St. Augustine Orchid Society NEWSLETTER
October 2019
Volume 14 Issue #10

Club News

October 1 Meeting
by Janis Croft

Welcome and Thanks. President Tom Sullivan opened the meeting at 7:00 pm with 96 attendees in our new location. Membership VP, Linda Stewart announced our four new members, Sara Bruinooge, Carol Eklund, Rachel Biello and Ann McKenna as well as our visitors. Tom announced that Loretta Griffith is moving and we bid her a sad goodbye. Tom thanked Dianne for organizing the refreshment table, and Dottie, Dorianna, Mary Ann and Cecilia for bringing in the great selection of desserts. Tom then reminded all to drop a dollar in the basket while enjoying their refreshments.

Club Business. There are shows in Coral Gables, Gainesville, Homestead and Delray Beach this month. Check the Calendar of Events page on website for dates and places. The last Ace Repotting Clinic for 2019 will be on Oct. 5 from 9 til noon.

Culture Class – Culture classes will be at 6 pm before the main meeting each month. Next month will be the cold tolerance of different types of orchids.

Catasetum Competition Grow – Sue held up two catasetum plugs to show how the competition is growing that were approximately 9" tall. We should continue to water for another month and watch for impending dormancy with the leaves starting to yellow and drop. Our plugs probably won't flower until next year.

Supplies - If you need fertilizer or potting mix, email info@staugorchidsociety.org and we will have it ready for you at the next meeting. We are contemplating a big order for orchid virus test strips. The larger the order, the cheaper the cost, so if you are interested, let us know.

Nominating Committee – Our club is growing, a**nd** it would be great for members to get more involved. The Nominating Committee will make recommendations next month for the 2020 Board of Directors.

Birthdays this Month - Our Membership

VP, Linda Stewart asked all of the September and October birthday people to raise their hands to receive their free raffle ticket. Then she announced that if you know of anyone in need of a cheering up or a get well card, let her know by emailing her at info@staugorchidsociety.org.

Library – If you would like a book, send a request to info@staugorchidsociety.org and Bea will bring the item(s) to the next meeting.

Show Table. Courtney started his review of the show table with a story of how someone asked him what kind of climate do you need to grow orchids and his simple response was "Any." The show table shows that all kinds of orchids can be grown in our north Florida climate either outdoors or in greenhouses. The table had five summer blooming phalaenopsis that were mostly violet and white with one in golden yellow colors. These don't like cold weather so bring them in earlier than the normal phals. Another well grown miniature was the Pleurothallis tribuloides grown on a wood mount. Courtney commented that the normal evolution of a hobbyist orchid grower was to start with big flowering plants and after one got the hang of growing those, one moved on to the smaller varieties that get harder and harder to grow.

The Epc. Don Herman was quite showy with clusters of yellow flowers on each inflorescence. Next to it was a very large Cattleya Bow Bells 'Elzada' filled with huge white blooms. Courtney said this grex first bloomed in 1945 after being shipped to the U.S. from England during the war. This is in the background of many big white blooming cattleyas. The stunning Blc. Greenwich is a modern hybrid with green petals and a deep purple lip. We also had a hanging Stanhopea jenischiana 'Catorce' that had just opened and had numerous flowers hanging below the wire basket. Courtney told a story of how one person couldn't understand how her potted Stanhopea never bloomed. He advised her that it probably had but the bloom was hidden inside the pot and she never saw it. These plants need to be in open, mesh baskets so the flowers can grow down into the open air and bloom. Finally, Courtney held up a Caribbean species on a mount, a Tolumnia Jairak Firm

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Club News

Upcoming Orchid Events

October

5 SAOS at Ace Hardware, 9 am til noon
3050 US 1 S in St. Augustine
Repotting and Plant Clinic
5-6 South Florida Orchid Society Show
University of Miami Watsco Center
8 JOS Meeting, Program TBA, 7 pm
Jerry Meola, Orchids Amore
12 Florida North-Central AOS Judging, 1 pm
Clermont Judging Ctr, 849 West Ave.
12-13 Gainesville Orchid Society Show
Kanapaha Botanical Garden
17-20 East Everglades Orchid Society Show
& AOS Members Meeting
RF Orchids, 28100 SW 182 Ave
18-20 Orchtoberfest at EFG Orchids
4265 Marsh Road, Deland 32724
25-27 Delray Beach Orchid Society Show
Old School Square Gymnasium

November

2 International Slipper Symposium
Highland Manor, Apopka
5 SAOS Meeting, 6:30 pm
Orchid Triage
Courtney Hackney
9 Florida North-Central AOS Judging, 1 pm
Clermont Judging Ctr, 849 West Ave.
9-10 Fort Pierce Orchid Society Show
Fort Pierce Shrine Club
12 JOS Meeting, 7 pm
Cymbidiums, Harry McElroy
Annual Business Meeting
16-17 Deerfield Beach Orchid Society Show
Safe Schools Institute, Boca Raton

December

1 JOS Christmas Auction, 5:30 pm
Orange Park Country Club
2525 Country Club Blvd, Orange Park
3 SAOS Christmas Auction, 6:30 pm
Memorial Lutheran Church
3375 US 1 South, St. Aug 32086
14 Florida North-Central AOS Judging, 1 pm
Clermont Judging Ctr, 849 West Ave.

January 2020

4-5 Sarasota Orchid Society Show
Sarasota Municipal Auditorium
7 SAOS Meeting, 6:30 pm
Phillip Hamilton, Bredren Orchids
Oncidium Intergenerics
11-12 Florida West Coast Orchid Society Show
Pinellas Park Performing Arts Center
10-12 Fort Lauderdale Orchid Society Show
War Memorial Auditorium

St. Augustine Orchid Society Organization

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'Dalmation'. This is another miniature with pendulous flowers that is quite attractive. Check out the photos of our show table examples at the end of the newsletter and on the SAOS website.

SAOS Program. Sue Bottom announced our guest speaker, Thanh Nguyen of Springwater Orchids who spoke on his Twelve Favorite Orchid Species for growing in Florida. All of the ones he discussed like warm to intermediate temperatures and he grows them all in his greenhouse in Melbourne, FL. Thanh is an engineer by trade and analyzes how the plants grow and what works with a methodical mind. For him, an orchid species is what God makes and an orchid hybrid is what man makes—an easy way to identify the differences.

