St. Augustine Orchid Society NEWSLETTER
May 2026
Volume 21 Issue #5

Club News

May 5 Meeting

by Janis Croft

Welcome and Thanks. Tom Sullivan opened the meeting at 6:55 pm with 60 attendees. He thanked Ann, Charlie, Dottie, Dianne, Michaeleen, Julie & Paul, and Harry & Celia for the delicious treats and reminded all to remember to "Drop a Dollar" if you enjoyed them. The dollar helps us pay for the coffee and paper good supplies. Tom said the last repotting clinic was very busy early and then tapered off. He reminded all to bring their plants to the next repotting clinic of the year on June 6th at the SE Branch Library.

Orchid Shows - Volusia County Orchid Show is on Mother's Day weekend and the Central Florida Orchid Show in Orlando is the 23rd and 24th. Details are on our website:

Virtual Show Table - Virtual Show Table will be May 13 featuring Courtney. An email invitation will be sent with link and details. Send in your photos for the next show by the 23rd of this month.

Supplies – SAOS T-Shirts, Potting Mix and Timed Release Fertilizer were available on the back table. Email staugorchidsociety@gmail.com if you need supplies.

Club Business. Linda welcomed our guests, returning member Michaeleen Chalut and new member Kurt Zehringer. Next, she asked all May birthdays to raise their hand for a free birthday raffle ticket. If anyone is having a major life event or needs cheering up, let Linda know.

M*embers Choice* - Christine reminded all to vote for their favorite orchid during the break after the Show Table.

Library - Sue announced that the Board had decided to dissolve the library by July 1st if we can't find a librarian to replace Howard. If it is to continue we need a volunteer to step up to be the librarian. Dolly Charron graciously stepped up to take on the library, she saved the day!

Show Table. Courtney started by saying he is always amazed by how many different blooming genera show up every month for the Show Table. He started with Den. densiflorum with its yellow flowers growing fully around the plant. Next was an orange flowering Ascocentrum miniatum whose lip looks like a dragon tongue that loops downward. The Cyrtorchis Hendrik van der Hoven had a wonderful display of flowers hanging down its inflorescence. Star shaped, greenish-yellow flowers covered the Aeranthes Grandiose 'Shooting Stars'.

Next Courtney moved to a mature Bulb. magnum (which may really be falcata) which Steve grows under Phalaenopsis light. Steve also brought in a multi-floral Paphiopedilum with its pale green slightly albanistic flowers. Courtney then showed the green form of C. granulosa which came from Mark Rose. He said that as the flowers age they get a bronze tint to them. Cattleya Cariad's Mini Quinnee 'Angel Kiss' is a small flowering plant with intense deep purple color on the lip and splash on the petals.

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Club News

Upcoming Orchid Events

May

9 FL North-Central AOS Judging, 10 am
1400 Country Club Blvd., Mt. Dora 32757
9-10 Volusia County Orchid Society Show
Volusia County Fairgrounds
12 JOS Meeting – May 3 Picnic in Lieu of Mtg
13 SAOS Virtual Show Table
Courtney Zooms into Cyberspace
Invitation Will be Sent by Email
23-24 Central Florida Orchid Society Show
Florida National Guard Armory

June

2 SAOS Meeting, 6:30 pm
Brassavola nodosa: Fragrance & Form
Jason Mackey, Barefoot Orchids
6 SAOS Repotting Clinic, 10 am til noon
Southeast Branch Library
6670 US-1 N, 32086
9 JOS Meeting, Orchid Culture
Keith Emig, Winter Haven Orchids
10 SAOS Virtual Show Table, 7:00 pm
Courtney Zooms into Cyberspace
Invitation Will be Sent by Email
13 FL North-Central AOS Judging, 10 am
1400 Country Club Blvd., Mt. Dora 32757

July

4 Independence Day, Repotting Clinic Rescheduled to the 11th
7 SAOS Meeting, 6:30 pm
Angraecums and Their Relatives
Alan Koch, Gold Country Orchids
11 SAOS Repotting Clinic, 10 am til noon
Southeast Branch Library
6670 US-1 N, 32086
11 Florida North-Central AOS Judging, 1 pm
1400 Country Club Blvd., Mt. Dora 32757
14 JOS Meeting, Topic TBA, 6:30 pm
Speaker TBA
15 SAOS Virtual Show Table, 7:00 pm
Courtney Zooms into Cyberspace
An Invitation Will be Sent by Email

