



Volume 30
Issue 8
August 2022

CONTENTS

Page 2

Officers, Committees,
Corbin's Corner

Page 3

Membership, Treasury
and Quiz

Page 4

July meeting minutes

Page 5

Accent Orchids trip

Page 6—10

Orchid Pests—Scale

Page 11

Upcoming meetings and
events

Page 12—14

Show Table

Page 15

Orchid Culture Notes

Page 16

AOS Information

Page 17

Shows

Quiz answers

THE KEIKI

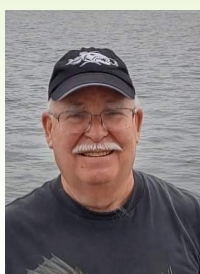


Coming Soon



- Our **new venue** is
Northcliffe Baptist Church
10515 Northcliffe Blvd, Spring Hill, FL 34608
- **There will be no meeting in August**

President's Message



Greetings, everyone!

Summer continues to roast and boil us with high temperatures and almost daily rain. I've been treating my collection every two to three weeks with one fungicide or another. My choices have been Banrot, Cleary's 3336 (thiomyl) and Subdue. I also add cal-mag every time I fertilize to try and keep the plants resistant to black rot. Nevertheless, I have had a few new growths that turned black – mostly on Cattleya types.

Thrips and spider mites have also been showing up. They're particularly insidious because I usually don't notice them until they've done significant damage. For thrips, I try to mix some systemic insecticide with my fertilizer every couple of weeks and spot treat emerging inflorescences with a hand sprayer as well. I prefer something that contains imidacloprid. For the mites, I use neem oil in a hand sprayer and make sure the spray the undersides of the leaves. You have to spray every 3 days for about two weeks to get all generations of the pest, and with neem oil you need to spray in the morning and keep the plant out of bright light or direct sun until it's dry, otherwise you risk sunburn. An alternative to neem oil is what the Florida Orchid Growing site on Facebook calls "kill sauce", which is 4 cups of water, 1 ¼ cups of isopropyl alcohol and 3 Tbsp Formula 409 Cleaner or Murphy's Oil Soap. Again, you need to spray at 3-day intervals for a couple weeks. This seems like a lot of work but a little proactive care now will reward you with beautiful flowers later!

We will not have a regular meeting in August, but we are arranging a club visit to Accent Orchids in St. Petersburg on August 27th. Look later in this newsletter for more details, and keep an eye on your email for final instructions.

Best wishes,

Matt

EXECUTIVE BOARD

OFFICERS

<u>President</u>	Matt Riesz
<u>Past President</u>	Steve Mattana
<u>1st Vice President</u>	Bob East
<u>2nd Vice President</u>	Corbin Beller
<u>Treasurer</u>	Yvette Lewis
<u>Executive Secretary</u>	Cheryl Crilley
<u>Recording Secretary for meetings</u> (not an elected position)	Cheryl Crilley
<u>Trustees</u>	Rosanne Wenz Jeanne Montgomery

EXECUTIVE BOARD

COMMITTEES

<u>Bulletin (The Keiki)</u>	Julie Smolka
<u>E-mail Co-ordinator</u>	Matt Riesz
<u>Historian</u>	Volunteers please
<u>Membership</u>	Arlene and Arty Appelbaum
<u>Publicity</u>	Gertie Messenger
<u>Refreshment Table</u>	Volunteers please
<u>Refreshment Reminders</u>	Volunteers please
<u>Show Table Report</u>	Matt Riesz
<u>Speaker Segment Writer</u>	Corbin Beller
<u>Trips</u>	Volunteers please
<u>Webmaster</u>	Bob East
	(Website set up by Ken Dunn)
<u>AOS Representative</u>	Matt Riesz

Corbin's Corner

Last meeting we hosted Phillip Hamilton of Bredren Orchids in Apopka. They came and did an outstanding meeting on species and novelty Phalaenopsis care and even repotting.

There will be no meeting August—take the month off to tend to your orchids.

