



### CLUB NEWS



#### December 4 SAOS Auction

President Tom Sullivan welcomed about 60 members and guests to the Annual Christmas Dinner and Auction at the Memorial Lutheran Church. Events Veep Dianne Batchelder did a great job organizing the party. Lady Di, Dottie and Susan prepared the main chicken and pork dishes and members supplied everything else. The food was terrific and the desserts were irresistible. Terry Bottom produced

our 2019 calendar showing all the Member's Choice plants during this past year.

Tom Sullivan made his debut as president of SAOS. Tom thanked outgoing Director Suzanne Susko for all her contributions and welcomed new director Doug Smith into the fold. All the remaining officers from the prior year will continue to serve the Society.

We had some special commemorative awards. In honor of Courtney's many contributions to the club, his fishing

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# CLUB NEWS



## Upcoming Orchid Events

### December

- 8 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.

### January 2019

- 5-6 Sarasota Orchid Society Show  
Sarasota Municipal Auditorium
- 8 JOS Meeting, Topic TBA, 7 pm  
Speaker TBA
- 9 SAOS Meeting, 6:30 pm  
Changed meeting date from the 1st Tuesday to the 2nd  
Wednesday to accommodate Dave  
Dave Off, Waldor Orchids  
Collecting Cattleyas
- 11-13 Tamiami International Orchid Festival  
Dade County Fair Expo Center
- 12 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 25-27 Fort Lauderdale Orchid Society Show  
War Memorial Auditorium
- 27 Keiki Club Get-Together, 1 pm  
Meet Your Mentor  
Sue and Terry Bottom's Home  
6916 Cypress Lake Ct, St Aug 32086

### February

- 2 SAOS at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 2-3 Venice Area Orchid Society Show  
Venice Community Center
- 5 SAOS Meeting, 6:30 pm  
Judging Plants on the Show Table  
Courtney Hackney and Eric Cavin
- 8-10 Greater Orlando Orchid Society Show  
Orlando Garden Club
- 8-10 South Carolina Orchid Society Show  
Riverbanks Zoo&Botanical Garden  
West Columbia, SC

- 9-10 Boca Raton Orchid Society Show  
Safe Schools Institute
- 12 JOS Meeting, Topic TBA, 7 pm  
Speaker TBS
- 16 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 16-17 Port Saint Lucie Orchid Society Show  
Port St. Lucie Community Center
- 17 Keiki Club Get-Together, 1 pm  
Growing Area Tour – Winterizing  
Susan and Doug Smith's Home  
148 Sarah Elizabeth Dr., St Johns 32259
- 22-24 Naples Orchid Society Show  
Moorings Presbyterian Church

## St. Augustine Orchid Society Organization

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Vice President Events	Dianne Batchelder <a href="mailto:ladydi9907@aol.com">ladydi9907@aol.com</a>
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Directors at Large	Susan Smith, 2017 <a href="mailto:2manysmiths@comcast.net">2manysmiths@comcast.net</a> Doug Smith, 2019 <a href="mailto:doug4998@yahoo.com">doug4998@yahoo.com</a> Bob Schimmel, 2019 <a href="mailto:schimmelr55@bellsouth.net">schimmelr55@bellsouth.net</a>
Exhibit Committee Chair	Janis Croft <a href="mailto:croftie1984@gmail.com">croftie1984@gmail.com</a>
Librarian	Bea Orendorff <a href="mailto:orendorff3@gmail.com">orendorff3@gmail.com</a>
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buddy Terry presented him with a picture of Courtney fishing, his other passion. Outgoing president Bob Schimmel was given the Orchid Digest Diamond Award in honor of his five years of service. We are all waiting to read about his contributions to be published in the Orchid Digest magazine.



Sue forgot to mention that **next month's meeting is being moved to the 2<sup>nd</sup> Wednesday on January 9<sup>th</sup>** to accommodate Dave Off of Waldor Orchids who is travelling down to the Tamiami show. Dave is one of the headliners of our 2019 speaker lineup, do not miss his talk!

Courtney arranged to receive budded and blooming plants from Ben Oliveros of Orchid Eros, and needless to say Ben's plants never disappoint. Eager bidders received bidding numbers and Courtney started the auction after desserts. It was quite a lively and successful event. Of course, we missed charter member Mary Ann Bell, who is rehabbing, so she wasn't able to go home with her usual car full of orchids.

