St. Augustine Orchid Society NEWSLETTER
November 2016
Volume 11 Issue #11

Club News


John Budree

November 1
SAOS Meeting
by Janis Croft
secy@staugorchidsociety.org

Welcome and Thanks. President Bob Schimmel opened the meeting at 7:10 pm with 54 attendees. Bob thanked Jeanette Smith, Elaine Hardy, Shirley Browning and Dottie Sullivan for the refreshments while reminding all to drop a dollar in the jar. We welcomed two guests along with a new member Jeff Humerick.

Our Membership Veep Linda Stewart recognized our two November birthday people with free raffle tickets. Bob informed all that the Best of Show voting would occur between the Show Table discussion and program and encouraged all to remember to vote for their favorite orchid.

Club Business. The Keiki Club and the Ace Repotting Clinic are on hiatus and will resume in 2017.

Sue Bottom announced the nominating committee's recommendations for the Board and the membership unanimously voted to accept the recommendations. The 2017 Board Members are:

President – Bob Schimmel
Veep for Events – Dianne Batchelder
Veep for Membership - Linda Stewart
Veep for Programs – Sue Bottom
Secretary – Janis Croft
Treasurer – Bill Gourley
Directors at Large – Mary Colee, Susan Smith, and Suzanne Susko

Dianne Batchelder announced plans for the Holiday Party to be held on December 6 at the Memorial Lutheran Church, 3375 US 1 in St Aug starting at 6:30 with dinner being served at 7 pm. Dianne then passed around a sign up sheet for side dishes and advised all to BYO drinks. Please contact Dianne if you didn't sign up or need to change your plans at veep-events@staugorchidsociety.org.

SAOS Librarian Penny Halyburton brought in Bulbophyllums: From A to Why? by Bill Thoms which was immediately checked out. 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 shared the latest AOS Orchids magazine's supplement on Cattleyas which she stated was one of the best compilations she's read. The annual supplements are an added bonus of joining the AOS.

Orchid Events. The Orchid Slipper Symposium will be held in Apopka on November 5, check the website for details.

Show Table Review. Courtney Hackney stated that this evening's show table provided a good cross section to explain parentage in orchids. He started with the *Ascda.* Perla del Caribe describing its large round shaped flowers coming from the *sanderiana* lineage. Vandas with these round shapes were highly valued and started the hybridized lines from *sanderiana*. Next he discussed the *C.* Old Whitey x *Blc.* Six Bells which was made in the 1960's by hybridizers wanting to produce beautiful full sized white flowers. Courtney then went to one of his favorite types, a coerulea cattleya, *Blc.* Lois McNeal 'Ace'. The so-called blue orchids are very hard to find. The miniature phalaenopsis often have interesting parentage. *Phal.*

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Club News

Upcoming Orchid Events

November

5 Annual Slipper Orchid Symposium
Highland Manor, Apopka
8 JOS Meeting, Topic Blue Cattleyas, 7 pm
Courtney Hackney

December

4 JOS Christmas Auction, 5 pm
Jacksonville Golf and Country Club
3985 Hunt Club Rd, Jax 32224
6 SAOS Christmas Auction, 6:30 pm
We're meeting on our normal Tuesday night but at a new location and starting earlier!
Memorial Lutheran Church
3375 US 1 South, St. Aug 32086

January

3 SAOS Meeting, 7 pm
How to Grow Orchids in St. Augustine
Suzanne Susko, St. Aug Orchid Society
7-8 Sarasota Orchid Society Show
Sarasota Municipal Auditorium
10 JOS Meeting, Topic TBA, 7 pm
Speaker TBA
13-15 Tamiami International Orchid Festival
Dade County Fair Expo Center
15 Keiki Club Get-Together, 1 pm
Staking Your Orchids
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, Topic TBA, 7 pm
Speaker TBA
19 Keiki Club Get-Together, 1 pm
A Winterizable Shade Structure
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

St. Augustine Orchid Society Organization

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equestris blooms in summer and when it is crossed with one that normally blooms in winter, you can have blooms year round. There was a terrestial orchid, *Habenaria lindleyana* which grows in acidic soil. There are terrestrial orchids growing from the arctic to the equator, and in nature they often require a special fungus to grow. The Psychopsis Kramvers de Paris, aka Butterfly Oncidium is a sequential bloomer, meaning it continues to bloom from the same inflorescence. The *Cochleanthes amazonica* also stays in flower for a long time, the one on the table has been flowering for three months!. We then had a discussion on how to obtain success with plants that like to be kept cooler than our Florida summers allow. Courtney puts his cooler loving plants under the benches. Another member recommended putting your clay potted orchid in a larger clay pot with a layer of sphagnum between the pots to help keep the roots cool without over watering. 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 John Budree, an orchid hobbyist and grower, who spoke about Bulbophyllums. Sixteen years ago he moved to Ft. Lauderdale from Trinidad. He described how in his home country he was always told that he couldn't grow this or that type of orchid but never told why. Once he moved to Florida, he discovered he could grow all types of orchids and people would explain and share their experiences. He commended our club on the wealth of knowledge we share via our web page and among each other.

Bulbophyllums come from the Far East, have over 2000 species and are typically found in tropical climates. His first image was of a huge *Bulbophyllum phalaenopsis* with leaves that measured six feet long by 18" wide. This plant is pollinated by flies that are attracted to its flowers exuding a rotten carcass odor. This is a common characteristic of all Bulbophyllums. They smell and often times it's not a welcoming smell. However their flowers are amazingly

unique and worth the odor as his many slides showed us.

