Orchidacea

Newsletter of the Triangle Orchid Society

Associated with Sarah P. Duke Gardens

Speaker for February, 2012
Dr. Norito Hasegawa

Norito Hasegawa is a retired dentist, an overextended hobbyist (considered commercial for tax purposes), is a 3 million miler travelling to many foreign countries talking and/or judging in places such as Japan, South Africa, Australia, Brazil, Canada, Denmark, Germany, New Zealand, Taiwan, England, France, Switzerland and many many cities in the USA.

He is primarily a hybridizer of Slipper Orchids (Paphiopedilum) although his interests and collection of 15,000 orchids include miniature cattleyas, phalaenopsis, cymbidiums and variegated orchids of all sorts. He first became interested in orchids after seeing orchids in mass at the World Orchid Conference held in Long Beach in 1966. After he bought his first orchids, he failed miserably, but persisted in trying to grow them outdoors, and in no time he had hundreds. Now, he can't imagine his life without orchids. Orchids are an endeavor of science, taxonomy, hybridizing, art, sociability, quiet reflections, and mad parties—join the addiction and fun.

He is married to Joyce, with three children Lisa, Todd and Mark with paphiopedilums named after each of them. He is owner of Paphanatics, unLimited; a judge in both the American Orchid Society and the Cymbidium Society of America for over 35 years.

Dr. Hasegawa will have orchids for sale.

Inside this issue:

Dinner with the Speaker

5:30 PM - before the meeting
at the Neo China Restaurant
4015 University Drive,
Durham behind Target's
at the South Square Mall.
Call Alan Miller to reserve a seat, at
919-969-1612
All are welcome

Please remember to pay your 2012 dues promptly. For your convenience a statement accompanies this newsletter. Print it, fill it out, and bring it with you to the January meeting. Or, you can send it, with a check, to:

Sally Carpenter, TOS Treas.
412 Church Street
Smithfield, NC 27577

What could be simpler??

The Triangle Orchid Society meets at the Sarah P. Duke Gardens, Durham, NC The Second Monday of the Month at 7:30 PM

www.TriangleOrchidSociety.org

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A Word From The President

Greetings Everyone! I hope you are all enjoying our warm winter.

Last month we had our first 2012 meeting, with a great speaker, tasty refreshments and a warm and receptive group of attendees. Thank you to all members who helped with this excellent meeting!

In the next few months, we will have several exciting new additions to our membership services. Stay tuned for announcements. As a start, I would like to announce a new section of our newsletter named "Grower Of The Month", beginning in March. In these articles, we will publish an interview with a selected member, including photos of some of their plants and orchid growing area.

If you would like to be a Grower Of The Month, or have any other comments or suggestions about our Society, please feel free to email me at armandonvs@gmail.com.

Best Regards and Happy Growing!

Armando Neves, President, TOS

2012 President Armando Neves discussing a great Den. aggregatum at the December show table.

Bob Meyer grew this impressive plant.

President Neves is one of our regular show table hosts.

Meeting 01/09/2012

The January 9, 2012 meeting was called to order at 7:30 pm by TOS president, Armando Neves. Armando thanked everyone for allowing him to serve as president for 2012 and promised that it would be an exciting year for Society members. Guests were welcomed. The Minutes of the December, 2011 meeting were approved. We need volunteers to loan orchids and assist at Darwin Day on February 11th in Raleigh at the N.C. Natural History Museum. Robin Gurlitz stated that helping with this event is a good way to "get your feet wet" in Society events. There are also upcoming shows that we need to participate in – the February 23-26th Piedmont Orchid Society Show in particular and perhaps the Virginia Orchid Society Show, also the same weekend. Sign-up sheets to assist at Darwin Day and the Piedmont Orchid Society Show were circulated. Everyone was encouraged to promptly pay their dues to Sally Carpenter, our new treasurer.

