



CLUB NEWS



Roy Tokunaga

**October 4
SAOS Meeting**
secy@staugorchidsociety.org

Welcome and Thanks. President Bob Schimmel opened the meeting at 7:15 pm with 50 attendees. Bob thanked Jeannette along with Sophia Gay, Elaine Hardy and Dottie Sullivan for the refreshments while reminding all to drop a dollar in the jar. We welcomed new member

Linda Roberts who joined using the new PayPal link on the website.

Our Membership Veep, Linda Stewart, recognized our two October 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 October 22nd Keiki Club will be a trip to the Orctoberfest at EFG Orchids, 4265 Marsh Rd, DeLand, FL32724. Email Mary at keiki@staugorchidsociety.org to make arrangements for ride shares.

The Ace Repotting Clinic is done for the year, clinics will resume in February of 2017.

Email Sue Bottom (sbottom15@hotmail.com) if you need potting supplies, special quantities or different items and she will bring them to the next meeting for purchase.

Yvonne Schimmel, filling in for SAOS Librarian Penny Halyburton, brought in Courtney Hackney's book on American Cattleyas for sharing. 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 and pointed out the Orchid Slipper Symposium information on the back cover. This event will be held in Apopka, FL in conjunction with the Krull-Smith nursery on Nov. 5.

Orchid Events. There are several Florida orchid shows this month as listed on the [website](#).

Show Table Review. Courtney Hackney started the table discussion with Harry McElroy's huge Lc. Ditto Head (Peggy Huffman x Lisa Ann) that as a mature plant is just spectacular in full bloom with 3-4 flowers per stem. Because of its size, Harry has it in a non-traditional pot anchored with a surrounding collar of concrete. The table had a good example of older orchid clones and Courtney started with one from the early 1900's, Bc. Mrs. J. Leemann, a cross between Brassavola digbyana and Cattleya dowiana. It is fragrant but the flowers don't last long. Next he discussed the classic Cattleya clone from 1945, called Bow Bells 'Elzada' AM/AOS (Edithiae x Suzanne Hye), a prime example of an old white corsage type orchid.

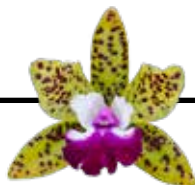
He then talked about two coeruleas, the Lc. Purple Purity (Purity x purpurata) and the classic Lc. Blue Boy 'Gainesborough' HCC/AOS, a cross between C. Ariel x Lc. Elegans and one of the first hybrids to really have a blue color. If you are interested in these older cultivars, borrow Courtney's book American Cattleyas from the library, we have two copies now!

An example of an easy to grow orchid is the B. Little Stars, a primary nodosa hybrid with cordata, that Roy continues to offer. They require high to medium light and provide your growing space with a wonderful aroma. Another beauty was the Cattleya Tripp Johnston whose flower is full of chocolate spots, so many that the petals appear almost black with a brilliant pink lip. This plant is a bifoliate that some growers struggle to grow because it likes to be drier and resents repotting unless new roots are forming.

Courtney then held up a Miltassia Shelob 'Red Spider' which is an intergeneric between Brassia and Miltonia and quite easy to grow. The flowers are spidery shaped hence the name. Check out the photos of our show table examples at the end of the newsletter and on the SAOS website.

SAOS Program. Courtney Hackney introduced Roy Tokunaga from H & R Nurseries in Hawaii who proceeded to describe the rather large genus, Dendrobiums. The word itself means Tree Life and this large genus is divided into several sections. Roy showed a slide explaining the one similarity that links all of these sections together; all

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Upcoming Orchid Events

October

- 8-9 Fort Pierce Orchid Society Show
Fort Pierce Shrine Club
- 11 JOS Meeting, TBA, 7 pm
Roy Tokunaga, H & R Nurseries
- 21-23 Orctoberbest at EFG Orchids
4265 Marsh Road, Deland 32724
- 22-23 Gainesville Orchid Society Show
Kanapaha Botanical Garden
- 28-30 Delray Beach Orchid Society Show
Old School Square Gymnasium.