These plants are creepers, they grow from rhizomes outward, and often grow outside of their containers rapidly. They love water but don't like to be soaking wet. They are all warm growers, with an acceptable temperature range from 40 to 105 degrees. John likes to grow his plants in a mixture of sphagnum moss, sponge rock and bark. One usually finds them growing in situ at the bottom of trees which shows that they prefer lower light levels than cattleyas. John stated that they thrive on oxygenated water which would be fresh rain water or a good spraying during your watering process. John advised us to dissolve fertilizer in a cup of hot water before adding it to our watering container (in the correct proportions). He waters twice a week and fertilizes once a week. Bulbos common pest problems are spider mites or mealy bugs. Check the pesticide label to ensure it is effective against the pest. Deadline works well for snails and slugs. For thrips, he likes to put a teaspoon of brown sugar with Orthene to spray the flowers as it attracts the insects so they can be promptly killed. John showed many slides of beautiful Bulbos ranging in all types of sizes. These orchids come in a large variety from the large to miniatures with very delicate, pendulous flowers.

Welcome to new member Jeff Humerick

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

Meeting Conclusion. Bob Schimmel announced the Member's Choice as the unlabeled purple cattleya named Purple Passion by grower Linda Powell. The raffle closed out the evening. Thanks to those that volunteered to stay and clean up the room.

Club News

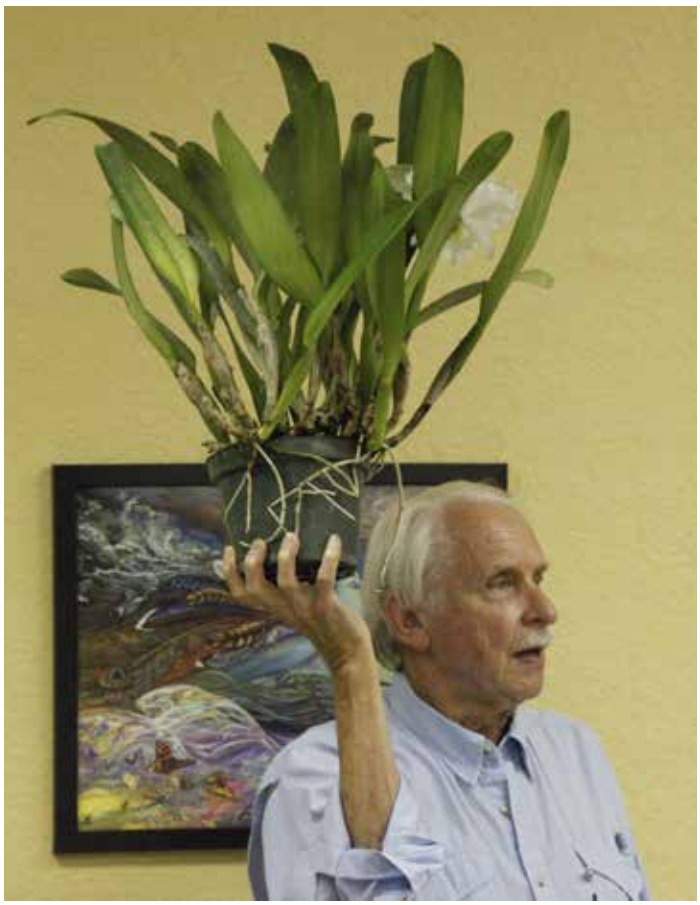
December 6 Monthly SAOS Meeting

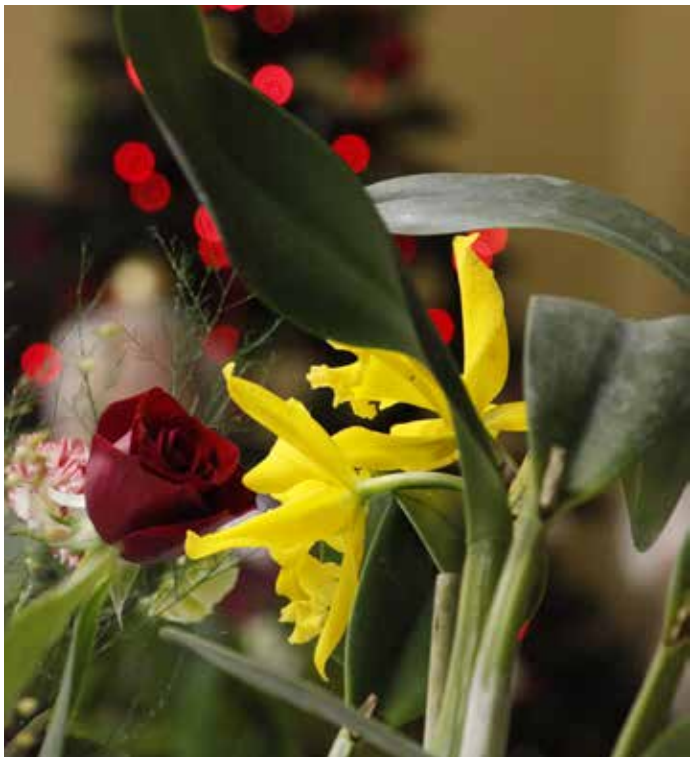
Christmas Orchid Auction

We're looking forward to our Christmas party and auction where we get to kick back, have fun and spread holiday cheer with our orchid buddies. Hope to see you there!

- Our annual Christmas orchid auction is scheduled for our normal first Tuesday meeting night, December 6.
- We'll meet at the Memorial Lutheran Church (where we held our picnic). This is different from the clubhouse we used in the past.
- We'll start our social hour at 6:30 pm instead of the normal 7 pm meeting start time. This will give us a chance to exchange holiday cheer before we hit the vittles.
- Bring your beverage of choice. The club will provide the low octane water, iced tea and coffee, but if you enjoy a cuppa with your meal, feel free!
- One thing that hasn't changed is all the good food. Wonder what Dianne will conjure up for the main course this year, last year we had yummy pulled pork.
- Bring a dish to round out the meal. Salads, potato and pasta side dishes, vegetable side dishes and desserts have been big favorites in years gone by.
- We'll finish up the evening with an orchid auction where you can bid on a nice variety of different types of orchids.

