

Venice Area Orchid Society News

July-August 2016

**Next Meeting: Wednesday,
August 3rd, 7:00 pm
Venice Community Center
(doors open at 6:30 pm)
Speaker: Alan Koch
Topic: Mini-Catts**

Alan Koch owns and operates Gold Country Orchids in Lincoln, CA. where he grows his more than 300,000 orchids. He started growing orchids in 1969 with three Cymbidiums given to him by an aunt and continued and expanded his hobby while in college and discovered that many orchids would grow outdoors in S. California. Specializing in miniature and compact Cattleyas, he is recognized as an expert in the Brazilian Cattleya alliance and is an internationally renowned speaker.



He has been published in the Orchid Digest, AOS magazines, and the proceedings of the World Orchid Conference. Alan is an Accredited AOS Judge as well as a past member of the AOS Judging and Research Committees. He is Vice-Chair and Training Coordinator for the California Sierra Nevada Judging Center.

It's taken Alan almost two years to return to Venice where he last spoke to a standing room only audience in September 2014. Even better, Alan will provide free shipping (personal delivery at the meeting) as well as a 20% discount on all plants from his pre-order selection lists. He's providing a great assortment of cattleya species and hybrids as well as other Florida-friendly genera. Many of his orchids are very limited in availability, so don't hesitate.

Alan is a great speaker and his presentations always entertain, motivate and educate his audience.

A Message From Your President

It's summertime and the living is easy..... and very hot and very humid! While we are enjoying no lines at the restaurants and grocery stores, we're also watching our orchids carefully to ensure they get enough air, water, dry out time and treatment for the inevitable pests and diseases that seem to continually target our orchid collections. Those of us who are still repotting plants are being careful to provide some extra shade and air circulation to avoid heat stress on newly potted plants. The best time to repot is when you see those new developing roots, about an inch long.



Our June 1st speaker, Bruce Holst of Selby Gardens, gave us a fascinating, first-hand description of orchid hunting in Belize that included a white knuckle escape from attacking wild boar. Steve Vogelhaupt and Rick Belisle prepared an excellent presentation, presented by Steve, on Semi-hydroponic culture at our June 9th Growers Clinic. Their presentation has been posted to our VAOS website.

At our next meeting, August 3rd, we'll be hosting our friends from the Englewood Area Orchid Society (EAOS) at our joint summertime meeting. Please remember to bring treats to share and plant divisions for our Raffle Table. Alan Koch from Gold Country Orchids in California, one of our favorite speakers, will be presenting "Mini Cattleyas" and will have plants to sell. Alan always brings many interesting, miniature plants that do very well in our SW Florida environment. He's accepting pre-orders until Wednesday, July 27, and details are in the Culture Supplement.

At our August 11th Growers Clinic, we will present Pests and Diseases, Part Two. Starting in August,

Continued on page 7

First Show of the Season!

Ridge Orchid Show September 17th - We Need Your Blooming Plants!

VAOS will participate in our first orchid show of the season on September 17-18 in Bartow, FL. The Ridge Orchid Society will host their annual orchid show and sale. Their display design theme is "Over the Rainbow" Here is the schedule:

Set Up: Friday Sept 16th 10am - 5pm
Show: Saturday Sept 17th 10am - 5pm
Show: Sunday Sept 18th 11am - 4pm
Take Down: Sunday Sept 18th 4pm

WWW.VAOS.ORG

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Venice Area Orchid Society, P.O. Box 443, Venice, FL 34284-0443

**Officers 2016 – 2017
President**

Carol Wood, pres@vaos.org

**Vice President – Programs &
Immediate Past President**

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Vice President – Social Affairs

Sharon Kahnoski, social@vaos.org

Vice President – Show Displays

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Joanna Shaw, rsec@vaos.org

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Annual Show Chairs

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Judy Loeffler

showchair@vaos.org

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John Kahnoski, Raffle Table

Joanna Shaw, Kristin Shaw &

Cynthia Vance, Plant Table

Sue Grimmer, Gary Becker, Dick Lawson,

Technology

Pauline Adam, Mentor Coordinator

Kathy Beck, Librarian

Newsletter Production

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VAOS Printer

Creative Technology of Sarasota

*Venice Area
Orchid Society News*

P.O. Box 443, Venice, FL 34284-0443

- Published monthly.
- Deadline for submissions is the 15th of the prior month.
- Please direct comments to:
Steve Vogelhaupt, csec@vaos.org
- Written submissions are appreciated.