In September we will be hosting an up and coming south Florida business called Lady Vanda. They come from Homestead. Serena Roman started off like most as a hobbyist and then it really grew from there. She will be presenting an exciting meeting about slipper orchids. How can we get these finicky orchids to survive and not only that bloom well here in the Florida climate. Well Lady Vanda is coming to talk about about these exotic alien looking orchids to help us grow these with success. Serena will be offering slipper orchids as well as, you may have guessed from the name, Vandas! She specializes in fragrant vibrant colored vigorous hybrids and intergenics. We hope to see everyone at the meeting in September.



Membership Notes for May

by Arlene Appelbaum

Our meeting held on July 16th was very well attended by over 55 members and guests. We also welcomed another person, Lydia Gaponiuk, to join our society. This now brings our total membership to 124 people, 108 fully paid and 16 honorary and lifetime folks.

Please remember that there will not be an August meeting

See you in September

Arlene Appelbaum

Membership

ORCHID QUIZ

(answers on last page)

- 1) How many species of scale have been identified from cultured orchids
 - A. 1
 - B. More than 27
 - C. None
 - D. All of the above
- 2) What is the most common type of scale
 - A. Boisduval scale
 - B. Mealy bugs
 - C. Orchid scale
 - D. All of the above
- 3) How to treat scale
 - A. Invite Matt over to pick them off
 - B. Rubbing Alcohol
 - C. Insecticides
 - D. All of the above
- 4) Repotting during infestation
 - A. May lead to infestation of roots and rhizomes
 - B. Must replace mix
 - C. Discard mix to avoid further infestation
 - D. All of the above
- 5) Some effective insecticides are
 - A. Orthene
 - B. Malathion
 - C. Diazinon
 - D. All of the above

TREASURER'S REPORT

By Yvette Lewis

Current Report as of 07/31/2022:

Prior bal. as of 7/31/2022:	\$13,174.07
Total receipts (raffle, etc.):	210.00
Total disbursements:	<u>313.62</u>
Bank bal. as of 7/31/2022:	\$13,070.45
Outstanding Checks:	<u>399.95</u>
Cash On Hand 7/31/2022:	<u>\$12,670.50</u>

MEMBERS:

Arlene has graciously taken over sending get-well cards and sympathy cards to members. If you know of any members who are ill or grieving, please send her an email to let her know at fluffy2cats@gmail.com

THANK YOU!



Minutes of the meeting for July

Meeting was called to order by President-elect Matt Riesz at 1:00 p.m.

New Members were welcomed.

A request was made to approve the June meeting minutes – Matt Riesz made the 1st motion and Steve Mattana seconded. All were in favor and the June minutes were approved.

Yvette Lewis did a Treasurer report and indicated there was \$230.00 outstanding checks.

Jeff Rundell performed the swearing-in of the New Officers.

Matt Riesz stated there will be no meeting in August but possibly a field trip to Accent Orchids. If attending the field trip Members will receive a \$10.00 of your total purchase. Be sure to check Facebook and your e-mails for more information.

In September – Lady Vanda will be our Speaker, October might be Norman Fang(still pending as of our meeting), November will be the Auction and December will be the Holiday Party which Cheryl Crilly discussed some ideas for the party.

The 2023 Show and Sale at the VFW is in the planning stages and will be held March 18th and 19th – with vendor set-up on March 17th. Volunteers are needed. Jennifer Semro will be the Auction Chair.

Roy Bollinger is selling his greenhouse for \$400.00. If interested please let him know.

The Club is thinking about doing some upcoming trips – i.e. Apopka to visit several growers. More information to follow at a later date.

Jeff Rundell may be able to obtain cedar planks and asked how many Members were interested so he can get plenty for those interested.

Philip Hamilton was our Guest Speaker and discussed Phalaenopsis, their history, where they are from, how to grow, culture, novelty species and hybrids, pests, diseases, temperatures and what potting media he uses. He also did a demo on repotting with a plant in bark and one in moss.