When: Tuesday, December 6, 6:30 til 9 pm
Where: Memorial Lutheran Church
3375 US 1 South, St. Aug 32086





Keiki Club on Holiday Hiatus

The days are getting shorter and cooler and your orchids are thinking about taking a winter nap. Make sure they are protected in the event of cold winter weather and then focus on enjoying this glorious thing we call life. Enjoy your friends and family during the holiday months. We'll start talking about orchids again in January. Til then, enjoy every moment!

INSPIRATION

Bulb. medusae

Orchid Questions & Answers

by Sue Bottom,
sbottom15@hotmail.com

Q1. The Den. Yellow Canary Song has awfully yellow pseudobulbs. Is this normal, or the result of too much rain or too much sun? Several other nobile types also display this yellowing.

A1. As long as the tissue doesn't feel softer than normal, I think it will be fine. There is no sign of rot. My initial reaction is that they've been getting lots of sun, they look healthy other than color and maybe that just means they stored away plenty of energy for blooming next spring. As long as the canes feel normal, I wouldn't change anything you're doing.

Q2. This phalaenopsis type dendrobium has circular rings on one of the leaves. It gets indirect sunlight all day on a southern veranda and is never kept wet, in fact the plant seems dehyddrated. It doesn't quite look like anything I've seen on the internet, but I fear it is virused. Could it hopefully be something else? It has been growing great roots, even put out 7 flowers for me this year!

A2. I don't like those rings any more than you do, but it may not be virus, it could be some sort of fungus extending out from a central point. It doesn't look like it's on the other leaves, so perhaps you should just remove this leaf and watch it. If you think the plant is dehydrated, it probably is. Dendrobiums can take a lot of water during the growing season..

Q3. Do these black spots spell the doom for this Dendrobium Frosty Dawn?

A3. That leaf is toast. Those little bacterial spots can be treated with hydrogen peroxide, it works on plant bacteria too! If you remove the infected tissue and spray or pour peroxide over the rest, it should stop the disease from spreading. The rest of the plant looks fine.

Fall Orchid Culture

Courtney's Orchid Growing Tips

Fall is a time when some kinds of orchids need very different care from what they required on the summer. In some cases, these differences are very great, while in others, the cultural changes required are more subtle.

Standard Phalaenopsis, those with large flowers and no fragrance, require a cool down period of 7 to 10 days to initiate flowering. How cold should they get? Most experienced hobbyists let temperatures get into the low 60s or even upper 50s, which generally works well. This process is even more effective if day length is getting shorter and plants are allowed to get a little drier than usual. It is also a good idea to only let phals get cooler when there is some assurance that day temperatures will warm up at least 10-15 deg F. Many commercial growers accomplish spike initiation simply by providing this day to night temperature differential and do not worry about how cool the night temperature gets. Many indoor growers of phals find that their plants do not initiate spikes until much later in the year because they do not let their home get as cool or experience this temperature range. Putting phals in an unheated porch can get them to spike.

Once the first spikes appear, it is important to maintain a night temperature of at least 65 deg F to limit disease. This becomes more critical when those gloomy days appear in winter. It is also important to increase fertilizer, especially nitrogen to growing spikes and buds. Conventional wisdom used to dictate a fertilizer low in nitrogen and high in phosphorus until buds began to form and then switch to high nitrogen fertilizer to get the most and largest blooms. Recent studies point to just using nitrogen-rich fertilizers throughout the process. While commercial or exhibition growers practice this, the hobbyist is better advised to use their normal fertilizer regimen if their phals are growing well.

Catasetums and related genera are in the process of becoming dormant. Withhold water and fertilizer as their leaves begin to yellow. A light misting is OK, but let the plant and medium become much drier than when the plant is actively growing. Any orchid that loses its leaves needs to be treated similarly. Many semi-terrestrial orchids, e.g., Eulophia species, need similar treatment. Too much water at this time of year will cause the plant to lose its roots to rot and the entire plant could follow. The ideal situation is to

set orchids with this requirement in a different growing area where water can be carefully controlled until growth begins in late winter or early spring.

Many members of the Cattleya Alliance will also benefit from drying more thoroughly. Bifoliate cattleyas and cattleya species are generally grown drier in winter, although there is much variation among them. Some species are reputed to be hard to grow, e.g., *C. warscewiczii* and *C. dowiana*, and they need to be kept very dry from about October through February or they will not produce good flowers and might even die. Modern hybrids have had the tendency to "die if they do not dry" "bred out", but they still grow better if they are kept drier in winter. The exceptions to the rule are those small stature mini-catts that have a good dose of *Sophronitis coccinea*. They usually are generally identified by their bright red, yellow or orange flowers. These need a constant temperature, above 60 F, regular water supply, and may not experience any dormancy.

Cymbidiums require cool weather to initiate flower spikes too, but they require far cooler temperatures and lots of light. Place them outside as temperature drop and keep them there until there is the forecast for a hard freeze or hard frost. They will tolerate light frosts.

Vandas are the last group that needs to be singled out. They like it hot and bright all year long, although they are perfectly capable of surviving nights in the mid 50s on occasion. They may, however, drop flowers or buds if the cold is prolonged. The exceptions are those members that have blue flowers. The parent contributing blue color to flowers comes from higher elevations and so, tolerates or even prefers cool nights.

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 November 2006.

Cultural Requirements of Bulbophyllums

by Dr. Clair R. Ossian, courtesy of the AOS

Bulb. rothschildianum 'A-doribil' FCC/AOS

I find it rather surprising that we do not see more of these delightful species grown in this day of crowded, smaller greenhouses. Most *Cirrhopetalum* (now lumped into the *Bulbophyllum* genus) species certainly fall under the heading of miniature plants, and a huge variety might well be grown in a small area. The average member of the group would have a plant height of three to six inches, while some unusual members might reach seven or eight inches. The flowers are generally held nicely above the foliage.

