



### CLUB NEWS



Corona Cluster

#### Status Update

In April, May and June, we replaced our regular meeting with a Virtual Show Table program in which Courtney told us bedtime stories about our blooming orchids. Links to the videos are available on the [2020 Newsletters page](#) on the SAOS website. Courtney does a fabulous job talking about all the plants, their heritage, how to grow them and other useful pieces of

information. Courtney's show table presentations are one of the highlights of our regular meetings.



We don't expect as large of a crowd as we usually have at our meetings. We estimate perhaps 30 or 40 people will come to the meeting, which would be less than half of our normal attendance. This would allow perhaps 4 people to space themselves almost 6 ft apart at each of the large 8 ft diameter circular tables. We'll have multiple cleaned pens for signing in at the Welcome Table, making your selection for the Member's Choice at the show table and bidding on the Silent Auction table. Better yet, you can bring your own pen. Hand sanitizers will be available at each of these stations as well. Face masks will not be mandatory, but by all means wear one if you feel more comfortable with one.

At the end of June, we have our annual repotting party at Sue and Terry's scheduled. We typically have over 30 attendees to this popular event. This year the Jacksonville club asked to be invited to the repotting event. We originally agreed, but in an effort to limit attendance to a more reasonable number, have suggested they visit with us in 2021 instead. We will have some experienced members available to help you with repotting your new cattleya divisions and to answer questions.

Keep checking the website for status updates. If there is a resurgence in the viral infections, we may have to postpone events or resort to virtual programs. Don't be shy about letting us know how you feel about resuming meetings, what kind of virtual programs you are interested in, and any other thoughts of suggestions you may have.



Speaking of our regular meetings, we are hoping to have our regular July meeting at the Church, assuming the return to normalcy from lockdown continues to go well. We welcome all members that wish to attend the meeting. Tony Millet from the Bonnet House will talk to us about potting and mounting our orchids. He will bring plants for the sales and raffle tables, and a preorder list will be sent out ahead of the meeting. If you wish to buy plants but are not yet ready to come into the Church Hall, you can arrange to pay for your purchase ahead of time and your plants will be brought to you curbside.



# CLUB NEWS



## Upcoming Orchid Events

### June

- 2 SAOS Virtual Meeting, 7 pm  
What's in Bloom  
Log In using your Zoom Invitation
- 2 SAOS Meeting, 6:30 pm  
CANCELLED
- 6 Repotting at Ace Hardware, 9 am til 1 pm  
CANCELLED
- 9 JOS Meeting, Oncidiums, 7 pm  
Steve Hawkins, The Orchid Specialist
- 13 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 28 Keiki Club, 1 – 3 pm  
Growing Area Tour: Sue & Terry Bottom  
Repotting and Potting Mixes  
6916 Cypress Lake Court 32086

### July

- 4 Repotting at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine
- 7 SAOS Meeting, 6:30 pm  
Potting and Mounting Orchids  
Tony Millet, Bonnet House
- 11 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 14 JOS Meeting, Words of Wisdom  
Sue Bottom, St. Aug Orchid Society
- 31-1 Annual Cattleya Symposium  
CANCELLED

### August

- 31-1 Annual Cattleya Symposium  
CANCELLED
- 1 SAOS at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 4 SAOS Meeting, Catasetums, 6:30 pm  
Francisco Miranda, Miranda Orchids
- 8 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 11 JOS Meeting, Topic TBA, 7 pm

Thanh Nguyen, Springwater Orchids

### September

- 1 SAOS Meeting, You Bred What?, 6:30 pm  
Dave Off, Waldor Orchids
- 5 SAOS at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 8 JOS Meeting, Topic TBA, 7 pm  
Courtney Hackney
- 14 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 19-20? Ridge Orchid Society Show  
Lake Mirror Center, Lakeland
- 20 Keiki Club for Orchid Beginners, 1 pm  
Growing Area tour  
Bob and Yvonne Schimmel's home

