Saint Augustine Orchid Society

Newsletter
August 2010

Volume 5 Issue #08

Club News


Courtney Hackney

August 3 Monthly SAOS Meeting

by Sue Bottom, sbottom15@bellsouth.net

Welcome & Thanks. The meeting was called to order by President Jack Higgins with 55 people present including 5 guests and 3 new members: Kathy Hale, John Laurenson Jr. and Dan Solwold. Jack thanked Jeanette Smith for the refreshments and reminded everyone to please put a dollar in the donations jar to keep having them.

SAOS Club Business. Sign up for brass name tags at the Welcome Table if you are interested, they are $8.00 with a strong magnet. Jack reminded everyone to vote for their favorite on the show table. Dick Roth counts the ballots and announces the winner at the end of the auction.

Upcoming Events. The Keiki club is on summer hiatus until September. The fall programs will include problem plants, getting ready for winter and reading your plant tag. We will be available at Hagan Ace on US 1 the first Saturday of the month (next date is August 7) to help repot or answer questions.

SAOS Monthly Program. Dr. Courtney Hackney gave a very informative presentation on water quality and growing orchids which addressed how orchids grow in nature, how orchids differ from other house and landscape plants and how we can compensate for our less than ideal water quality.

What makes water and nutrient uptake so different in orchids than in other plants? Many orchids are epiphytes, they grow in trees rather than in soil. So what does this mean?

- Severe drying from the wind and sun

- Lack of soil to anchor the plant

- Lack of soil to provide nutrients and water

- Lack of minerals in soil to provide calcium, etc.

- Lack of macronutrients like nitrogen

- Lack of micronutrients like iron

- Leaching of nutrients during heavy rains

So orchids are used to growing in a nutrient deficient environment and are micronutrient scavengers. These epiphytes have solved some of their problems by their root structure:

- Roots that minimize surface area (no root hairs)

- Roots that have thickened cuticle that does not allow water to move out of the root

- Thick roots that act as water storage vessels

- Roots that actively scavenge nutrients.

There is a huge difference between the roots of most plants and orchid roots. Most plants have a root mass that is 10 to 20 times the mass of the rest of the plant so there is a huge surface area accumulating water and nutrients from the soil. Orchid roots are very different. When dry, orchid roots actually repel water because they are water storage organs that don't let water out. Once the root has been wet for 5 or 10 minutes, the surface of the root changes and becomes like a sponge soaking up water and turning green. You can use this information when fertilizing, don't fertilize dry roots. Water the orchid and after waiting 10 or 15 minutes so the root surface is receptive, apply your dilute fertilizer.

The ideal water for orchids would be slightly acidic (pH of 4.5 to 7.0) and low in dissolved solids (conductivity less than 100 ppm) and those dissolved solids would not include a particularly toxic salt like sodium chloride. Unfortunately, unless you are using rainwater or reverse osmosis water, you are stuck with the typical alkaline (pH greater than 7) and high dissolved solids (conductivity in the 300 to 800

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Upcoming Orchid Events

September

4 SAOS at Ace Hardware, 9 am til 1 pm
3050 US 1 S in St. Augustine
Repotting and Plant Clinic

7 SAOS Meeting – 7 pm
Jose Exposito, Soroa Orchids
Basic Orchid Culture

18-19 Ridge Orchid Society Show
Lake Mirror Center, Lakeland

October

2 SAOS at Ace Hardware, 9 am til 1 pm
3050 US 1 S in St. Augustine
Repotting and Plant Clinic

2-3 Gainesville Orchid Society Show
Kanapaha Botanical Gardens

13 Changed Date to Second Wednesday
October SAOS Meeting – 7 pm
Roy Tokunaga, H&R Orchids

16-17 Fort Pierce Orchid Society Show
Community Center Vet Memorial Park

29-31 Delray Beach Orchid Society Show
Old School Square

November

2 SAOS Meeting – 7 pm
Fred Clarke, Sunset Valley Orchids
Venezuela's National Flower

6 SAOS at Ace Hardware, 9 am til 1 pm
3050 US 1 S in St. Augustine
Repotting and Plant Clinic

December

11 SAOS Christmas Auction, 7 pm
Moultrie Trails Clubhouse

www.staugorchidsociety.org

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

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units range) available in our area. So what is an orchid grower to do?