The pseudobulbs arise from a creeping rootstock or rhizome, and this provides one of the few problems with these species - namely how do you keep them growing where you want them? These plants are very hard to contain in a pot, as they tend to grow quickly over the side and wander off. The only other disadvantages known to me are the short flower life (seldom more than a week), and the need for constant dampness combined with perfect drainage in the growing medium. The short flower life is made less of a drawback by the fact that these species may, and often do, flower for months at a time with a new inflorescence every few days to a week throughout much of the year. In fact, in our greenhouse, species come in and out of bloom rather randomly throughout the year with no obvious blooming season.

Other good features include a growth habit that produces bifurcating rhizomes and a rampant growth habit such that plants may be brought to specimen size easily. A single -lead plant with four or five pseudobulbs will make up several new growths a year, filling and growing over the sides of a four-inch pot in two or three seasons.

Although most Cirrhopetalum species will flourish well in a warm, temperate greenhouse like ours here in Texas, numerous species originate in moderate to high altitudes and will tolerate cooler temperatures as well, a big plus in energy-conscious households. Before buying any plants, check the literature for those species that come from the higher localities if you are buying for low-temperature tolerance.

Media selection is simple but critical. *Cirrhopetalum* species and hybrids need a good bit of water throughout the year, with a few deciduous exceptions such as *Cirrhopetalum* (*Bulbophyllum*) *refractum* in which a dry, resting spell is needed. To satisfy the dampness requirement without causing rot problems, a medium must be used that will hold dampness while allowing perfect drainage. Experience has shown that there are two strategies that seem to work best. One is to grow the plants in shallow bulb pans, azalea pots, or baskets filled with a fine medium like seedling fir bark, chopped tree fern fiber, or mixtures of chopped osmunda and perlite (the latter recommended by Teuscher, 1974). Such means will allow the plant to ramble as it wishes, while still providing the moist medium needed for the fine roots. The second method involves mounting the plants on slabs of tree fern or oak bark, thus allowing the rhizome to behave as though it were still on its native tree. While tree fern slabs are getting rare and expensive, in areas like ours where the main fireplace wood is oak, a visit to your wood seller will generally get you some slabs of loose oak bark that make excellent plant mounts lasting for years. If pots or bulb pans are used, remember to fill the container mainly with drainage materials such as rocks or crock, and just fill the uppermost parts with the medium selected. A deep medium means a medium that stays too wet and one that rots too soon.

The selection of shallow containers or slabs will be governed in part by the nature of the species involved. *Cirrhopetalum* (*Bulbophyllum*) *makoyanum* is cooperative and will stay in a small area for years, while *Cirrhopetalum* (*Bulbophyllum*) *ornatissimum* needs to wander and will only be really happy on a slab.

Most of the species will grow lushly and rapidly in low to medium light levels, but the flowers will be few. Move the plants to a spot that will allow maximum light levels in combination with the needed moisture. In general, the higher the light, the more numerous the flowering spikes. Fertilize the plants just as you would cattleyas in growing conditions, and good growth should result.

Problems aside from the above are few. In our collection we sometimes see mealy bugs, but these are easily controlled with insecticides. The fine medium discussed above seems to encourage bush snails, so watch out for these! Some authors have suggested growing cirrhopetalums in long-fibered sphagnum moss, but we find that it is very hard to keep bush snails out of sphagnum.

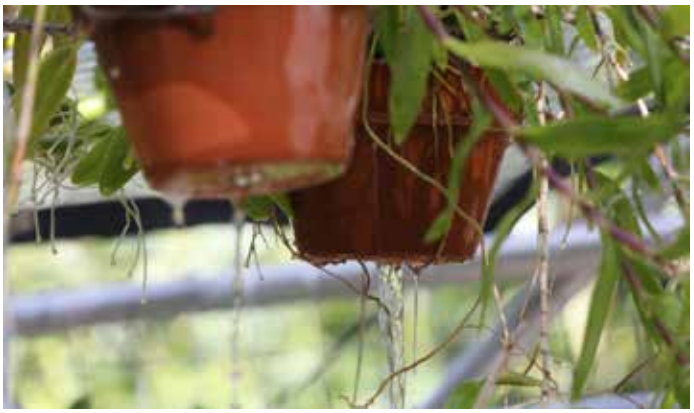
Bulbophylums are fascinating orchids to grow, and I hope more growers will be persuaded of this.

Note: Extracted from Noteworthy Bulbophyllums and Cirrhopetalums, Part I, Large Flowered Umbellate Forms. Dr. Clair R. Ossian, American Orchid Society Bulletin, 1983. 52(2), 116-117.

Applying Fertilizers and Chemicals

by Sue Bottom, sbottom15@hotmail.com

There are many ways to apply drenches and sprays of various chemicals to your orchids. Drenches are usually applied to the root zone for uptake through the root system and transmission through xylem upward through the plant. Fertilizers are most commonly applied in drench applications, but drenches also work for many of the fungicides that fight stem, bulb and root rots as well as the water molds. Spray applications are typically used to combat pests and disease on the aerial parts of the orchid plants as well as for foliar feeding. Many of the pesticides used in spray application are contact killers so good coverage on the plant surfaces is essential, others are systemic to a greater or lesser degree so they can move within the plant to provide some protection from the inside out. Once you know whether you should be applying a given chemical as a spray or a drench, you next have to figure out how best to apply that chemical.



Drenches. Drenches are applied to the plant by saturating the potting media with the chemical for uptake by the roots. The most simple example of a drench application is when you add water soluble fertilizer to your irrigation water. You simply mix up your fertilizer at whatever concentration you choose and pour it through the pot. Drench applications of fungicides are used to prevent bulb, stem and root rots caused by *Rhizoctonia*, *Fusarium* and *Sclerotium* as well as the water molds caused by *Pythium* and *Phytophthora*. Some of the systemic pesticides and insect growth regulators are also very effective when applied as a drench. *Gallon Jug.* If you only need to mix up one to several gallons of fertilizer or chemicals to drench your orchids, it is simple to just use a gallon jug. You'll fill the jug up halfway or so with water, add the fertilizer or chemical then fill the jug the rest of the way with water and maybe a little dishwashing soap or spreader sticker and then pour the solution through your orchid pots. You'll make as many gallons as you need, simple!