### St. Augustine Orchid Society Organization

President	Tom Sullivan <a href="mailto:tomjs91@gmail.com">tomjs91@gmail.com</a>
Vice President Communications	Janis Croft <a href="mailto:croftie1984@gmail.com">croftie1984@gmail.com</a>
Vice President Events	Dianne Batchelder <a href="mailto:ladydi9907@aol.com">ladydi9907@aol.com</a>
Vice President Membership	Linda Stewart <a href="mailto:lindstew@hotmail.com">lindstew@hotmail.com</a>
Vice President Programs	Sue Bottom <a href="mailto:sbottom15@gmail.com">sbottom15@gmail.com</a>
Treasurer	Bill Gourley <a href="mailto:wgourley@bellsouth.net">wgourley@bellsouth.net</a>
Directors at Large	Debra Brandt, 2020 <a href="mailto:dbb@cfl.rr.com">dbb@cfl.rr.com</a> Cathy Mayo, 2020 <a href="mailto:allatoonalady@gmail.com">allatoonalady@gmail.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	Howard Cushnir <a href="mailto:hscushnir@gmail.com">hscushnir@gmail.com</a>
Newsletter Editors Webmasters	Sue and Terry Bottom <a href="mailto:sbottom15@gmail.com">sbottom15@gmail.com</a> <a href="mailto:bottom406@gmail.com">bottom406@gmail.com</a>



# CLUB NEWS

## Beginners Culture Classes

We are hoping to have the regular July meeting at the Memorial Lutheran Church. Assuming we can meet then, Tom Sullivan will do a demonstration on how to make different wire products for your orchids, such as rhizome clips, plant stakes, etc.



## Catasetinae Competition Grow

Catasetums go into an exponential growth phase in the summer, so make sure to provide copious amounts of food, water and fresh air. The catasetum blooming season is during the summer, perhaps we'll be awarding the prize for the 'first to flower' catasetum this month! Take pictures of your blooms and send them over so we can start compiling the candidates for the 'best bloom' award. We're thinking of having Fred Clarke join us via Zoom to select the winner. Sometime in late summer, you'll bring your plants in for voting to see who gets the 'best grown plant' prize. Should be fun!

### American Orchid Society Corner

#### Webinars

June 16, 8:30-9:30 pm, Everyone Invited  
Greenhouse Chat Orchid, Q&A - Ron McHatton  
June 23, 8:30-9:30 pm, AOS Members Only  
Growing Coelogynes – Charles Wilson

#### Orchids Magazine this month:

Rare and Threatened Orchids of Central Africa  
A Few Jewels from Colombia  
Japanese Orchids

#### Photos of Latest AOS Awards

## June 26 Keiki Club – Repotting Party

God willing and the creek don't rise, Sue will talk about how to decide which mix is best for your orchids, considering your growing area and watering habits. There may be some orchid keikis and divisions for you to mount and or pot up (one to a customer), bring a 4 and 6 inch clay pot, just in case. To cover the cost of supplies, there will be a \$5 charge.

If you have more than 1 or 2 of your own plants that need repotting, please bring them to the Ace repotting clinic. The repotting crew is available to give you hands-on tips on repotting at the monthly Ace clinics. Mentees should consider attending to become more comfortable with repotting their orchids.

**Where:** Sue and Terry Bottom's Home  
[6916 Cypress Lake Court, St. Aug 32086](https://www.google.com/maps/place/6916+Cypress+Lake+Court,+St.+Aug+32086)

**When:** Sunday: June 28, 1 - 3 pm

## July 7 Monthly Meeting

Potting and Mounting Orchids  
Tony Millet, The Bonnet House



Tony was scheduled to talk to us in April, May and then June. Tony will be showing us his special methods of mounting and repotting orchids, with emphasis on techniques and the use of different materials including cork, driftwood, plaques, baskets and mounts. Proper sterilization of tools will also be discussed in order to limit spread of virus to your collection. He breeds and grows unusual hybrids in the large Cattleya alliance, and also performs all hybridizing and flasking activities. Many of Tony's hybrids have been AOS awarded. Tony will send us a preorder list before the meeting that will be posted on the website.