The International Phalaenopsis Alliance and the Catawba Valley Orchid Society will co-host a meeting to be held in Hickory, N.C. on Saturday, January 28th. It should be a very informative event with lectures, an auction and orchid sales. See our January, 2012 newsletter for more details.

Sue Morand reminded everyone to purchase raffle tickets at $1 each, or 6 for $5.00. Bring a plant for the Show Table and receive a free raffle ticket for each plant up to a maximum of five tickets. Thanks to Sue and Nicolette Petervary for handling the Welcome Table and raffle ticket sales for this evening.

Nancy Harvey needs volunteers to provide refreshments throughout the year. Thanks to Nancy for providing refreshments for tonight. Several people signed up to provide refreshments in the future, but more are needed.

Josh Gurlitz introduced our most interesting speaker, Steve Arthur from South Carolina. Steve's talk was on "Growing Orchids from Seeds." He also brought many wonderful orchids for sale. Steve has his own laboratory and is also an AOS judge. In addition, he leads orchid trips to countries such as Belize. He is particularly enthusiastic about using an orchid mix of 2/3 cypress mulch (un-sifted) and 1/3 coarse perlite for most of his orchids and has had great success with the blend. Best yet, you can get the mulch from places like Wal-Mart and Home Depot.

After our break for refreshments, Paul Feaver and Nick Plummer provided an in-depth discussion of Show Table plants. Thanks Paul and Nick for an excellent job! Non-greenhouse growers are specifically encouraged to bring more plants for the Show Table.

The Jack Webster Award Plants were:

Greenhouse Grown --

1st Place for Bsn. Bill Worsley (Gur. aurantiaca x B. nodosa) grown by Lee Algood;

2nd Place for Ctna. Jamaica Red 'OC' grown by Paul Virtue; and,

3rd Place for Pot. Demi Diva 'Happy Day' grown by Bob Meyer.

The Non-Greenhouse Grown awards were:

1st Place for Den. Andree Millar grown by Suzanne Hens;

2nd Place for C. Hawaiian Wedding Song 'Virgin x Lc. Lisa Ann 'Magnificent Maroon' grown by Sidney Cox, a first-time exhibitor (Congratulations!); and,

3rd Place for Paph. Pedro's Moon (Pinocchio 'Hsinying' x armenianum) grown by Lee Algood.

The meeting adjourned around 9:30 pm. Minutes submitted by David Pickett, Secretary, TOS.

STEVE ARTHUR
January Speaker

For me, it's been a very long time since high school biology and that part about plant pollination. And, while I've read about the harvesting and flasking of orchid seeds, I've actually never seen it done. I found it fascinating to watch Steve's video of the process. And I did notice that you could have heard a pin drop in that hall –everyone in the audience was totally focused up what was happening on that screen!!

Steve began with a short overview of Orchid pollination, how the pollinia must be moved from the male to the female plant. He explained that the pollinia must be deposited upon the stigmatic surface, and how that causes the ovary to grow and produce the seeds. In the wild, where this happens without human intercession, this can be rather hit or miss. Some orchids require very specific pollinators to carry their pollen. Others have specific mechanisms to prevent self-pollination. Not all natural processes are successful, and a huge percentage of ovaries are never fertilized.

In the lab how, it is possible to select the parents, transfer the pollen and then, when the seed pod is mature, harvest and germinate virtually every single seed from the pod. Steve's video walked us through the process of physically removing the pollen from the donor plant (that plant becomes designated as the male), placing the pollen on the stigmatic surface of the recipient plant (designated the female plant). Despite all the jokes about orchid growers and their toothpicks, it is that simple act that starts the process of seed development. The moment of fertilization occurs when the pollinia is placed on the stigmatic surface.

