

CLUB NEWS



Courtney Hackney

April 4 SAOS Meeting

by Janis Croft,
secy@staugorchidsociety.org

Welcome and Thanks.

President Bob Schimmel opened the meeting at 7:10 pm with 47 attendees. Events Veep Dianne Batchelder arranged for the Old City Sub sandwiches, provided by the club to fuel the bidders' energy level. Bob thanked Jeanette and

Dianne for organizing the refreshments. A special thanks to Doriana for bringing in her delicious flan. He then reminded all to drop a dollar in the basket when they enjoy their refreshments. We welcomed four guests along with three new members, Kathy Harvey, Bob Smith and Cindi Smith. Welcome!

Our Membership Veep Linda Stewart stated that since we did not have a raffle table this month, April birthday people will get their free raffle tickets in May. Bob informed all that the Best of Show voting would occur between the Show Table discussion and the auction. He encouraged all to vote for their favorite orchid.

Club Business. 2017 Dues – last chance to renew your membership, \$15 for individual and \$25 for family. You can also renew online using PayPal membership links on website or send money to friend and family on PayPal.

The next Ace Repotting Clinic will be on May 6 from 9 am til 1 pm.

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. Costs are as follows: \$5 bag for coarse tree fern or bark mix, phal mix and timed-release fertilizer are \$3 each or 2 for \$5. SAOS Tshirts featuring a spotted blue cattleya will be available for \$20 for S to XL and \$25 for XXL.



Shows in Florida this month are in [Englewood](#), [Vero Beach](#) and [Savannah](#) (Click on names for details).

The SAOS Picnic and Orchid Swap will be held on April 23, from 4 til 6 pm at the Memorial Lutheran Church, 3375 US-1, St Augustine, FL 32086. Dianne brought a sign-up sheet for side dishes and desserts. BYOB. The club will provide the hamburgers and hot dogs. *Do not forget to bring any extra plants or divisions to trade or sell.* Susan Smith will be giving a short talk on paphs and phrags.

Penny, our Club librarian, brought in a book on growing miniature orchids and thanked Wes Dean for donating the Orchids for Dummies book, which Penny promptly checked out. To borrow a book, you can email Penny (librarian@staugorchidsociety.org) with your book/DVD request and she will bring the item(s) to the next meeting.

Our AOS Representative, Suzanne Susko showed the latest AOS Orchids magazine with a cover of a beautiful schombocattleya in full bloom. She noted that the AOS will be conducting two webinars that are open to all. The topic of the April 18 webinar is a greenhouse chat and the April 20 webinar topic is on orchid nomenclature. She encouraged all to subscribe to AOS using the trifold pamphlet available at the Welcome Table.

Show Table Review. Courtney Hackney began with C. skinneri. This beautiful purple spring-flowering orchid is one of the most rewarding because it is so easy to grow and flower. It is also available in an alba form. He then went to a coerulea variety of Cattleya walkeriana that smells wonderful. C. violacea 'Icabarú' also has a wonderful fragrance. It is from the Amazon and loves to grow high in the greenhouse where the temps are the hottest. Courtney



Continued on page 3



CLUB NEWS



Upcoming Orchid Events

April

- 7-8 Englewood Area Orchid Society Show
- Englewood Methodist Church
- 11 JOS Meeting, Topic TBA, 7 pm
- Tom Wise, Johns Island Orchids
- 22-23 Vero Beach Orchid Society Show
- Riverside Park
- 23 Picnic and Orchid Swap, 4 – 6 pm
- In Lieu of Keiki Club
- Memorial Lutheran Church
- 3375 US 1 South, St. Aug 32086
- 28-30 Deep South Orchid Society Show
- Central Georgia Botanical, Savannah

May

- 2 SAOS Meeting, 7 pm
- Glenn Gross, Gross Orchids
- Mounting and Care of Orchids
- 5-7 Platinum Coast Orchid Society Show
- Kiwanis Island Park Gymnasium
- 6 Repotting at Ace Hardware, 9 am til 1 pm
- 3050 US 1 S in St. Augustine
- Repotting and Plant Clinic
- 6-7 Tallahassee Orchid Society Show
- Doyle Conner Building
- 13-14 Volusia County Society Show
- Volusia County Fairgrounds
- ?? JOS Picnic
- 3611 Richmond St., Jax 32205
- 19-21 Redland International Orchid Festival
- Fruit and Spice Park, Homestead