November

- 1 SAOS Meeting, 7 pm
Bulbophyllums
John Budree, Orchid Hobbyist and Grower
- 5 Annual Slipper Orchid Symposium
Highland Manor, Apopka
- 8 JOS Meeting, Topic Blue Cattleyas, 7 pm
Courtney Hackney, Hackneau Art & Orchids

December

- 4 JOS Christmas Auction
Jacksonville Golf & Country Club
3985 Hunt Club Road, JAX 32224
- 6 SAOS Christmas Auction, 6 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 for Orchid Beginners, 1 pm
Staking Your Orchids
Charles and Kathy Young
160 West Genung St, St. Aug 32086

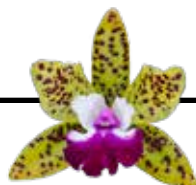
20-22 Fort Lauderdale Orchid Society Show
War Memorial Auditorium

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

St. Augustine Orchid Society Organization

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have a spur lip attached to the base of the column and all Dendrobiums have a Mentum to which the sepals are attached.

Due to his location, Roy grows under shade cloth and his plants get on average 40 inches of rain each year. So all of his plants have to be able to grow in rainy conditions. He also rarely gets cool evenings with maybe 4 or 5 nights below 59 F. A member of the audience who has visited Roy several times commented that his nursery is the cleanest he has ever seen with all of his employees knowing to pick up any dead leaf or debris that they see daily.

There are over 1000-1200 species divided into approximately 40 sections. Dendrobiums are from southeastern Asia ranging from Japan to northern New Zealand and from Tahiti to India. One unique thing is that they don't all easily hybridize with others in different sections, unlike many orchids such as the different varieties of cattleyas. Roy creates his hybrids with close attention to genetics often using tetraploids to help ensure the progeny are more uniform and of good quality. In general, you will enjoy success with dendrobiums if you provide good aeration and drainage.

Roy then showed slides of orchids representing some of the sections more commonly offered for the hobbyist:

Phalaenthe section dendrobiums consist of 6 or 7 species that tend to bloom in the fall with spectacular waterfall effect on the inflorescences, e.g. the hybrid Den. Little Diamond.

Spatulata section dendrobiums consist of approximately 50 species each with their waxy, curly petals which have given them the "antelope orchid" nickname. The flowers are long lasting and with high light requirements, will grow quite tall. Roy's slide of Den. stratiotes was 6 ft tall. These tall plants are good for outdoor gardeners in more tropical climates. If you want to control the height, Roy suggests pinching the cane off at the height you like and flowers will come below that cut.

Section Dendrobium is also called the soft cane dendrobiums or the nobile and seminobile group, consisting of over 30 species, all of which require 3-4 weeks of cool (below 59 degrees) weather. This causes them to drop their leaves which is a requirement for flowering subsequently. Some examples are Den. unicum, Den. Golden Aya and Den. anosmum.

Section Pedilonum dendrobiums like drier winters to induce leaf drop and subsequent flowering. This section needs bright sunlight with less fertilizer than other varieties. They are also pollinated by birds which is why they are so brilliant in color. Roy told us that the most brilliant colored orchids are typically bird pollinated.

Section Dendrocoryne dendrobiums are from Australia and can grow in full sunlight. They can take temps as low

as 20 degrees but typically need three weeks of 50 or below in the winter. They are hard cane, evergreen and fragrant. Den. speciosum and Den. kingianum are examples.

Section Rhizobium dendrobiums are also found in Australia and like cacti are characterized by thick and fleshy or leathery leaves that are often terete form. They tend to be mostly small plants like the Den. toressae.

Section Oxyglossum is one grouping that Roy suggests we generally avoid because they are cooler growers, except for the species bracteosum and its hybrids. Most are beautiful miniatures, requiring intermediate to cool conditions and are bird pollinated.

Section Latouria has 50 species and he has specialized in hybridizing within this group. They need lots of water and his slide example, Den. convolutum blooms year round. Roy shared a tip that he stops fertilizing with ammonia and urea (because they interrupt flowering) using nitrate based fertilizers instead during the flowering season. He crossed Den. johnsoniae with Den. atroviolaceum to get Den. Roy Tokunaga, one of his best crosses for producing white flowers.