Siphon. For most hobbyists with the need to mix up more than 4 gallons of a drench solution, a siphonex may be the answer. A siphonex is a venturi device normally installed on the hose bib with the flexible suction hose dropped in a concentrated solution that is drawn into the hose by differential pressure. The Hozon operates at a 16:1 ratio and the Dramm siphonject has a 20:1 ratio, both cost less than $30. If you want to apply 16 gallons of fertilizer using a Hozon siphon, you would multiply your application rate by 16 to obtain the quantity of fertilizer to add to each gallon of water. So, if you were applying fertilizer at the rate of ¼ tsp/gal, you would create a concentrated solution by adding 4 tsp (1/4 times 16) of fertilizer into a one gallon jug, fill the jug with water and drop the flexible suction hose in the gallon jug and start fertilizing. If you use the siphonex for fertilizing and you have a lot of orchids to fertilize, you can mix up your concentrate solution in a 5 gallon bucket. You would add enough of the fertilizer or chemical to make up to 80 gallons (16 times 5) and then fill the bucket with water to the desired level.

The trick with using a siphon is to minimize pressure drop in your system. This means use a large diameter hose, keep the hose shorter than 50 ft (35 ft is even better) and use a low pressure water breaker such as the Dramm 170. If you want to test how well your system works, get a measuring cup and gallon jug. If you have the 16:1 Hozon siphon, you would fill your measuring cup with 8 oz of water and drop the suction hose in it. Then start filling an empty gallon jug that holds 128 oz. By the time the 8 oz of water is gone from the measuring cup, your gallon jug should be full of water and you know that the 16:1 ratio is working (128 divided by 8 is 16). If the venturi stops working properly, sometimes an overnight soak in vinegar will remove deposits that plug the system and it will begin to siphon properly once again. The siphonex can also be used to apply drenches of fungicides and pesticides. Even with viscous chemicals, the suction

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tank does not seem to have such a concentrated solution that it plugs the siphonex.

Dosatron. Dosatron offers proportioners in a wide variety of

sizes in which the device injects water from a concentrated solution tank into the irrigation system. They even offer a system with a tank mounted on a portable rack. If you want an accurate water injection system without worrying about back pressure, Dosatron may be the answer for you although it is pricey at costs beginning at over $200. If you set up your Dosatron at a 100:1 ratio, you can mix up the amount of fertilizer needed to make 500 gallons of fertilizer in a 5 gallon bucket, and then just water and fertilize your orchids until the bucket is empty. Depending on the season, the concentrated solution in my growing area must be refreshed every few days to once a week, and as long as I hear the Dosatron clicking, I know it is working. Sophisticated growers may also have several Dosatron injectors inline injecting different chemicals and/or fertilizers at different rates. Drench applications of fungicides and pesticides can also be made with the Dosatron, but your stock tank will contain a very concentrated solution, and for some of the emulsified liquids and wettable powders, it may be so concentrated that it plugs the Dosatron. The Dosatron is best for materials that are completely soluble in water.

Sprays. Sprays are applied to the aerial parts of the plant, the leaves and pseudobulbs or canes. If using a contact chemical, the spray must come into physical contact with the invader so it is important to cover both sides of the leaves, the leaf axils and the pseudobulbs to the point of liquid dripping from the plant. Systemic chemicals can be absorbed into the plant, some are just absorbed and moved translaminarly through the leaf while others can actually be transported through the phloem system so they move throughout the plant. Obtaining complete coverage with systemic products is less important than it is with contact chemicals. In some situations you will be spraying only the flowers, such as when you battle botrytis or thrips, so you want equipment that will deliver a fine mist to cover buds and open flowers.

Hose End Sprayer. Hose end sprayers make it easy to spray fertilizer onto vanda roots and mounted orchids as well as to broadcast spray chemicals onto leaves and under benches. Ortho has redesigned their hose end sprayer and added gizmos that reduce pressure and spray distance resulting in a poor spray pattern, at least with my watering set up. Try to find an old fashioned hose end sprayer, particularly to spray chemicals on and under benches. To spray fertilizer onto mounts and vandas, simply decide the volume of fertilizer solution you need and divide this number into 32, this will define what the upper spray dial should be set to. Say you want to spray 4 gallons of fertilizer and you apply fertilizer at the rate of ½ tsp/gal to provide around 100 ppm N. You will add 2 tsp fertilizer to the reservoir (1/2 times 4), fill the reservoir

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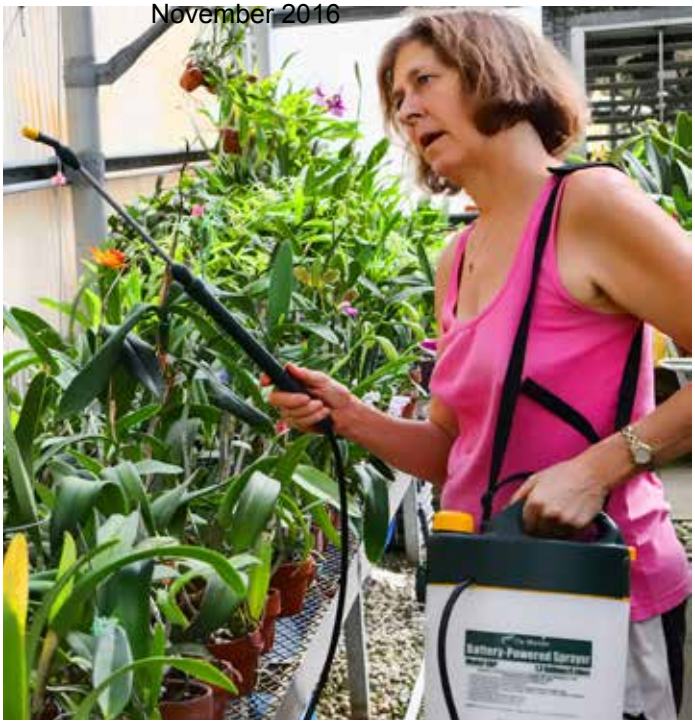
with water to the 32 oz mark and set the dial to 8 oz/gal (32 divided by 4). Spraying beach or pool algaecide under-benches to disinfect and periodically applying slug, snail and roach control chemicals can help control those creepy crawlers in your growing area.