Steve pointed out that once fertilization has occurred, the orchid flower fades within hours. It's job is done, it has attracted a pollinator, so it dies. One can then observe the swelling of the ovary, or the growth of the seed pod within days. Over the next 3 – 4 months it continues to swell and grow. In the wild, it will eventually split open and the seeds are scattered to the winds. In the lab, we know exactly when to 'harvest' the seed pod. The AOS website has a chart that tells you precisely how many days the seed pod must remain on the plant in order for the seeds to be viable. Timing is critical. If the seed is removed before it ruptures, the seeds are sterile and can be placed in flask without further treatment. This is green pod harvesting. If the seed pod is allowed to mature to the point that it spontaneously splits , that is dry pod harvesting. These seeds are no longer sterile and must be treated prior to being placed in the flask.

Orchid seeds are unique in that they are not surrounded by a food source (endosperm) as most other flower seeds are. The seeds themselves tend to be dry and papery. In the wild, once the seed pod opens and the seeds are released, very few survive because they lack the endosperm. If one particular seed, out of the thousands that have developed in the seed pod, just happens to land where there is viable organic material, it can germinate and develop into a plant. However, most orchid seeds do not survive in nature. It is only in the lab, where there is 95% germination, that success is assured.

In the lab, the first step in preparing to harvest a seed pod is the preparation of the flasks and the agar in which they will grow. Steve's video demonstrated how the ingredients of the agar are measured out and then prepared. The solution is cooked until all the ingredients are dissolved. A precisely measured amount of this solution is then placed into clean flasks, and the flasks are stoppered. The flasks containing the agar solution are then autoclaved to ensure sterility. When the flasks have cooled, they are ready to receive the seeds.

In the lab, when a seed pod is harvested, the seeds are scattered over the agar surface. At this time, the agar appears as a thin black material one can see at the bottom of the flask. It looks and feels like jelly. In his video, Steve carefully picked up the seeds he had scraped out of the pod using an instrument called a loop, then he spread them across the surface of the agar inside the flask. The flask is then closed with a stopper and placed in a warm area to develop.

When the seed is placed in the flask, once germinated, it is referred to as a protocorm. Once in the warm, nutritious environment, with lots of light, the protocorm begins to swell and develops root hairs. The root hairs are attached to specific cells. The protocorm begins to shrink and true roots develop. As the roots become viable, the protocorm body is sloughed off. When the emerging plantlets are big enough they are removed from the flask, thinned, and either reflasked to continue their growth, or if big enough, they are placed into community pots to grow and develop. The process of putting the tiny plantlets back into flask is called replatting and typically only a specific number of plantlets are placed in a flask. That is why growers will talk about receiving 50 plants in a flask, or 25 plants, or whatever number. They know at the time of purchase how many plantlets were placed in the flask they order.

The process of harvesting seeds, placing seeds in flasks or replatting all take place in a sterile environment. Generally this is a laminar hood where incoming air is passed through a filter to remove any contaminants. In his video Steve talked about using paper plates and cooking bags as containers in the process. He wore gloves and utilized very specific procedures to maintain the sterility of the environment. He flamed or cleaned his tools with alcohol. Any breach of the protocol can lead to the loss of all the plants if a bacteria is able to invade the flask.

When the plantlets are 1 1/2 inches high they are considerable viable and removed from the flask and placed into community pots. They are pulled out of the flask, and the agar solution rinsed of the roots. They are then ready for seedling potting mix. Some growers place these tiny plants in community pots with 10 – 15 plants and grow them together until they are about 4" high. Commercial growers will often place 50 plants into a community tray and grow them up to be sold as "dug ups". Either way, the plantlets are now considered viable outside the incubating environment they enjoyed in the flask. Kinda like being pushed out of the womb and into the harsh cruel world.

THANK YOU JOY LEMIEUX FOR TRANSCRIBING STEVE'S TALK!

ANNOUNCEMENTS

WINTER SHOWS

N.C. PIEDMONT ORCHID SOCIETY SHOW

Friday February 24 thru Sunday February 26

At Daniel Stowe Garden Belmont ,N.C. just west of Charlotte, NC

VIRGINIA ORCHID SOCIETY

Friday February 24 thru Sunday Ferbruary 26

At Strange Garden Center, Short Pump in Richmond Va.