- Flush accumulated salts from your pots regularly, once or twice a month. In the summer, you can water your orchids deeply at sunset and then again the next morning to remove salts. Other times of year you might water deeply in the morning and then water deeply again an hour later.

- Use a dilute, very dilute solution of fertilizer (say 1/8 to 1/16 strength) each time you water (except when you are flushing your pots). The dilute fertilizer will impart acidity to your water and also not add too many fertilizer salts.

- Select a growing medium that will be compatible with your water quality. Courtney had an interesting series of slides showing what exited the pot when watering with alkaline water with a pH of 10.6 and conductivity of 100:

- Tree fern and redwood bark had a pH of 9.2 and conductivity of 110, not bad.

- Sphagnum had a pH of 7.0 and conductivity of 70 ppm (because the sphagnum binds the salts, meaning you must be careful not to overfertilize sphagnum or it will rot very quickly), great!

- Osmunda had a pH of 7.0 and conductivity of 120, not bad!

- Promix (soilless mixture) initially had a pH of 6.8 and 160 ppm conductivity though after 3 months conductivity jumps to 1330 ppm and then drops down to 320 ppm after 12 months (because all the nutrients premixed in the Promix will end up causing some root toxicity and slow growth until it is flushed from the pot). Lots of potential problems.

So how do you select and use fertilizer?

- Avoid high urea fertilizers. The urea in most fertilizers is okay for plants growing in soil because the soil microorganisms transform the urea to ammonia and then to nitrate and the nitrate form is the form of nitrogen that can be used by plants. Because orchids don't have the soil microorganisms typical to plants grown in soil, that urea fertilizer is wasted.

- Highly organic media absorb and degrade a significant quantity of nitrogen that would otherwise be available to the plant.

- The ideal nutrient formulation would be 8-3-13 for nitrogen, phosphorus and potassium with a 5:1 calcium to magnesium ratio. Search for a Michigan State University fertilizer formulation (check the First Rays website). Try applying granulated dolomitic lime (1 tsp per pot) to your plants monthly to provide the calcium and magnesium needed.

Heat didn't deter many of our Jacksonville members

- If you are using reverse osmosis or rainwater apply micronutrients monthly. Other water supplies typically have enough micronutrients. Micronutrient toxicity can and does occur and can be an issue.

- Organic fertilizers like fish emulsion, seaweed, manure teas, etc. are great because they are safe and rarely damage roots.

That was the long answer, here's the short answer if you are using the typical water in northeast Florida:

- Select plants that can handle our water. This means you may not be able to grow some species and definitely not mist forest plants.

- Flush pots thoroughly once or twice a month to remove accumulated salts.

- Use a very dilute (1/8th strength) fertilizer when you fertilize to lower pH, impart some nutrients and not add too many salts.

- Select a potting medium appropriate for your water quality and watering habits.

Courtney's talk was excellent and his knowledge and willingness to share his Orchid Tips are a tremendous resource for our club. Thank you Courtney!

Meeting Conclusion. Following the program, we had a short break for refreshments. Dick Roth announced Courtney Hackney's Lc. Allen Condo 'Hackneau' won the Members Choice, beautiful plant Courtney! Fred and Christie conducted the raffle and auction with their usual engaging style and Lorraine Swanson won the Grand Raffle Plant. A good time was had by all!

September 7 Monthly SAOS Meeting

Jose Exposito will be talking about general orchid culture at the September 7 meeting of the St. Augustine Orchid Society. Jose Exposito is President of Soroa Orchids, Inc, located in the heart of the Redland orchid growing area. He is an accredited judge of the American Orchid Society and travels around the world selling and lecturing about orchid breeding and culture, including lectures at the World Orchid Conferences in Rio, Brazil and in Kuala Lumpur, Malaysia.

Jose was born in Cuba, and immigrated to the United States in 1980 during the Mariel exodus. In Cuba, he was an accomplished writer, considered to this day the youngest published writer in Cuba, winning National prizes of Literature when he was only 16 years old.

Keiki Club for Orchid Beginners
Summer Hiatus

With the heat of summer, we're going on summer hiatus. Keiki Club meetings will resume in the fall beginning in September. Let Keiki Club Coordinator Bob Martin know if there's a topic you'd like covered at one of the fall Keiki Club get togethers.

What's in Bloom
Bill Roth

It seems that Bill Roth has inherited the orchid gene from his father, specifically the vandaceous gene. While we don't get to see Bill that often because he lives in Orlando, he shares pictures of his lovelies. Take a look at what's bloomed for him lately, WOW!