Mechanical Sprayers. There are many different types



of sprayers available in a wide range of sizes for spraying contact chemicals onto aerial parts of plant. The main variables are the mechanical force used to deliver the chemicals, usually either pump up sprayers that are pressurized by your pumping air into the tank, or battery operated. Some are small enough to be hand carried, some are back pack sprayers, others are mounted on wheels and still others are fixed tanks fit with long hoses. The cheapest sprayers are the small pump up sprayers that are fine for small collections or for "poofing" flowers and buds to protect against thrips and *Botrytis*. If you ever find yourself in the unenviable position of having a thrip infestation, a twice a week poofing program in which every bud and open flower is sprayed, front and back, for 4 or 5 weeks may help you get the thrips under control. You may tire of having to stop to pump up the sprayer and decide a battery operated system is more to your liking. These are more versatile and it is easier to get a better spray pattern given the higher pressure. For many situations in which you want to get good leaf coverage with pesticides and fungicides., a battery operated spray system may be the better choice.

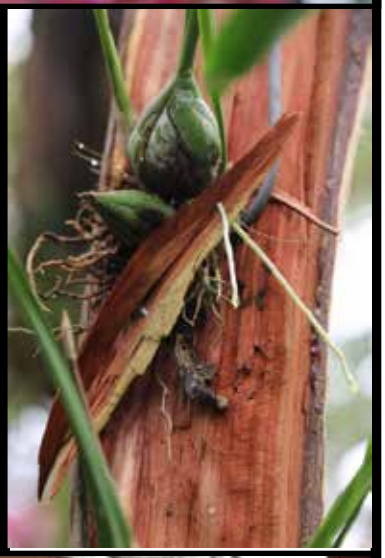
Spray Gun. I asked George "The Toolman" Hausermann of EFG Orchids how he prevented Botrytis from occurring in his growing area, he smiled and showed me the spray gun he had hanging on a hook. It is typically used for spraying paints and lacquers, having about a quart reservoir and is powered by an air compressor with a spray pattern that can be varied from a long jet to a fine mist. This system is ideal for foliar feeding with soluble trace elements like S.T.E.M. or MegaThrive or poofing flowers for thrips and Botrytis. Of course, you are at a high risk of inhaling the fine mist so respiratory protection is non-discretionary. You must wear an organic vapor respirator, no ifs, ands or buts.

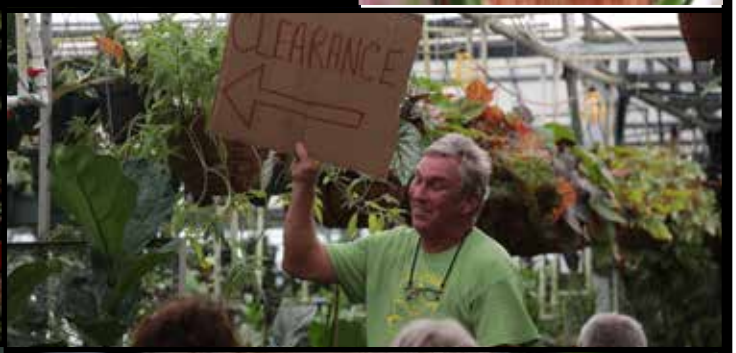
Foggers. Commercial growers might also use atomizing foggers in their growing areas. These are often stationary devices set to operate in a closed in growing area which is not reentered until deemed safe. This type of system is probably beyond the scope of most hobbyists.

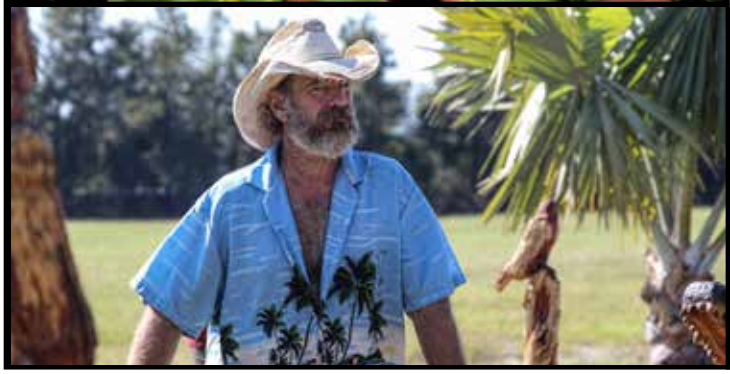
Be sure to read, understand and follow all label instructions. These chemicals are poisonous to humans as well as to whatever pest or disease you are trying to combat. Make sure you apply the chemicals correctly, at the proper application rate and with adequate protection to your body. Gloves are important, particularly when mixing and spraying chemicals, as are long sleeved pants and shirts and eye protection. If there is any chance that you will become wet with spray, wear a liquid-proof, chemical-resistant coverall or suit with a hood or a waterproof, wide-brimmed hat to prevent skin contact and dermal absorption of chemicals. Inhalation of chemicals is a primary mode of entry to your body during spraying, and fine mists are particularly hazardous because they can travel deep into the lungs. Organic vapor respirators should be worn when applying atomizing mists of biogungicides, insecticides and fungicides as well as any chemical or fertilizer with trace elements. Follow the label instructions so you'll be around next year when your orchids come into bloom.