August

1 SAOS Repotting Clinic, 10 am til noon
Southeast Branch Library
6670 US-1 N, 32086
4 SAOS Meeting, 6:30 pm
Mounting Workshop
SAOS Members
8 Florida North-Central AOS Judging, 1 pm
1400 Country Club Blvd., Mt. Dora 32757
11 JOS Meeting, Topic TBA, 6:30 pm
Speaker TBA
12 SAOS Virtual Show Table, 7:00 pm
Courtney Zooms into Cyberspace

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SAOS Program. Serena Roman and her husband, Ernesto Cabezas, traveled from Ocala, FL where they operate their commercial nursery Lady Vanda Orchids. Serena's topic was "The Cultivation of Vanda Orchids." She told the story of how she first started growing orchids by salvaging several phalaenopsis orchids that her grandmother had received as gifts and her mother wanted to throw out because they weren't blooming. She watched YouTube videos, repotted the plants and achieved blooms the next winter. From then on, she was buying orchids and eventually at the encouragement of her husband, started the nursery to offset her buying addiction.

Serena showed a slide of two noteworthy Vandas — Seidenfadenia mitrata and Neofinetia (now Vanda) falcata 'Shuttenou'. The Seidenfadenia mitrata is commonly referred to as the "bearded" Vanda because its long, terete leaves hang down from the mount looking like a beard beneath the fragrant flowers. The V. falcata species are potted in moss with an air cone in the center. This species is valued for its artistic presence including leaf quality and artistic look of its pot. These plants often are valued in the hundreds to thousands of dollars.

Serena stated that we needed to be informed buyers no matter what orchids we are buying. She encouraged us to ask many questions of the grower. For example, know that Vandas can take from 4-6 years from seed to flower and growing a plant from a seedling can be difficult. The term, Near Blooming Size, can mean different time frames to each seller so ask what they mean by the term. When buying a Vanda look for healthy foliage, roots and active crown growth. Vanda anatomy includes monopodial central vertical stem, leaves, roots, crown, flower spikes and keikis.

For Vanda cultivation basics, Serena listed what they use in their nursery. She sprays with a high phosphorus fertilizer and a seaweed base to encourage root growth. She uses DynaGrow GROW 7-9-5 and feeds weekly at a rate of 1 tsp/gal. She also uses CAL9MAGic weekly at a rate of 1 tsp/gal. She finds that the calcium helps plants with heat tolerance and strengthens the cell walls. Serena feeds magnesium (pure Epsom Salts) on a monthly schedule at 1 tsp/gal which helps the leaves achieve green color and helps the plant during cold months. She also uses Seaweed or kelp with her fertilizers for added micronutrients and aminos.

The most common pest for Vandas are Thrips and she recommends Orthene, Permetrol, Bayer Advanced Rose and Flower, or Sevin to stop them from girdling the root system and destroying the flower buds. In their nursery they spray with Orthene every 6-8 weeks and she advised all to use protective gear while spraying. The most common disease is the fungus Guignardia/Phyllosticta (aka Thai Disease). The spores can be easily transmitted while watering. She uses Dithane in combination with Banrot or Thiomyl used at regular intervals.

Serena ended her presentation with tips for growing award winning plants. These included do not divide keikis, do not cut tops, crowns or trim live roots and don't remove plants from baskets. Remember to protect your plants from cold by bringing them inside or covering with a light fabric if kept outside. She also grows her plants under 50% shade screen if not under the shade of trees. In closing, she invited us to follow her on Instagram #LadyVandaOrchids.

Meeting Conclusion. Christine announced that the Members Choice went to Paph. ((Dragon Mint x Silver Fleuret) x phllippinense var. album) grown by Steve Hawkins. Dianne then announced winning ticket numbers for the raffle table. Thanks to the helpful hands that stayed to help clean and store the tables, chairs and room.