Theme: ORCHIDS.... "JEWELS OF THE JUNGLE"

SANDHILLS ORCHID SOCIETY

April 18 thru April 22nd

At Cape Fear Botanical Garden, in Fayetteville, NC

Jack Webster Awards
Non-Greenhouse Grown

1st Place Ribbon:
Den. Andree Miller
Grown by Suzanne Hens

2nd Place Ribbon:
C. Hawaiian Wedding Song
'Virgin' X Lc Lisa Ann
'Magnificent
Maroon'
Grown by Sidney Cox

3d Place Ribbon:
Paph. Pedro's Moon
Grown by Lee Allgood

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2nd Place Ribbon:
Ctna. Jamaica Red
Grown by Olivene & Paul Virtue

3rd Place Ribbon:
Den. Demi Diva 'Happy Day'
Grown Bob Meyer

Courtney Hackney..Growing Tips for Fdebruary 2012

Dept. of Biology, Univ. North Florida

Email: Hackneau@comcast.net

During the past year, I have subjected most of my orchid collection to a large-scale experiment regarding fertilizers and media. How much fertilizer does an orchid actually need to grow well and produce large flowers? For the entire year of 2011, fertilizer was applied at very low levels and only during the growing season, March-September. Fertilizer was applied (0.07 teaspoons/gal) weekly for three weeks followed by a week of just water to flush any mineral buildup.

My water is fairly high in dissolved solids and on the basic side. Peters Excel 15-5-15 Cal-Mag provides additional magnesium and nitrogen in the form of nitrate and ammonia, both of which are immediately available to plants. This fertilizer also decreases the pH, which is ideal for my water. Most fertilizers add nitrogen in the form of urea, which requires bacteria and decomposing media before it is available to orchids. Because I grow mostly in lava rock, urea is useless.

What I learned this year is that applications of fertilizer much lower than recommended at a much greater frequency can produce excellent growth and large flowers if there are adequate roots. During my experiment, cattleyas well established in pots with a large root system bloomed with as large and as many flowers as they did with higher nutrients. They also produced nice new pseudobulbs at least at large as previous bulbs.

However, cattleyas that were recently repotted or those that had less developed root systems, often did not bloom or produced smaller flowers. Recently repotted cattleyas grew new roots under this fertilizer regimen, but not nearly as many as cattleyas that had large root systems. This is problematic for newly repotted cattleyas because new roots are important if the orchid is going to regain its previous flowering characteristics.

There were a few cattleyas in the collection that were still in organic media, albeit mostly old decomposing media. In general, these were doing OK as long as the medium was not soft and holding water. Several of these were bifoliates that are poor candidates for repotting unless they are in the process of getting new roots. Occasionally, I miss that period and leave them in the old medium.

This year begins a new experiment. One issue with using lava rock is the space within that allows large “Cucaracha” (roaches) to live in the pots. They emerge at night and eat new roots, flowers and even new growths. The latest experiment is to cover the lava rock with a thin layer of Aliflor. Aliflor is a round artificial rock-like medium. I still have a totally inorganic medium, Aliflor and lava rock, but roaches cannot move to the pot surface where new roots are found. This allows the addition of Nutricote fertilizer because the small Nutricote pellets do not fall through to the bottom of the pot. Over the years, Nutricote has provided a well- balanced and continuous level of nitrogen and other nutrients.

Repotting has begun early this year as warm conditions have caused new roots and growth earlier this year. The sun is already getting stronger so new growth now will just allow an orchid to grow more this year.

NATIVE ORCHID CONFERENCE
WILMINGTON, NC MAY 19-23, 2012

The Native Orchid Conference 2012 meeting will be held @ UNC Wilmington and surrounding areas. Then there will be a travel day to Brevard with field trips in that area. The dates are May 19-23. Cost is $125 per individual / $225 per couple. The field trip last year into the Green Swamp area around Wilmington was great fun and a worthwhile event. **Paul Welty** will be more than happy to field questions from any individuals whom are interested in attending.