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!

**When:** Tuesday, July 7, 6:30 til 9 pm

**Where:** Memorial Lutheran Church  
3375 US 1 South, St. Aug 32086



# INSPIRATION



*C. Pittiae 'St. Augustine'*

© Terry Botto





## Summer Begins

by Courtney Hackney

Summer officially arrives later this month along with the longest day and the most intense sunlight. Even the most sun loving Orchids now need protection from the midday radiation. Heat and light also mean that plants are using more water and growing at rates not seen for many months. No

matter what kind of Orchids you grow, now is the time to increase water and fertilizer.

Most Cattleyas have new growths developing. Be careful as you apply fertilizer not to overuse Nitrogen, as it will lead to weak growth that is susceptible to rots later on. What is a high N fertilizer. Generally, if the first number in a fertilizer formula is the highest of the three it is considered high N. For most fertilizers, the first number is deceptive because it describes total Nitrogen instead of useable N. If the formula says 30-10-10, the implication is that there is three times the available N compared to the second, which is Phosphorus. If, however, the N is composed mostly of Urea, then the number is lower because Urea is not directly available to Orchids and only becomes available if bacteria associated with the media convert it to other forms.

In the past, fertilizers I have used with even numbers have led to poor growth because they actually contained little available Nitrogen. Look for fertilizers that contain either Nitrate or Ammonia, as these are directly available to Orchids. The most important point is not to use fertilizers in concentrations too high and to flush thoroughly once a month, especially in the summer. Use fertilizer weakly, weekly for best growth.

Repotting can be safely done for most Orchid genera with the exception of a few tricky species. The ideal time to repot is always when plants are growing so that they will be re-established with fully functional root systems when fall arrives. Some Orchids flower in summer, leaving novices questioning if they should repot. A healthy plant can be repotted while flowering and may need to be repotted then. *Cattleya bicolor* is usually in bloom when it begins to grow new roots. This and most other bifoliate Cattleyas must be repotted when they get new roots, even if in flower.

Last year, I had several Paphs in flower when repotting was done. Several were repotted while in flower and others left in the pot and were repotted when they finished blooming. A third group was left in the pot and a teaspoon

of lime added on the surface of the media. The first two groups were similar in growth and flowering a year later, while the last was clearly harmed by being left an additional six months in the same media. Different media may yield different results, but clearly repotting when in flower did no harm.

Vandas and similar genera are in their glory now with high temperature and humidity. Several years ago, I discovered that *Rhynchostylis* species and hybrids close to these species preferred to be shaded more than their vandaceous cousins during the heat of the summer. Other cool loving genera can also stand more heat if light levels are reduced.

Spider mites have ceased to be a problem unless you grow inside where air conditioners reduce humidity. Unfortunately, scale, mealybugs, and other pests reproduce rapidly and need to be controlled. Rusts (related to fungi) affect a few genera of Orchids and appear on thin-leaved orchids such as members of the *Catasetum* group. It can be controlled with sprays, but is less of a problem if good air circulation and water low in solids are provided. It is important to address problems quickly this time of year as pests multiply rapidly along with your Orchids.

Orchid growers, like many others, are interested in using less pesticides and continually looking for natural ways to control pests. Greenhouses contain an array of insects and other animals, some of which are pests and others that are simply enjoying greenhouse conditions. The presence of frogs and toads suggests that there is an adequate food supply of insects. Are pill bugs an important pest? What about roaches? Most insects have some potential to cause damage and must be watched, but the presence of a greenhouse totally free of animal life is more disturbing than the pests themselves. The trick is to find that happy medium.