Club News

SAOS 20th Anniversary Picnic

It all started in 2006 when a group of orchid enthusiasts met in the Lighthouse parking lot and decided to form an orchid society. We celebrated our 20th anniversary at the picnic April 19th featuring Tom and Charlie at the barbecue grill and our members fabulous salads, sides and desserts. We had lots of orchids available, thanks to donations from Matt and JoAnn Kotchkowiski. It was a great opportunity to kick back and socialize with our orchid buddies.

Culture Notes

Summer is right around the corner. Now is the time to maximize growth and develop the plant strength and food reserves needed for good flower production. Larger plants typically produce bigger and better flowers than smaller ones so resist the urge to divide your plants just for the sake of having more plants. Recycle your clay or plastic pots but be sure to sterilize them first along with any wire products. Do not reuse potting mix or drainage material.

American Orchid Society Corner

Webinars
May 5, 8:30 pm, Everyone Invited
Greenhouse Chat - Ron McHatton
June 11, 8:30 pm, AOS Members Only
Catasetum Culture –Scott Elliott

Orchids Magazine this Month
Lycaste Gladys Eljuri 'Wössen' - Franz Glanz
Heat Tolerant Cymbidiums – Graham Guest
Repotting Huge Cattleyas - Sue Bottom

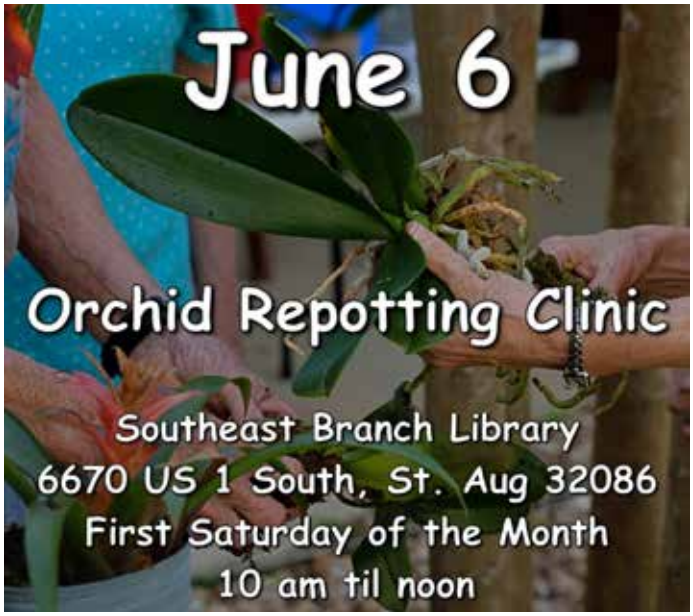
June 2 Meeting

Brassavola nodosa: Fragrance and Form
Jason Mackey, Barefoot Orchids

Jason will talk about how Brassavola nodosa shaped modern hybrids with its dominance of fragrance and form. Brassavola nodosa, otherwise known as 'The Lady of the Night' is known for its exceptional fragrance, which is emitted primarily after dark to attract night-pollinating moths. It also tends to produce star shaped hybrids similar in form to its own, although it often picks up the color of the other parent and has amazing spots.

Jason's fascination with orchids traces back to his childhood days spent alongside his great-grandmother, tending to her extensive collection. What began as a youthful curiosity blossomed into a serious passion in his twenties. Since 2020, Jason has been an integral part of the Orchid Society of the Palm Beaches, where his knowledge and enthusiasm have found a home among fellow enthusiasts. Inspired by his familial ties and Floridian heritage, Jason established Barefoot Orchids, the culmination of his journey from childhood admiration to professional grower.

When: Tuesday, June 2, 6:30 til 9 pm
Where: Memorial Lutheran Church
3375 US 1 South, St. Aug 32086



Inspiration

Orchid Questions & Answers

by Sue Bottom,
sbottom15@hotmail.com

Q1. I have been fighting this disease on my huge Green Hornet for years. I've sprayed with many things, to no avail. Possibly I didn't follow up with a second spraying?

A1. That looks like anthracnose on the Epidendrum/ Prosthecea. Those fine dots on the brown leaf tips are the sporing bodies that spread the disease. Cut away the damaged leaf tips. You might consider spraying monthly with something containing thiophanate methyl until you don't see the disease anymore. More air movement and less leaf wetness also help prevent fungal infections.

Q2. Is this the right time to divide and/or repot this Cattleya?