Thanks to all who stayed and helped clean up. Another great party, ain't we got fun!



For more pictures go to <https://flic.kr/s/aHsmwZbMHW>



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



# CLUB NEWS



## January 9 Monthly Meeting Dave Off, Waldor Orchids - Cattleyas

Our meeting has been rescheduled so we can feature Dave Off of Waldor Orchids, who is travelling down to Tamiami for the big show that weekend. Known on his blog as the OrchidNerd and sometimes as the action hero Captain Orchid Plants, Dave is focused on the best cultural practices for the heirloom cattleya collection he manages. He will talk about the methods and reasoning in building your cattleya collection.

Dave Off is the third generation of Offs specializing in growing cattleyas, cymbidiums and other orchids at Waldor Orchids in Linwood, New Jersey. Waldor Orchids was started by Dave's grandfather in 1925 (originally Brighton Florist) and continued by Dave's late father Walter. Waldor Orchids' mission: to continue George Off's legacy by preserving his old-time collection and selecting the very best of anything new. Waldor Orchids not only is growing in this century but continues the traditions of the family, growing well and being inventive.

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!

## American Orchid Society Corner

December 12, 8:30-9:30 pm, Everyone Invited  
[Judging Vandas](#) – Robert Fuchs, RF Orchids

Orchids Magazine this month: [request free issue](#)  
White Fringed Orchids by Tom Miranda  
C. Chocolate Drop and its Hybrids, Jean Ikeson  
Exploring Madagascar, the Hermans  
Leaf Spotting Fungi-Part 2, Sue Bottom

[Photos of Latest AOS Awards](#)

## Keiki Club Activities in 2019

Our new Keiki Club coordinator, Doug Smith, is soliciting ideas for activities in 2019. Our tentative schedule is as follows. We would love to hear any suggestions you may have.

January 27: Meet Your Mentor. We will have a meet and greet to pair up mentors with mentees and talk about our goals for the program.

February 17: Winterized Growing Area. We will visit Susan and Doug's growing area to see how they winterize their summer growing areas.

March 16: Jacksonville Orchid Show. We will be going up to the Jax Orchid Society Show to see the exhibits and all the orchids for sale.

April 28: Picnic & Orchid Sales. We will have a barbecue and potluck picnic to socialize. Members are invited to bring plants to sell.

May 26: Potting Mixes and Repotting. We will visit Sue and Terry's growing area to talk about potting mixes and repotting your orchids.

June 22: Krull Smith Orchids. We will visit the commercial orchid nursery Krull Smith in Apopka.

September 22: Getting Ready for Winter. We will visit Leslie and Chip's growing area to talk about fall preparations for winter.

October 19: Orchtobefest at EFG. We will visit the commercial orchid and tropical plants grower EFG, and have some German beer and brats too.



<https://www.youtube.com/watch?v=x8zAyVbfyZA&feature=youtu.be>



# INSPIRATION

## Programs Scheduled for 2019



**January 9 – Cattleyas in the 21st Century**  
Dave Off, [Waldor Orchids](#)  
How to build and care for your cattleya collection



**July 10 – Doritis Species and Hybrids**  
Tom Wise, [Johns Island Orchids](#)  
Prolific summer blooming phalaenopsis

**February 5 – Judging the Show Table**  
Courtney Hackney and Eric Cavin  
Learn how the AOS would judge our Show Table



**August 6 – Hybridizing Our Orchids**  
Jim Roberts, [Florida SunCoast Orchids](#)  
How orchid hybrids are made



**March 6 – Tolumnias, Equitant Oncidiums**  
Daryl Venables, [Tezula Plants](#)  
Petite plants with brightly colored flowers



**September 3 – Brazilian Catasetums**  
Francisco Miranda, [Miranda Orchids](#)  
How catasetums grow in their natural habitat

**April 2 – Cattleyas Around the Year**  
Gene Crocker, [prior hybridizer Carter & Holmes](#)  
Cattleyas that bloom January through December



**October 1 – Suggested Species for Florida**  
Thanh Nguyen, [Springwater Orchids](#)  
Species that grow well in the Florida climate.



**May 7 – Laelia purpurata and Its Hybrids**  
Vern Bloch, Prior Owner of Palm Bay Orchid Range  
Many color forms of this much loved cattleya



**November 5 – Orchid Growing Tips**  
Courtney Hackney, [Hackneau's Art & Orchids](#)  
Orchid roots, the key to your growing success

**June 4 – Stars and Stripes**, Allen Black, [Allen Black Orchids](#)  
Novelty cattleya hybridizing with *B. cucullata*



**December 3 - Christmas Orchid Auction**  
Kick back, have fun and spread holiday cheer with orchid friends, plus bring orchids home!