His first species was the Acacallis cyanea that is found in Colombia, Venezuela and Brazil at elevations of 100-500 meters. It is a warm to hot epiphytic that generally grows 8-10" tall and thrives in low light and humidity. Its beautiful blue fragrant flowers generally arrive in the spring and it likes to be mounted.

The second species was Aerangis luteo-alba from central Africa and Madagascar. It grows at 1000-2000 meters and thrives in low light and humidity. It has a compact, growing habit as a miniature orchid with leaves spanning from 3-5 inches. The satin white fragrant flower tends to arrive in winter to early spring. Again, another species that likes to be mounted but can tolerate a small pot with loose mix.

The third species, Brassavola nodosa, is a plant Thanh says everyone should try to grow because it is so simple. The species grows from Mexico to Brazil at sea level to 500 meters. It is a very hardy plant that grows better mounted in bright indirect light with good air movement. This species blooms throughout the year and keeps the greenhouse quite fragrant at night. Thanh said one can tell from the fragrance generally where the plant was grown. A very sweet smell probably places the plant from Belize and Brazil while a spicier, sweet smell usually means the plant is from Guatemala.

Next was a slide of a magnificent Bulbophyllum medusa in full bloom and looking like chrysanthemum fireworks against the sky on the 4th of July. This warm growing species originates in Thailand, Malaysia and the surrounding islands and is found in lowland forests from sea level to 400 meters. Its creeping growth habit makes it good for mounts or open baskets. The medusa usually blooms in the fall but the larger plants will have 2-3 waves of blooms that can push its blooming season longer. There is not a pleasant fragrance to this species.

Thanh showed the well known Cattleya lueddemanniana which is endemic to Venezuela. This is an easy grower which is a compact plant with large lavender flowers and a strong fragrance. It can bloom year round but normal blooming occurs in summer. This species also has alba, semi-alba and coerulea color forms. Hybridizers use this species often and it is an easy species to find and grow.

The sixth species was the Dendrobium stratiotes, an antelope type, from western New Guinea and surrounding islands. It likes intermediate to warm temperatures with medium-high light levels. This species can grow up to 10 ft tall and can be trained to grow in full sun but it can't go below 50 degrees..

Gastrochilus japonicus is a small, compact miniature species that comes from Japan, Hong Kong and Taiwan. It too is better grown on a mount with ample water year round. With its short spikes, the flowers are densely formed in late summer to fall. Thanh stated that in his experience of mounting, the best wood to use is Cypress as it lasts longest and is easy to get in shingle form.

He had six photos of Habenaria species though the most striking were the medusa and the Snowy Egret. About 880 species of Habenaria have been formally described. They are native to every continent except Antarctica, growing in both tropical and subtropical zones though the major concentration is around the equator. They are mostly terrestrial and grow from tubers. If you follow Thanh's following advice, you should have good luck. "When you see green leaf, water. When yellow leaf or no leaf, don't water until you see new green leaves. At that point water and fertilize heavily.

The Paphiopedilum delenatii is a small-sized species from Vietnam and is knows as the Pink Lady Slipper. It is a warm growing terrestrial and lithophytic species with mottled leaves. It prefers partial shade and blooms in late fall, during the winter and into early spring. This is the easiest of the paphs to grow.

The hardy species, Renanthera monachica, is found in the Philippines at low elevations and likes warm to hot temperatures with bright light. It has an 8-12" leaf span and grows best in open medium or baskets.

Sophronitis cernua is found at low elevations mainly in eastern Brazil. Again another one that likes to be mounted and grown in hot to warm temperatures with bright light and high humidity. Water this one year round and its long lasting flowers bloom in the fall.

Finally the Stenocoryne aureo-fulva has compact squatty bulbs with a single leaf, 8" spikes with 1" vivid orange flowers and red-purple venation on lip.

Thanh encouraged all to add at least one species orchid to their collection and if it dies, buy two more—the only way to learn to grow species orchids.

Meeting Conclusion. Sue Bottom announced the Member's Choice Award as her own C. Bow Bells 'Elzada'. The evening concluded with the raffle table. Thanks to the helpful hands that stayed to reset the tables and chairs and clean up the room.

Beginners Culture Classes

With our move to the Memorial Lutheran Church, we finally have the space available to hold a culture class for beginners before the meeting. Interested individuals should arrive around 6 pm.

We talked about understanding your plant tag in September. Thanks to Dorian, we had a double header in October, when we discussed what to do with your dendrobium keikis and how to encourage your phalaenopsis to bloom. We prepare handouts for the culture class group and archive this information on the website under the Beginner Tab.

In November we'll be talking about the cold tolerance of orchids, what orchids are the most sensitive to cold temperatures. If you have any topic you would like to hear discussed, email us at info@staugorchidsociety.org.

Catasetinae Competition Grow

Many of the Catasetinae are blooming now, though our little seedlings may or may not have enough energy to bloom this year. The growths should be maturing and their need for moisture and mineral nutrition is reduced. Continue watering and fertilizing through the month, albeit at a reduced rate.

Watch for signs of dormancy, which will begin as the yellowing of the lower leaves. Some seedlings may continue to grow through the winter while others may enter dormancy. You will have to take your clues from your plant to see how to adjust your watering schedule going forward.

As always, be vigilant for signs of spider mites on leaf undersides, and treat promptly if found. One of the nice things about these plants is even if your leaves are marred from mite damage, next year you'll have a whole new set of leaves!

American Orchid Society Corner

Webinars
October 3, 8:30-9:30 pm, Everyone Invited
Greenhouse Chat Orchid, Q&A - Ron McHatton
October 7, 8:30-9:30 pm, AOS Members Only
Western Cypripediums – Tara Luna

***Orchids* Magazine this month**:
Mormodes, Fred Clarke
True Miltonias, Tom Mirenda
Fall Preparations, Sue Bottom
Miltoniopsis, David Rosenfeld
Plus the Annual Supplement, Oncidiums

Photos of Latest AOS Awards

October Road Trip Opportunities

Orchtoberfest at EFG Orchids in DeLand
Gainesville Orchid Society Show

If you are up for a road trip, there are some great opportunities this month.