Section Formosae is unique with all of its little black hairs on inflorescences, flowers and seed pods. He recommends growing them like vandas with heavy summer fertilizing and bright light. Den. dearei and Dendrobium infundibulum are two examples.

Section Callista dendrobiums have hard canes and also require three weeks of cooler temps below 59. They don't require drying out however. They are typically spring blooming, showey plants like the Dendrobium lindleyi (aggregatum).

In summary, Roy reminded us to provide good drainage, have a medium pH between 5 and 6, and regularly flush the root zone with water to minimize the accumulation of toxic salts in the pots. The Pedilonum and soft cane sections need to drop leaves for flowering and the Nobile and Dendrocoryne sections need three weeks of cool temperatures but don't need severe drying out.

Meeting Conclusion. Harry McElroy announced that the Member's Choice was awarded to his Lc. Ditto Head, spectacular plant! The raffle 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



CLUB NEWS

September 18 Keiki Club

Getting the Orchids Ready for Winter

About a dozen SAOS members met up at the Dianne and Drake Batchelder's home to talk about fall preparations. Mary Colee led the discussion on some things to consider while you prepare for the winter cool weather.

There are lots of critters that live outdoors that are not welcome in your home. Cockroaches, ants, etc. often take up residence in orchid pots while they are summering outdoors. You can dunk the pots in water to get these creatures to show themselves, but sometimes you just float the potting medium out of the pot during the dunk. Consider applying an appropriate pesticide to chase these pests away. Pour a solution of Sevin (1 tsp/gallon) or try one of the imidacloprid products (1/4 cup/gallon of the 0.074% strength product).

Formulate your winter plan well ahead of the date you have to execute it. You can categorize your plants into three broad groups. The least cold tolerant are the big two toned vandas, many phalaenopsis and the phalaenopsis type dendrobiums. In general these should all be in their winter homes by around November 15, with your goal being to protect them from temperatures below 60F. The phals like a brief chilling to around 55F to encourage them to set their flower spikes.

Most other orchids like cattleyas, oncidiums, Latouria and Spatulata type dendrobiums, and stanhopeas are cold tolerant down to about 45 or 50F. You can either bring the plants in and out when temperatures fluctuate below these trigger points, or simply move them to their winter homes once the nighttime temperatures drop below 50F.

There are cold tolerant orchids that are happy outdoors during cold nights. The nobile and seminobile (Dendrobium section), Callista and Dendrocoryne section dendrobiums and cymbidiums are fine outdoors in the mid to upper thirties. To be safe, grow these outdoors until nighttime temperatures are projected to drop below 40F. Equally important is to discontinue fertilizing and cut way back on watering those dendrobiums that enjoy a coolish, dryish winter.

The question everyone asks is what kind of dendrobium do I have and what are its temperature requirements. If it is a species, you can check spreadsheet on Culture by Genus page of the website for guidelines. If it is a hybrid, you may have to learn something about its background to guess at its cold tolerance. Once you learn its requirements, you can use different color tags to note whether it requires protection at 40, 50 or 60F. Learn more about Dendrobiums at the October meeting when world renowned grower and hybridizer Roy Tokunaga talks about the different types and how to grow them.

Keiki Club on October 22

Field Trip to Orctoberfest at EFG in Deland

We're planning field trips to EFG Orchids in Deland for their Orctoberfest on Saturday October 22. EFG Orchids is a commercial orchid and tropicals 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 and the vendors participating in the event. The Hausermann clan will be busy preparing all the German food they will have for sale, like brats, German potato salad and more, including German beer! For those that want to carpool, contact Keiki Club Coordinator Mary Colee by phone at 669-8760 or via email at keiki@staugorchidsociety.org.



November Monthly SAOS Meeting

Bulbophyllums, John Budree

Orchid hobbyist John Budree will talk about Bulbophyllums at the November meeting. Bulbophyllums are largest genus within the Orchid family tree, with over 2000 species. The flowers are very unique and generally have strong odors which are made to attract their main pollinators, flies. Some produce single blooms which last only a few days and others have sequential stems with an ongoing show of blooms.