June

- 3 SAOS at Ace Hardware, 9 am til 1 pm
- 3050 US 1 S in St. Augustine
- Repotting and Plant Clinic
- 6 SAOS Meeting, 7 pm
- Mark Reinke, Marble Branch Farms
- Decoding Dendrobiums
- 13 JOS Meeting, Topic TBA, 7 pm
- Steve Arthur, Steve Arthur Orchids

July

- 1 SAOS at Ace Hardware, 9 am til 1 pm
- 3050 US 1 S in St. Augustine
- Repotting and Plant Clinic
- 6 SAOS Meeting, 7 pm
Rescheduled to Thursday from July 4th
- Courtney Hackney and Sue Bottom
- What's Wrong with My Orchid?
- Send pictures of any problem plants to Sue to be included in the program
- 11 JOS Meeting, Topic TBA, 7 pm
- Speaker TBA

St. Augustine Orchid Society Organization

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



CLUB NEWS

Continued from page 1

discussed the Slc. Anduril 'Krull's Scarlet' with its beautiful scarlet flowers and noted that the redder an orchid's flower, the more difficult it can be to grow in hot climates if the red comes from a Sophronitis parent. Pot. Love Passion 'Orange Bird' has a nice flower count. This orchid needs its inflorescences staked until the flowers open. At that point, the inflorescence will harden and support the flower without stakes.

Since it is Phalaenopsis season, we had a wonderful array on the table. Courtney started with the uniquely spotted Phal. Mini Mark originated by Mark Rose. Then he pointed out the Phal. Sweet Memory which is normally a summer bloomer but since it is so well grown, it is blooming now with a very strong fragrance. Next Courtney stated that the Taiwanese hybridizers have successfully bred the Harlequin Phalaenopsis into many of the phals represented on the table. Harlequin Phalaenopsis typically have variations in their spot patterns from one bloom cycle to the next and from flower to flower on the same bloom spike. The Phal. cornu-cervi 'Red' orchid can stay in bloom year round by reblooming from the same spikes. Courtney said that Krull-Smith was making hybrids with it. Hybridizers had a difficult time creating a Phal with a yellow background and a striped pattern. The Dtps. Ox Lottery represents their successful efforts with its strong yellow flower, marked with well-defined red striping over all its segments. Another plant on the table that took hybridizers generations to achieve is the Tolumnia Popoki 'Mitzi'. Check out the photos of our show table examples at the end of the newsletter and on the SAOS website.



Plants waiting for the auction to begin.

SAOS Auction. Courtney Hackney described each plant's attributes as he conducted the club's Spring Auction. About 20 plants were auctioned in lively bidding. There were also set price plants available on the sales table.

Meeting Conclusion. Bob Schimmel announced the Member's Choice Award as Bill Gourley's Phal. Sweet Memory 'Bubbles'. Thanks to those that volunteered to stay and clean up the room.



Courtney & Sue handle the auction.



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



CLUB NEWS

March Keiki Club

Repotting and Potting Mixes

Almost two dozen familiar faces convened at Sue and Terry Bottom's for the annual repotting party. We talked a bit about how your growing environment can dictate the best way to pot up your orchids. If you can control when and how much water they receive, you have a lot of flexibility in choosing how airy or water retentive you want your mix to be. For those growing outside where Mother Nature decides when to water your orchids, you have to make sure your mix won't become waterlogged during the tropical storm season and make sure you water when Mother doesn't. Then each person chose an orchid from the ones donated by Nicky Makruski (who might have been snowed on up in North Carolina!) and teamed up with a repotting mentor to assist in the process of slicing and dicing, choosing a suitable pot and then settling the orchid in its new home. We also repotted some orchids brought to the meeting, before the first rumbles of thunder were heard. Some got to their cars before the rain came, the rest of us chatted away as the rain fell. If only we had thought to stock the potting shed with beer and wine, we might have been there longer!



April 23 Picnic and Orchid Swap

We have started a new annual traditional, a SAOS picnic and orchid swap. We'll be grilling hamburgers and hot dogs for all. Feel free to bring a side dish and liquid libations and join the fun. Bring any extra plants you would like to swap with other members. If you don't have plants to barter with, cash works too! The picnic will replace the keiki club get together this month. Please let Events Veep Dianne Batchelder know if you plan on attending (veep-events@staugorchidsociety.org 436-5618) to assure there is a hamburger and/or hot dog for you.