Matt and Jeff discussed the show table plants.

Membership raffle winner was Debbie Smith.

Marita Riesz pulled the winning raffle tickets.

Meeting was adjourned at 3:10 p.m.

Minutes submitted by – Cheryl Crilly

Recording Secretary

We have an exciting trip planned for August 27th!

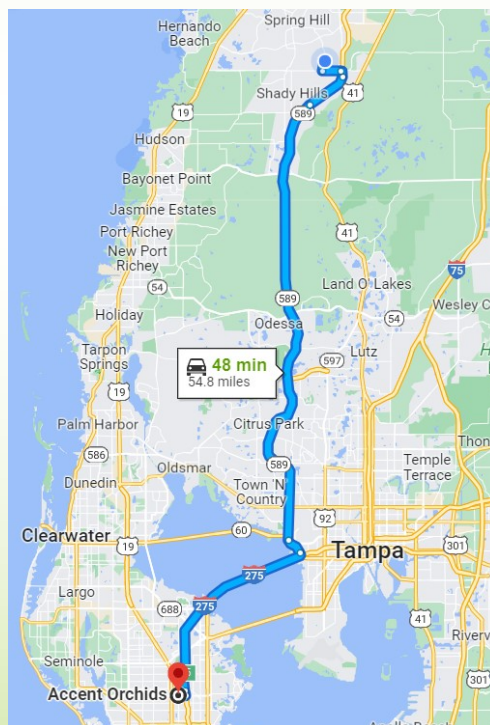
We will be visiting Accent Orchids, in St Petersburg and possibly also Art Stone Orchids. Final details are still being worked out, so keep an eye on your email, but here's what we know right now:

Date: Saturday, August 27th, 2022

Time: 10AM until 2PM

Where: Accent Orchids, 2835 38th Ave N, St. Petersburg, FL 33713

Here's how it works: You get yourself to Accent Orchids on August 27th between 10AM and 2PM, we suggest car pooling if you can since parking is a bit limited. Matt Riesz will meet you there and give you a card worth \$10 towards your purchase. Next, have a great time browsing through the greenhouse and finding great orchids. At checkout, present your card and get \$10 off your purchase. That's all there is to it! Here is a map, just to give you an idea of where Accent Orchids is located:



More details will be forthcoming, including directions to nearby parking and to Art Stone Orchids, if we can get that arranged.

Orchid Pests

Scale

By Paul J. Johnson, PhD

Scale is probably the most important insect pest of cultivated orchids in northern climates. According to a Florida Department of Agriculture and Consumer Services publication, there are at least 27 species of scale identified from cultivated orchids. Fortunately, only the most common soft scale, usually referred to as brown scale or brown soft scale, regularly survives in the north on indoor or greenhouse plants. The soft brown scale (*Coccus hesperidum*), and possibly the similar elongate soft scale (*Coccus longulus*), seem to be the most observed species. Boisduval scale (*Diaspis boisduvali*), an armored scale, can infect orchids in the greenhouse and the home, and should be guarded against.



Boisduval scale is the most common type of scale found on orchids and can multiply rapidly

The adult brown scale is recognized by light yellowish to dark brown oval to circular shells appearing on leaves, petals, sepals, petioles, pseudobulbs, and sometimes rhizomes and roots. Mature female Boisduval scale are rounded and lightcolored, while aggregations of males are identified by their cottony appearance, which may cause them to be confused with mealybugs if not examined closely. The immatures, or crawlers, of all species are tiny and yellowish to pinkish, and not easily seen without a magnifier.

The most common way of acquiring scale is purchasing an infested plant. Scale is easily transmitted to clean plants when plants are crowded and crawlers move from plant to plant. Colonization by windblown crawlers may occur when plants are outdoors, but this can also happen indoors and in greenhouses when crawlers float on currents from circulation and heater fans. This can produce pockets of infestation where air currents are weakest when crawlers settle on plants.