Bill grows his plants in a shade structure under big trees. In the winter, he wraps the structure in plastic and uses a portable space heater. His orchids survived the tough winter. While he didn't lose any orchids, he did sustain some leaf drop on the lower parts probably from cold stress. He didn't water on the very cold days which meant sometimes not watering for three days.

Now everything is growing and blooming like there was no winter. The old roots may have had some unseen damage, but now the plants are throwing out tremendous new roots. The blooms have been big, with strong color and last a long time with some lasting up to six weeks.

Enc. cochleata by Bill Roth

Rhy. retusa by Bill Roth

Enc. Verano by: Bill Roth

V. bensonii by Bill Roth

Aerides houlletiana by Bill Roth

Growing Tips for August

Dr. Courtney Hackney,
hackneau@comcast.net
Dept. Biology, Univ. North Florida

Repotting should be done by now, but keep an eye on those oddball species that like to grow roots as they flower. Many bifoliate cattleyas need to be repotted just as they come into flower. Some like C bicolor with 3 foot pseudobulbs are particularly frustrating since buds emerge about the same time as new roots. It is not unusual to see this same characteristic in their offspring.

C. bicolor

Insects are cold-blooded, which means they grow faster when greenhouse temperatures are warm. This is true for both scale insects and mobile pests such as roaches. Roaches, mealybugs, and other mobile animals that live in pots can reduce all your carefully protected root tips to little white nubs. Unfortunately, this mostly happens at night so there is always some uncertainty as to the identity of the offending culprit. If you are a night owl, a quiet visit with your flashlight to your growing area at night may get you a quick view of the culprit. If you are having this problem, mix up a 5 gallon bucket of liquid Sevin, 1 teaspoon per gallon and dip the entire orchid pot for a minute or two and see what comes out. Roaches will make themselves known, but many smaller animals such as snails and slugs will just die in the pot. Either way, problem solved. For hobbyists who place their orchids outdoors in summer and bring them inside in winter, remember this treatment to avoid importing pests.

There are a few orchids in my collection that should love the heat of summer, but Angraecum hybrids and species often develop rots in their new leaves as they emerge. Keep a bottle of household hydrogen peroxide in the growing area. After you water, put a few drops in the crown of angraecums or any other monopodial orchid (phals, vandas, etc.) that grow on a vertical stem and the rot problem will disappear.

Angraecum sesquipedale

Summer is a time of both heat and humidity. If you are growing outdoors don't forget last month's watering advice. Always keep in mind that cool weather will require a reduction in watering frequency. There is always the possibility here in the Southeast of a tropical system lasting for days. Tropical systems import fungal and bacterial spores. The heat and humidity that accompany these storms encourage their growth. These disease-causing organisms are always around and there is nothing that can be done.

If you grow outside and your orchids are naturally watered by the rain, it may be necessary to provide some shelter if several days of tropical rain is expected. In my greenhouse, I also spray down all surfaces under benches, on walls, etc, with a strong anti-biotic. Copper Hydroxide (Kocide) works well as can a solution of Clorox. However, these products can damage orchids if they get on leaves. If orchids are wet there is less danger or a less toxic product can also be used.

Kocide, used in a more dilute form, is safe to use on some orchids, but only if the water you mix it with is on the basic side of the pH scale, i.e., above 7. Even then, there can be damage on tender new phal leaves as well as to other sensitive orchids. There are other products, such as Phyton 27, approved for direct application to orchids. It is easier to prevent infections than cure them.

Once the tropical system has passed it is wise to treat your orchids with some type of anti-fungal or anti-bacterial agent. Some hobbyists that have small collections use the same hydrogen peroxide noted above, place it in a spray bottle and spray their plants. Remember to keep air moving around your orchids. Once the rain stops and humidity drops it is also a good idea to let your orchids dry thoroughly.

Your Orchids in August

based on Robert Scully articles,
courtesy of the AOS

General Growing Tips. August is the hottest month so be prepared to work diligently to ensure sufficient humidity and air circulation. Spray water on the floor, benches and outer surface of clay pots one or more times every day during the hottest times. Summer's higher temperatures, brighter light conditions and longer days induce orchids to manufacture the greatest amounts of carbohydrates when provided with enough fertilizer. The warm temperatures also cause insect populations to increase. Observe your plants carefully and spray for both insects and disease when first noticed.