Susan Smith will give a brief talk on how to grow Paphiopedilums and Phragmipediums (previously scheduled for May). These beautiful and exotic orchids put on an elegant and long lived display. Susan will talk about how she grows her beautiful specimens, you may decide to grow them too!

Where: Memorial Lutheran Church

[3375 US 1 South, St. Aug 32086](https://www.google.com/maps/place/3375+US+1+South,+St.+Aug+32086)

When: April 23, 4 to 6 pm

May 2 Monthly SAOS Meeting

Mounting Orchids

Glenn Gross of Gross Orchids in Lakeland will discuss a different approach to mounting orchids, their care and maintenance. Glenn believes in cultivating orchids using the most natural conditions, so he prefers growing orchids on mounts rather than in pots. This hands-on program for different ways to mount orchids also includes care tips. Plants will be available on the raffle and sales tables. Friends and visitors are always welcome.



INSPIRATION



Den. aggregatum

© Terry Botta '17



CULTIVATION



Orchid Questions & Answers

by Sue Bottom,
sbottom15@hotmail.com

Q1. I have 6 orchids that all seem to have a sticky deposit on the leaves. The sticky stuff drips onto the table they stand on and the windows they are next to. I did try gently just wiping the leaves with damp tissues, but it all reappeared. There are no evident creatures but I note that there are now brown patches on the underside of some of the leaves.



A1. Those little brown spots are scale, they are in fact sucking insects pulling the plant sap out of the leaves. Get a bottle of isopropyl alcohol, pour a little into a cup, get some Q-tips and get to work, rubbing the scale off each leaf, upper side and underside of each leaf.

Then pour some alcohol into a spray bottle and spray the alcohol into the crevices between each leaf to kill anything that is lurking there unseen. You may have to repeat the spraying weekly for a couple of weeks, then just watch for reemergence of the scale.

Q2. I inherited several cattleyas that a friend purchased at an orchid show. I've had them a couple of years now, and had two instances of overwatering from which they somewhat recovered. Several times the leaves have produced what I think is the flower sheath, but it never flowers, just eventually sort of yellows and withers away. Any advice?



A2. Sometimes immature plants or plants growing in low light don't have enough energy to produce flowers so they produce a blind sheath, one that never blooms. If your friend purchased the plant at an orchid show, I would presume it was purchased in flower which suggests it is a mature plant. Next question, is it getting enough light to generate enough energy reserves to be able to flower. If you are growing indoors, it is often not bright enough for cattleyas. Do you have a sunnier location it can be moved to (not quickly for fear of sunburn!) or is there a place you can put it outdoors when it warms up where it is protected from the midday sun but bright the rest of the day? In strong growing plants, there are some that bloom from the green sheath when that growth matures and some that rest after the growth matures and after several months of resting the bud forms into a flower. Don't give up, you just may have to experiment a bit to get the cattleyas into bloom, but they're worth it!

Q3. I have leaf mottling on some plants. I have been told that the problem was either caused by cold spells for which I was not prepared, or a nutritional deficiency. What do you think?

A3. I used to get that leaf mottling on my cattleyas, patches of lighter and darker green. I think the root cause is magnesium deficiency that shows up when plants are stressed from exposure to too hot or too cold temperatures that damage the chlorophyll. Magnesium is a major component of chlorophyll and the leaves that develop with insufficient magnesium are more susceptible to damage. Our water in Florida



is very magnesium deficient, mine for example has about 150 ppm calcium and only 7 ppm magnesium, far from the recommended 2:1 to 4:1 ratio. You probably need at least 20 ppm magnesium and Tom Sheehan's study indicates 50 ppm Mg is optimum for cattleyas. I use Epsom salts with every watering/fertilizing and strive for around 30 ppm Mg. Get your water tested so you know what you're dealing with and then you can figure out what magnesium supplement would be compatible with your fertilizer. You may not reverse the prior chlorophyll damage, but you can prevent it from showing up on new leaves.