Minutes of the June 1, 2016 Meeting

Carol Wood called the meeting to order at 7 pm by welcoming the new members and reviewing the format of the meeting.

Announcements:

- The Growers Clinic next Thursday night will be given by Steve Vogelhaupt and he will be going over semi-hydroponic culture for orchids. Steve noted that he received a lot of input from Rick Belisle who now will be unable to attend the meeting himself. Steve reported this will be a hands-on clinic and he will have 20 small orchids for participants to pot using techniques covered in the clinic. Participants will then be able to take the plants home and grow them.

- Tonight we are participating in the All Faiths Food Bank's Annual Campaign Against Summer Hunger to provide meals for hungry children who are no longer receiving meals at school.

- The Englewood and Venice Area Orchid societies combine their monthly meetings during the months of July and August. The next monthly general meeting will be held in Englewood at Christ Lutheran Church on Monday July 11th at 6:30pm. The next meeting in Venice will be Wednesday August 3rd at the Venice Community Center. Carol encouraged us all to bring extra snack table treats to share with our Englewood friends.

- There will be no newsletter next month.

- Carol announced that we are considering discontinuing the mobile library that comes out each month for the monthly meetings. She noted that only 3 people borrowed books in the last year and that many societies have already discontinued this type of feature. If no one objects, we will set aside some special books for auction at the December Holiday party, others will be for sale at the August meeting and the remainder will go on the Raffle Table. There was no objection.

- Sharon Kahnoski announced that most of the social events are done for the next few months. Plans for the fall are as follows:

We will be looking for 3 volunteers to participate in the fall home/growing area tours. The date is not yet set. In October we will have

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Treasurer's Report

July 2016

Checking Account

Starting Balance		
6/1/16	\$	27,269.83
Income	\$	325.00
Payments	\$	1,078.12
Closing Balance		
6/30/16	\$	26,516.71

Cash Account

Starting Balance		
6/1/16	\$	40.00
Closing Balance		
6/30/16	\$	40.00

Money Market Savings

Starting Balance		
6/1/16	\$	25,057.68
Income	\$	0.14
Closing Balance		
6/30/16	\$	25,057.82

Total Assets

6/30/16	\$	51,614.53
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Submitted by Mary Amos

**Newsletter Culture
Supplement**

For those members who receive their monthly newsletter by email, be sure to check out the Culture Supplement.

Included are culture articles and handouts from our monthly Growers Clinics.

This supplemental information will only be available in our full color email edition of the newsletter.

Plant Table Awards June 1, 2016

Some members have been surprised that their awarded plants have been given different names in the Plant Table articles. May I say that we just try to keep up with the latest nomenclature determined by taxonomists conducting DNA analysis. I also thought members would be interested in the naming history of some of their orchids which have kept the same name.

The **First Place Blue Ribbon** was captured by Steve Vogelhaupt for his spectacular and expansive *Dendrobium* (Den.) *parishii* in a basket. This is a dendrobium that needs a rest after Thanksgiving, so Steve gives it 'dry' rest period at that time and when flower buds have formed and new growth appears, as our temperature warms up, he resumes watering and fertilizing. Indeed, Steve must have a detailed tracking plan of his culture practices for each of his various orchids for they all seem to receive the right amount of water, light and fertilizer at the right time. Kudos for your diligent and beautiful creations, Steve!



Den. parishii

The **Second Place Red Ribbon** (top-right) went to Judy Russell for her pretty Gomesa (Gom.) Shooting Star 'Mustard'. Once a Brassidium, why now is her plant called a "Gomesa"? In 2008, Oxford's Annals of Botany labeled the *Oncidium* alliance "grossly polyphyletic" and the AOS labeled this genus a "dumping ground." After DNA testing and much debate, a consensus was announced (April 2013) resulting in major taxonomic changes to *Oncidium*, *Gomesa*, *Odontoglossum*, *Miltonia*, and others. A result – most of Brazilian *Oncidium* with a fused lateral sepal were given the genus name *Gomesa*. Thank



Paph. godefroyae



Gom. Shooting Star

you, Judy for our 'first' Gomesa!

The **Third Place Yellow Ribbon** was won by Jackie Wagner for her striking *Schunkeara* (Shk.) Big Shot 'Hilo Sparkle', a very popular plant for those who love its huge star-shaped flowers. Again, this plant used to be a *Beallara* – a notho-genus name for intergeneric hybrids among the orchid genera *Brassia*, *Cochlioda*, *Miltonia* and *Odontoglossum*. "Nothogenus" comes from the Greek: "bastard" + genus! However, *Beallara* orchids have now become either *Aliceara* or *Shunkeara* due to nomenclatural changes. Good growing of a favorite Hawaiian orchid, Jackie!