Gainesville OS Show, *October 12 -13.* "Orchids in the Garden" is the theme of the Gainesville Orchid Society Show at Kanapaha Gardens. There will be orchid exhibits, seminars and orchid and plant vendors at the event. Bredren Orchids, Mac's Orchids, Odom's Orchids, Plantio La Orquidea, and Ritter's Tropic 1 Orchids will be offering orchids for sale.

Orchtoberfest at EFG*, October 18-20.* EFG Orchids is a commercial orchid grower, owned by George Hausermann Jr. originally of Chicago and fourth generation orchid grower. Orchids and tropical plants will be offered for sale by EFG. The Hausermann clan will be busy preparing brats, German potato salad and more, including German beer!

November 5 SAOS Meeting

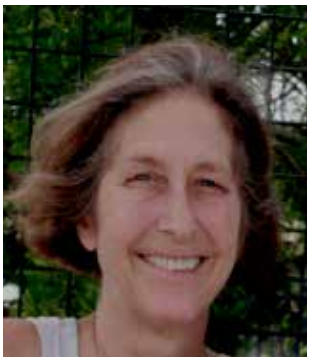
Orchid Triage – My Favorite Orchid is Sick
Courtney Hackney, St. Aug Orchid Society

Crowd favorite Courtney Hackney will present his new program on Orchid Triage. What do you do when you notice that your favorite orchid is sick? Courtney will talk about some common sense approaches, cultural tricks and common household chemicals that can be used to save your ailing orchids, so they will live to bloom again.

Our new meeting location is the Memorial Lutheran Church at 3375 US 1 South, about a block north of our prior meeting location at Watson Realty. Drive around to the back parking lot. Culture class for beginners is at 6, and the main meeting starts at 6:30.

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

Inspiration



Orchid Questions & Answers

by Sue Bottom, sbottom15@gmail.com

Q1. My Dendrobium leaves are very silvered, is this from mites?

A1. That looks like classic mite damage, and dendrobiums seem to be susceptible to mites. The two spotted or red spider mite causes a chlorotic spot or stipple at each feeding site as chloroplasts are sucked out along with the plant sap. Leaves eventually develop a mottled or stippled appearance with webbing under the leaf in severe infestations. Try spraying upper and lower leaf surfaces with the home cure mixture of 1 part rubbing alcohol, 1 part 409 or Murphy's Oil Soap and 2 parts water. Plants can also be sprayed with a miticide like Avid, Talstar or Kelthane following label instructions being particularly careful to contact all the undersides of the leaves. During warm weather, new generations mature every 6 days so repeat applications will be required, perhaps 3 applications at 4 day intervals.

Q2. At our meeting, I asked you about my catasetum that had one of its bulbs rotting. Is this what you told me to do? I cut the black tissue out and doused the cut end with cinnamon, then put it sideways into sphagnum moss about half way deep. I have been keeping the sphagnum moist but not drenching. Or did I get this all wrong?

A2. You did exactly right. You cut all the diseased tissue away and put on cinnamon to dessicate and seal over the wound. That sphagnum looks like the commonly available moss that rots within a few months. You might consider replacing it with some New Zealand long fibered sphagnum

moss, look for the Premier or AAA grade on Amazon or eBay.

If nothing happens by the end of November, the bulb may also be going dormant, in which case you should keep it dry. Sometime between January and March, you should see the beginning of a new plantlet from one of the nodes (joints) on the pseudobulb. When the roots grow into the moss and the new growth is about 5 inches tall, you can begin watering. If the bulb becomes severely shrivelled, you can consider placing the pot in a saucer to draw water up from the bottom.

Q3. Another difficult summer for us outdoor growers! Too much rain at once and fungi developing. These pictures are of a Dendrochilum magnum that seems to have fungal infections all the time. Any suggestions?

A3. That looks like Anthracnose. See all the spores in the dead tissue? Remove the leaf to at least an inch below the discoloration to remove the source of innoculum, and then spray with Daconil or Cleary's (or Heritage or Pagaent if you have them) to prevent recurrence. The rains are great... until they aren't!

Potting Media

by Dr. Courtney Hackney
hackneau@comcast.net

Most Orchid growers view the stuff in Orchid pots (correctly called media) as nothing more than something to hold Orchids in the pot. A recent article in the AOS journal, *Orchids,* on growing and propagating native Lady Slippers (Cypripediums), discussed the fact that a small difference in the pH of media made a difference in whether seedlings survived. Unless the exact pH conditions existed in the media, fungi would attack and kill the plants. Solving this problem will likely lead to healthy native Lady Slipper Orchids available for American gardens. This is an important lesson for all growers.

pH of the media is an important variable for all Orchids that have roots in contact with the media. In nature, terrestrial Orchid roots often grow in wet decaying plant matter, on the surface of wet soils. Often they grow attached to wet surfaces in which friendly fungi grow. Try this in a pot and your Orchid will most likely be dead in a short time. We often blame lack of oxygen for the death of plants in wet mixes, but usually invading fungi and bacteria cause death.

Early Orchid growers in Europe had a difficult time overcoming their misconceptions about conditions in which Orchids would thrive. Eventually, they found media such as Osmunda fiber in which Orchid would not only survive for a few years, but also grow and multiply. When Orchids reached the U.S. and became big business in the cut flower trade, Osmunda fiber was abandoned because it was expensive and difficult to use. There was also the problem of destroying the old live Osmunda ferns that produce this fiber. Commercial growers tried many other natural and manufactured products, eventually settling on fir bark, used mostly where cheap and available (out west), and various mixes using fir bark and peat on the East Coast.

These products were used with great success for many years. Each of these media provided not just something for plant roots to attach to, but contained an ideal pH that prevented growth of fungi and bacteria. As sources of fir bark and peat changed, growers began using other products and when fungi and bacteria became a problem, they began using a wide variety of anti-biotic and anti-fungal products. Once such products became widespread and relatively cheap, price became the major reason to select a media. This has led to increased problems for hobbyists that purchase plants and then have difficulty growing them after a few years.

Cattleyas have become much more difficult to grow today than they were many years ago. Heavy use of anti-fungal sprays has also led to the proliferation of breeding lines that are not as resistant to these diseases. Hobbyists purchasing plants in media often assume that the media will be ideal for them as well. That may not be the case.