# CULTIVATION



## Orchid Questions & Answers

by Sue Bottom,  
sbottom15@gmail.com

**Q1.** I have had Otaara Island Flare for ten years. I noticed these brown marks on the edges of the top leaves. It seems to also be on the underside of the older leaves but not so much on the younger leaves. On the underside they seem to be more widespread. It does not feel pitted but it may just be very shallow and not readily detectable. The new growth is clean, the flowers look good and it is growing well.



**A1.** I don't think it's viral or bacterial, so that leaves fungal, probably one of the leaf spotting fungi. The problem with a fungus is that once it's inside the plant, it is beyond the reach of most fungicides so even if you wanted to spray, it wouldn't really help. So here's the choice, if the plant is strong enough, cut off the infected tissue and discard it, and then pamper what is left, if you want to you can spray with something to protect what's remaining. If the plant isn't strong enough to cut away the obviously diseased tissue, then just move it away from your other stuff and let it do its thing. This may be caused by *Guignardia/Phyllosticta* or a different fungus that we haven't previously associated with our orchids. Carole updated us "I think I can cut away the affected leaves and bulbs and still save the plant. I will cut it up and spray fungicide."

**Q2** Do you have any idea as to the problem with this *Den. aggregatum*? It was doing beautifully until this year. The plant lives outside under an oak tree and receives minimal morning sun.

**A2.** The spotting on leaf undersides is likely fungal, possibly *Cercospora dendrobii*. More air movement would help. We've had lots of rain here this year, so the excess leaf wetness can create a conducive environment for



fungal growth. You can remove severely affected leaves and spray with a fungicide like Daconil, but more air is the long term solution. Here's an interesting [post](#) from an Aussie blogger that recommends spraying lime water for *Cercospora dendrobii*.



**Q3.** Yesterday I picked up 2 bag babies. I found this black patch on the *Brassavola* when I got it home. Is it black rot? I also notice a couple of brown patches on the pseudobulbs of the *Schomburgkia* orchid. I read ants live in this plant.



**A3.** Cut off the one leaf on the *Brassavola*, looks like maybe it got sunburned while being tortured in the store. It looks healthy otherwise. The *Schomburgkia* looks healthy too, don't know what the brown patches are but as long as they are not soft, they'll be fine. In nature, ants have a symbiotic relationship with the orchid, but they won't infest the plant in the house. No worries, the plants are healthy and should do fine for you.





## Want a Greenhouse for Christmas?

Courtney's Growing Tips

At last winter is here whether we like it or not. Orchids are snugly placed in windowsills, under lights, etc. While visions of sugarplums may be in the dreams of small children, orchid growers throughout the temperate region are dreaming of a greenhouse

where space is infinite and life (for Orchids) is perfect. Of course greenhouses are not perfect, but for those that have long since filled up every nook and cranny of window space or space under lights it may seem so. There is a lot more to getting a greenhouse than just ordering one from a catalog and many pitfalls awaiting the unwary hobbyist. Here are a few tips.

Before you decide to build a greenhouse or buy one you need to resolve some potential problems. Does your subdivision allow a greenhouse? Not all subdivision covenants allow a freestanding greenhouse. In some, the architectural design of the greenhouse must be approved. In other cases there may be a problem with county zoning restrictions. There are also some practical problems. Do you have room in your yard? What you may have once regarded as a beautifully shaded yard may be a poor location for a greenhouse. You may never have thought about the direction your house faced until you try to find a good location for a greenhouse. The ideal situation is to have the south side of your house available for a greenhouse. A northern exposure will provide too little light during the winter. There are ways to solve most problems regarding location if you are creative and willing to spend enough money. For instance, high intensity grow lights can be used to augment light in winter if you must place your greenhouse on the north side of your house.

There is a design and size to fit just about every lot size and need if you are willing to be creative. Even local zoning and covenants problems can be overcome. While greenhouses may not be permitted in some subdivisions, saunas and lighted rooms for hot tubs are permitted. Orchids love hot tubs. You can be creative, but you need to make some decisions before you begin. How much growing space do you need? How much are you willing to spend? How much time do you have to devote to your hobby? Will your spouse let you dig up the Rose Garden? The answer to these questions will help you decide if you really need a greenhouse and if so what kind to build.