CULTIVATION



Best Time to Repot Courtney's Orchid Growing Tips

This month is one of the busiest for every orchid grower. After a period of relative dormancy, orchids of every kind are beginning to grow. New orchid growers must learn to recognize when the growth cycle begins. Proper repotting and fertilizing of orchids depends on that recognition. The purpose of repotting should not be to multiply a plant, but to replace decaying medium. A well grown plant, however, will often need a larger pot and yield extra pieces (divisions) for friends.

In nature, growth begins with some signal from nature, usually a change in day length or the beginning of the rainy season. Orchid hobbyists who become skilled growers of species also become competent naturalists because they must learn the key elements of the environment from which their difficult-to-grow orchids come.

Most of us do not undertake growing the difficult species, but enjoy the more generic hybrids that are much easier to grow and for which signs of growth are clear. Standard phalaenopsis, those with large flowers, begin their growth cycle when days begin to get longer and the temperature within the pot remains above 60 F. They will begin growth even with flowers on spikes. However, growth will begin earlier and proceed faster if spikes are removed. New leaves emerging from the center of the old leaves and new roots breaking from the stem just above the last living roots are a sure sign that growth has begun.



When this happens, your phalaenopsis can be repotted with the least damage. If your phalaenopsis was a gift, it likely needs repotting. If the medium in the pot seems to stay wet longer or your orchids' leaves are wilting, it likely needs repotting. Repotting can be as simple as removing the plant from the medium, shaking the old medium from the roots and replacing the orchid in a new pot with new medium. New hobbyists can find lots of information, including videos, on the process of repotting or attend a local orchid society potting demonstration and learn how to repot a phalaenopsis. It is easy.

Cattleya hybrids can generally be repotted in spring too. The trick is to begin the process before the orchid initiates root growth. Once new roots begin, there is the risk of damage to these new roots, which may set the plant back. It is OK to repot before roots are seen unless the hybrid is a "bifoliate-type" (very tall pseudobulbs and two or more leaves on each bulb). If you have one of this group, wait until you see new roots, which may be later in the spring or early summer. Members of this group can be killed by repotting at the wrong time.

Paphs and Phrags (slippers) are best repotted right after they flower. While they decrease their growth rate when light levels are lower, they will grow all year long. Usually, there is a new growth beginning to mature as the older growth finishes flowering on a plant.

Vandas are particularly sensitive to low temperatures. This group of orchids grows best in high light, accompanied by night temperatures above 65 F and days above 80 F. Most mature vandas are grown mounted or in baskets. Hobbyists that grow indoors are often enticed into purchasing vandas in hanging baskets and then left wondering what to do with them. They can be repotted into large clay pots as long as the medium has a diameter of an inch or more. However, it is best to avoid repotting this type of orchid. Once it gets warm, find a place outside under a lightly shading tree and water frequently.

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 April 2009.



CULTIVATION

Orchids and Beginners

by Carl Withner

There is a problem in fitting the right orchids with the appropriate beginner. In a vast plant family with over 20,000 species and twice that number of cultivated hybrids, producing a proper match between plant and grower is the first step toward successful growing. This success usually implies flowering at least, as most of us are not sufficiently "esthetic" to be satisfied with only beautiful variegated leaves or graceful grassy foliage - without blooms. There are foliage orchids but most require warmth and high humidity and are not the easiest subjects for starters.

In a survey we made of home growers — on window sills or under lights - people said several times, "I grow orchid plants well, but I want flowers!", while others said they wanted only plants that could be recognized as orchids. Just be advised that success with any kind of orchid plant leads to another, and then another, so even as a beginner, start making plans for your greenhouse soon!

There are a few caveats for the beginning grower besides trying to grow the most suitable plants. One is to realize that it takes one to three years for greenhouse grown plants to adapt to new home conditions. That's true for any plant moved around, but it can be critically important for the home grower with perhaps less than ideal conditions. (If you're growing good plants but without flowers, as the person quoted above, give them more light.) Another caveat is to start your orchid venture with several mature plants that will continue to bloom seasonally. Acquire seedlings as you go along and improve your know-how gradually; you'll still have the mature plants for flowers without waiting so long for seedling rewards. Finally, do have several plants at once, along with other house plants — they grow better "en masse", and your worry over a new growth or a broken root won't be concentrated on just one item. Spreading out your worry is very helpful, enhances the therapeutic aspects of orchid growing and makes it all the more addictive and enjoyable.