Commercial growers extensively tested many different medias in the first half of the century paying special attention to pH. Numerous articles record their findings that show that the best media are those with an acidic nature. Media must maintain this pH for years. Many tree barks have this characteristic for obvious reasons. Some, however, like Redwood trees and many Pine species have bark that is too acidic. They may prevent the growth of fungi, but they also harm Orchid roots. Others like tree fern are almost inert or neutral. Mixing 5% redwood bark with 95% tree fern provides the appropriate pH and this mix is still used in warm climates.

Water, however, also plays a role. Water from rivers and wells contains small amounts of dissolved salts. Each water source has different salts in different amounts. Salts raise pH in water and on the surface of media. Thus, salts added each time you water changes your media depending on your water quality and the nature of your media. Generally the more dissolved stuff in your water the shorter will be the life span of your media or the more fungicide/bactericide you will need. Rainwater is ideal and not only contains low quantities of salt, but is also slightly acidic.

Pay attention to which plants have fungal problems. Are they in certain media? Is the media old in those plants? Which plants have done well? Are they in a certain media? If you pay attention to this aspect of Orchid growing you will be able to find the best media for the kind of Orchids you grow under your conditions and with your water. You will also find that if you can attain this ideal pH you will dramatically decrease your use of fungicides and other similar products.

Winter is not the ideal time to repot, but is a great time to evaluate rotting problems as they tend to manifest themselves during cool periods when greenhouses are closed. If you find a pattern, try using some other media next year when you repot. If you have a more experienced grower nearby that has few rot problems and does not use many fungicides ask them what they use for media. Asking a few simple questions can save a great deal of time and prevent needless “Orchid Tragedies”.

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 2000.

To the Point,Terete-Leaved Orchids Are Candidates for Bright Light

by Ken Slump, courtesy of the American Orchid Society

Among terete-leaved orchids is the epiphyte Leptotes bicolor, which grows well when mounted. The clone 'Wow', AM/AOS, is shown. Grower: John Dunkelberger. Photo: James Osen.

Orchids with thin, tapering, pencil-shaped leaves that are rounded in cross-section have what botanists term terete leaves. This rather unusual style of foliage is found on plants from several branches of the large orchid family.

Among the most familiar of this type are the orchids popularly called terete leaved vandas, typically represented, rather logically, by the species Papilionanthe (syn. Vanda) teres. The genus Papilionanthe includes about 10 terete-leaved species that were formerly included in the genus Vanda. Among them is Papilionanthe (syn. Vanda) hookeriana, a species that has been used to create a number of hybrids.

The most famous terete-leaved vanda is the hybrid of Papilionanthe teres and Papilionanthe hookeriana. It is known as Papilionanthe (syn. Vanda) Miss Joaquim. The flower was a chance hybrid found in the garden of Agnes Joaquim in 1893. It was described by Henry Ridley, director of the Singapore Botanic Garden, later that year. In 1981, nearly a century after its discovery, Vanda Miss Joaquim was chosen from among some 40 contenders to be the national flower of Singapore.

Culturally, the terete-leaved vandas are known as sun lovers. They are often used as landscape plants in tropical climates, where they flower nearly yearround. Species in Papilionanthe have been crossed withstrap-leaved vandas and ascocendas to produce hybrids with intermediate foliage that is frequently called semi-terete. These hybrids typically sport attractive flowers in an array of candy colors.

A couple of examples quickly come to mind when one considers terete leaved genera in the Cattleya alliance. One of them is quite familiar, the other perhaps not. The genus Brassavola is well known to most every orchid grower, and Brassavola nodosa would surely be considered its most popular species. Everyone seems to enjoy this orchid. Its terete foliage forms a compact plant that is of easy culture. The creamy white flowers are charming in shape, with thin spidery segments surrounding a flaring spoon-shaped lip. The orchid's common name, lady of the night, is derived from its sweet nocturnal fragrance. Orchid growers would treasure this flower even if it blossomed but once a year, yet mature B. nodosa plants flower freely and are often in bloom.

There are about 30 species in the genus Brassavola, all with more or less terete foliage. Brassavola subulifolia (syn. cordata) and Brassavola cucullata are two of the more popular and frequently cultivated clones. The primary hybrid Brassavola Little Stars (nodosa X subulifolia [syn. cordata]) can develop into an astoundingly floriferous specimen plant.

Vanda Miss Joaquim (teres x hookeriana) growing in the AOS Tropical Orchid Garden. Photo: Greg Allikas.

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Brassavola acaulis 'Crownfox', AM/AOS, exhibits terete (pencil-shaped) leaves. Grower: R.F. Orchids, Inc.

Brassavola species and hybrids generally need bright light. High light tolerance is usually associated with most terete-leaved plants. Many of them also seem to thrive in the warmer temperatures that are frequently associated with the growing situations that tend to provide the bright light they require.

The same is not quite so true for another terete-leaved Cattleya alliance orchid, Leptotes bicolor. This mesmerizing miniature produces fragrant white flowers with contrasting lips in shades of rose or purple. The flowers are remarkably large for the size of the plant. The orchid, when in flower, resembles a semi-alba cattleya that has been greatly reduced in size. Perhaps because of its small stature, and consequently its inability to resist the drying forces of heat and sun, most find this plant thrives better with intermediate to cool temperatures plus a bit of shade.