A2. Yes, repot/divide it now. You can cut the new growths off and repot it into a new pot, probably the newest five pseudobulbs can be removed, but be gentle with those new roots. Then decide what you want to do with the older part of the plant. If the old mix is still okay, you may wait for a new growth to sprout from the back bulbs, but it looks like it's trying to escape from the pot so the mix may be degraded or have become salty.

Q3. This bifoliate has had black spotting since it was fairly young. It sort of looks like a sooty mold that doesn't wipe off. Treating it with mild fungicide had no effect, but since the plant was otherwise OK and flowered nicely (no color break), I've kept it. Now, however, although the last two sets of leaves are clear, diffuse spotting is on all the other leaves.. I can't ignore whatever is wrong with it. Should I invest in a virus test, treat it, or just toss it?

A3. I love the bifoliates, but sure hate to see that black splotchiness. It is suggestive of Cymbidium Mosaic Virus although the diffuse spotting is also suggestive of a fungal infection, particularly with the fine dotting on the leaf undersides. There is really only one way to rule out virus and that is to test it. So if you test it and it's positive, you probably toss it. If you test it and it's negative, you have a fungal problem to deal with, which would require you to cut away a clean section of the plant, treat it with a systemic fungicide and then get it growing again.

Spring Checklist

by Dr. Courtney Hackney

Spring is the busiest time of the year for Orchid growers. Given the recent weather in the Carolinas it may be difficult for us to tell that spring has indeed arrived, but your orchids know. Cattleyas have begun to put out new growths and roots in response to increasing day length. Vandas too are starting to grow because high daytime temperatures convince them that they are at home in the tropics. What you do in the next month will have a lot to do with your success as Orchid growers for the next year. Much of what is in my Spring Checklist is just common sense, but that is usually what we forget.

1. Clean Growing Area - Greenhouses have been cramped, as have windowsills and space under lights. Remove Orchids from your growing area and remove all dead material as well as algae. Some hobbyists spray growing space with a 5% Clorox solution to kill bacteria, fungi, and just about everything else. Repair benches or replace surfaces if it is needed while you have the area clean and open.

2. Organize - Straighten growing space by moving some plants outside or by eliminating non-performing plants. Remove weeds and ferns from pots.

3. Plant Inspection – If your collection is small, future problems can be avoided by carefully examining each plant. Use 10x-reading glasses even if you do not need them for reading. Look for scale, mites, or any signs of damage to leaves or roots. If you find damage on an Orchid look for the culprit that caused it. Tiny nicks on roots or under Phal leaves suggests snails while large chunks and slime trails indicate slugs. These pests have been relatively dormant during winter, but will now feast in summer's warmth. Repotting will eliminate snails and help you find slugs. If you find only minor damage try stale beer for slugs and snail bait for bush snails.

4. Clean Plants - Remove dead tissues around Cattleya bulbs and/or dead leaves. Check the base of dead tissues for signs of scale, especially if leaves died but did not fall from the plant. If scale is found use a soft tissue to wipe them off and then spray with insecticidal soap or light oil. If a major infestation is found the plant should be repotted. When the plant is out of the pot use a sterile toothbrush to gently scrub the underside of rhizomes in Cattleyas and

around the base of Phals. If you find heavy infestations on many plants, you may have to resort to harsher pesticides.

5. Straighten Plants – Orchids tend to lean towards the light in winter. Some growers prefer to tie plants up with either wire rings or bamboo stakes if they have fallen over because erect plants are easier to spray and water, and take up less room. In addition, new growths and leaves will grow better.

6. Repot – Repot all plants whose media has decomposed and those that have reached too far from the pot. Rapid summer growth will quickly replace lost and damaged roots. Newly damaged roots are also less likely to be infected by fungi and bacteria in your now clean growing area in the less humid air of spring. Fungi and bacteria will become a problem in mid-summer. Newly repotted Orchids need a convalescence period while they recover. Accomplish this simply by giving them a little extra shade and humidity.