Almost every year a "new" treatment emerges that is theoretically less harmful to the environment. One year it was light oil, the next Neem oil and so on. The introduction of each new product initiates a flush of excitement that becomes tempered with reality within a year or so. Each new product seems to work well under certain circumstances, but none has proven to be the "magic bullet" that will solve all orchid growers problems. No matter what new product comes along, the best approach is to maintain healthy conditions with good air circulation, adequate spacing, appropriate humidity, and constant vigilance.

*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 June 2002.*



# CULTIVATION



## Orchid Questions & Answers

by Sue Bottom, sbottom15@gmail.com

**Q1.** I have several paphs that are doing well except for a few. The upper plant seems healthy but the lower part had some past problems. Should I cut off weak leaves and plant deeper in the pot?



**A1.** Follow your instincts. The older part of the plant looks tired, cut away damaged leaves and degraded roots below the soil line, and yes deeper in the pot. Clean up the plant, spray the stem with a root stimulator, let it dry and then repot. Think about your potting mix, are all your paphs in the same mix and if not, do some do better in one mix or another? Jim Krull at Krull Smith told me to add like 5% ProMix into the mix for more water retention. Courtney also top dresses with Dolomite.

**Q2.** Do these little orange crawling creatures look familiar? They are an infestation.



**A2.** Those are aphids. I get them on my garden plants, particularly the milkweed. In the garden I would just knock them off with a spray from the hose, but on my orchids I'd be tempted to spray with isopropyl alcohol or one of the pesticides. The problem with aphids is that they can have broods of 60 to 100 offspring every day, so they can be present in enormous numbers. I would suspect that there is some plant in your garden that is infested, and some have just moved over to the tender new growth on the catasetum. Search out the mother lode and destroy!

**Q3.** I made this basket to repot my stanhopea, and I was thinking metal baskets may be a better (and cheaper) alternative to the usual wood baskets for my other basketed orchids, with a liner for containing the the medium, of course. Is there any downside to doing that?



**A3.** If there is a problem, I don't know about it. That is what I use for stanhopeas. I put the stanhopeas on a thin layer of sphagnum moss with no liner. If you use a coarse media, you can use a thin layer of coconut fiber, but be careful using the coconut liners they sell for wire baskets cause there is a thin layer of plastic in the middle that will prevent the blooms from emerging through the bottom of the basket. Barney Greer's book *The Astonishing Stanhopeas* says some of the Aussie growers even use four sheets of newspaper as the liner.



# CULTIVATION

## Essential Plant Processes 2 Beginners Department - 9

by Rebecca Tyson Northen

In all of the life processes of plants water is a necessary factor. Water is necessary to maintain the turgidity of cells, and so keep stems and roots, leaves and flowers in shape. All of the materials that travel through a plant are carried by water. All of the chemical reactions go on in a water solution. When water is lacking vital processes cease, growth and food making cannot proceed.



*Roots may be the most important part of your orchid. To get good flowering, you need a healthy plant and you can't have that without a great root system*

Water is absorbed by the roots through the process of osmosis, or diffusion. The root cells contain a solution of salts and other materials in water. Soil water also contains salts in solution. But the concentration is higher in the root cells, that is, there is less water in proportion to salts within the cells than there is in the soil. Water tends to move in the direction of the lesser supply, in this case from the soil solution into the cells. A simple illustration of osmosis can be seen when one piece of apple is put in a saucer of plain water and another in a saucer of strong salt solution. The apple which is in plain water will become plump and turgid because water moves into its cells, in the direction of the lesser supply. The apple in the salt solution becomes limp and flaccid, because since the solution in the dish contains less water in proportion to dissolved materials than do the apple cells, the water moves out of the cells in the direction of the lesser supply. The apple cells, deprived of their normal water content, shrink and lose their turgidity.