Cattleyas. Growers should be enjoying many of the advance yellow hybrids from C. dowiana. Some of the large-flowered hybrids of *C. bicolor* may open this month. Continue to use a dilute fertilizer (1/8 strength) on cattleyas with every watering. As new growths mature, tie them up carefully to promote upright development of the pseudobulbs.

Cymbidiums. Use high potassium fertilizer in late August. The potassium level should be at 250 to 300 ppm potassium (K) and zero to very low N. Do this only two times at a two week interval. Wait a month then resume your normal fertilizer schedule.

Dendrobiums. The *nobile*-type dendrobiums are popular though some growers find them difficult to flower. In order to promote the gradual shift from active growth to the flowering cycle, start withholding nitrogen now. Some growers report using a bloom booster this time of year on winter dormant plants helps prepare them for their dormancy.

Phalaenopsis. Current high temperatures are particularly stressful for phalaenopsis. Excess heat and humidity promote bacterial *Pseudomonas* infections on the fleshy leaves. Keep light levels subdued, promote sufficient air circulation and do not splash water from one plant onto another. Keep using a dilute (1/8 strength) fertilizer with every watering to develop the strongest roots and largest leaves prior to the winter flowering season.

Vandas. Summer growing conditions are ideal for Aerides, Ascocentrum, Rhynchostylis and Vanda hybrids. Feed aggressively and provide high humidity. Try placing a rubber-topped plastic flower tube containing stale beer on a rigid, emerging new root (remove in the morning).. Rather quickly, the root will consume the beer and utilize its carbohydrate content, producing some remarkable growth responses.

Seasonal Cymbidium Advice – Summer Care

Harry McElroy, cymbidiuman@msn.com

Cymbidiums are easy to grow in Florida but not so easy to bloom. To understand why we need to understand the natural habitat of the many of the species used to hybridize a lot of the common hybrids on the market. A lot of our most beautiful Cymbidiums species come from the Himalayan part of India. This part of India was formed when the tectonic plates under the Indian Ocean collided with the Asian subcontinent, uplifting the earth to form the Himalayan Mountains and their foothills.

The slope or foothills, called the "Back Water Sand" by the British is the habitat where we find many of the cymbidium species. The surface is uplifted ocean floor (remember the lime and seashell mix recommended last month). During the day, shore breezes send moist air up the slopes of the foothills into the mountains where it is cooled and comes back as moisture laden air in the evening as the shore breezes reverse. This fluctuation between mild (75 F) days and cool (55 F) moist nights in July and August is what the cymbidiums from this part of the world require to set the bloom spikes for the next season.

It soon becomes obvious that in northeast Florida we will never get a 20 degree F swing between 75 F and 55 F nights in July and August. It rarely gets below 85F! So how do we get cymbidiums to bloom?

- First, we choose cymbidiums that have been crossed with cymbidiums from other parts of South East Asia and Australia. These hybrids mute the hard temperature requirements enough, to get plants with the Himalayan Cymbidiums beauty but the tropical cymbidium heat requirements.

- Second we find a way to cools our plants in the early morning and late evening. My growing area has a mist system which comes on at 7 in the morning and 6:30 in the evening and stays on for 5 minutes each time. I only turn it off during periods of heavy rain. You can do the same thing with a hose, I just find that the automatic mist system is easier.
- The third thing I do is use pots with 1 inch water reservoirs in the bottom or set the pots in shallow pans*. This insures that the cymbidium is never without water.
- The fourth thing that helps with flowering comes from a commercial grower in Hawaii. Use high potassium fertilizer in late August. The potassium level should be at 250 to 300 ppm potassium (K) and zero to very low N. Do this only two times at a two week interval. Wait a month then resume your normal fertilizer schedule.

*Note about the pots with reservoirs or shallow pans: they produce mosquitoes that you may wish to control. I use a biological mosquito control *Bacillus thuringiensis* subspecies *israelensis*. You can buy it as Mosquito Dunks. I make 50 gallons of the stuff by putting two of the round pieces in an old sock with a ½ cup of corn meal and soaking the stuff for a week. I then pump a shot into each pot. You should not put the round piece directly into a mixer because it will release a lot of sawdust into your water and clog the mixer, soaking it in a sock prevents problems. I find that once a pot is 'Inoculated" it maintains control for a long time. Be sure to follow all the safety precautions on the Mosquito dunk package (http://summitchemical.com/). It seems to control all the insects in a pot but I can't prove it.