Orchids require the same environmental factors as other plants for proper growth, development and the flowering. Since most orchids grow rather slowly and deliberately, you can usually observe by their appearance whether or not the proper conditions are being provided. They are slow to grow and slow to die, and this gives you time to change conditions if they are not satisfactory. The environmental factors listed would be: light (both amount and length of day), humidity, temperature, watering, potting medium, air and finally fertilizers or nutrients. The last-named is usually much overemphasized and overdone, often to the detriment of the plants, when the other items are far more important. Of course it's the balance among these that's critical, and the born "green-thumber" is the person who "thinks like a plant" and through past experience immediately recognizes that a plant needs new soil, or more light, or whatever. You don't have to talk to them, but daily observation of their performance — and reacting properly to what you see — will result in developing your green thumb. Finally, don't be dismayed if a plant dies. We all have our un-successes; the plants we most like and find impossible to grow! Well then, either change the growing conditions or try to transfer your affections to other types of orchids.

Remember too, that how you grow them today will have its influence next year. It's a long term continuum of good care that is required.

Of all the environmental conditions, the balance among light, temperature and humidity is most important for good growing. Orchids require fairly high humidity as a rule — 50-70% or higher for some, and usually fairly bright light and temperatures from 60-75 degrees F. Many will grow and flower with those ecological parameters. It has been said that if you can grow ferns, rex begonias, or African violets, you can grow orchids. It's a good comparison, as these plants too are critical of this same balance of light, humidity and temperature. In home conditions, humidity is often a main problem so that humidifiers or frequent misting or such other arrangements as wet gravel in trays are necessary. Also, for most orchids there is a critical

Continued on page 9



CULTIVATION

Continued from page 8



temperature differential necessary between night and day — 10 to 20 degrees. This drop at night is a factor for general good growth and imperative for flowering in many plants. Potting material and fertilizing need to balance. Tree fern, osmunda or composts have some nutritional content and will not need much supplemental fertilizer. Bark mixtures generally have no mineral content and require continual fertilizing, usually of diluted nutrients high in nitrogen, the nutrient that is most easily washed out and lost for the use of the plant. I, personally, belong to the school of fertilizing with extra dilute amounts — perhaps one quarter of whatever is called for — used fairly often, but always with some plain waterings between times to prevent any toxic build-up. If you forget or miss a few times, it won't make a big difference; the plants will still be O.K. and when they're dormant it can be skipped altogether.

What are some of the tolerant orchids that will grow and flower with least difficulty? "Tolerant" to me, means plants that can take too much light, too little humidity, too high temperature, or too low, and still behave. Many are species, and either they may be grown directly, or their hybrids may be chosen, as they will usually have the same characteristics as the parents.

The lady slippers - either cool types with solid green leaves or the mottled-leaved intermediate sorts — are easy to grow and do not require high light. This makes them ideal subjects for cultivation under lights if that's your arrangement. Phalaenopsis, particularly *Phalaenopsis lueddemanniana* or its hybrids are also good subjects for under-light- growing, but they require intermediate to warm temperatures and higher humidity than many other orchids. They flower readily over long periods, and the flowering stalks can branch for secondary flowering that extends their season. They bloom readily from seedlings and may not be as expensive as other orchids.

In the Cattleya alliance, a few species or their hybrids are tolerant, but they tend to be medium or larger-sized plants. If you've the room and enough light, then try *Cattleya aurantiaca* or any of its many hybrids bright-colored flowers

in Spring and easy to grow. Taller plants are produced from fall-blooming *Cattleya bowringiana* and its hybrids such as *C. Portia*, but they are tried and true under tough conditions and almost always produce flowers. If you must have a purple cattleya, try *Cattleya percivaliana*, a medium-sized plant, flowering after Christmas and easy to grow into specimens.

All the terete-leaved Brassavola species are good candidates for beginners, particularly *B. nodosa*, the Lady-of-the-Night orchid with its aromatic perfume only in the dark. There are many hybrids of *B. nodosa* available with various cattleyas or laelias and they all behave well. Another vast alliance of orchids includes the yellow/brown oncidiums, either alone or hybridized with their cousins, the odontoglossums, the miltonias or the brassias. These are often described as cool orchids, the odontos especially, but the hybrids tolerate intermediate temperatures well. They flower with branched sprays of bright-colored blooms. *Odontoglossum bictoniense* and its combinations are particularly good, and also look out for *Oncidium splendidum* or *Onc. tigrinum* and their progeny.