The water that is absorbed by the root cells is conducted to every part of the plant and most of it evaporates from the leaves. A small amount is used in food manufacture and another small amount increases the volume of maturing cells. The plant must therefore absorb slightly more than it loses. The loss of water through the leaves is called transpiration. Actually, the water evaporates from moist cell surfaces within the leaves and collects in intercellular air spaces. From there it moves out through the stomata (pores) by diffusion, again in the direction of the lesser supply in the atmosphere. The atmosphere is seldom saturated with water vapor, and as long as more water vapor can move into the air it continues to diffuse out of the leaves. Transpiration goes on at a faster rate when the relative humidity of the air is low. When the water content of the air approaches saturation transpiration practically stops. Plants grown in situations where the atmospheric humidity is high transpire little and therefore absorb less. It sometimes happens that in a dry atmosphere the roots cannot absorb water as fast as it is lost through the leaves. This is particularly likely during hot dry summer weather and in the winter with artificial heat. It is necessary then to give the plants some assistance, to put more water vapor into the air in order to lessen the pull the air exerts on water from the plants.

The elements which a plant obtains from the soil must be in solution before the roots can take them up. They must also be in the form of simple inorganic salts. In nature they are normally present as soil constituents and are constantly being renewed by the action of bacteria in decomposing humus material. When plants are grown in an inert medium, such as gravel or haydite, they must be furnished a complete diet of minerals in solution. The nutrient solution added to agar for the raising of seedlings in flasks is a duplication of such a diet. A plant requires different amounts of the various necessary elements, yet although it needs a large amount of some and a small amount of others, each is equally important. We call those of which it uses large amounts macronutrients, or major elements, and those of which it uses small amounts micronutrients, or minor or trace elements.

Some of the minerals are combined with fractions of the sugar molecule to form proteins, pigments and so forth. Some seem not to enter into chemical combinations but to act as catalysts, that is, as instigators or regulators of chemical reactions. In other words, certain chemical reactions will proceed if a specific chemical, a catalyst, is present but will not proceed, or will go on only slowly, if it is absent. The macronutrients and something of the role of each follow.

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# CULTIVATION

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*Calcium deficiency manifests itself in the warm summer months as black leaf tips, particularly on the fast growing Central American cattleyas, the same cause as blossom end rot in tomatoes.*

Calcium. Necessary in cell wall formation and as a regulator of some cell activities. If calcium is deficient new growths are stunted and distorted.

Nitrogen. An important ingredient of proteins and of chlorophyll, and therefore necessary for good vegetative growth. When nitrogen is deficient plants are stunted and mature too early. Older leaves turn yellow and drop off. Too much nitrogen produces excessive vegetative growth and delayed flowering.

Sulfur. An important ingredient of proteins. Sulfur deficiency may stunt root growth.

Phosphorus. The third important ingredient of proteins and a catalyst and regulator of vital activity. Sometimes called the “dynamite” of living cells. Phosphorus deficiency leads to stunting, but the leaves, instead of turning yellow, become dark green.

Potassium. Another important catalyst, regulating many cell activities. Deficiency results in dwarfness, with the edges of the leaves frequently scorched and dead.

Magnesium. An important part of the chlorophyll molecule, and therefore necessary to the manufacture of sugar. Lack of magnesium causes older leaves to become yellow between the veins and the plant does not thrive.

Iron. A catalyst in many reactions, including the formation of chlorophyll. Iron is seldom deficient in the soil, but is insoluble under alkaline conditions. Therefore although present it may be unavailable to the plant. Deficiency causes the younger leaves to become yellow.

The micronutrients or trace elements are necessary in extremely small amounts. Not only are they effective in small amounts but plants are injured by concentration only slightly higher than the concentrations that are beneficial. For normal plant growth they need not be present in amounts greater than one part per million. Most soils and such media

as osmunda and soil composts used for growing orchids contain an ample supply of micronutrients. They are even present as impurities in salts used to make up fertilizers. In fact, in order to study the role played by these elements, research workers are forced first to eliminate them from the chemicals used in their experiments by carefully repurifying the salts and by distilling the water many times. The micronutrients are boron, copper, zinc, manganese and molybdenum. It is thought that their action is catalytic. Deficiency of any one results in poor plant health, and too much of any one is toxic.