Shk. Big Shot

The **Best Species Ribbon** was awarded to Renee Bynum for her lovely *Paphiopedilum* (Paph) *godefroyae* (left-below), a precious, 2-inch orchid. What's wonderful is that it's a sequential bloomer and already the next blooms are on the way. *Paph. godefroyae* originally was found in the lowland terrestrial elevations of Thailand less than 50 feet above sea in the rocks or trees. This tells us that those of us living at sea level can hopefully grow this orchid as well as Renee. And its name? Alexandre Godefroy-Lebeuf, a French horticulturalist, named this plant after his wife Mme. Godefroy, an orchid enthusiast.

Congratulations, Renee!

Continued on next page

Plant Table Awards (continued from page 3)

The **New Member Grower's Ribbon** was garnered by Jo Ann Britton for her Dendrobium hybrid, probably the very popular Den. Emma White. It was a beautiful plant, with each flower facing the same direction, showing that JoAnn never 'turned' the plant, or if she moved it, she replaced it in the same direction. Since this hybrid is 60% Phalaenopsis, it has a lovely flower shape and arching in its presentation. Fine growing, Jo Ann!



Den. hybrid

The **Members' Choice Ribbon** (top-right) went to Judy Russell for her gorgeous Brassocattleya (Bc.) Richard Young 'Cariads Colette'. It is one of those wonderful hybrids of *B. nodosa* which gives this star-shaped bloom such a large lip. Fifty percent of this hybrid is *B. nodosa*. It was created by Richard Young but was registered by Richard Capen in 1980 in Virginia. Like similar *B. nodosa* hybrids with thin leaves, they can tolerate 90% sun without their leaves burning. In fact, this causes them to bloom profusely – a great addition to your collection. Great job, Judy!

The **Speaker's Choice Ribbon** (bottom-right) was awarded to Richard Amos for his magnificent Encyclia (*E.*) *tampensis*. With more than 200 flowers, his huge plant was perfectly round. It grows in Florida and the Bahamas and since it was first collected near Tampa, Florida in 1846, it was named after this city. Throughout



Bc. Ricard Young

April and May, *E. tampensis* can be found in Florida growing in the high oaks of many places -- Myakka River State Park, Deer Prairie Creek Preserve, Snook Haven and along Manasota Key Road. As the most epiphytic native orchid in Florida, it is popularly known as Florida's Butterfly Orchid. Though some of us might be tempted to take this plant from the wild, which is illegal, Rich purchased his plant many years ago. Terrific specimen, Rich!



E. tampensis

-Narrative and photos submitted by Cynthia Vance

Please Support Our 2016 Show Sponsors

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- Daiquiri Deck • Davis & Beyer, DDS • Family Dermatology
- Gardens of Venice - Retirement Residence
- Kennedy-White Orthopedic Ctr. • R.A.V.E • Silverstein Institute
- Southgate Animal Hospital • Stanley Dean State Farm • Youthful Aging
- Classic Creations in Diamonds & Gold • Crow's Nest Restaurant
- Edgewood Nursery • Orchid Envy • P.S. Printing
- SunBulb • Thai Bistro

Culture Tip of the Month

The most dreaded orchid pest is Scale. Once you see it, it has already infested your plant. Look for the tell tale signs - yellow spots on the leaves, often with a speck in the center like turtle shells - or - cotton- like masses under the sheaths or at the base of the pseudobulbs. To treat, peel off the dry sheaths and blast with a stream of water. For small collections, spray with a 50/50 solution of alcohol and water with a little soap. For large infestations, spray and/or drench with Orthene or Merit. Isolate the plant and treat it weekly for 3 weeks. Check and treat the surrounding plants.

Please join us at our next Growers Clinic, August 11th when we'll discuss orchid pests and diseases. Bring



Soft Brown Scale



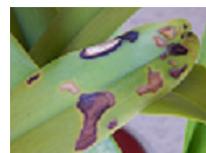
Boisduval Scale

your problem plants for expert advice. All members and guests are welcome. Doors open at 6:45 pm to socialize and share treats.

-Narrative by Carol Wood; photos courtesy of AOS

Bacterial infection, Fungal Infection or.....????