This will get you started, at least, but by no means a complete list. Some will suggest *Dendrobium kingianum* or *Dendrobium nobile* in their many forms, or Maxillarias perhaps, or Lycastes. If you must have a Sophronitis, try *Sophronitis cernua*, more tolerant than the other species and not as demanding of cool, humid conditions. And for a red orchid, Slc. Jewel Box 'Dark Waters' would be my prime choice. It has *C. aurantiaca* in the ancestry and grows readily.

Now, you're on your own! As your orchid green thumb develops its calluses, remember to read as much as you can about growing orchids. There's a wealth of good books and journals available, and often commercial catalogs will contain helpful information. As your knowledge increases, you'll soon be ready for that greenhouse. Good luck!

Note: The late Dr. Carl L. Withner wrote this article for the Canadian Orchid Journal in the Spring of 1982.



CULTIVATION

Bud Blast and Flower Blighting

by Sue Bottom, sbottom15@hotmail.com

Who does not enjoy seeing at a jewel orchid with its interesting leaf coloration and veination or a Phalaenopsis schilleriana with its beautiful variegated leaves. The orchid aficionado always enjoys a well-grown plant with unblemished leaves and a good growth habit. While there are some orchids grown for their foliage, the big payoff for our time and trouble is the long anticipated flowers. When the floral display is ruined because the buds blast before opening or become blighted after opening, we wonder what we could have done differently.

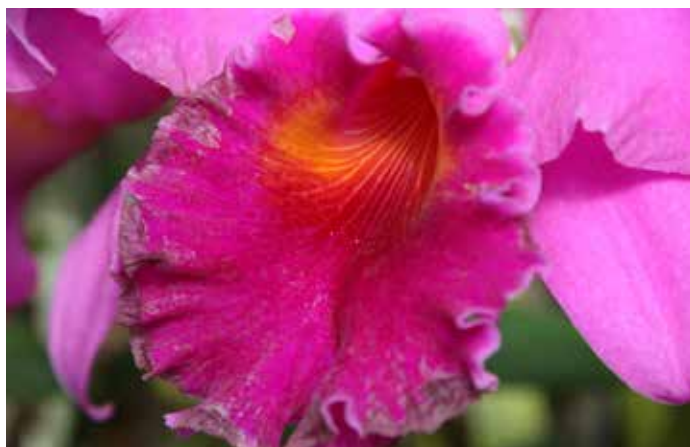
Newly Acquired Plants. Bud blast on plants that have just been brought into your growing area is probably the norm rather than the exception. Think about how your new orchid was uprooted from the cozy greenhouse where its every need was met, jammed into a box or flat, loaded into a truck or airplane, and sat on the shelf at the retail outlet before arriving at your growing area. Every environmental cue an orchid uses to adjust to its environment was confused by its journey. It should not be surprising that these jet-lagged plants drop some or all of their buds.



Bud Blast

The Problem of Too. When developing buds become yellow, shrivel, dry up and ultimately fall off instead of blooming, there is a problem with the environment, pests or plant health. If the plant has been growing well in your care for several months when you notice the buds drop, there may be a problem that usually involves “too”, i.e., too hot, too cold, too wet or too dry. It could be too hot if grown in a too sunny window, if too close to a heating vent, or if left in a too hot car. It could be too cold if grown too close to a window during cold weather, if too close to an air conditioner vent, or if taken to your Society meeting on a cold night. It could be too wet if it is watered too frequently or if the

potting mix is too old such that the roots die due to lack of air, so the plant does not have the strength to flower. It could be too dry if grown in a too low humidity environment, such as an air-conditioned or heated home, or is provided with too little water forcing the plant to reabsorb moisture from the buds as a survival mechanism. While you cannot bring the blasted buds back to life, you can help prevent future buds from blasting if you can diagnose which “too” is causing the cultural problem.