Orchid Pests

Life Cycle

Scales have three life stages: egg, larva (or nymph) adult. Eggs are laid under the female's shell and remain there after she dies. These hatch into mobile nymphs, called crawlers, that can move between plants. After finding a suitable place, crawlers settle to feed. The females then form a light yellowish protective scale covering, which enlarges as the insect grows and darkens to tan or brown as it matures. Male Boisduval scale form an armored scale while those of brown scales are small winged creatures. The primary role of males is to mate and die.

Scales have short life cycles, but may cycle many times a year. Typically, a month or more is required for completion of a scale generation, but a mere two to three weeks is possible in favorable conditions. The overlapping generations create the biggest scale-management problem. All control methods are at their greatest effectiveness against crawlers. By the time the scale has matured the hardened shell, it is too late to easily kill those adults with chemicals. Also, the largest dark brown colored scales with a powderlike substance inside are dead and the shells are often full of eggs.

Management

Scale management is usually a protracted and serious effort, and never fun. Light infestations restricted to one or a few plants can be treated with household products rather than concentrated insecticides. When possible, immediately isolate infested plants from others to prevent the crawlers from moving among them.

The key to control is persistence. Management methods least toxic to people, pets and plants are the most time consuming and laborious. Chemical methods, including oils, soaps and synthetic insecticides are progressively more toxic and expensive, but less work. Regardless of method or chemical used, remain vigilant and expect to make at least two to three applications 10 to 16 days apart.

Due to plant costs, owners' personal attachment to orchids, and many growers' desire to avoid insecticides when possible, a number of effective home remedies for scale are available. However, noninsecticidal treatments may not be highly effective for eliminating scale - they should be viewed as controls, not eradicators. Also, many chemicals for home use are toxic to humans, pets and plants even in diluted forms, often proportionately more toxic than the feared insecticides.

Orchid Pests



Rubbing Alcohol

A popular home remedy is swabbing plants with isopropyl (rubbing) alcohol. Do not use other alcohols such as ethanol or methanol; they will penetrate the plant tissues and cause considerable damage. On hard-leaved plants, remove scale by gently rubbing with fingers or an infant's soft toothbrush, with or without alcohol. Afterward, repeat the alcohol treatment to remove recently hatched crawlers. Pay particular attention to the mid rib, other veins and leaf edges. (On soft-leaved orchids, such as some *Oncidiinae*, isopropyl may damage the leaves.)

Another method is to spray alcohol with a misting bottle or small pump sprayer. When so applied, a few drops or a short squirt of liquid soap are added to the alcohol. Some growers also like to add some horticultural oil, mineral oil or neem oil to this solution. Use caution, as a detergent that is too strong or applied in excessive amounts, or use of an ammonia-based chemical cleaner, may damage your plants particularly buds and flowers. Also, alcohol sprays are not effective against eggs beneath scale coverings, hence physical removal of scales by hand is suggested.

When air movement increases evaporative cooling, rapid evaporation of alcohol may over-cool plant tissues, creating zones of dead mesophyll cells that can become necrotic. On warm or breezy days, especially with low humidity, wipe residual alcohol with a tissue instead of allowing it to evaporate., which can harbor eggs and crawlers. Dispose of it in a compost pile or in the garbage. When repotting, a close inspection, and, if necessary, a gentle clearing and spraying of the roots is essential.

Orchid Pests

Repotting During

extreme infestation, scale may develop on roots and rhizomes. Consider replacing the potting medium, which can harbor eggs and crawlers. Dispose of it in a compost pile or in the garbage. When repotting, a close inspection, and, if necessary, a gentle clearing and spraying of the roots is essential.

Oils, Soaps and Sterilants

Horticultural, neem and mineral oils, and insecticidal soaps form the next stage of chemical control. All of these solutions are generally considered safer for humans, pets and plants than insecticides. None provide absolute control over pests, but frequent applications reduce insect populations to below self-sustainable levels in small orchid collections.