7. Water More – Orchids will use more water in the next month than they will in the heat of summer because of the lower humidity. Water thoroughly when you do water and review the moisture requirements of the different groups of Orchids you grow. In general, Cattleyas and Dendrobiums need to dry thoroughly before being watered while Phals and Paphs like to dry some but need constant moisture. Phrags and Bulbophyllums crave moisture while most of the Vanda group wants high light, abundant water, and lots of air movement. Air movement is just as important for Orchids in summer as during the winter, but for different reasons. Now it is important to keep leaves from overheating while in winter it was to keep bacteria and fungal infections at bay.

8. Sterilizing Tools – A propane torch works well on most metal tools. This kills virus as well as bacteria and fungi. A concentrated solution of Tri Sodium Phosphate (cleaning agent) will have the same effect on flammable items, but will take 10 minutes to work. Similarly, a 10% Clorox solution will sterilize surfaces such as potting benches, but will quickly damage metal tools.

Work hard now and you will enjoy watching your Orchids grow and bloom all summer and fall.

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 May 2001.

How to Grow Vandas and Ascocendas

David Grove

One of the pleasures of growing vandas and ascocendas is that they are quite resistant to disease, so long as they are given a proper environment and culture. Conditions that frequently create stress lower plants' natural immunological resistance to disease, and conditions that are favorable for the growth of pathogens can lead to a proliferation that overwhelms a plant's defenses.

Growing Healthy Plants. Give vandas and ascocendas as constant a set of growing conditions as possible. Do not subject them to avoidable abrupt and sizable changes in temperature, day length, light intensity, humidity and fertilizing. Develop a satisfactory cultural regimen for your conditions. Let the plants become accustomed to it they do have some ability to adapt, within reasonable limits and then make only such changes as the seasons mandate. Remember that in the tropical habitats of Vanda and Ascocentrum species, the seasonal differences in day length, light intensity, temperature and humidity are very small in comparison with those experienced in temperate zones. The lower the latitude and elevation of the ancestral habitats, the more demanding will be the need of the cultivated descendants for constancy in growing conditions and culture.

Light. Light that causes leaves to have a pronounced yellow-green color is too intense, and the leaves gradually lose their turgor. Excessive heat and low humidity also cause dehydration. In those conditions, plants lose their lower leaves in an effort to conserve internal moisture.

They then become more vulnerable to disease and to insect attack. Timely application of shading is imperative as days become brighter and warmer in early springtime. Let the color deep Granny Smith apple green and the plumpness of the leaves be your guide and your goal.

Temperature. Try to maintain night temperature lows of 60 to 62 F normally, and day temperatures of 70 to 80 F on sunny days in the wintertime: higher daytime temperatures in the summer months will be beneficial so long as they do not often stay appreciably above 90 F for extended periods on most days. The higher the temperature, the more important it is to try to raise the level of humidity and to water (or mist thoroughly) more than the normal once daily. If greenhouse temperature frequently rises above 90 F, apply more shading as well. It is particularly important to control temperature highs in areas where there regularly is a precipitous drop in temperature as night approaches. It is the abrupt change that produces a shock to the plant.

Humidity. Aim for relative humidity levels in the region of 60 percent during the day. On warm sunny days, a level of 75 or 80 percent is even better, but often is difficult to achieve without excessive wetting of the plants. Misters directed toward the walkways and under benches can be helpful; combine them with good air movement. Connect some of your fans to dehumidifier-type humidistats to provide desirable extra air movement when humidity is high. Do not provide extra humidity at night if the level is about 60 percent. To do so invites trouble from fungi.

Air Movement. Buoyant circulation of air around the plants and their roots is important for the gaseous exchanges the leaves need for respiration and for production of sufficient glucose for sturdy growth. It also promotes drying of the axils and roots after each watering. And, in hot weather, it helps to cool the leaves to prevent their wilting. Few greenhouse growers provide optimum air circulation and sufficient exchange of stale air for fresh air. Perhaps the best benefit from moving vandas and ascocendas outdoors in summer is that they receive fresh air constantly, even when no breezes seem present.

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Vandas Growing in the Commercial Nursery Tropic 1 in Kissimmee

Watering. Normally, vandas and ascocendas should be thoroughly watered once daily, as soon after sunrise as is convenient. That will help assure that the leaves and roots start the day with adequate turgidity in their cells. The water should be at least as warm as the ambient temperature, whatever that may be. Cooler water can shock the plant. Do not water on days when it is cold and damp inside the greenhouse. Regardless of the weather, the axils of the leaves should be dry within three hours after watering, otherwise a sooty mold will develop deep within the axils, largely out of sight but a breeding ground for *Fusarium oxysporum*, the pathogen that causes fusarium wilt. Sooty mold on wood baskets and on plant roots is a sure sign of insufficient drying between waterings.