Orchtoberfest at EFG Orchids

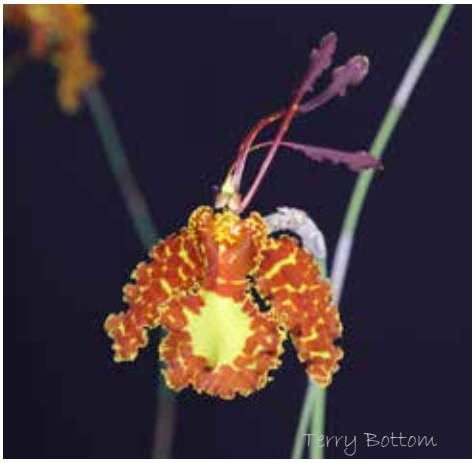
We always enjoy the Orchtoberfest at EFG down in DeLand. Geroge Sr. was busy cooking the brats and the Hausermanns made their family German potato salad to go with them. George and Paula specialize in finding exotic tropical plants that you don't see at other nurseries. They also had a good selection of orchids, lots of phals and oncidiums along with some zygos, Catasetinae and jewel orchids. EFG decided not to invite other orchid vendors this year so we missed talking with some of our other orchid buddies, we'll see what they decide to do next year. I always learn a few tricks walking through the greenhouse, this time using a staple gun through a second piece of wood to attach orchids to a mount, attractive and functional!



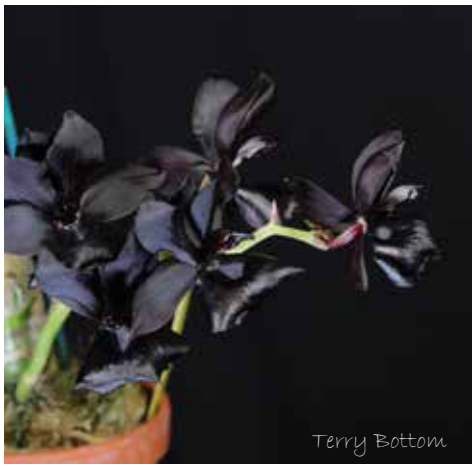




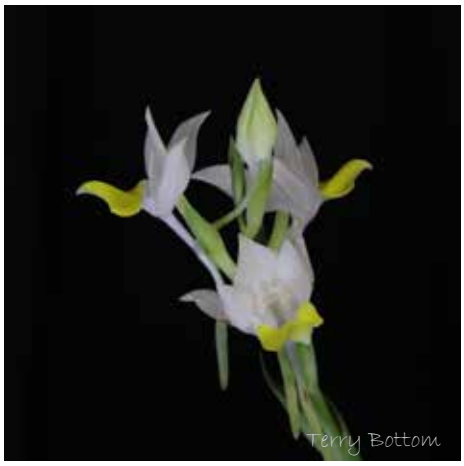
Show Table



Grower Sue Bottom
Psychopsis Kramvers
de Paris

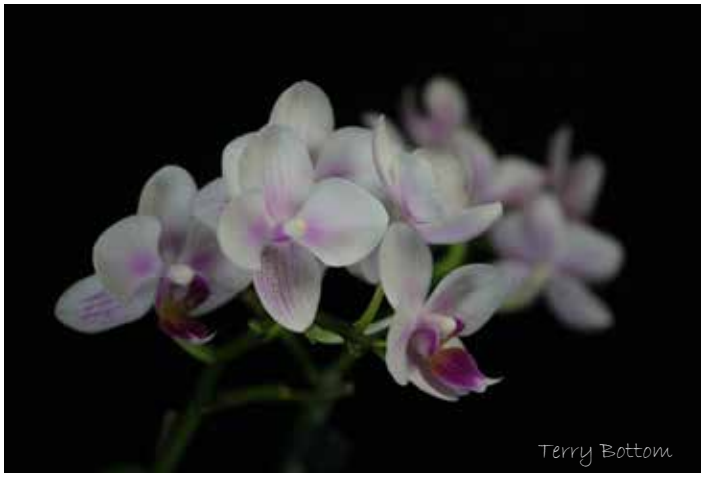


Grower Chuck McPhilom
Monnierara Millennium Magic
'Witchcraft' FCC/AOS



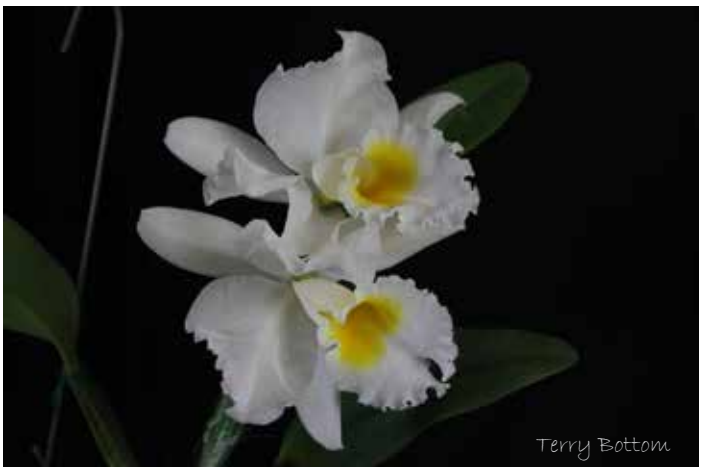
Grower Sue Bottom
Habenaria lindleyana

Grower Sue Bottom
Cycnodes Jumbo Canaan 'St. Augustine' HCC/AOS



Grower Suzanne Susko
Phal. White Blush

Grower Tom & Dottie Sullivan
Colm. Ruth's Rainbow 'Over the Rainbow'