Orchid Forums

by Susan Taylor, BellaOnline.com

There are a number of good orchid forums on the web which provide wonderful information on orchids and how to grow them. One of the best is the forum at the American Orchid Society which has a large number of growers who are very willing to help people from beginners to those working to grow rare species. There are specific forums for beginner growers, general orchid culture, pests and separate forums for growing in the home, outdoors, and in greenhouses. To access the forum go to AOS Forum.

You will need to register in order to post, but you do not need to be a member of the society.

Another good forum is Orchid Geeks Forum. They also have an area for beginners and pests as well as areas for mounting information, potting mediums, flasking and semi-hydroponics. This is another very friendly forum where lots of people are willing to help other growers. You will need to register here in order to participate in the discussions.

Orchid Geeks Forum

Slipper Orchid Forum.is a forum hosted by the Slipper Orchid Alliance and is specifically interested in Paphiopedilum, Phragmipedium, Cypripedium, Mexipedium and Selenipedium orchids (orchids with a pouch). You can find information on any kind of slipper orchid and growers who can help you with any of them.

Several of the genus specific orchid societies also have forums which are specific to that type of orchid. The Cymbidium Society of American has a forum which includes other cool growing types.

CYMBIDIUM SOCIETY OF AMERICA, INC.
AN INTERNATIONAL ORCHID SOCIETY

One particular forum which I have found very helpful is the Semi-Hydroponics Forum at First Ray's Orchids. Ray was the person who developed the S/H method for orchids and personally answers questions on the growing method.

Offical Semi-Hydroponics Forum

Many local orchid societies also provide a forum for their members and these are particularly informative since the growers are all aware of the growing conditions in their general areas. These provide a great place to learn about local conditions and problems as well as how to pick out the best orchids for your area. They can provide information on local vendors of plants as well as sources of equipment you might need. I highly recommend that you try to find a local forum as well as a larger forum to visit. Your general questions can be addressed by the larger forums and local forums can be very helpful to help you with any specific growing conditions for your area.

The Houston Orchid Society, Inc

Gainesville Orchid Society
Cultivate. Conserve. Educate. Enjoy!

TRIANGLE ORCHID SOCIETY

Saint Augustine Orchid Society

EAST EVERGLADES ORCHID SOCIETY

Central Florida Orchid Society

1943
Calopogon pallidus
Jacksonville Orchid Society

Sarasota ORCHID SOCIETY, INC.

Orchid Questions & Answers

By Sue Bottom, sbottom15@bellsouth.net

Q. My vanda types are showing new leaves but the older leaves are "wrinkly". They are in full sun til about 11am and 50% after that. I thought they looked dehydrated so I started the summer nighttime watering regimen Courtney Hackney recommended in last month's Tips. The vanda has responded with new rootlets. Will the top leaves lose their wrinkled appearance?

A. Courtney's night watering program is working well for me too, particularly with the vandas. I think it is just so hot during the summer that the plants dry too rapidly with only one or two morning sprays. Watering at night lets the plants absorb water over several hours. In another week or two, your vanda leaves should rehydrate and be plump and fleshy again.

Upper leaves on vanda dehydrated

New rootlets with nighttime summer watering

Q. I had a little scale on my cattleyas earlier in the year. Could this cause major delays in blooming? My nodosa and brassias type have developed bud sheaths that have been the same size now for several weeks.

A. Stress can cause a delay in the normal blooming cycle. Stress from a pest infestation, application of heavy duty chemicals, excessive winter cold or summer heat can all cause a little shock to the plant that could delay blooming. Sometimes it takes several months for an orchid to transform its sheath to a flower and some orchids form a sheath and then take a rest before blooming. Regardless of what may have stressed them before, your plants are healthy looking and growing well now. They'll bloom for you when they are ready!

Healthy nodosa hybrid with sheath

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Q. I cleaned used clay pots recently. First I clean out all the dead roots, media, etc. and rinse well. Next they go into a big tub with some bleach for about 36 hours. Next is a rinse and then refill the tub with water and cover with black plastic, done in full sun so the water gets very warm. This rinsing is done 2 times for about 24 hours each. Adding heat to speed up the dissolving process did not remove the salts. Maybe some acid added to the water will do better at breaking the salt bonds. An internet site search recommends soaking in a mild vinegar solution. I'm thinking muriatic acid. Why use a pop gun when a shotgun is available at the pool supply store?