*Our well water is very deficient in magnesium, so regular applications of Epsom salts are recommended. Without magnesium, your plant will rob older leaves of it to supply the new growth so you'll see excessive leaf yellowing in the spring.*

Although a green plant is more or less selective in what it absorbs from the soil, it may take up things which it does not even use in its physiological processes, or it may take up more than it actually needs of some beneficial substances. Some minerals which it takes up may be harmful. Some results of too much of certain minerals may be harmful only in the eyes of human beings associated with the plant, for example, when a grower wishes a plant to flower and it responds only with vegetative growth as a result of excess nitrogen.

Plants will often show symptoms of nutrient deficiency when the cause is cultural rather than an actual lack of minerals. Often when there is a temptation to cure all ills at one fell swoop by pouring fertilizers into the pot, the result is simply an aggravation of the conditions, or the onset of a new set of ills. If a plant is poorly potted or overwatered or given insufficient light, it cannot make use of what minerals it has, much less of additional amounts. This is one reason why we suggest that before a beginning grower use fertilizers he first learn how to grow good healthy plants without fertilizers. Then, if he wishes to, he may use fertilizers carefully, with an eye to the continued health of

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the plant and a reasonable attitude toward what he expects of the plant.

Many growers have found that seedlings of all kinds respond to regular fertilizing, and recently it has been found that they increase more rapidly in size and mature sooner if they are also given additional hours of light. Some kinds of mature plants are known to benefit from additional minerals, among them Cymbidiums, Dendrobiums, Cypripediums, Phalaenopsis, and Vandas. Whether mature Cattleyas benefit from fertilizers is a question that the best growers do not agree upon. An impartial observer would find it hard to pick out plants that had received fertilizer and plants that had not from among their greenhouses. We feel that mature Cattleyas may well benefit from a little fertilizer, given in dilute solutions and only at times when the plants can actually use it.

We suggest that fertilizer be given only when the plants are in active growth and under conditions of good light. As we said before, the sugar molecule is the basis for much of the chemistry of the plant. Fractions of the sugar molecule are the building blocks to which are added various minerals in the manufacture of proteins etc. Without good light to make sufficient sugar the plant cannot use the extra minerals. If, after you have used fertilizer for some time, the plants start many growths which fail to continue, or growths

that mature too small, or if many blind, soft growths result, you may know that you have over-fertilized. It is best then to discontinue giving fertilizer in order to bring the plants back to normal. Even when a very dilute concentration of nutrient salts is used there may be an accumulation of salts in the pot to the point where the plant will be unable to absorb either minerals or water. This will also result in erratic growth and possibly shrivelling of the leaves and pseudobulbs. Whenever fertilizer is given, the solution should be allowed to saturate the fibre and run through the pot. In between times water should be generously flushed through at the proper watering time. As a means of preventing the accumulation of salts in the pot, many growers now fertilize by spraying the solution on the leaves, a method called foliar feeding. This practice has been used in gardens for some time, especially to furnish iron to plants where it is difficult for the plants to obtain it from the soil. The leaves of orchids will absorb water and minerals. While we should not like to say which method is preferable, we do suggest that foliar feeding might be particularly useful for newly potted plants whose root systems are temporarily inactive.

*This is an abridged version of an article by the legendary author of Home Orchid Growing Rebecca Tyson Northen which appeared in the October 1953 American Orchid Society Bulletin (22:10, pp. 750-753)*



***Plants in the Catesetum subtribe are very heavy feeders. They have to do all their growing during an 8 month or so period, so provide them with copious amounts of water and fertilizer during the growing season.***



# CULTIVATION

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## The Usual Suspects – Common Orchid Pests

by Sue Bottom

Certain plants just seem to be prone to attack by certain pests. If you grow cattleyas, you battle scale infestations. Grammatophyllums are mite magnets. This article highlights the most common pests and their favorite orchids, along with some tips for eliminating them.