Grower Yvonne & Bob Schimmel
C. Old Whitey x Blc. Six Bells

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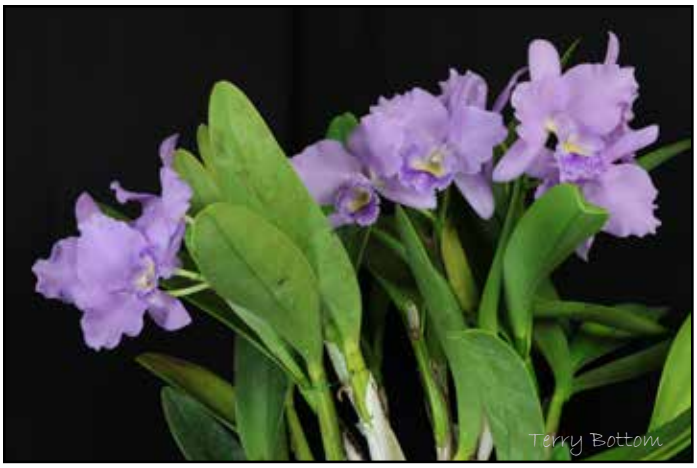
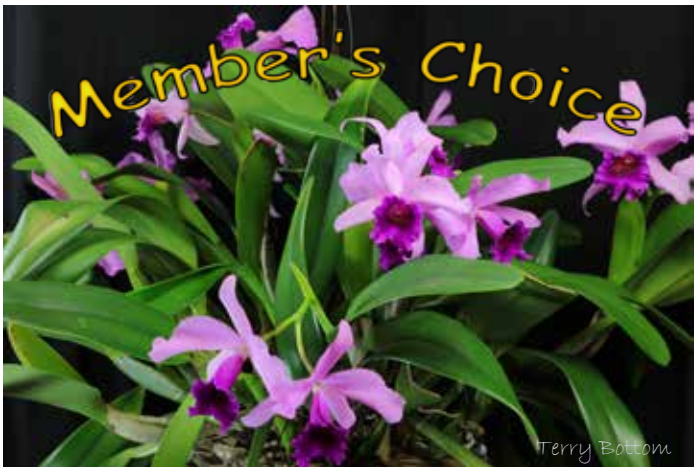
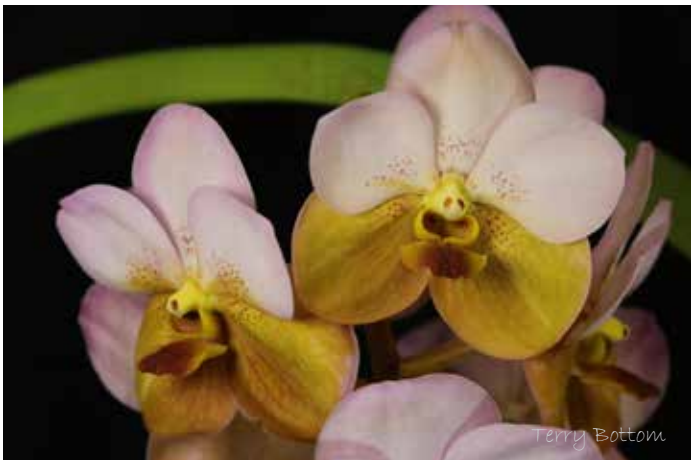


Grower Sue Bottom
Blc. Lois McNeil 'Ace' AM/AOS

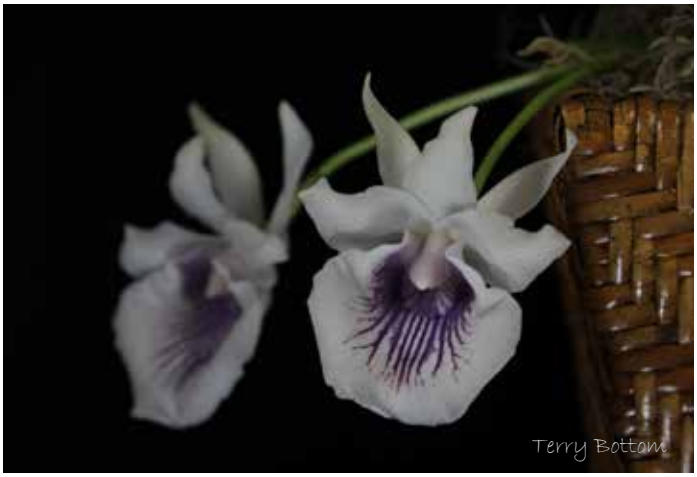


Grower Linda Powell
Cattleya NOID 'Purple Passion'

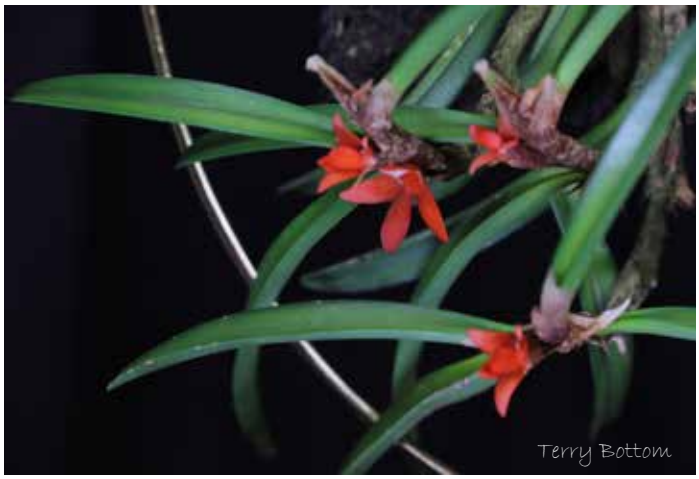


Grower Yvonne & Bob Schimmel
Ascda. Perla del Caribe

Grower Mary Ann Bell
Fdk. After Dark 'SVO' FCC/AOS



Grower Linda Stewart
Cochleanthes amazonica



Grower Suzanne Susko
Ceratostylis rubra