On hot or dry conditions in the summertime, more than one watering may be called for during the day. It is best not to water so late that the leaf axils are not dry by the time the sun goes down and humidity increases as a result of the drop in temperature. Under conditions of evening warmth, good air movement, and low humidity, however, a thorough misting of the exposed roots just before sundown can be quite beneficial, because it is during the hours of darkness that most vandas and ascocendas take in the water and carbon dioxide required for their metabolic reactions. They belong to a class of plants known as CAM (crassulacean acid metabolism) plants; these open their leaf pores (stomata) during the nighttime and close them during the daytime. When the stomata are closed, little water vapor can exit and very little is drawn in through the roots. Non-CAM plants (mostly those with thin leaves), on the other hand, open their stomata during the day and close them at night, so their greatest loss of moisture is during the daytime.

Whenever you water, drench until the velamen of the aerial roots changes in color from white to the green of a Granny Smith apple. Until such time as you have developed a regimen that achieves the desired rates of drying, occasionally strip off the bottommost leaf of one or more plants about three hours after you have watered. Be sure to include all of the basal portion of the leaf. Examine the inside surface of that basal portion. If it has a visibly moist surface with a film of water, you need to increase the amount of air movement, light or heat.

Dissolved Salts in the Water Supply. Test your water supply for dissolved salts (i.e., electrical conductivity) and take the level into account in your fertilizing program. Total dissolved salts (TDS) are measured in parts per million (ppm). The related measurement of electrical conductivity is expressed in several ways. Most meters use units called micromhos (µmhos) or micro Siemens (µS) per centimeter (cm). A reading of 1000 would be equivalent to about two-thirds (i.e., 667) as many ppm. Water with less than 50 ppm is excellent. Water with more than about 125 ppm is ordinarily poor and, for optimum plant well-being in such a circumstance, use rainwater or treat the water with a reverse osmosis system. The higher the levels of dissolved salts, the more dilute should be your fertilizer solution, the more thoroughly you should drench your plants between feedings, and the sooner after each fertilizing you should drench with water alone. Dried salts, from either the water source or fertilizers, are damaging to the roots. Moreover, they can lead to a creeping death of the xylem, the fibrous tissue that forms part of the veins that transmit water to the upper parts of the plant. Decline in that tissue promotes attack by fusarium wilt.

Fertilizing. Applying a weak fertilizer solution of 1/3 of a teaspoon per gallon of water every sunny day is less likely to cause problems than applying a stronger solution of two teaspoons once a week. In the summer, when plants grow more vigorously than they do during the shorter and colder days of winter, fertilize more. Plants placed outdoors can tolerate stronger dosages than plants grown indoors, because they will be producing more carbohydrates through photosynthesis and, as a result, will benefit from larger amounts of inorganic nutrients. If you have a meter that measures parts per million of dissolved salts, keep the solution to about 400 ppm for indoor growing. This is equivalent to a reading of 600 µmhos/cm on a meter that measures electrical conductivity. Outdoors in the summertime, 660 ppm (about 1.000 µmhos/cm) is appropriate.

Especially in the winter months, too much nitrogen fertilizer combines with a reduction in the available amount of natural light and lower daytime temperatures to produce soft leaves that are very susceptible to bacterial and fungal

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Vandas at the commercial nursery RF Orchids in Homestead

infections; aim for thicker, firmer leaves. They are much more resistant to disease.

The source of nitrogen also is relevant. Use fertilizer blends that derive all or nearly all of their nitrogen from a nitrate rather than an ammoniacal or urea source (most packages give the breakdown). There is some research that suggests that ammoniacal nitrogen can contribute to the proliferation of the pathogen that causes fusarium wilt. Urea is not of value to orchids grown in slatted baskets, because it is washed out before enzymatic action can convert it into a form usable by the plant.