**Scale on Cattleyas.** Every cattleya grower has to be on the lookout for scale, particularly the white Boisduval scale. Mature males are cottony white masses while the mature females lay their eggs under whitish circular shields. The crawlers are the nymph state that emerge from under the shield until they find their new home.

The females love to find hiding places on the plant so they can attach themselves and suck the sap and vitality out of the plant. The leaf axil and base of the pseudobulb are favorite hiding places. They can grow and multiply unseen under the papery sheaths until they do such damage that the tissue becomes chlorotic and ultimately necrotic and dies. They can ruin the developing eyes on new growths.

Vigilance is critical to catching the problem early. If you see yellowing on leaves and pseudobulbs, start investigating. Pull down the papery sheath on your cattleyas and look underneath. Look at the undersides of leaves with chlorotic spotting. If you find scale, prepare for war.

If you have just a few plants, you can water jet away the majority of the scale with a hose end sprayer set on flat. Then get to work with some isopropyl alcohol and a Q-tip to wipe away what remains. Some growers mix up a home brew concoction of 1 part isopropyl alcohol, 1 part Formula 409 or Fantastik cleaning solution and 2 parts water and spray that on their orchids. There are also some pesticides available at nurseries and big box stores that can be used, like Malathion or one of the products containing the active ingredient Imidacloprid. Imidacloprid products can be applied as a drench, poured through the pot with your fertilizer, where it is absorbed through the roots to protect the plant from the inside out. All of these techniques will require reapplication several times at two week intervals.

If you grow many cattleyas and really want to eradicate scale from your collection, invest in the broad spectrum pesticide Safari and the insect growth regulator Distance. Safari will kill the live adult scale and Distance will prevent any juveniles that survive the Safari from maturing. You may have to reapply this combo at 6 month intervals, but your cattleyas will thank you with a profusion of blooms.

Of course, there are other types of scale, including the soft brown scale that often appears on phalaenopsis and phalaenopsis flowers, or the armored scale that can appear on different varieties of orchids. If you see an

unusual raised spot on your orchids, try rubbing it off with a soft cloth or Q-tip. If you confirm that it is one of the scale insects, your treatment options are the same as for the troublesome Boisduval scale on cattleyas.

**Mealybugs on Phals and Paphs.** Mealybugs are close relatives of scale that seem to gravitate to hiding places on phals and paphs. They can be found at the junction of the leaf and stem, crawling up the inflorescence, on flowers and even on the roots. They are very difficult to eradicate once they are in your growing area. If they have infested the roots, remove the plant from the pot, spray the roots and repot in fresh media. The treatment options are basically the same as scale. You will have the greatest success with systemic products that protect the plant from the inside out, in that mealybugs find obscure crevices difficult to reach with pesticides. Mealybugs will attack other genera of orchids, not to mention many of your landscape plants. During the growing season, mealybugs seem to come into the greenhouse from the outside environment and settle on the tender new cattleya growths.

**Mites and the Mite Magnets.** Mites seem to gravitate to certain types of orchids, Grammatophyllums, Dendrobiums, Catasetums and many of the thin leaved orchids. There are several kinds of mites, the most common being red spider mites that typically feed on the underside of the leaves. A hand lens may be needed to see the mites as small, red to brown pests scurrying around on leaf undersides. The upper surface of a damaged leaf may have a silvery sheen that eventually becomes sunken and turns brown. Leaves may be streaked, stippled or spotted due to lack of chlorophyll. A diagnostic test is rubbing a white Kleenex along the leaf undersides, and finding reddish brown splotches from the mites.

Mites are not insects, they are members of the arachnid family, so insecticides are ineffective. There are home cures, typically involving some combination of water, dish soap and isopropyl alcohol or water and vegetable or light summer oil. Effective miticides for ornamental use include those containing the active ingredients abamectin (Avid), bifenthrin (Talstar) and fluvalinate (Mavrik).