John was born in Trinidad and moved to Florida about fifteen years ago. In Trinidad, he grew many different types of orchids and took part in collecting and displaying them at many shows. When he came to Florida, he got involved with orchids on a different level. Here, he was able to grow all of those plants he could only read about and even meet all of the growers and experts who wrote the articles that he had read in AOS magazines. Orchids will be available on the sales and raffle tables. Friends and guests are always welcome.

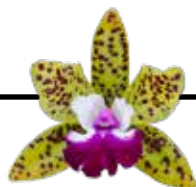


INSPIRATION



Den. Love Memory 'Fit'

© Terry Bittner '16



CULTIVATION



Orchid Questions & Answers

by Sue Bottom,
sbottom15@hotmail.com

Q1. I have discovered these small mushroom-like things growing in the dirt with my orchid. I've had this orchid in the same dirt and pot for 2 yrs and never had them before.

What should I do?



A1. Repot immediately! Your mix is rotting, that's why the spring body of the fungus (the mushroom) has appeared on the top of your mix. When you knock the plant out of the pot, I suspect you will see that your roots are also rotting.

Q2. I came home from work today and noticed the bottom leaf was yellow/green and was filled with a liquid, then it fell off of the orchid. I last checked the orchid yesterday, and didn't notice anything wrong. My orchids sit on my indoor ledge, and I have the curtains opened for them to get sunlight. What next?

A2. That is bacterial soft rot caused by *Erwinia* (now called *Pectobacterium*). Immediately remove the leaf, spray or drench the leaves with peroxide, consider spraying with a copper compound. It is a very fast moving bacterial rot that will kill the plant if it reaches the crown. It moves very quickly and can kill a plant in one or two days.



Q3. I have a very large vanda orchid that has three medium sized keikis. I got the mother plant 2 years ago when it was in bloom. Since then it has produced no new leaves or flower spikes. This seems unusual to me because all my other vandas are constantly producing a new leaf or flower spike. However, it easily produced these 3 keikis, which are thriving. I am concerned that the mother plant may be spending all its energy on the keikis and not on its own growth, since its leaves look a dark dull green, whereas the keikis are bright green and healthy. I would like to remove the top keiki, which now has 15 leaves and is about 15" tall, but it has no roots. What do you suggest?



A3. I would not remove the top keiki, with no roots it will simply perish. The keiki should have at least three roots to be able to sustain itself before separating it from the mother plant, and some folks believe the keiki should also bloom before separation as a sign of its maturity.

With the three keikis growing and the mother plant treading water, I wonder if your plant isn't telling you that its survival and its future are in the keikis. More than once I have cut away the mother plant leaving the keikis in the bottom of the basket to grow up and bloom, and either given the mother plant away or tied it to a hook. It often seems that the keikis are healthier, happier and more attractive than the mother plant.

If you were to cut away the mother plant, check out the stem as an indication of its health, looking to see if it has become woody (is dying) or if it has the red band around the edges (has fusarium which is blocking the vascular tissue).





Common Orchid Growing Mistakes Courtney's Orchid Growing Tips

"Do no harm" is a basic tenant of the medical profession that many orchid hobbyists would be wise to adopt. A large number of orchids I see in my travels suffered premature deaths or injury, largely because of a misinformed attempt

to help the orchid grow. The following is a list assembled from my experience with other growers and from my own mistakes.

"My orchids get the best water money can buy." My first question of the novice holding a shriveled, dead orchid is about their water. One person even admitted that she had a water softener installed for her orchid because she knew her water was "hard". Hard or mineral laden water may not be ideal, but softened water introduces salts that are toxic to orchids and typically lethal within a few weeks.

Another common mistake is to over-fertilize based on the conclusion that a poorly growing orchid needs more fertilizer. If overwatering is the number one killer of orchid plants, over fertilizing is number two. Fertilizers are nutrient salts that plants require along with water and light to grow. Recently purchased orchids that have a good root system do not require much in the way of fertilizer. Often, these plants have been grown quickly in commercial nurseries by maximizing light, water, and fertilizer. In the home environment, light is typically limiting and the medium contains all the nutrients the orchid needs in the short term. More often, the orchid pot needs to be flushed thoroughly with water occasionally to remove nutrients and to keep roots healthy.