**Atlas Hobby Greenhouse Kits**

Here are some other aspects of greenhouse life that should be considered. Natural gas or propane is always cheaper than electricity. Heating in winter is easier than cooling in summer. There will never be enough electric outlets in a greenhouse or enough air movement. Always have all electric outlets on ground fault circuits to prevent electrocution. These are the same systems you have in your bathroom. Decide how you will shade your plants before putting the first plant in the greenhouse. Before putting permanent benches in, be sure you know how the sun will move with the season. Alternatively, be sure benches are built in small, easily moved sections.

How will you water your plants? This may seem like an obvious thing to consider, but many new greenhouse owners rely on a single spigot and a long hose. Multiple spigots with short hoses work better. Will you want to use an automatic watering or misting system? If so put it in before plants. How will you fertilize? Will you hang plants? How will you do that? Will hanging plants provide too much shade, block airflow, or be in the direct path of air from your heater? You should get from all this the idea that a properly functioning greenhouse involves much more than just the construction phase. However, many of your future problems will be easier to solve if you have kept your greenhouse design as flexible as possible.

The final piece of advice is the most important. Plan for the worst-case scenario. What happens if your power goes off on the coldest night of the year and you are not home? This happens to numerous orchid hobbyists each year. Backup heaters, automatic vents that open in summer during power failures can all save your collection that took years to build. Plan for the worst and hope for the best. You will find that touring local greenhouses of your fellow orchid hobbyists will be a great way to see how those in your area have solved many of the problems listed above. You may also get advice on local sources of materials or construction firms that specialize in greenhouses for orchid hobbyists. You may also decide that growing under lights or in the windowsill is not so bad after all.

*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 December 2000.*



# CULTIVATION

## Protecting Orchids from Cold

by Ken Slump, reprinted with permission courtesy of the American Orchid Society



*Winterized Shade Structure*

Tropical plants can be sensitive to cold, even for short periods, and orchids are certainly no exception. Unless you live in the tropics, this is a good time of year to give some thought to how you would protect your orchid collection in a cold-weather emergency. Act now to make sure you and your orchids are prepared to weather such a storm. Preparation and advance planning often make the difference in whether you are able to save your orchid collection in such emergencies.



*Propane Heater*

**Generating Heat.** Many hobbyists simply want to be able to supply some supplemental heat to their greenhouses if the power goes off; kerosene heaters can provide the solution. A kerosene heater, on a full tank, will operate for about 12 hours. Such units cost about \$200. An orchid grower mentioned a potential emergency heat source to me that I had never considered, perhaps because it is a favorite piece of summer outdoor recreation equipment, a gas barbecue grill. When using such appliances, be careful not to direct a blast of hot air directly at any of your plants. The main problem with kerosene heaters is their combustion fumes, which can damage flowers quickly. Plants do not like the fumes much either, but are less sensitive than the blossoms. If it comes to a choice between having your orchids freeze to death or risking damage from kerosene fumes, who would not opt for the latter?



*Electric heater*

One difficulty with combustion heaters of most any type is that, during a power outage, unless you have a generator, you will be without fans to circulate the air and thus equalize the temperature throughout the greenhouse. Still, uneven heat is better than none, and desperate circumstances call for desperate measures. Keep in mind that even a heat-generating appliance as prosaic as a charcoal grill could be lighted and might generate enough heat to make the difference between losing or saving an orchid collection in a small private greenhouse on some cold winter night when the power has failed.



*Emergency Backup Propane Heater*

Regardless of the sort of generator or heater you may decide to keep on hand for emergency use, be sure to start them up before the winter season begins to make sure they are running properly. Plan for adequate safe storage of a sufficient amount of fuel to operate them, as well.

It is extremely important to remember that neither kerosene heaters nor propane (or even charcoal) grills should be used in greenhouses that are attached to houses or buildings that cannot be completely closed off, as, in

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areas that are not well ventilated, their fumes are potentially lethal to people and animals. Greenhouse owners must be particularly aware of this danger when entering a closed greenhouse where such equipment is - or has been - in use.

Keep in mind that your goal during a power outage is not to maintain greenhouse temperatures in the range of normal operation, but simply to keep the environment warm enough to prevent serious plant damage. Any temperature in the range of 45-50 F will keep most orchids free from damage, and many can withstand even colder temperatures for short periods.