A few weeks ago, while on my daily morning inspection tour of my orchids, I noticed that one of my standard cattleyas, C. Seto Splendor, had some yellowing and several sunken black spots on one of its leaves (photo #1). I placed it on the 'isolation' bench and promptly forgot about it until the next morning. By then, the damage had spread to a second leaf and an investigation was in order (photo #2). As usual, I began with our website and the St. Augustine Orchid Society website, which has excellent photos of various ailments, diseases and pests. Finding some likely culprits, I moved on to the AOS Orchid Diseases and their Management webinar. Ron McHatton, AOS Director of Education, hosted this comprehensive webinar available to AOS members and non-members alike, and was able to eliminate a few suspects. A review of the hundreds of photos available through Google of various orchid diseases only added to my confusion, although I was able to eliminate sunburn as the plant had not been moved and none of the surrounding plants showed any damage.



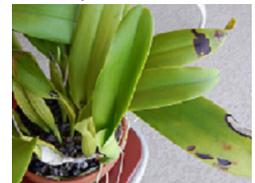
Photos# 1 and 2

On to the third morning, when fully one-third of the leaves were involved (photo #3), I had decided that this must be a fast moving bacterial or fungal infection and reviewed the available fungicides and bactericides. I had the usual Bayer imadacloprid systemics on hand as well as Thiomyl, Banrot (a fungicide and bactericide) and Aliette, a new systemic fungicide that travels both up and down in the plant; if drenched, moves up to the leaves, if foliar spray, moves down to the roots. I was almost certain that I was confronting bacterial brown spot (acidovorax/pseudomonas) from what I had read and remembered from our previous Growers Clinics. Always reluctant to use more chemicals than absolutely necessary, I sent an email to Ron McHatton at AOS, with the photos and my tale of woe.

Ron answered within the hour stating that in his opin-

ion, the photos looked nothing like a bacterial infection as bacterial infections almost never dry out and there was no evidence of oozing bacterial-laden fluid that is usually present in the newest lesions. That and the sharp yellow bands made him think the problem might be heat or cold stress or possible anthracnose or cercospora fungus. A Google search of 'images heat stress orchids' yielded this photo (photo #4), almost a twin of my photos, and which led me directly to the AOS website and Mesophyll Cell Collapse.

Mesophyll is the soft tissue inside a leaf, between the lower epidermis and the upper, chiefly concerned in photosynthesis. Cell collapse occurs if the orchids are exposed to very low air or water temperatures, not always occurring on the coldest nights. Water temperature that is more than 25 degrees colder than the plant's leaves can cause the collapse. In my case, I most likely sprayed the orchid in the late morning, after a few hours of sun, from a hose that had been in the shade, with water that was still at the much cooler nighttime temperature.



Photos# 3 and 4

Lessons to be learned:

1. Put the American Orchid Society high on your list of 'go to' resources; website, magazine, webinars and knowledgeable and helpful staff
2. Stop and reconsider before spraying a number of chemicals unless you're sure of the pest or disease you're trying to eradicate
3. Check the water temperature in the hose or bucket before using on your orchids. Too high or too low temperatures can cause a lot of permanent damage.

-Narrative and photos 1-3 by editor, photo 4 courtesy of AOS

2016 - 2017 ORCHID SHOW SCHEDULE



Mark your calendars - VAOS will participate in the following orchid shows:

Ridge Orchid Society (September 2016)

Saturday Sept 17th - 10am - 5pm
Sunday Sept 18th - 11am - 4pm
Set Up: Friday Sept 16th - 10am - 5pm
Location: Stewart Center: 1702 US Highway 17 So., Bartow, FL
Theme: Over the Rainbow
Show Chair: Glen Gary glengary54@yahoo.com

Sarasota Orchid Society (January 2017)

Saturday Jan 7th - 9am - 5pm
Sunday Jan 8th - 10am - 5pm
Set Up: Friday Jan 6th - 9am - 5pm
Location: Sarasota Municipal Auditorium:
801 N. Tamiami Trail, Sarasota
Theme: Symphony of Orchids
Show Chairs: Laurie Stoner laurissas@msn.com
and Jo Davis jodavis38@gmail.com

Venice Area Orchid Society (February 2017)

Saturday Feb 4th - 10am - 5pm
Sunday Feb 5th - 10am - 4pm
Set Up: Friday Feb 3rd - 1pm - 8pm
Location: Venice Community Center:
326 So. Nokomis Ave., Venice
Show Chairs: Carol Wood & Judy Loeffler
ShowChair@vaos.org