Chemical Burn

Chemical Damage. Chemicals sprayed onto flowers can damage them causing burnt appearance, with browning around the edges or dry spots on the buds. As the water in the chemical solution evaporates from the flower, the previously dissolved chemical is concentrated on the tender flower. Overly strong fertilizer solutions can cause chemical burn on the flowers as can many pesticides and fungicides, particularly copper bearing chemicals. Be careful to accurately calculate and measure chemical application rates to prevent overdosing them. To the extent possible, try not to wet the flowers with fertilizers or chemicals unless you know they will not damage your flowers. During summer’s heat, you may consider spraying in the late afternoon when it is cooler.

Premature Aging. If present at a certain level, ethylene gas can cause young phalaenopsis and dendrobium buds to drop and/or age prematurely. Ethylene gas causes sepals of just opened cattleya flowers to lose their substance and become dry and brown; the petals can behave similarly at higher concentrations. At even higher levels, you might notice leaf yellowing and a decline in plant health. Ethylene is a byproduct of incomplete combustion, so it can be find its way into your growing area from an unvented fuel fired heater, a leaky vent line from the heater, a nearby internal combustion engine, a leaking gas line or automotive exhaust fumes. In industrialized or smoggy areas, there may be certain times of year when

Continued on page 11



CULTIVATION

Continued from page 10

inversion layers trap any pollutants under the clouds, so ethylene concentrations can build up to damaging levels. Ethylene gas is also naturally produced by rotting or ripening fruit. In fact, ethylene is released by your newly impregnated orchids but at very low concentrations. You may have noticed that the flower fades as the ovary swells. This is from the presence of ethylene emitted by the plant, some think as a signal to pollinators to move onto the next flower. If you notice premature aging on your flowers, make sure your heaters are operating and venting properly and internal combustion engines are downwind from your growing area. If circumstances and cold weather force you to use an emergency unvented propane heater, realize you have traded some of your flowers to save your orchids.



Dried Sheath

Flower Sheaths. In younger plants, you may occasionally get a blind sheath, one in which the bud fails to develop into a flower. In some cases this is normal because the plant is not mature yet. If mature, your plant may not have stored up enough energy for it to flower. The most likely cause in an otherwise healthy plant is insufficient light. A second possibility is nighttime temperatures that are too warm. Warm nights force your orchid to consume energy rather than storing it for future growth and flowering.

Sometimes a cattleya will rest after it finishes growing the pseudobulb before initiating flower buds so the sheath is empty for several months. Rogerson's classic articles on [Cattleya species culture](#) describe how cattleyas can be categorized into two groups based on whether they send out roots before or after they flower. The Chadwicks expanded this concept for the large flowered unifoliate noting that the *Cattleya* species that root before they flower are the same species that rest before buds appear in the sheath. The resting period can be as short as one month for a *C. labiata* to as many as 5 or 6 months for a *C. mossiae*. This relationship between rooting and flowering does not

hold true for bifoliate cattleyas. Both *C. tigrina* (syn. *C. leopoldii*) and *C. guttata* root after the growths mature, but *C. tigrina* blooms from a green sheath while *C. guttata* rests and blooms from a dried and brown sheath. Before you conclude that your cattleya is not going to flower from that sheath, check its parentage to see whether you just have to wait patiently for nature to take its course.

Keep an eye on the color of the developing flower sheaths to make sure they are healthy. As long as the sheath is green, a healthy yellow or dried brown color, the sheath is fine and will continue to protect any emerging bud. There is no reason to remove a dried sheath unless it starts to rot. Sometimes, when there are big temperature and humidity swings in your growing area, moisture will condense in the sheaths and ultimately cause bud primordia to rot. If the sheath turns an unhealthy yellow or wet looking brown color, gently pull the sheath apart to allow air movement and drain any condensation away from developing buds.



Thrips damage

Pests. Small sucking insects like aphids and thrips can damage developing buds and flowers. For any of these flower targeting pests, you will have to spray the flowers being attacked, so choose your chemicals carefully and be careful to make sure your application rates are proper. You can knock aphids off the flowers with a gentle water or soapy water spray or dab at them with isopropyl alcohol.

