be repotted and watered sparingly and kept shady and warm until the leaves start to enlarge. They should be kept evenly moist and fertilized regularly during the growing season.

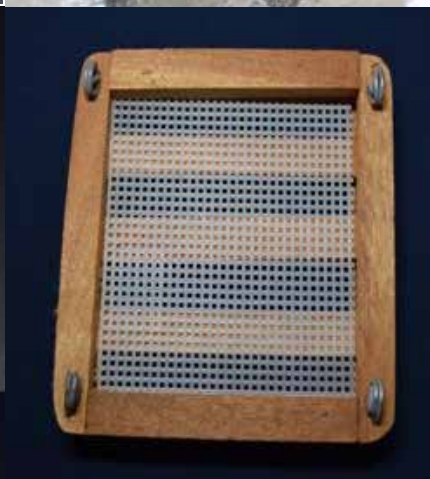


Habenarias. *Habenarias* are a group of mostly terrestrial orchids that grow from underground corms, similar to a crocus. There are more than 150 species of which the Asian varieties *Hab. medusa*, *Hab. rhodocheila* and *Hab. carnea* may be the most familiar. These hail from areas with a monsoonal growing season followed by an extended dry season when the soil can become dry and hard baked. While they are in active growth through the summer, they should be kept evenly moist and well fed. Once the rosette of leaves is fully formed, watch for the flower spikes that emerge from the center. Keep watering until the last flower drops, and then allow the mix to become slightly dry between watering. At this point, the foliage will start to yellow but you'll keep watering albeit at a reduced rate because the plant is forming new corms below the surface. Once the aerial part of the plant is dead, stop watering and keep the plant dry. You can repot at this point into dry mix, being careful to note which way the corm should be oriented. Then you wait. Starting in late winter through early spring, check weekly to see if the plant has broken dormancy, and if it has you can start watering lightly. If no vegetation is visible by mid spring, you can heavily mist the mix to simulate the early spring rains that encourage the beginning of the growth cycle.

These orchids have all adapted to the extended dry periods that occur in the native habitats by going into dormancy or semi-dormancy. They shed their leaves to prevent moisture loss through their stomata as a response to the droughty conditions. Water loss and respiration rates are at a minimum, so the plants can sustain themselves by consuming some of their reserves, which you notice as shriveling of the pseudobulbs. Once they wake in the spring, they enjoy ever increasing amounts of water and mineral nutrition to fuel their rapid growth rates. They have to do a year's worth of growing in only 7 or 8 months at the end of which they need plump pseudobulbs or corms to sustain them through the dry winter months until they come back alive the following spring.



HOME & BACKYARD



FERTILIZE 1/2 STRENGTH EVERY WATERING WITH PETER'S EXCEL CAL-MAG SPECIAL (15-5-15)

SWITCH TO FERTI-LOME BLOOMING & ROOTING IN THE FALL (9-59-8)

ONCE A SEASON WATER WITH EPSOM SALTS (Magnesium Sulfate) (1 TBL. PER GAL.)



SHOW TABLE



Grower Sherrie Jenkins
Wils. Aloha Sparks 'Halloween'



Grower Suzanne Susko
Cygd. Opalina 'Jamie's Very Nice'



Grower Suzanne Susko
Lc. Santa Barbara Sunset
'Showtime' HCC/AOS



Grower Sue Bottom
Cld. Jumbo Freedom 'SVO' AM/AOS



Grower Sue Bottom
Schom. lueddemannii



Grower Susan Smith
Phrag. Wossner Supergrande



Grower Linda Stewart
Dendrochilum filiforme



SHOW TABLE



Grower Janis Croft
Paph. spicerianum



Grower Penny Halyburton & Michael Rourke
Lc. Hagans' Ace 'Mandarin Orange'



Grower Mary Ann Bell
Lc. Hagans' Ace 'Mandarin Orange'



Grower Suzanne Susko
Bulbo. arfakianum (green type)



Grower Sue Bottom
Blc. Great Hero 'Black Hole'



Grower Susan Smith
Blc. Mahina Yahiro 'Mishima' AM/AOS