Some pesticide and fungicide warning labels seem to state the obvious, e.g. "do not drink this product". Who would do such a thing? After fielding questions about pests, pesticides and orchids, I realize that no warning is too simple. Read the warning label carefully for both your own safety and the health of your orchids. The most common orchid-related pest problem seems to be overdosing and under dosing with pesticides. If the label calls for one teaspoon per gallon, use exactly that amount. Just because a scale infestation was "really bad" does not mean the concentration should be higher unless the label

tells you to use a higher dosage. Some of the hormonal pesticides do prescribe lower concentrations after an initial treatment.

Another sometimes fatal error orchid hobbyists make is to change growing media because they see well grown orchids in some new medium. This often happens to relatively new hobbyists after purchasing plants from a commercial nursery or a visiting speaker. The mistake is to immediately repot every orchid into this "new medium". In most cases, the results are disastrous. There is much to learn by examining the growing medium of a commercial grower or very successful amateur. But remember that their success is specific to a set of growing conditions that may be very different from yours. In some cases, plants growing poorly at commercial nurseries are discarded, leaving the impression that all orchids grow well in this new medium. Some groups of orchids grow well in one medium, but not in another.

There is nothing wrong with experimenting with a medium and evaluating how well your plants grow in that medium, but avoid a wholesale conversion to a new medium. The most surprised individual is the novice grower that brings their plant in and asks what they should do to their orchid. Typically, their "problem" orchid has outgrown the pot, has roots going everywhere, and shows signs of having bloomed repeatedly. There is also usually an admission by the grower that they have neglected this "poor" orchid, but are determined to take better care of it next year. In other words, they have "done no harm" and the orchid has thrived.

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 October 2006.



CULTIVATION

Orchids Outside the Pot

by Sue Bottom, sbottom15@hotmail.com



This Rl. digbyana grows mostly on the outside of the pot and usually has 12 to 14 blooms in the spring.

Sometimes cattleyas get away from you. It's a bulb or two out of the pot but that latest bulb has a sheath and you don't want to disrupt the blooming cycle. Then you get busy with something else and before you know it, the plant is growing along the outside of the pot. You know how much damage you'll do to the root system if you try to separate the plant from the pot and you don't really want to break the pot...so now what can you do?

You have many choices, but the easiest thing is to just leave it alone. Let it grow out of the pot if that's what it wants to do. As long as the media inside the pot isn't de-



This Ctt. (Lc.) Acker's Spotlight 'Pink Jewel' HCC/AOS blooms two or three times each summer. It is a vigorous grower than has enough substance to present itself and its flowers well with no staking.

cayed or a threat to those roots, let the plant grow and attach its roots to the outside of the pot. Often you can use a double wire hanger and hang the plant to keep it from becoming unmanageable and spilling out over your bench. You'll basically have a plant growing as a mount on the outside of the pot. There are some plants that are better suited to growing outside the pot than others. The plant must have a strong bulb and flower stem to support the flowers because staking them is problematic. The Brassavolas, Rhyncholaelias and smallish, crawling Cattleyas like *C. aclandiae*, *C. schilleriana*, *C. violacea* and *C. walkeri* are good candidates for growing on the outside of the pot.



The roots are happily attached to the outside of the clay pot which is hanging from a two wire hanger for stability. It's been growing this way for more than three years. But someday...

This approach works best when the growths are all oriented upwards so the plant and the flowers will present themselves well. I had one cattleya that bloomed fine on the last growth, but the youngest growth decided to grow straight downward. It was sort of an interesting novelty but after it bloomed out and started to send out new roots it was time for surgery. The back part of the plant was old and tired and the young part of the plant was growing every which way. It ended up going into a pot but it will take a while for it to readjust to inside pot culture. Perhaps it would have been better to mount it on a plaque.