Thrips can cause buds to abort and flowers to look burned or virused. These small, flying insects have rasping mouth parts that do considerable damage to the tender floral tissue. If you have a penchant for blooming plants and trees in your yard or you live in an agricultural area, you may find there is a considerable population of thrips in the area that may decide to stop in and snack on your orchids. To the extent you can spray citrus trees, gardenias, and other plants that attract thrips, you may be able to keep populations low and out of your growing area. However, if you know there are thrips in your area, the best way to protect your blooms is a preventative weekly "poofing"

Continued on page 12



CULTIVATION

Continued from page 11

with Orthene (acephate), Avid (abamectin) or Conserve (spinosad). You do not need to do a broadcast spray onto every leaf surface, just a targeted spray onto all the flower buds and open flowers. You should spray any emerging or exposed floral parts, and make it part of your regularly weekly routine.

Large chewing pests like caterpillars, cockroaches, snails, slugs, grasshoppers, mice, etc. can eat flower parts and do considerable damage quickly. Caterpillars can be physically removed or the you can spray with Bt (*Bacillus thuringiensis*), a naturally occurring bacteria that kills caterpillars. Poison baits are required for the larger pests, once you decide which pest is causing your problems. You might have to do a few nighttime forays with a flashlight to discover what your next step might be. For cockroaches, spread one of the granular boric acid products like Niban. For snails and slugs, try some of the iron phosphate products like Sluggo. For rodents, set up rat traps or poison bait stations. Be sure to keep pests away as some products can be deadly. For grasshoppers, crushing them between two bricks is immensely satisfying.



Chewing

Medallion (fludioxonil) on a regular basis. There is no way to remove the spots once a flower is infected. Removing the blighted flowers to a sealed container will help reduce the number of spores that could act as an inoculant in your growing area.



Virus Color Break

Virus. Flower blighting caused by some of the more common orchid viruses results in floral color break or necrotic streaking, both of which are unsightly. Sometimes thrips or chemical damage is mistaken for viral color break and normal aging is mistaken for blossom brown necrotic streak. You may want to consider keeping Agdia test strips on hand as a simple way to confirm whether or not the plant has Cymbidium Mosaic Virus or Odontoglossum Ringspot Virus. There is no treatment for a virused plant and there is the risk of spreading the virus to other plants in your collection. Given the expectation that the viral flower blighting will recur year after year, it is a simple decision to throw the plant away, and not into the compost bin. Though you hate to discard any orchid, you can accentuate the positive by thinking of it as an opportunity to open up bench space for those new seedlings you are hoping to flower this year.

A plant generally does not initiate the development of buds unless it has enough stored energy to flower. If buds drop after forming, there has likely been some sudden change in environmental conditions. Be observant of changes in sunlight, temperatures, humidity, etc. on your growing area, so you can help prevent the problems of "too". Keep careful watch over your plants for evidence of pest and disease problems and have a precautionary treatment plan in force to prevent them from blighting your flowers. We may lose a few flowers along the way, but as long as we keep observing, listening and learning, we will get better at growing and flowering our orchids year after year.



Botrytis

Disease. Flowers can be marred by the ever-present fungus *Botrytis cinerea*, particularly when cool and damp conditions favor its growth. Moisture on the flowers is required for *Botrytis* to grow. Water early in the day, increase air movement and provide warm (>60F) nighttime temperatures to help keep the flowers dry. If your budget does not allow you to keep your growing area this warm, try spraying the flowers with Daconil (chlorothalonil) or



SHOW TABLE



Terry Bottom

Grower Sue Bottom
Den. cucullata



Terry Bottom

Grower Susan Smith
Paphiopedilum NOID



Terry Bottom

Grower Suzanne Susko
Phal. cornu-cervi 'Red'



Terry Bottom

Grower Linda Stewart
Pleurothallis grobyi



Terry Bottom

Grower Linda Stewart
Aergs. hildebrandtii



Terry Bottom

Grower Yvonne & Bob Schimmel
Phal. Yu Pin Lady



Terry Bottom

Grower Sue Bottom
Lc. Blazing Treat



SHOW TABLE



Grower Mary Ann Bell
Slc. Anduril 'Krull's Scarlet' AM/AOS



Grower Bill Gourley
Phal. Sweet Memory 'Bubbles' AM/AOS



Grower Susan Smith
Paph. Green Champion



Grower Lois Muller
Oncidium Alliance NOID



Grower Suzanne Susko
Dtps. Shyang Fa 'White Gold'



Grower Sue Bottom
C. walkeriana var. coerulea 'Wenzel San'