Oil solutions smother insects, so complete coverage of all sprayed plants is essential. These oils are mixed with water and a plant-safe detergent for enhancing spreading and sticking. Never apply these solutions to plants on hot days (over 85 F).

Insecticidal soaps, while considered safe, may still damage some plants, particularly tender new tissues, and when the soaps are mixed with hard water. They can also cause allergies and respiratory problems for users.

Insecticides

Persistent or heavy scale infestations may require the use of synthetic insecticides. Few insecticides are tested on or specifically registered for use on orchids, but several common, inexpensive, home-and-garden chemicals are labeled for ornamental plants.

Some of the more effective insecticides available to home growers are Orthene (wetable powder), Malathion (liquid), Diazinon (liquid) and Carbaryl (water-based emulsifiable concentrate). Always follow label directions and never exceed the minimum recommended concentration given in mixing directions. Orchids are tough, but sensitive to many chemicals. While certain species may not react to a given formulation, others might, so advance testing is advised.

In the home, growers who must apply insecticides during inclement weather need special care for applications. If outdoor spraying is not an option, spray plant(s) inside a large plastic bag, remove the bag after the spray has settled, and let the plant(s) ventilate where fumes will not invade the home or work area.

Never apply any liquid pest treatment in direct sunlight or high heat. To prevent burning of tissues, always shade plants until the solution dries.

Orchid Pests

Growth Regulators and Chitin Inhibitors

Insect-growth regulators, such as Enstar II, are synthetic forms of insect hormones that interrupt normal development in insects, including scale. While there is little reliable information on their use on orchids, there have been no plant health problems noted thus far. An increasing number of growers are reporting satisfactory results with Enstar II.

Azadirachtin (Azatin and Neemazad) is a plant-derived (neem tree) chemical or botanical insecticide. It inhibits development of chitin, a primary component in insects' exoskeletons, causing mortality. There is little information available on its use on orchids, but it is approved for a wide variety of ornamentals and is labeled for greenhouse applications.

Final Considerations

Heavy infestations of scale may require other control methods. In such situations, a synthetic insecticide may be useful. On the extreme side, for a plant showing signs of decline from scale, consider whether the low likelihood of rejuvenating the plant justifies the expense and effort of continued treatments. After all, the destruction of a sick plant can be used to justify the purchase of a new and healthier one.

To minimize risks of developing a treatment-resistant pest population, change methods and chemicals occasionally; do not use the same chemical mix more than three to four times sequentially. For example, if an insecticide was used for previous treatments, switch to an oil, soap or different insecticide.

Never use an insecticide not labeled for ornamental plants, and do not use less than the minimum concentration of a mixture. Too little of a chemical enhances resistance, while too great a concentration may damage plants. Never use chemicals as a routine preventative; this wastes chemicals (and money), and allows resistant pests to develop. Continue manual removal of scales during treatment - removing egg-laying adults is as important as killing nymphs. Finally, always monitor the cycling of the scale population to optimize spray effect and minimize total number of sprays.

All reuse must contain the following:

Reprinted from the SEPTEMBER 2003 issue of *Orchids* -- The Bulletin of the American Orchid Society. Copyright American Orchid Society -- www.aos.org

Upcoming Speakers

Sept 17 – Lady Vanda Orchids

October 15 – “Orchids 101: What do I do

With My Orchid Now?”

November 19 – Annual Orchid Auction

December 17? – Holiday party



Marita Riesz created this beautiful business card to promote our Annual Show

CLUB TRIP !

Gertie Messenger is looking into the possibility of a club trip to visit Bredren Orchids and possibly others as well. We would likely do this as a car pool and have the opportunity to go together and see the greenhouses of orchid growers and get some great plants from them. The date is not decided, we're just looking into how much interest there might be for such a trip. If you would be interested, please send Gertie an email at gm8102464@gmail.com.