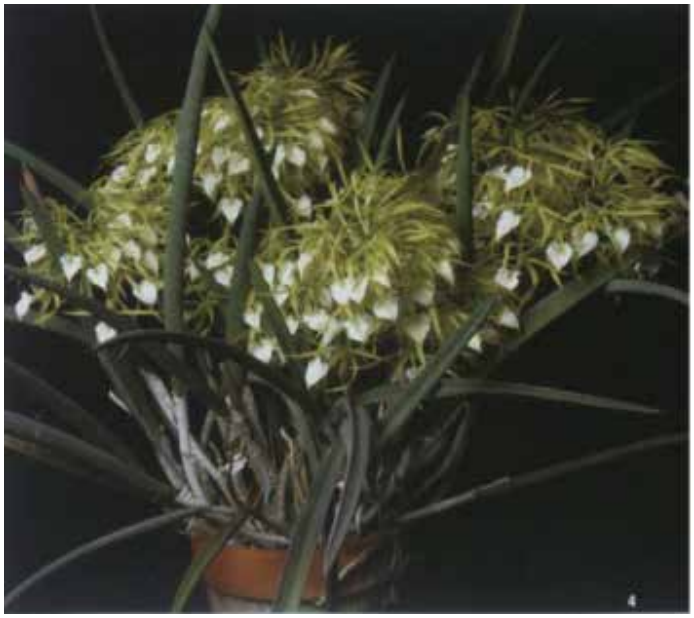
It could surprise some to learn that the Onciclium alliance includes some members that carry terete leases too. Some of the species that have terete foliage were discovered and described more than two centuries ago, yet they remain rather uncommon in orchid collections. The plants are sometimes called rat-tailed oncidiums in reference to their terete foliage. One of them, Trichocentrum (syn.Oncidium) cebolleta, is among the oldest-known oncidiums, and may have been described as early as 1800.

As one might expect, taxonomists were not in concert as to the classification of the terete-leaved oncidiums. While their flowers were similar to those of other oncidiums, their foliage was unique. The rat-tailed oncidiums were included in a section within the genus Oncidium for many years, but recently several taxonomists labored to include them in a genus of their own. The genus Trichocentrum is now generally accepted as the correct one for these oncidium lookalikes. Trichocentrum teres, Trichocentrum lacerum (syn. stipitatum) and Trichocentrum jonesianum are among the more common terete-leaved species. Trichocentrum also includes most of those rigid, thick-leaved oncidiums that are often called mule-eared oncidiums.

Similar to other terete-leaved plants, the rat-tailed oncidiums are adapted to withstand hot, dry conditions. Some species in this genus have been likened to cacti in their design, and, indeed, the comparison is not unwarranted. Their terete foliage has a reduced surface area that minimizes moisture loss from transpiration and an outer layer of cutin helps each leaf to retain moisture as well. In cultivation, it is important to provide these orchids with plenty of light and to allow them to dry out between watering.

Orchid foliage is amazingly variable. Some types have large, thin leaves, a common adaptation for shady conditions. Many orchids have leaves that are thickened to help store moisture for the plant. A few orchid oddities, in fact, have no leaves at all. However with the terete-leaved orchids, you always get the point.

This article appeared in the American Orchid Society Orchids magazine in April 2009 (Vol.78:4, pp.204-205).

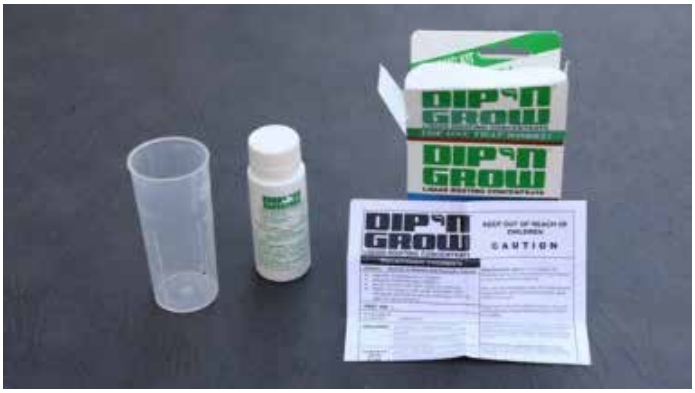


Brassavola subulifolia (syn. cordata) 'Whimsy Floribunda', CCM/AOS, a good candidate for bright-light conditions. Grower: Whimsy Orchids. Photo: Greg Allikas.

Root Stimulators

by Sue Bottom, sbottom15@gmail.com

Who has not used Rootone powder on cuttings to get their root systems started? There are many root stimulators on the market. A root stimulator is used to encourage a healthy root system, often to help the plant recover from transplant shock. A healthy root system is essential for the growth and flowering of your orchids. Some effective rooting products contain auxins like indole butyric acid (IBA) and naphthylacetic acid (NAA) in either a synthetic formulation or a natural product like seaweed.



Dip 'n Grow is a synthetic rooting compound that John Stanton of Orchid Trail Greenhouses recommends.

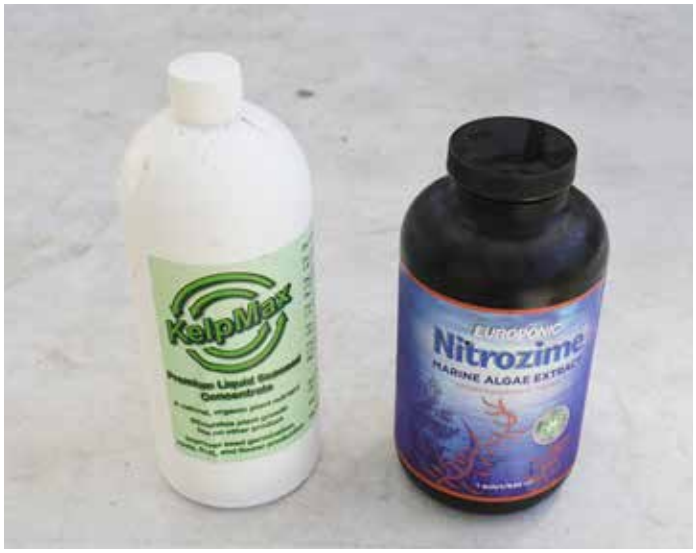
We have been very impressed with the Dip 'n Grow liquid rooting hormone that contains 1.0% IBA and 0.5% NAA dissolved in an isopropyl and ethyl alcohol solution. We and some other orchid growers have been trialing this product, following the lead of John Stanton of Orchid Trail Greenhouses by placing a dilution of it in a spray bottle and spraying the root mass and forward part of the pseudobulbs during the repotting process. This synthetic hormone product can result in an incredible root response, as Keith Davis determined while experimenting with this product on his cattleyas.