Englewood Area Orchid Society (April 2017)

Friday April 7th - 10am - 5pm
Saturday April 8th - 10am - 5pm
Set Up: Thursday April 6th - 10am - 5pm
Location: Englewood United Methodist Church:
700
E. Dearborn St., Englewood, FL
Theme: Orchids By Lemon Bay
Show Chair: Mary Anne DiGrazia
tommmaryanne@centurylink.net

-Submitted by Carol Wood

VAOS Library To Be Retired

The VAOS Board of Directors has been considering retiring our library over the past two years. Most orchid societies have retired their libraries as their members increasingly rely on online resources for current information. We monitored usage over the past year and only three members checked out books. VAOS members agreed to discontinue the library at our June 1st meeting. Here is the disposition plan:

Kathy Beck, VAOS Librarian, selected 16 books to auction at our December 2016 holiday party.

The rest of the books will be sold to members at our August 3rd meeting.

Any remaining books will go to the Raffle Table for our monthly meeting raffles.

Magazines will be moved to storage to be sold at our February 2017 show.

The mobile wooden book case will be donated to the Sarasota Fruit and Nut Society.

Kathy and Jerry Beck will assist John Kahnoski at the Raffle Table after our August meeting. We thank Kathy Beck for serving as our Librarian and for managing the disposition of our library books.

-Submitted by Carol Wood

Minutes of the June 1, 2016 Meeting (continued from page 2)

our annual member plant sale in downtown Venice at the gazebo adjacent to the Farmers Market. This is the same weekend as the Chalk Festival and any member can participate to sell their plants or plant-related items.

The yearly Christmas party will be December 9th at the Boca Royal Country Club, the same venue as last year.

• Bruce Weaver reported the Venice Orchid Project is rolling along and he received a number of plant donations tonight from Ted Kellogg. He will need help placing/planting them in the Fit Trail at Pinebrook Park this coming weekend.

Bruce Weaver then introduced the speaker for the evening, Bruce Holst, Director of the Botany Department at Marie Selby Botanical Gardens in Sarasota. Bruce Holst

gave a presentation detailing an expedition to Belize, the smallest country in Central America. His specific purpose was to identify and study species of epiphytes in remote areas of the country. He described an expedition which including hiking 100 miles of rivers, mountains and jungles in search of bromeliads, orchids, aroids, ferns and lycophytes.

Joanna and Kristin Shaw presented the Plant Table and John Kahnoski announced the Raffle Table.

The meeting was adjourned at approximately 9:00pm

-Submitted by Joanna Shaw, Recording Secretary

Support the Campaign Against Summer Hunger

Thank you to the many generous members who brought food donations to our June meeting to support the Campaign Against Summer Hunger.

When summer vacation begins, an estimated 40,000 children in our area face daily hunger. They no longer get meals at school and young families are often stressed with the end of seasonal jobs and lower wages.

All Faiths Food Bank's annual Campaign Against Summer Hunger works to provide meals for these hungry children. The most needed items are:

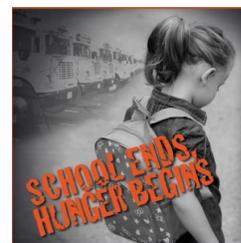
- Cereal, fruit bars, kid-friendly snacks and canned goods with pull-tab tops
- Peanut butter & jelly, canned tuna, chicken or salmon,

rice, beans and powdered milk

- Canned fruit or fruit drinks - look for 100% juice, light syrup and pull-tab tops
- Canned veggies, stew and soup with pull-tab tops

Bring your food donations to our August 3rd meeting for collection and delivery to the All Faiths Food Bank. Financial donations are also appreciated.

Info: AllFaithsFoodBank.org.



-Submitted by Carol Wood

Ridge Orchid Show September 17th (continued from page 1)

The show location has changed this year to the University of FL Polk County Extension building, 1702 US Highway 17 So, Bartow, FL.

Jay Loeffler and his team will travel to Bartow to put in the VAOS display. We need your blooming plants to create a winning display! We will collect and transport your plants to the show and ensure their safe return to you on Monday following the show. Bring your plants to one of two locations by Thursday Sept 15th, 6pm:

South Venice: Carol Wood, 4941 Bella Terra Dr., Venice (Venetia) 497-4995

Venice Island: Jay & Judy Loeffler, 833 Guild Dr., Venice 485-9569

All plants must be registered in advance via email by Wednesday Sept 14th.