**Orchid Evacuation.** There is no question that, because houses are much better insulated than greenhouses, you are more likely to be able to keep your orchid collection at temperatures above 45 F if the plants are moved inside. Again, the goal is plant survival, not ideal culture, so realize that, for a few days, the plants can tolerate poor light and no watering. If moving your collection indoors is an option for you, you may want to keep some rolls of plastic or large plastic tablecloths on hand to set the plants on, if necessary.

If your orchid collection is too large to consider moving, you may want to give some advance thought as to which plants in the collection are the most valuable or most important to you. Know which plants you would rescue if you suddenly had to grab just a couple of dozen of your plants in an emergency. It is not a bad idea to mark those with a colored label, or put them in a particular spot. That way, if the need should arise to gather them quickly, you will not be fumbling through perhaps hundreds of plants and plant labels to find them.

Finally, give a bit of advance thought to how you would quickly transport your orchids in an emergency. You do not want to find yourself having to move them two at a time, one in each hand. Keep some boxes, plastic flats or small crates of suitable sizes in a convenient location. A small wagon or cart (or sled) could prove invaluable. I grow my orchids in a sunroom that is warmed with portable heaters during the winter. The plants are grown on shelf units, some of which have fluorescent lights as well. Each unit has a good set of wheels. If the power should go off for an extended period, it is my hope that I would not have too much difficulty wheeling each unit indoors, if necessary.

Equally important is being able to create a temporary growing area that is illuminated to meet the plants' needs. Gather plastic trays into which to set the plants for watering (the same trays can be used to transport the plants, too). Sheets of plastic can be laid down to protect flooring and keep drips and spills from harming finishes. When arranging plants, be sure to leave room to move among them to make

watering easy, and to allow for air circulation. If plants have to remain in temporary quarters for several days, spend time removing spent flowers and damaged leaves, and try to provide some sort of ventilation to prevent the spread of fungi and diseases.

If the temperatures are cooler than normal, reduce watering (since the plants will be transpiring less than normal). Planning ahead to develop a temporary growing area, and equipping it with the necessary supplies, is part of the equation to successfully maintaining your orchids while the power is off.



*Roll up Curtains and Doors opened on warm winter days*

**Tips for Outdoor Growers.** Cold weather concerns are not just the province of greenhouse growers in temperate climates. Some of the warmest parts of our country, where orchids are frequently cultivated outdoors, during most winters, experience some frosty periods that test the orchid growers' nerves. Carol Holdren, of Boca Raton, Florida, recommends marking your most cold-sensitive plants before the cold weather so they are easy to locate if you want to bring them indoors.



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*Barrels filled with water to retain heat*

“For example,” she says, “white or yellow vandas, as well as some dendrobiums, do not like it when the temperature drops below 60 F. Those I tie with a bright-colored weather-proof ribbon so, if I have to quickly bring them inside, I recognize them easily.” Vandas and dendrobiums are particularly prone to dropping leaves when the plants are exposed to cold temperatures, while cattleyas tend to be more hardy.

If the weather prediction is for borderline temperatures, Holdren suggests that plants can be moved to the ground rather than bringing them inside. She notes that she has to watch the weather carefully because more damage can sometimes be caused by moving plants frequently than if they are just left in place.

“Unless they are really cold-sensitive, it is often best to cover them with a sheet and take a chance,” she says. Sheets and other wraps can be held in place with clothespins. Avoid using plastic, which, when in the sun, can heat up inside like an oven, and literally cook the plants. Before winter arrives, growers are advised to gather up some sheets, clothespins and twine to keep in a handy place. It is also beneficial to make sure hooks can be easily

removed from poles and hook-eyes so it's easy to remove and lower baskets when necessary.

Also note that immature plants, particularly those in flasks or compots, are usually much more sensitive to cold temperatures than are their mature counterparts.

In addition to protecting orchids on cold nights, some growers winterize their shade houses to provide a more uniform growing environment during the winter.

**The Silver Lining.** The upside of these winter chills on your orchid collection is that, in many cases, cool periods help induce bud initiation and flowering. In fact, it is usually a good idea to lower your minimum and maximum daily temperatures in your orchid-growing area at least 5 -10 F during late autumn and early winter.