Sanitation. Keep your greenhouse floors and benches free from debris. Humus on those surfaces promotes growth of spores, bacteria, insects, slugs and snails. Clean glazing provides for better transmission of light and discourages the formation of algae. Growth of algae on the glazing and plants, and of sooty mold on the roots and slats of wooden baskets, is stimulated by deposits of fertilizer salts. Frequent hosing down with clear water is beneficial. Periodic use of one of the proprietary brands of quaternary ammonium compounds, such as Physan, RD20, or Green-Shield, is highly recommended in the summertime, when the weather is hot and humid. Use is also recommended during periods of sustained damp, dark weather in the wintertime. I apply a solution of 1 1/2 teaspoons per gallon of water about every two weeks whenever circumstances conducive to bacterial growth, algae and sooty mold exist.

Always sterilize cutting tools before using them on another plant. Either flame them with a propane torch or soak them for several minutes in a supersaturated solution of trisodium phosphate (i.e., where not all the powder can be dissolved). Always wipe blades clean of any traces of plant tissue before flaming or soaking.

Any roots, stubs of inflorescences, or leaf edges that have been cut or broken off, should be sealed promptly. Asphaltic horticultural sealants, available in both spray cans and cans with brush, are effective (though messy).

Insects. Whenever scale, thrips, mealybugs, aphids or other insects become evident, apply a horticultural oil, such as SunSpray Ultra-Fine Spray Oil, and repeat after about seven or eight days. A third application may be needed if coverage of all surfaces of the plants was incomplete. A small dose of Malathion, Orthene or Isotox insecticide may be added to the oil-water solution; it will enhance effectiveness because it will kill insects not directly contacted by the oil. Some insects transmit virus, so do not delay their destruction. Control ants with ant-traps. Ants carry scale and aphids from plant to plant.

Disease. If all of the above precautions are taken, disease will seldom appear. However, there are two diseases you may encounter. One is fusarium wilt, the other is an ugly leafspot disease that, under certain conditions, can spread rapidly.

Fusarium Wilt. Fusarium wilt is an insidious disease caused by *Fusarium oxysporum*, which enters stem tissue through dead roots or wounds, generally at the base of the plant but also through the dead stubs of past inflorescences. That is why it is important to cut off dead roots and old inflorescences and then seal the cuts promptly. Signs of entry of *Fusarium oxysporum* are not visible from the outside of the stem. Symptoms of the disease are wilting of upper leaves, adventitious shoots near the apex of the plant and a dropping of lower leaves. The plant usually enters into a steady decline and dies. Sometimes new shoots, either at the base of the plant or near the top are not affected and can be saved.

The pathogen creeps up the xylem and phloem of the stem (the bundles of water and mineral-conducting tissue that form the veins of the plant) and, after this tissue dies, water and minerals cannot be transported to the upper reaches of the plant, thereby causing the wilting of the leaves.

If a plant shows symptoms, cut off a short cross-section of the stem at the base. If there is a small purple or brown spot, the size of the head of a pin, at the center of the cross section, the plant has been infected. If there is a partial rim or thin band of purple tissue on the periphery of the cross section, that too, is a symptom of infection. Sometimes this latter symptom does not begin at the base of the stem, but only farther up. That can occur when the pathogen has entered through the wound left at the base of a dead inflorescence, after the inflorescence has been cut or the remaining stub has decayed.

For treatment, keep cutting off short cross-sections of the stem, so long as there are aerial roots above, until the exposed surface shows no sign of discoloration at either the center or the edge. Soak the plant for a half hour in a solution of Banrot fungicide or Cleary's 3336. The cutting instrument should be sterilized between cuts to avoid

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Vandas at the commercial nursery Banjong Orchids in Homestead

contaminating an uninfected area. After the plant has dried thoroughly, seal the cut. Hang the plant upside down in a shady, well-ventilated location until new roots emerge, in addition to those that remained. If you cannot make further cross cuts because there would be no remaining roots, follow the same procedure of soaking, etc., but also mist the plant frequently with a dilute solution of Super-Thrive. This course of action may possibly save the plant if new roots can be induced to emerge. Some growers place the treated plant in a polyethylene bag with the plant hung upside down. That has never worked well for me.