A. Fred Clarke's advice on cleaning pots is to wash with soap and an abrasive pad to physically clean the pot and then do 2 consecutive soaks with 20% bleach solution with a disinfectant (Consan, Physan or 10% pool algaecide at 2 tsp/gal) for disease elimination. My observation is that after these soaks that total up to about 36 hrs, the salts are gone or at least the visible evidence of salts is gone. We turned to our Go-To Guy Courtney Hackney for an answer, he writes: Not all salts that precipitate into the clay matrix of a pot will go back into solution regardless of the temperature. Our water is normally alkaline and to remove stubborn salt stains, you may have to change the pH of the water to acid. Use white vinegar because it is cheap and easy to work with (stronger acids can harm you and the pot). Soak the pot overnight in pure white vinegar to remove the salt. If this doesn't work, you might consider buying new pots.

SAOS Website – New Orchid Culture Pages

We have added two new sections to the Orchid Culture portion of the SAOS Website. Go to the Orchid Culture link on the website and check out all the subdirectories, they are crammed with information and photographs.

Questions and Answers – have been posted on the website so you can easily access all the information contained in the monthly Questions and Answers originally published in the Newsletter dating back to 2008. The Questions and Answers link will take you to the Q and A for the current month. If you want to review the Questions and Answers published in 2010, 2009 and 2008, just click on the link for that year at the top of the web page.

Orchid Pests and Diseases – from Sue Bottom's presentation have been posted on the website to assist you in identifying problems and solutions. In the Orchid Culture link on the website, there is subdirectory Pests and Diseases link with tabs for Orchid Pests, Orchid Diseases, Other Damage from Environmental Effects and Orchid Viruses.

Courtney Hackney's Monthly Tips – are categorized on Courtney's SAOS page for easy reference, an incredible amount of information.

Martin Motes Notes – contains the monthly In Your Orchid Collection articles from Martin Motes book *Florida Orchid Growing*.

Information is there at your fingertips. If you ever feel like you're suffering from information overload, use the site search box at the bottom of the home page. Type in what you're looking for and you'll find all the links on the SAOS website, whether it's information from a newsletter or a photograph in the gallery.

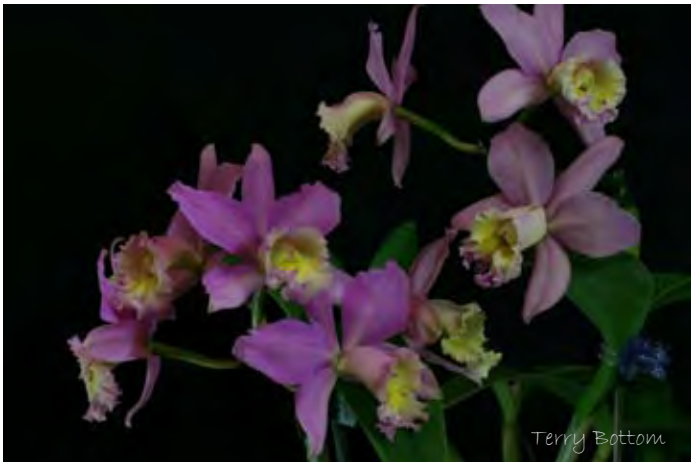
Show Table

Grower Mike & Kaycee Heinz
Bulb. species

Grower Mike & Kaycee Heinz
Phal. pulchra

Grower Vivienne Rowe
Vasco. Prapawan

Grower John Van Brocklin
C. Summer Spot "Carmela"



Grower John Van Brocklin
Lc. Gaiety Flambeau 'Mendenhall'

Grower Mike & Kaycee Heinz
Cadetia taylori

Grower Dick Roth
Paraphalaenopsis laycockii

Show Table

Grower Dick Roth
Lc. Ann Akagi 'Hihimanu' AM/AOS

Grower Courtney Hackney
Lc. Allen Condo 'Hackneau'

Grower Sue Bottom
Blc. Hawaiian Passion 'Carmela'

Grower Dick Roth
Van. Ocean Storm

Grower Mike & Kaycee Heinz
Phrag. longifolium v. gracile

Grower Sue Bottom
Ctsm. pileatum