Last October, while I was away for a couple of weeks, a new space heater in my sunroom overloaded a circuit one night and threw the breaker. My orchid-sitter did not notice the problem. When I returned home, I found that, without this supplemental heat, the maximum/minimum thermometers indicated that the temperature had gone down to 45 F. I expect this had happened for a number of nights, because there was an extended cold period during my absence.

Fortunately, I saw no damage to the plants in my collection, which represent a wide variety of orchid types. Within a couple of months, I began to see a larger than usual number of flower spikes appearing, even on a few plants that had been flowering during the autumn.

By the following March, I had the most abundant flowering my orchid collection has ever experienced. Particularly impressive were the phalaenopsis. I think nearly every phalaenopsis plant flowered before the spring was over.

That was an unexpected bonus, but, if temperatures had been just five or 10 degrees lower, a disaster could have been the result. Despite this windfall, I do not plan to routinely lower the night temperatures to the mid-40s every autumn.

*This article was abbreviated from a longer one that appeared in Orchids, a publication of the American Orchid Society, in August 2001 (Vol. 70:8, pp 752-757).*



# CULTIVATION

## Winter Relocation

by Sue Bottom, [sbottom15@gmail.com](mailto:sbottom15@gmail.com)

Greenhouses can become ovens in the summer heat, but they sure help keep your plants happy in the winter. If you normally grow outdoors but have to protect your plants during cold weather, you can unknowingly upset your plant's internal clock and disrupt its normal bloom pattern. *Plants have different ways of "telling time" in order to coordinate their growth, flowering, and dormancy with the natural rhythms of the climate. Few places on earth – even in the tropics – have such a steady and predictable climate that plants can grow and bloom at any time of the year. They have to deal with cold or cool weather, seasonal drought, heat, and monsoons. Everywhere except directly at the equator, day length changes through the year with great regularity, unlike patterns of temperature and precipitation. Therefore, it is not surprising that plants have seized on day length – or in horticultural terms, the photoperiod – to help them tell time.* In St. Augustine at a latitude of 29.9°N, the photoperiod varies from 10 hrs 13 minutes on the shortest day of the year in December to 14 hrs 4 minutes on the longest day of the year in June, a difference of almost 4 hours.

*Away from the equator, most plants time their growth and flowering at least in part by this seasonal clock, with summer blooming species termed long-day plants, and spring- or fall-blooming species called short-day plants. Temperature patterns and rainfall interact with day length, but if you keep a long-day plant growing under short-day light conditions, it is unlikely to flower, regardless of variations in temperature and moisture. The same can be said for short-day plants growing under consistently long days; a poinsettia kept in the living room will not rebloom because the lights you leave on at night fool it into thinking it is still summer.*

If you grow in a greenhouse or other outdoor structure, the plants respond naturally to the seasonal changes in day length. Commercial nurseries sometimes fool their plants into blooming out of season by covering them in the late afternoon to simulate short days or lighting them at night to simulate long days. If you bring your plants indoors or into an artificially lighted area, be careful to not reset your plant's bloom clock by leaving lamps on in the plant room.

Changes in temperature are also important in triggering flowering. *Ideally, nights should be 5°–15° cooler than days, and for some species seasonal variation is beneficial too, with more warmth in summer and less in winter. Diurnal and/or seasonal temperature fluctuation is one of the three cues orchids use to time growth and flowering (the*



***The greenhouse in January, with a thermostat controlled heater keeping plants toasty on cool nights.***

*others are day length and rainfall/humidity changes). Many orchid species require a lower temperature – say 55°F - for several weeks or months during fall or winter in order to initiate flower buds or growth. If the temperature doesn't fall to the necessary range, blooming will be delayed or prevented. The drop in temperature also helps slow down the plant's metabolism. Cool-growing orchids can tolerate warm days much better if the night temperature falls below 65°, and flowers will last longer, too. No matter what their preferred range, keeping your plants at a constant day/night temperature may compromise blooming and growth.*