HAPPY GROWING





NCOS Show Table July 16th, 2022

Plant Name	Grower
Jumellea comorensis	Julie Smolka
Saccolabium tixieri (AKA Schoenorchis fragrans)	Julie Smolka
Cadetia taylori	Julie Smolka
Phal. violacea h.f. indigo	Jeff Rundell
C. Rubin	Bella Roberts
Neofinetia falcata	Jeff Rundell
Perreiraara Bangkok Sunset	Matt Riesz
Bc. Yellow Bird	Matt Riesz
B. nodosa 'Mas Mejor'	Steve Mattana
Rhyncostylis retusa	Bella Roberts
V. Motes Key Lime	Bella Roberts
Brassokeria Rosyleen	Matt Riesz
E. steinbachii x E. howardii	Bella Roberts
Lc. Kathryn Leahy 'York'	Ken Mort
Peristeria elata	Bella Roberts
Enc. Hybrid (NOID)	Rosanne Wenz
Pot. Inspiration 'Maui Coral'	Rosanne Wenz
Den. Jaquelyn Thomas 'Uniwa Supreme'	Ken Mort
Blc. Hawaiian Passion 'Carmela'	Ken Mort
Neofinetia falcata	Ken Mort



Among the purest and most primal joys of the plant world are the wonderful perfumes and aromas emanating from your orchid collection and your garden this month. August is not a month to toil, but rather one to savor the wonders of creation, for how often have you really looked at your orchid flowers? Sure, they are colorful and beautiful, but they are so much more. They are part of the continuity of life, an end-product of evolution, a lure, irresistible to pollinators — and humans.

Ambrosia, in Greek mythology, was the food of the gods and was thought to confer ageless immortality to those who consumed it. In Homeric tradition, it was perceived to be a kind of divine exhalation of the earth. Nectar, the drink of the gods, comes from the contraction of two Greek words — *nek* (death) and *tar* (overcoming) — indicating its healing and life-giving properties.

This month, we must appreciate what comes from the earth. It is now, in our gardens' summer peak, that we, bathed in early morning light or encroaching twilight, emerge from our chambers to sample the fruit and fragrances wrought by our toils earlier in the spring. It is most important to take in that sweet ambrosia offered daily by the plant world. While it's unlikely that those who do will achieve immortality, the peace and pleasure to be gained are timeless.

FRAGRANCES - Among the most amazing aromatic flowers in the plant world are the blossoms of Stanhopeas and their allies. Often smelling like an exotic mixture of several different fragrances, most of these plants have sharply pendulous inflorescences and should be grown in hanging baskets. If you have young seedlings or divisions of Stanhopeas or their relatives, such as Embreeas, Gongoras, Acinetas, or Coryanthes, in regular pots, lift the plants from their pots to check and make sure they have not sent out inflorescences into the mix. Often these inflorescences, unable to escape the confines of the pot, end up rotting. It is possible for many Stanhopeas and their relatives to bloom at an earlier age than you might think, and a gentle transfer of young plants into baskets might be in order before their spikes develop too much.

UNINVITED GUESTS - The summer heat generally means stepped-up insect activity. There are both good and bad insects in the garden, and if you have chosen to summer plants outside, you have got some of each among your plants. Be on the lookout for parasites such as mealybugs and scale. And be prepared to spray insecticides if you are finding large infestations. If, however, after a thorough search you find minimal problems, your beneficial insects, such as ladybugs and other small predators, are likely to keep plants free of problems. Spraying at this point would only damage beneficial populations.

ANTS - One of the worst pests in August is ants. Their colonies will often invade the coarse, airy conditions of orchid media and will greatly acidify the mix. Observe plants after a heavy watering, and, if an ant colony is present, it will be obvious by the ants streaming out of the saturated mix. It is not fun, but such plants must be purged of ants and repotted immediately. Ants are vectors for many other insects and cannot be tolerated.