Keith sent us a picture, with the note "*Today is exactly one month to the day since I sprayed the plant with Dip-N-Grow. Notice that there are no new roots initiating, but look at the OLD roots. There are dozens of new branches. Old aerial roots would never do this on their own in this short of time. I am thinking about writing a short article for the AOS on this product…..we have John Stanton to thank for this idea on use with orchids.*"

You probably know some orchid growers that use seaweed products with some frequency for their growth stimulating properties. Seaweed extracts contain macro- and micro-nutrients, amino acids, vitamins as well as plant hormones albeit in much lower concentrations than in a synthetic root stimulator product. The natural auxins present in seaweed extracts help encourage root growth although there are many other compounds present in these biostimulants that also promote plant growth. There are many seaweed products, from the generally available MaxiCrop to more specialized products like KelpMax offered by Ray Barkalow of First Rays.

Our speakers are always introducing us to new ideas and tricks that they have discovered for growing their orchids. Daryl Venables of Tezula Plants is a most energetic and informative speaker who talked to us about growing Tolumnias. He recounted a story of receiving a shipment of Tolumnia seedlings that were mostly bereft of roots, so he went online looking at marijuana growing blog sites for some suggestions, and came across Nitrozime. He tried it on his plants and was amazed at the root growth. Another snake oil to try! Europonic Nitrozime made by Hydrodynamics International is a marine algae extract derived from *Ascophyllum nodosum* seaweed that is reported to be eight times more concentrated than typical seaweed extracts.

Some orchid growers add seaweed products either weekly or monthly during the growing season as a general growth stimulator. If you are supplying your plants with the proper light, air, moisture and mineral nutrition, you should not need to give them hormonal products to induce root growth, the exception being the period during and after repotting. In many cases, repotting causes a severe disruption to and loss of the root system so moisture and mineral uptake are compromised until the root system gets reestablished. This is why you are often told to repot your orchids only when you see new roots forming to minimize transplant shock.



Seaweed contains many growth stimulating compounds, including low levels of auxins that stimulate root growth.

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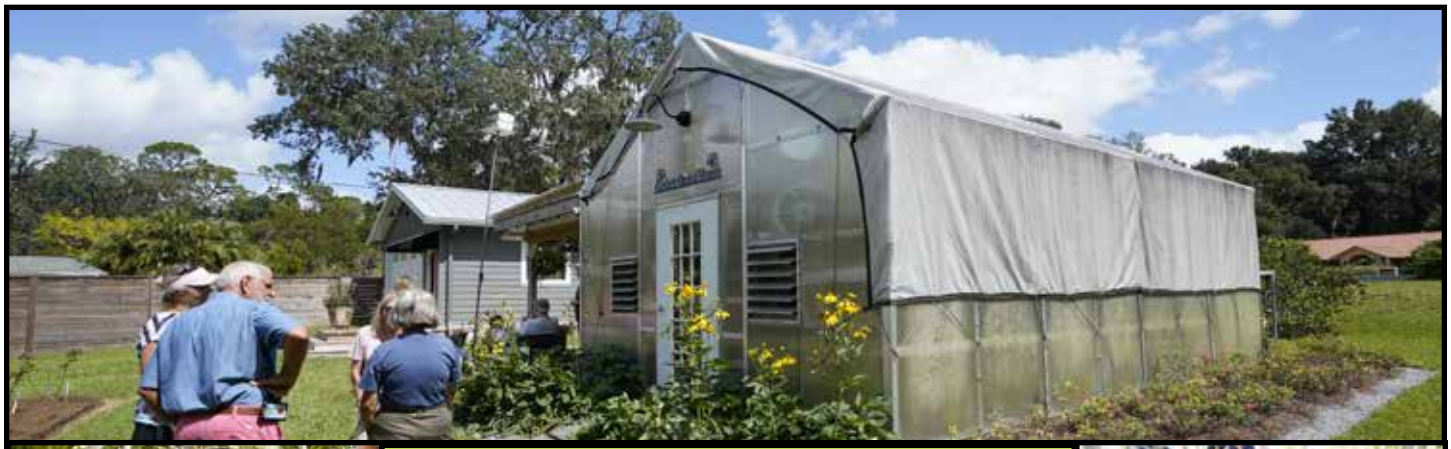
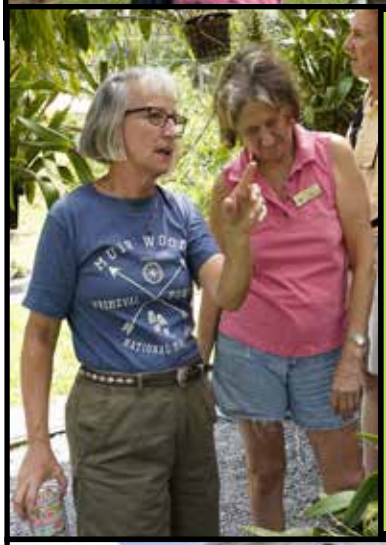
We can help our plants get re-established with the selective use of some of the rooting products. Prepare the plant for repotting by removing old tired growths and trimming sick or overlong roots. Plants are only water blasted if necessary to clean them up, otherwise the process proceeds dry. Once the plant is prepped, it is sprayed with one of the root stimulator concentrates and allowed to dry on newspaper or Kraft paper, with its plant tag. Then the plant can be potted. Keep it dry for the first day or three and then start watering. You can drench plants with a more dilute solution of seaweed weekly for the first month or so, and then just water with your normal water/fertilizer combination. The synthetic root stimulator Dip 'n Grow contains auxins in concentrations several orders of magnitude greater than the seaweed extracts, measured in parts per hundred for the synthetic root stimulators versus parts per million in the seaweed extract. If you are only interested in these types of products to help initiate root growth, the synthetic Dip 'n Grow is probably a more effective solution than seaweed. If you are interested in using seaweed extracts because of its many other biostimulants present in small uantities, you can make up an ultra concentrated seaweed mixture to spray on roots while repotting. You could make up a solution that is, say,16 times more concentrated for spraying on the roots by adding 1 tablespoon seaweed into an 8 ounce spray bottle. Then, you could follow up by adding seaweed at the normal application rate weekly for the first month after repotting, and then apply monthly for the rest of the growing season.

The shelf life of auxins present in synthetic products and seaweed is a potential concern. These product should remain active for a year if properly stored, but degrade if stored in warm areas or exposed to sunlight. To be safe, store these products as cool and dry as possible, tightly sealed, and buy only what you think you will use within the next year. Storing them in the refrigerator will maximize their shelf life.