Sometimes you can take a plant overgrowing its pot and drop it in a large wire basket. As long as the roots are growing well and the media is not decaying or becoming too salty, there is no reason to repot the plant and force it to have to recover from the trauma of transplant shock. It may not be the most attractive way to present the plant, but it will grow and bloom in the basket and the foliage and flowers will partially hide the basket.

If hanging space is limited, you can also drop a pot in a larger pot to stabilize it. This works particularly well for bi-

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CULTIVATION

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foliate cattleyas that resent repotting unless the new roots are just starting to emerge from the growth. If the rhizome has started growing along the outside of the pot, simply choose a large enough pot and tilt the pot containing the plant so it is stable in the pot.



The plant has outgrown the second pot. It could be dropped into a third pot, but sometimes you just have to break down and carve up the plant.

Dropping an overgrown plant into a larger pot is an easy way to solve a short term repotting problem, but it is also a “pay me now or pay me later” situation. You are trading off an hour or so of hard labor removing the overgrown plant from the pot and resituating it in its new home for a more difficult repotting experience a year or three from now. The more overgrown the pot, the more likely the inevitable repotting will require radical surgery. If your goal is to grow a specimen plant or you have a plant that is finicky about repotting, by all means emulate the Russian matryoshka doll.

Cattleya connoisseur and hybridizer Keith Davis offers a practical approach for repotting bifoliate that often sulk after their roots are disturbed:

Here is the most fool-proof way to propagate difficult and rare bifoliate. This can be done any time, but just so happens that new roots are poking out and a new eye is swelling. In a couple of years when the 5 in pot fills completely with roots, it can be cut loose and will be totally established with no stress or worry about losing it.

I wet the aerial roots until they are saturated, then sit down and very carefully loosen them from the mother plant's pot outside edge. At that point, I can very carefully slide the kid's pot upwards with the roots going into the pot. Being saturated, they can bend and not break. Once the new pot is all the way up to the bottom of oldest mature bulb (in this case, one lead that is blooming), then I tie it in place by melting holes in the plastic pot with a wire and running twist



*Keith Davis has an almost foolproof way of propagating the difficult to repot bifoliate, as with this blooming *C. leopoldii* var. *alba*.*



Keith attaches the next generation's pot to the mother's pot using twist ties to hold them together and at the proper elevation.

tie through the holes and around the appropriate bulbs so that it is held up.

If I put in any mix in the new pot, as with this one, I fill the bottom with broken peanuts, not whole ones, then add a very airy mix part way up. Once I see old roots branching and new roots reaching down into the pot about 2 inches, then I can fill the pot with mix.

There's really no limit to how many times you can drop a smaller pot into a larger pot as long as the roots inside the older pot are not compromised. The approach works best for a plant growing in multiple directions that fills the pots evenly, rather than one that is growing in one direction along the rhizome. Of course, the day will come that you either run out of pots or out of bench space and then you'll have some decisions to make.



CULTIVATION

Dendrobiums

by H. Phillips Jesup, courtesy of the AOS



Dendrobium chrysotoxum

Of all the types of orchids a beginning grower may acquire, dendrobiums will probably be the most challenging to learn to grow and flower. The reason is that the genus *Dendrobium* (den-DROH-bee-um) contains more than 1,000 species and is exceedingly diverse. Botanists divided the genus *Dendrobium* into a number of "sections," each of which comprises a group of more-or-less closely related species that are relatively similar in appearance and in cultural requirements. Therefore, it is very helpful to know which type of *Dendrobium* one has in order to determine its cultural needs. As might be expected, however, here are certain requirements common to nearly all species, which are described here.

Dendrobiums are found only in the Eastern Hemisphere, from New Zealand north to Japan and westward through Southeast Asia to India and Sri Lanka. In size, they include miniature plants happy in a 2-inch pot set in a lighted plant tray to towering, stately species best grown in a large greenhouse or outdoors in tropical climates.

The flowers range from exceptionally showy to small and insignificant, the latter being primarily of interest to the botanist or horticultural specialist. Virtually every color found in the orchid family occurs in this genus. Flowers of many species combine several colors, with the lips of some bearing blotches of color in striking contrast to the rest of the flower. Some dendrobiums possess exceptionally long-lasting flowers, while those of others are of brief duration. The extremes range from six months for individual flowers in a few cases to less than one day for a handful of species.