Phyllosticta or Guignardia Leaf Spot. There is a widespread and confusing leafspot disease that has been referred to in the literature under the names of two pathogens, *Phyllosticta* and *Guignardia*. The AOS handbook Orchid Pests and Diseases (1995 edition) uses the latter name, and applies *Phyllosticta* to a different and minor leaf-spot disease. In Thailand, where the disease originated, it is called *Phyllosticta*, the name used here.

A leading orchid pathologist in Thailand, Kulchawee Kamjaipai, states in the 1990 catalog of the Kasem Boonchoo Nursery of Bangkok that "affected plants always die prematurely." Professor Rapee Sagarik, the foremost orchid scientist of Thailand, tells me that it is not known whether it is the disease itself that produces premature death or whether the disease merely weakens a plant and makes it susceptible to other maladies that cause decline and death. In any event, the symptoms are ugly and the disease spreads rapidly under hot, humid conditions. Once introduced into a collection, it is exceedingly difficult to control and eliminate.

If you have an infected plant, keep it separated from other plants while you are treating it. First, cut off all of the leaves displaying any symptoms. Dip the entire plant in a fungicide such as Banrot or Cleary's 3336. All of the plants in the same greenhouse should be drenched with Physan or its equivalent at intervals of two weeks until the diseased plant has produced new mature leaves with no sign of infection. Keep humidity in the greenhouse at the lowest possible acceptable level. Establish a regular control program. Unless the vanda is choice, it may be easier to destroy the plant.

With proper care, however, vandas and ascocendas develop into healthy plants that flower regularly and rarely fall victim to insects or diseases.

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Combating Thai Disease

Robert T. McMillan Jr.

Among the diseases that can affect vandas is the fungus *Phyllosticta,* which is the anamorph of *Guignardia* (the cause of Thai disease). Both of these, which can cause leaf-spot disease, can be fatal to orchid plants if allowed to continue unchecked without fungicides. The problem is that often growers do not have a good disease-control program. Whatever fungicide a grower decides to spray on his or her orchids as a preventative should be continued all year. A weekly application of Dithane M45 will prevent the spread of these two fungi, although once the spots are on the leaves they are there forever or at least until the leaf dies.

The fungicides known to have activity for these two fungi are Dithane M45, Fungo Flo (46.2). Fungo 85WP, Cleary's 3336 (50% WP, 42%F), Domain FL (46.2%), SysTec 1998 (46.2%) and Duosan. All of these chemicals are to be used only in accordance with the manufacturer's label.

Irrigation and control of rain is important in the control of Phyllosticta and Guignardia. Water early in the morning so that plants have a chance to dry. A solid-roof barrier is essential to control rain.

Guignardia results in necrotic lesions that have a sand paper texture on leaf undersides

Krull Smith Spring Orchid Festival

The Orchid Shows at Krull Smith just keep getting better and better! The spring show was held in conjunction with the AOS Trustee Meeting. AOS Presented the Norito Hasegawa Award for Excellence in Cattleya Alliance Hybridizing to Ben Oliveros of Orchid Eros, quite an honor! The Krull Smith exhibit was stunning with two Paphiopedilums receiving 100 point FCC's, the highest possible award, one for flower quality and one for culture. There were great vendors, great plants and great weather. A good time was had by all.

Show Table

Grower Suzanne Susko
Tolumnia henekenii

Grower Bonnie Armstrong
Neomoorea irrorata `Bonnie Armstrong`

Grower Suzanne Susko
Tolumnia calochila

Grower Gene Crocker
Lc. Puppy Love 'Newberry Princess' AM/AOS

Grower Janis Croft
Slc. Jewel Box 'Scheherazade' AM/AOS

Grower Kathleen Snyder
Yam. Orchidom Green Glade 'Shungetsu' AM/AOS

Grower Sue Bottom
Phal. Blue Ridge Quartet

SHOW TABLE

Grower Allen Black
Blc. Tropical Outbreak

Grower Gene Crocker
Pot. Paxton Brooks 'Golden Dreams' HCC/AOS

Grower Sue Bottom
C. Sue Bottom 'Rosemarie'

Grower Mary Ann Bell
Lc. Drumbeat 'Heritage'

Grower Sheila Nathanson
C. Sea Breeze

Grower Allen Black
Pot. Been Lucky

Link to all Submissions:https://flic.kr/s/aHBqjCTcA3