Email your plant name with flower size and color description (or photo) to Renee Bynum at PlantReg@VAOS.org.

We will email you back with the plant registration number - please label your plant pot with this registration number. This will facilitate identification and labeling of plants during show set up.

Plants should be cleaned, staked, free of pests and disease and labeled with the plant name, the registration # and the owner's name. Flowers should be in prime condition to last through the weekend show.

If you would like to participate in setting up our display, help with take down on Sunday, help transport plants and materials to the show, or need further information, contact Jay Loeffler, VP Displays, at 485-9569

-Submitted by Jay Loeffler

President's Message (continued from page 1)

we'll have a permanent educational display at our Growers Clinic of sample growing media with a handout describing the best media for different plant genera. All members and guests are welcome.

Pauline Adam, Mentor Program Coordinator, briefed the VAOS board recently on the status of the mentor program, founded in 2012 by Peg Fahrenback. We currently have 15 mentors and 30 mentees in the program and a total of 70 mentees have participated to date. Impressive! Some of our mentees have gone on to become mentors for new growers. This program pairs experienced VAOS growers with new growers. Thank you, Peg, for founding this successful program and thank you, Pauline, for continuing its success!

Our first orchid show of the season is coming up in September when we participate in the Ridge Orchid Society annual show and sale. Yes - our first orchid show of the season is right around the corner! Show dates are September 17-18 in Bartow, FL and set up is Friday September 16. Jay Loeffler, VP Programs, is working on the display design theme "Over the Rainbow" and will be counting on you to register your blooming plants. Start to groom and stake your plants now for the show display.

So my friends, enjoy these lazy, hazy days of summer, keep your orchids comfortable in these hot, humid months and happy orchid growing!

-Carol Wood, President

Support Our Local Growers

• Honey Bee Nursery

2383 Englewood Road (Rt. 776),
Englewood, FL (941-474-6866)

• Palmer Orchids

22700 Taylor Dr.,
Myakka City, FL 34251(941-322-1644)

• Plantio La Orquidea

3480 Tallevast Rd,
Sarasota (941-504-7737)

• Orchid Envy

339 Venice Ave. West,
Venice, FL (941) 266-6351

• Florida SunCoast Orchids

8211 Verna Bethany Rd.,
Myakka City, FL (941-322-8777)

Venice Area Orchid Society News

P.O. Box 443
Venice, FL 34284-0443

V.A.O.S. On FaceBook



“Join Us” and Share
your Orchid Photos
Search for us as
“VeniceArea OrchidSociety”

Next Meeting:

Wednesday, August 3, 2016, 7:00pm
at Venice Community Center
(Doors open at 6:30pm)

- **Speaker:** Alan Koch
- Bring your blooming orchids for the Show Table
- Bring orchids for the Raffle Table
- Bring your friends and treats to share.

Upcoming Events

August 3 (1st Wednesday): Joint VAOS/EAOS Monthly Meeting in Venice Community Center, Doors open at 6:30 pm, meeting starts at 7:00 pm, Speaker Alan Koch, Gold Country Orchids, Topic: Mini Cattleyas.

Alan is accepting preorders until July 27th. See the Culture Supplement for details.

August 5-6: 2016 Cattleya Orchid Symposium, Ft. Pierce, FL, limited space available, info: www.odoms.com

August 11 (2nd Thursday): VAOS Growers Clinic, Doors open at 6:45 pm, clinic starts at 7 pm, Venice Community Center, Speakers: Carol Wood, Jay Loeffler, Bruce Weaver, Topic: Pests and Diseases (Part 2). Be

sure to bring your problem plants and questions for advice from our experienced growers.

September 7 (1st Wednesday): VAOS monthly meeting in Venice Community Center, Doors open at 6:30 pm, meeting starts at 7:00 pm, Speaker: Mac Rivenbark, Mac's Orchids, Topic: Orchids of the Philippines.

September 8 (2nd Thursday): VAOS Growers Clinic, Doors open at 6:45 pm, clinic starts at 7:00 pm, Venice Community Center, Speakers: Judy Loeffler, Joanna Shaw, and team, Topic: Dividing and Repotting (hands-on). Details follow. Be sure to bring your problem plants and questions for advice from our experienced growers.