ANT PLANTS - While I have never tried this, and do not dare recommend it, there are certain plants that, in the wild anyway, seem to benefit from the presence of ants. In particular, *Myrmecophila* (which means "ant I lover" in Latin) has symbiotic relationships with ants that act as the plants' bodyguards during the dry season. The plants supply space and nectar in their hollow pseudobulbs where the ants can nest. Seeds of these and other orchids, such as *Coryanthes*, often germinate on or near ant nests and seem to require or feed off of the extreme acidity that comes from the formic acid excreted by the ants. It is conceivable that such plants might actually thrive better if ants were allowed to invade them for the summer. Still, you do want to do something about that before bringing the plants inside for the winter.

COOL IT - In a mixed collection, there will always be some plants that are experiencing stress in the oppressive heat so characteristic of August. Among the strategies for cooling plants are shade, gentle airflow, and frequent cool mistings. It is your degree of engagement during those stiflingly hot days that will help your struggling orchids get through the worst of the season.

HOT STUFF - While most of the intermediate orchids struggle, many warmer-growing orchids take the heat in stride. Fertilize them well and allow them the chance to prosper in the summer heat. Pay attention to your *Dendrobiums*, *Vandas*, *Catasetums*, *Brassavolas*, and *Encyclias*, all of which use August for increasing their pseudobulbs.

- Tom Miranda has been working professionally with orchids for over three decades. He is currently an AOS trustee and is a past chair of the AOS Conservation Committee. He is an AOS accredited judge in the Hawaii Center (email: biophiliak@gmail.com)

The American Orchid Society Webinars

Webinars are online video presentations. You can register for an upcoming webinar or watch the recorded webinars any time. Some webinars require you to be an AOS member.

Upcoming Webinars



Webinars-Coming Attractions!

REGISTRATION IS EASY <http://www.aos.org/orchids/webinars.aspx>
 Cannot make it on the scheduled date or time? No need to worry.
 Register now and view on your time schedule.

Greenhouse Chat Webinars are indexed by topic for future viewing.
 Send your Greenhouse Chat questions and photos to: greenhousechat@aos.org

When	August Summer Break	Sept. 13, 2022 8:30pm EDT Tuesday	Sept. 19, 2022 8:30pm EDT Monday
Topic	Choose Your Topic From RECORDED WEBINARS	Greenhouse Chat Orchid Q & A <i>Send in your Questions!</i>	<i>Paphiopedilum venustum</i> The Pauper Prince of the Himalayas
Presenter	Expert Growers, AOS Judges, Hobbyists, Conservationists and more	Ron McHatton Chief Education and Science Officer	Dr. Leslie Ee Accredited AOS Judge, President COC

Check Out the Timeless Collection of Recorded Webinars on the AOS Website



Webinar announcements are posted to Facebook, Instagram
and in the AOS Corner of your Affiliated Society's newsletter.

Use the
Webinar
Display
Filter

Go here to join the AOS:
<https://secure.aos.org/join/new-membership>



Orchidsinbloom 2001
Rock Spring Road Apopka, FL
Open Monday to Saturday 9 am
to 5pm

20% off from June-August 31

Pam Waters 4072420619

Things to do

Orchid Auction!
Florida West Coast Orchid Society
August 20, 2022
Doors Open at 9am For Preview.
Auction Starts at 9:45am
Location: Florida Botanical Gardens, Magnolia Room
12520 Ulmerton Road
Largo, FL 33774
Call Ruth Ullery for more information:
727-550-7993
Cash & Credit Cards Accepted
We are a Non-Profit Organization

FRIDAY & SATURDAY, AUGUST 5-6
International Phalaenopsis Alliance, Inc.
SYMPOSIUM 2022

EDUCATIONAL PRESENTATIONS	TOP-QUALITY VENDORS
- Heather Gramling <i>Recent American Orchid Society Awarded Phalaenopsis Hybrids</i> - Dotty Woodson <i>Best Practices in Your</i>	- Bredren Orchids - Gold Country Orchids - Mainshow Orchids

Quiz answers:

- 1) B. At least 27
- 2) A. Boisduval scale
- 3) D. All of the above
- 4) D. All of the above
- 5) D. All of the above