There are also the less common flat or false spider mites in the Tenuipalpidae family that often feed on the upper surfaces of leaves creating a pock-marked appearance from empty and collapsed leaf cells. Flat mite feeding on thin leaves, especially the underside, is similar to the stippling caused by spider mites, but there is no webbing. Broad mites in the Tarsonemidae family are microscopic in size and the initial symptom is chlorotic discoloration. These types of mites seem to gravitate to Phalaenopsis. They are virtually impossible to see and only certain miticides are effective against them.

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**Demon Thrips.** Unlike the other pests that seem to have favorite host plants, thrips are indiscriminate feeders, attracted to the tender new leaves, buds and flowers of your orchids as well as landscape plants, like gardenias, citrus, roses, vegetables and flowering plants. Infested buds can become dried and blast, flowers can be deformed with burnt or water soaked spots, leaves can be stippled and roots girdled.

Thrips are the most difficult to control of all the pests because they can fly from plant to plant and hide within flower parts making them hard to see or reach with pesticides. Orchids and landscape plants can be sprayed with pesticides like Orthene or Malathion and the stronger

chemicals like Talstar, Avid or imidacloprid products. Conserve is another alternative that can be sprayed directly on the flower, as can Orthene. If you are prone to thrips, you can just spray the buds and flowers twice a week using a pump up sprayer or spray bottle.

Except possibly for thrips, preventative spraying for your typical orchid pests is unnecessary. Learn to recognize the sign of damage they cause to your plants. Keep a loupe or magnifier handy in your growing area. If you see something that doesn't look right, inspect the plant, looking at both sides of the leaf. If you find a problem, treat it quickly using your poison of choice, and never forget to protect yourself from the chemicals you keep in your arsenal.



*The area in and under the leaf axil and the area under the papery sheath are favorite hiding places for scale.*



*If you see chlorotic spotting on the upper leaf surface, your first reaction should be to turn the leaf over.*



*You can see the scale on the leaf undersides, at the exact location of the chlorotic spotting on the upper surfaces.*



*Mealybugs dine on roots too, beware!*



*Mealybugs feeding on tender Psychopsis flower.*



*Red spider mites are much easier to see if you are looking through a microscope.*



*Characteristic stippling on dendrobium leaf lower surface from red spider mite.*



*It is easier to see the thrips damage where the leaf is burned than the many thrips crawling around on this flower.*



*Thrips have been feeding on these flower buds ruining them before they have a chance to open.*



# ORCHID ADVENTURES



## This Season in Orchids

Orchid growers can tell the seasons by what is in bloom. This time of year, the Phalaenopsis are still going strong while the spring Dendrobiums are finishing up. The Encyclias are in full bloom, with tall spikes of fragrant flowers. Laelia purpurata season is heating up too, with all the different color varieties from the pink lipped carnea, blue werkhauseri and splash petaled striata. The catasetums in the shade house are in their exponential growth phase and the early varieties are starting to bloom. We'll be seeing different types of catasetums bloom for the rest of the year. Who needs a calendar when we have orchids!



# SHOW TABLE



**Grower Susan Milstrey**  
*Rhynchostylis retusa*



**Grower Leslie Brickell**  
*Schoenorchis fragrans*



**Grower Bea Orendorff**  
*Vandachostylis Lou Sneary*



**Grower Walter Muller**  
*Doritaenopsis I-Hsin Picture*



**Grower Marv Ragan**  
*C. tigrina 'San Bar Giant' FCC/AOS*



**Grower Sue Bottom**  
*Epidendrum oerstedii*



**Grower Susan Smith**  
*Bc. Jim Graham*



# SHOW TABLE



**Grower Jerry Fowler**  
*Maxillaria tenuifolia*



**Grower Glo MacDonald**  
*Encyclia Moonlight Shadows*



**Grower Joanne Stygles**  
*Vanda Paki*



**Grower Sue Bottom**  
*Laelia Pulcherrima var. alba*



**Grower Janis Croft**  
*Epicattleya Burdekin Surprise*



**Grower Suzanne Susko**  
*Miltoniopsis Boulivout 'THX 1138'*

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