September 10-11: Florida West Coast Orchid Society Show, Pinel-

las Park, FL, info: Stuart Fraser, (727)742-0461, sfraser0326@aol.com

September 17-18 (Sat/Sun): Ridge Orchid Society Show. See article on page 7 for details.

Upcoming

Sept. 30-Oct.2: South Florida Orchid Society Show, Coral Gables, FL, info: Dan Christensen, (954)252-8116, damorchid@aol.com

Ongoing

Mentor Program: help for beginning growers, contact Pauline Adam, Mentor@vaos.org

Orchid Judging takes place at **Christ the King Catholic Church, Mc-Loughlin Center – Room C, 821 S. Dale Mabry Hwy., Tampa, FL 33609.** at 6:30pm on the fourth Wednesday of every month. Info: <http://www.fncjc.shutterfly.com/>

Calcium Supplements for Orchids

By Dr. Courtney Hackney, hackneau@comcast.net
Reprinted by permission, St. Augustine Orchid Society

For many years, the only water available to me for my orchids was too salty and getting even worse from salt water intrusion into the aquifer. A concrete cistern was constructed to collect and hold rainwater. Rainwater contains almost no dissolved solids, so you can imagine my surprise when an analysis of my water showed high levels of dissolved solids. Concrete cisterns are made of lime and some of that is lost to the water through leaching. Fortunately, other than making the water basic and leaving a white film on leaves, there was never a problem using this water. My orchids thrived with this calcium laden rainwater. After 4 or 5 years, water from the cistern was just slightly higher in solids than rainwater.

I often recommend keeping a log book indicating when various pesticides were sprayed, fertilizers used, etc. This is important in diagnosing the cause of problems that arise from time to time. An orchid growing friend had been using some of the bench in my greenhouse when I installed the cistern and was amazed at the incredible growth of his paphs under my care. After obtaining a few paphs of my own and studying the natural habitat it was clear why paphs had grown so well. It was the extra calcium and magnesium leaching from my cistern. To compensate for the slow change in water as my cistern reached equilibrium, I began adding dolomite lime to pots containing paphs and they thrived. I also began using Peters Cal Mag, which provided even more calcium and magnesium each time fertilizer was applied.

My cattleyas and other orchids grew well under these conditions, except in the summer when I would experience new growths that rotted. I would also lose seed pods from rot. Every orchid hobbyist knows that moving to a new greenhouse requires a reexamination of culture, and my move to Florida four years ago has been no exception. The one big surprise was an issue that had occurred before, always in the summer, that was never resolved to my satisfaction. During very warm summers there would be the occasional rotting of new growths on cattleyas as well as on new leaves of phalaenopsis. Most surprising was that the issue occurred on both species and hybrids that should have been fine under high heat and temperatures based on their countries of origin. On these occasions, various anti-bacterial and antifungal agents were used.

Based on the premise that most horticultural issues are caused by culture, various attempts were made including altering fertilizers, increasing air movements, etc., with no real clear success. The problem typically disappeared once temperatures cooled in fall. Most frustrating was the loss of countless seed pods of some potentially great hybrids. They would begin rotting from the tip and the rot would eventually progress, destroying the seed pod.

I have finally discovered as the cause of this problem, blossom-end rot; the same malady that causes tomatoes to rot from the old bloom tip, which is low calcium and

magnesium. Orchids are “cold-blooded” and when it gets warm they are capable of growing at a very fast rate. To do this, they must take up nutrients at an accelerated rate, too. Calcium and magnesium are required for proper cell development in new leaves and other tissues, e.g. seed pods. That was what was missing from my culture during the heat of summer.

During summer’s high temperatures, many orchid hobbyists report loss of new leaves especially when growing outdoors. Heavy rains flush nutrients, especially calcium and magnesium, from media, and at the same time, high temperatures and humidity foster very rapid growth. It did not occur to me to increase the calcium and magnesium content of the water I am now using since it comes from a limestone aquifer and is loaded with minerals, including calcium. My fertilizer now is fish emulsion instead of the cal-mag fertilizer I have used in the past. Essentially, I am now providing more of the essential growth nutrients, mainly nitrogen, but not enough calcium for my orchids in this high growth time of the year.

When I first realized what was causing the increased loss of new growths and seed pods, I hand spread dolomite limestone powder all over the plants in the greenhouse. My orchids looked like it had snowed. I also placed a couple of pounds in the reservoir from which my Dosatron draws water after I have applied fertilizer. Within a week, there ceased to be an issue of rots despite the highest summer temperatures of the year. Even some of what I consider intermediate temperature orchids have responded to the extra calcium and magnesium by growing extremely well in the heat. Most orchid growing advice suggests acidifying water. Adding dolomite raises pH, but has not had any negative effects so far. I still flush regularly and fertilize with fish emulsion and this keeps the pH of the medium at the right level for growth.