The inflorescence is seemingly terminal in some species, the flowers being borne in a loose raceme or dense cluster. Many, however, bear a series of clusters of two or three flowers which emerge from the pseudobulb opposite the leaves.

Some dendrobiums are evergreen; individual leaves will live and function for several years. Others are completely deciduous, dropping all of their leaves upon completion of the current growth. A number of species are partly deciduous, dropping some, but not all, of their leaves annually, at least under most cultural conditions.

Two groups of dendrobiums that have been grown and hybridized extensively are *Dendrobium nobile* and its relatives and the *Dendrobium phalaenopsis* (syn. *Den. bigibbum*) hybrids.

Temperature and Humidity - The size and extensive geographic range of this genus have resulted in utilization of natural habitats as diverse as mangrove thickets on the shores of tropical islands, with the orchids growing just above the high-tide level, to mossy limbs in montane cloud forests. Of course, each species is found only in the specific habitat in which it evolved. The temperature requirements for each species are keyed to those in which it is found in the wild. To complicate things further, some species grow where there is considerable seasonal fluctuation, with warm, wet monsoon conditions during the summer growth period and cooler, drier winters during which the plants are largely dormant.

Ideal temperatures for those species found in tropical lowlands would be 80 to 85°F during the day and 65°F at night. These temperatures also would be appropriate during the summer for those mid-elevation species from the monsoon belt. Most of the warm growers do well enough under intermediate temperature conditions in the winter (70 to 75°F days, 60°F nights). Those from the monsoon areas do best in the winter under cool-house conditions (60 to 65°F days, 50 to 55°F nights). High-elevation species from areas where there is less seasonal variation are ideally suited to year-round cool-house temperatures as mentioned above. Their growth cycles also tend to be less seasonal.

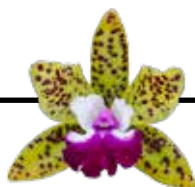
A drop in night temperatures to 50°F for at least a month in the late winter induces certain dendrobiums, which bloom at the end of their winter dormancy, to set buds more easily. This includes *Dendrobium nobile* and its hybrids and *Dendrobium kingianum*.

Most dendrobiums, at least when in active growth, do best at a minimum of 50- to 70-percent relative humidity.

Light - The majority of dendrobiums grow and flower well under *Cattleya*-like light conditions, which is fairly strong light, amounting to 1,500 to 2,500 foot-candles. As growths mature, it is particularly important to have strong light so that developing pseudobulbs become as large and thick as possible.

Because of their need for light, most dendrobiums are not the easiest orchids to flower under artificial lights or on a windowsill. If they are grown in this way, summering them outdoors with light shade from the midday sun usually is

Continued on page 11



CULTIVATION

successful in producing strong growths, which are the first requisite for flowering. Give the best light available during the time when they are indoors.

Watering - Water dendrobiums copiously when they are in active growth (assuming they are in small pots through which water drains rapidly). Pseudobulbs should be firm and not shriveled while the plant is growing. In warm, sunny weather, a thorough watering every second day is often optimal. The frequency of watering in autumn and winter after growths have matured is a bit trickier and depends more on the species being grown. Generally, evergreen types should receive just enough water to prevent marked shriveling of the pseudobulbs during this period. But it takes less water to keep them plump than when they are in active growth. Those species that are completely deciduous should receive little water while dormant. It takes only a small amount of water to prevent desiccation for these species.

Fertilizing - Large dendrobiums require copious amounts of nutrients when in active growth, when they have vigorous root systems and when they are positioned in strong light. Under these conditions, it is appropriate to apply a dilute solution of a balanced liquid fertilizer such as 18-18-18 (or 30-10-10, if plants are fir bark) twice a month. The miniature species generally require less frequent fertilizing. Monthly applications when they are in active vegetative growth should be sufficient. When inactive or dormant, dendrobiums require no fertilizing.