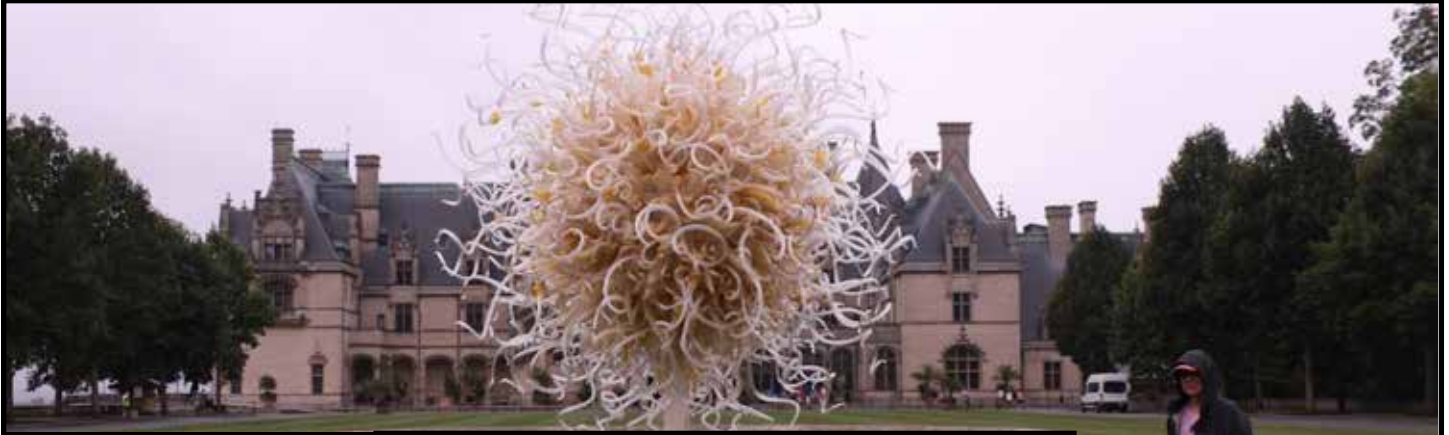
The spring blooming phalaenopsis respond to cooler nighttime temperatures rather than photoperiod to initiate blooms. They require an early fall chill down into the mid 50's for several weeks to set the bloom spikes, which should start forming by Christmas with the first blooms opening around Valentine's Day. Some of the spring blooming dendrobiums likewise require a winter cooling to set blooms. Dendrobium growers at lower elevations in Hawaii have to send their plants to another nursery up in the cooler mountains in order for them to initiate blooms. In a greenhouse or outdoor structure, you can maintain lower nighttime temperatures by setting the thermostat on your heater. For those that bring their plants indoors, you may have to leave windows open or otherwise make sure the plants are cooler at night than during the day.

Sometimes it takes some ingenuity to keep our orchids happy while they are in their winter homes. In the spring we'll be able to return them to the great outdoors to the bright shade and buoyant air conditions where they really thrive.

*Sections in italics are extracted from William Cullina's excellent book Understanding Orchids, request a copy from the library!*



# ORCHID ADVENTURES



## Orchid Adventures Chihuly at Biltmore

The grounds and gardens at the Biltmore Estate are beautiful against the backdrop of the Blue Ridge Mountains. George Vanderbilt maintained glass greenhouses full of orchids because he liked bringing orchids into the Winter Garden. Add in the blown glass sculptures by Chihuly that were exhibited this summer and the Biltmore became a visual extravaganza. The North Carolina Arboretum is worth the trip too!

Link to more Pictures.

<https://www.flickr.com/gp/44931404@N04/95eN6o>



# SHOW TABLE



**Grower Linda Stewart**  
***Aerangis hariotiana* 'Gold Country'**



**Grower Steve Hawkins**  
***Catasetum Jamie Lawson XOXO***



**Grower Susan Smith**  
***Paph. Green Champion***



**Grower Ralph DePasquale**  
***Bc. Punakea***



**Grower Bob & Yvonne Schimmel**  
***C. Hagans' Ace' Mandarin Orange'***



**Grower Sue Bottom**  
***C. Fort Motte 'Hackneau'***



**Grower Tom & Dottie Sullivan**  
***RI. digbyana***



# SHOW TABLE



Terry Bottom

**Grower Michael Rourke & Penny Halyburton**  
**Den. Jaquelyn Concert**



Terry Bottom

**Grower Sue Bottom**  
**Lc. Nalani Spots 'Raspberry Spots'**



Terry Bottom

**Grower Sue Bottom**  
**Habenaria rhodocheila 'Nora'**



Terry Bottom

**Grower Tom & Dottie Sullivan**  
**Blc. Arom Gold 'Volcano Queen'**



Terry Bottom

**Grower Suzanne Susko**  
**Blc. Toshie's Magic 'Doris'**



Terry Bottom

**Grower Courtney Hackney**  
**C. Bob Betts 'York' AM/AOS**

Link to all Pictures. <https://flic.kr/s/aHsmvtR27H>