Exactly one month after Keith Davis sprayed the base of the plant with Dip 'n Grow, picture courtesy of Keith Davis.

Application Rates for Auxin Bearing Root Stimulators			
	Seaweed Extract	Nitrozime	Dip 'n Grow
Recommended Rate on Product Label	1 – 2 tablespoons (tbsp) per gallon	4 – 8 teaspoons (tsp) per gallon	1 part Dip 'n Grow to 5 – 20 parts water
Spray on Roots after the Plant is Prepped for Repotting, Air Dry	1 tbsp in 8 oz spray bottle	1 tbsp in 8 oz spray bottle	2.5 tsp in 8 oz spray bottle
Drench Pots and Baskets as Often as Weekly for 1 month after Repotting, Then Monthly During the Spring and Summer	1 tbsp/gal drench	1 tbsp/gal drench	NA

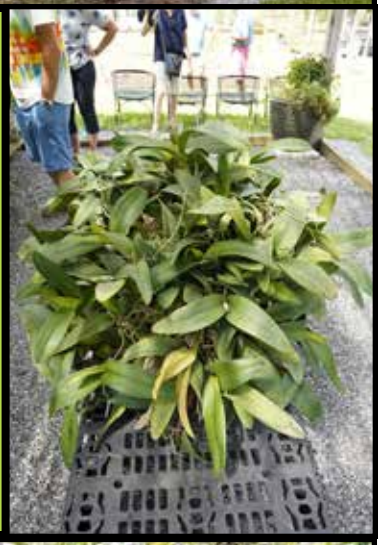


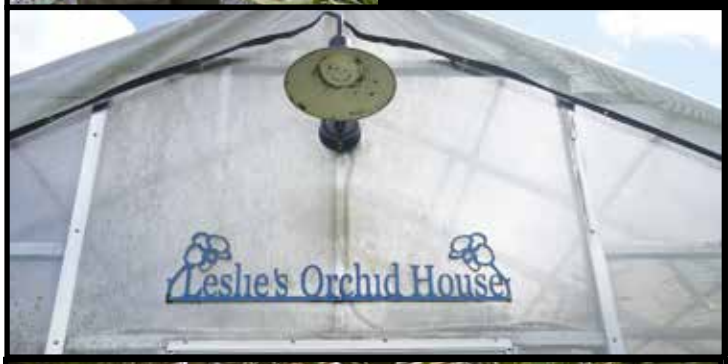


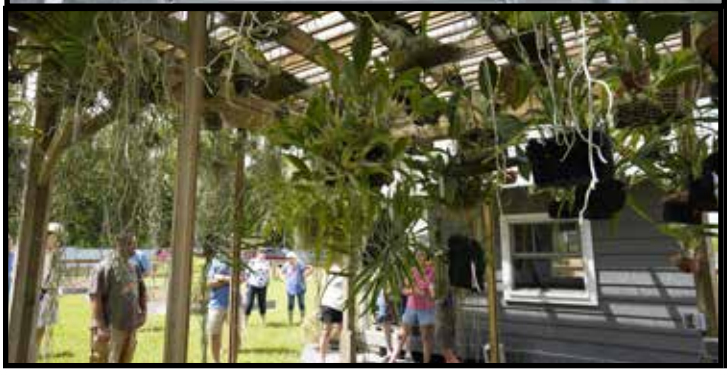
Growing Area Tour – Leslie and Chip Brickell

About two dozen new and familiar faces convened at Leslie and Chip's to admire Leslie's expanding orchid collection. Leslie has added a second pergola, where she grows mostly vandas, catasetums and stanhopeas mostly on hooks or hanging baskets. The structure has slots where winterizing panels can be inserted.

The first pergola has an amazing group of plants overflowing their mounts and pots. The greenhouse is filled with a wide assortment of orchids, tolumnias in wire baskets, mounted bulbophyllums, paraphalaenopsis and pleurothallis along with the cattleyas and phalaenopsis. Leslie's slice of heaven has beautifully grown plants. Such an inspiration for all of us!







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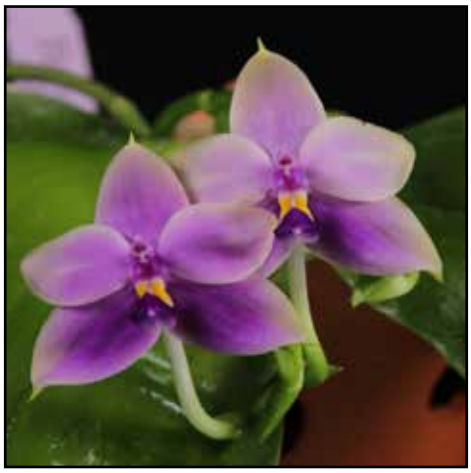
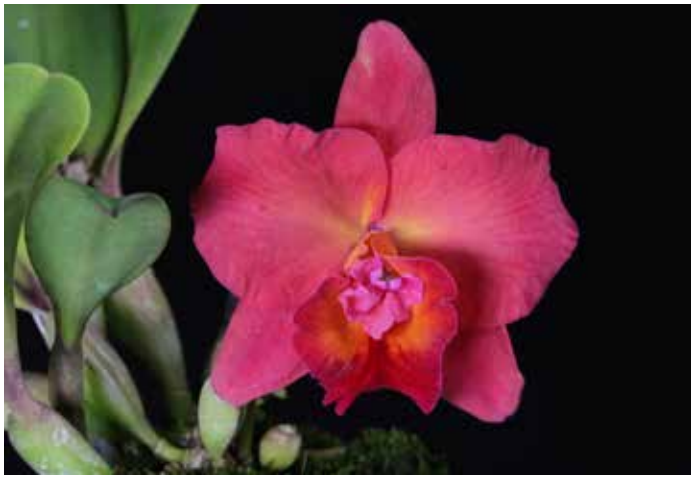