Potting - Perhaps the single most important aspect of *Dendrobium* culture is proper potting. Almost universally, they do best in a pot very small relative to the size of the plant. They prefer to be pot-bound. The origin of new growths of most species is very close to the previous growth. Therefore, they do not outgrow even a small pot as readily as do cattleyas, for example. This is fortunate because one can use small pots without the necessity of frequent repotting. Dendrobiums resent the disturbance caused by repotting even more than most orchids. The ideal is a container just large enough to accommodate three-to-four years of tightly clustered growths.

The potting medium should reflect the needs of the roots of most species. It should be of rather fine texture, but with perfect drainage. The object of the drainage, which is facilitated by a small pot, is to encourage vigorous rooting so that the medium does not decompose quickly and the plant need not be repotted frequently. This cause-and-effect combination (small pot and fast draining medium equaling excellent root growth and infrequent repotting) is crucial to cultivate dendrobiums successfully. Because some dendrobiums grow quite tall and others have somewhat arching or pendulous growths, it often is advantageous to hang the small pots to avoid problems of top-heaviness. This is also a good idea from a cultural standpoint because



Dendrobium griffithianum

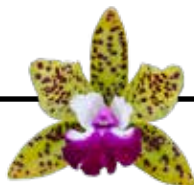
drainage and light are increased to a maximum.

Some of the smaller types of dendrobiums also are grown readily on chunks of tree fern, cork or cut sections of branches. When grown on the latter two, a small pad of sphagnum moss or osmunda fiber placed beneath the plant is useful in preserving moisture for a slightly longer period, particularly if the plants are grown inside the home. *Dendrobium* species that can be grown on mounts are *Den. lindleyi* (syn. *Den. aggregatum*), *Den. cucumerinum*, *Den. cuthbertsonii*, *Den. kingianum*, *Den. lichenastrum* and *Den. linguiforme*.

When to repot is as important as how in this genus. The rules applicable to most genera apply here, too, but with even greater emphasis. Most dendrobiums root copiously from new growths when the growths are only a few inches high. By far the best time to repot is when these new roots first appear. The longer repotting beyond this stage is delayed, the greater the danger to the plant. In fact, repotting during relative dormancy after growths have matured can be fatal. Because most dendrobiums begin growths in the spring, this is normally the time to repot.

While dendrobiums can be intolerant of lackadaisical culture, attention to detail is rewarded with an exuberance of handsome flowers. The true enthusiast will as well exult over every new root and leaf.

Note: Reprinted from *Growing Orchids, A Cultural Handbook Prepared for the American Orchid Society*, 1993 Revised Edition



ORCHID ADVENTURES



Orchid Adventures RF Orchids

If you are ever in South Florida, RF Orchids is a must stop venue. The grounds are spectacularly landscaped and immaculately maintained and if you're lucky you might even get a tour of the private gardens by the great man himself. The show room has a wide variety of different genera in bloom. The adjacent growing areas are home to every color and shape of vanda you can imagine, along with dendrobiums, bulbophyllums and more. Seeing how they grow and water their plants is an education in itself.



SHOW TABLE



Grower Marv Ragan
C. Tripp Johnston



Grower Tom & Dottie Sullivan
Bc. Myrtle Beach x Lc. Liptonii



Grower Linda Stewart
Phal. Hannover Passion



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



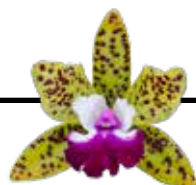
Grower Suzanne Susko
Dtps. Sogo Yenlin 'Coffee'



Grower Suzanne Susko
Lctna. Just Because 'Lea' AM/AOS



Grower Yvonne & Bob Schimmel
V. F.O.G.



SHOW TABLE



Grower Sue Bottom
Lc. Purple Purity



Grower Harry & Celia McElroy
Lc. Ditto Head



Grower Suzanne Susko
C. Green Emerald 'Orchid Queen' AM/AOS



Grower Courtney Hackney
Lc. Blue Boy 'Gainesborough' HCC/AOS



Grower Courtney Hackney
Lc. Stephen Oliver Fouraker 'Elmhurst'



Grower Sue Bottom
Bc. Mrs. J. Leemann