Editor’s note: The key indicators of calcium deficiency are that the newest growths are affected with damage similar to black rot progressing from the tip of the new leaf or seed pod and only occurring during periods of rapid growth. Remedies are fairly straight forward and usually show effect within a month, however, the damage cannot be repaired. The damaged leaf or seed pod should be removed with a sterile razor and the cut treated with cinnamon or hydrogen peroxide. Switching to a fertilizer that contains both calcium and magnesium is the easiest, and numerous stand-alone calcium and magnesium supplements (both liquid and powder) are available. Dry dolomitic lime may be applied directly to the media and watered in or the lime can be added to the water.

Should you feel it necessary to supplement the magnesium at the same time, add a teaspoon of Epsom salt to your watering can.

These photos should assist in the diagnosis:



Calcium deficiency
Photo from article



Black Rot
Photo courtesy AOS

How Watering Works

With the permission of Ray Barkalow, First Rays LLC, www.firstrays.com. His website is a great source of information on various aspects of orchid culture.

In a previous edition of the newsletter (March 2016) we talked about how water was the true driving force in plant growth. This time, we'll describe - very generally - how water travels from the potting medium into the plant and makes the journey upward into the leaves, overcoming the forces of gravity, and how your cultural conditions and watering habits can affect that.

The force at work is called transpirational pull, which can be visualized by imagining sipping a drink through a straw. Evaporation of water through stomata (tiny openings in leaves) creates the suction, pulling water continuously upward. The hotter, sunnier, and less humid the environment, the faster the evaporation and the faster the transpirational pull. Problems begin when the rate of transpiration exceeds the ability of the roots to absorb water and the plant wilts due to loss of turgor, or water pressure within their cells. Such loss of turgor is more difficult to see in most orchids, due to the presence of unique rigid structures throughout the plant that prevent the collapsing of the tissues, as happens with most other types of plants.

In epiphytic orchids, the velamen covering the roots instantly absorbs whatever water it comes in contact with. The water then enters the root, crosses the outer epidermis and moves toward the xylem (water-conducting tissue) by moving in the spaces between the cells or actually through them. Once the water reaches the xylem, which is a series of open tubes within the stele (that "string" that's left when a root dies and rots), it moves quickly upward, continuing through xylem branches and into the tiny veins in the leaves, and ultimately into the cells themselves through osmosis.

In order to keep the whole thing working, it is important that water keeps moving in an unbroken flow. That is helped by the fact that water molecules bind together, or are cohesive. Those bonds are strong enough to keep the molecules stuck together even as they travel up to great heights (think about trees!). However, if the transpirational pull becomes greater than the water supply absorbed by the roots, cohesion is broken and an air bubble, or embolism, forms. Unless the bonds can be reestablished relatively quickly (sometimes water will enter the xylem from surrounding cells and fill the gap and force the air to dissolve), the flow of water is permanently interrupted. Water can be diverted around the embolism by moving laterally into other xylem tubes, but if too many embolisms are present the part of the plant above them will die. Fortunately, that is less common in orchids, as the rate of water transfer within the plant is much slower than that of many annuals and perennials, and the transpiration rate has been reduced through some evolutionary metabolic modifications

So how can your culture affect that? The obvious one is a lack of-, or too infrequent watering. If you tend to water infrequently, or insufficiently, the roots cannot take up as much water as they can when watered frequently. Even if the individual particles in the potting medium stay wet, that does not mean they can easily transfer it to the roots. Such a practice tends to "strain" the cohesivity of the water already within the plant, slowing the whole growth process. Likewise, growing in too dry of an environment accelerates the transpirational flow, which can outstrip the roots' ability to replace the water, leading to desiccation and wilting, usually seen first in flowers.

Probably the least obvious cultural issue is excessive humidity. Yes, orchids have evolved, in many cases, to live in high-humidity environments, but if the relative humidity is constantly very high, the rate of evaporation of water from the leaf stomata is stifled, slowing the transpiration process, which ultimately slows the growth of your plants.

Summing this up, for optimal growth of your plants, water should be applied frequently and copiously to the airy root system, and the relative humidity should be kept moderately high, but not saturated.

Until next time... Good Growing!