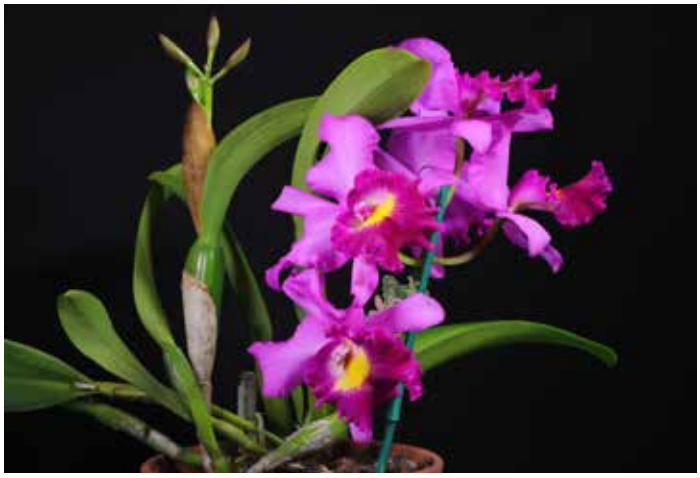
Grower Debra Brandt
Phal. Samera var. coerulea

Grower Bob & Yvonne Schimmel
C. intermedia 'Breckenridge Snow' AM/AOS

Grower Mary Ann Bell
Onc. Rosy Sunset

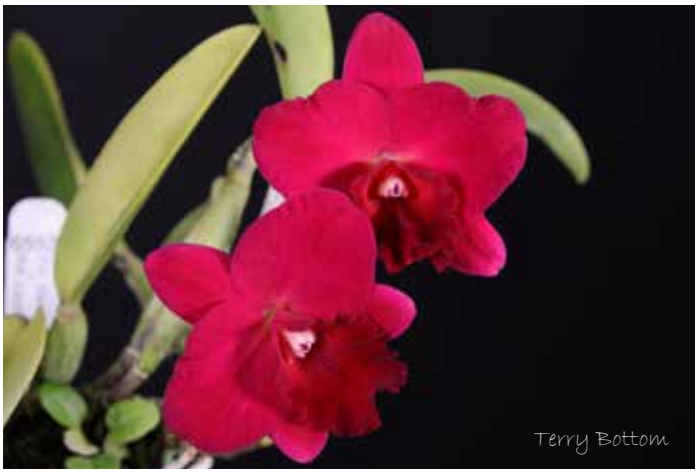


Grower Marv Ragan
Pot. Circle of Nine



Grower Susan Smith
Pot. Hsinying Pink Doll 'Hsinying' AM/AOS

Grower Leslie Brickell
Pleurothallis tribuloides



Grower Marv Ragan
Pot. Mem. Irene Feil x Pot. Loud Nine

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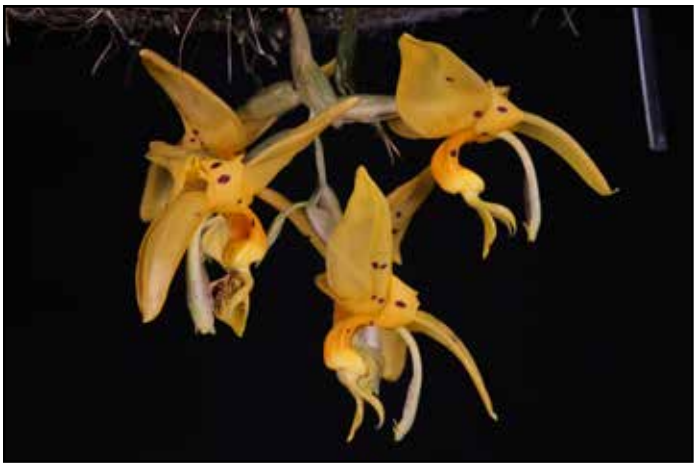
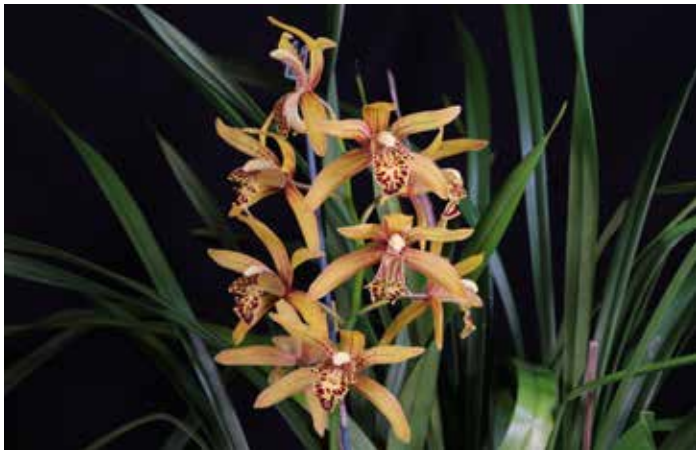


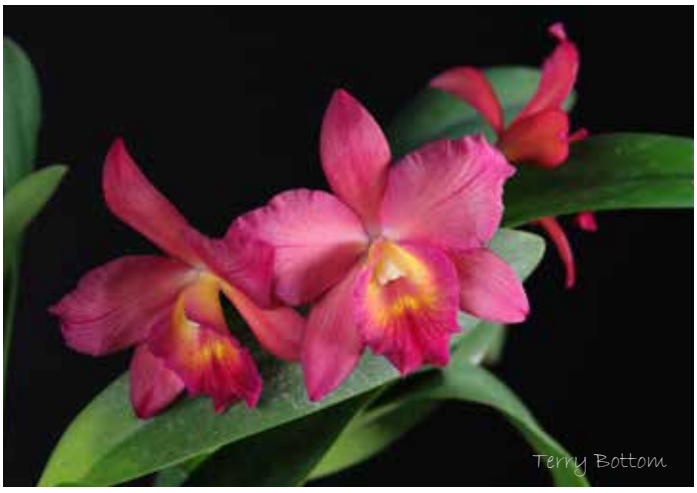
Grower Leslie Brickell
Stan. jenischiana 'Catorce' AM/AOS

Grower Sue Bottom
C. Bow Bells 'Elzada' AM/AOS

Grower Bill Gourley
Bc. Sunny Delight 'MAJ'



Grower Harry & Celia McElroy
Cym. Chen's Ruby



Grower Harry & Celia McElroy
Pot. Al Thanhauser

Grower Tom & Dottie Sullivan
Blc. Greenwich 'Killarney' AM/AOS

Link to all Pictures. https://flic.kr/s/aHsmHqU3gj