Paul can be emailed at pwelty@averillpark.net .

TRIANGLE ORCHID SOCIETY AUCTIONS

Our TOS Spring and Fall Auctions are now being planned. Contact **Sally Carpenter** to volunteer for either or both of these wonderful events. The auctions are our principal fund-raising events each year. They promise great value and the opportunity to purchase some exotic species and hybrids. It is also great fun to volunteer and participate.

Sally can be emailed at scarp919@aol.com .

Triangle Orchid Society Meeting Agenda:

7:00-7:30	Set Up Show Table and Chairs
7:30-7:40	Business Meeting Announcements
7:40-8:30	Program
8:30-8:50	Refreshment Break
8:50-9:20	Show Table Review, Show Table Awards
9:20-9:30	Raffle

Calendar 2011	Speaker	Topic
Feb 13	Dr. Norito Hasegawa Will sell plants	Paphiopedilums
March 12	Watch this space TBA	Watch this space TBA
April 9	Ray Barkalow Will sell plants	Slipper Orchids

	Welcome Table	Refreshments
February	Miriam & Leo Sagasti	Ana B. Ayola
March	Robin & Josh Gurlitz	Mike Le

ORCHID SOCIETY
TRIANGLE
NORTH CAROLINA

Associated with

Sarah P Duke Gardens

Newsletter Editor
Josh Gurlitz

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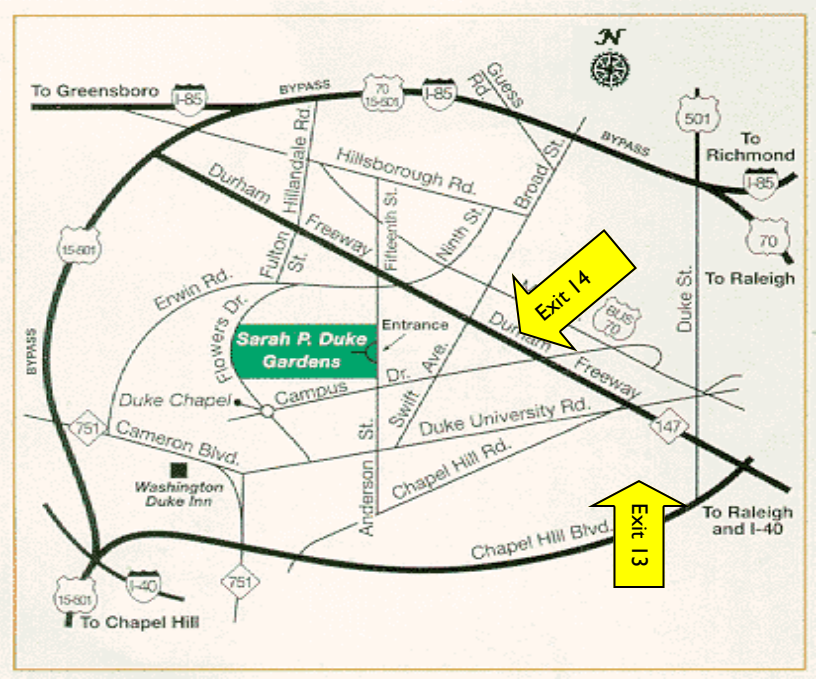
Den. Spring Dream
"Kumiko"
We are ALL dreaming about spring now!!



<u>The Triangle Orchid Society meets at the Sarah P. Duke Gardens, Durham, NC The Second Monday of the Month at 7:30 PM</u>

Visitors are Welcome!
www.TriangleOrchidSociety.org

From the East. **Exit 13 on the Durham Freeway(#147)** Head South on Chapel Hill Rd. Turn right on Anderson St. The Gardens are on the left.

From the West. **Exit 14 on the Durham Freeway (147)** Head South on Swift Ave. Turn right on Campus Drive , Turn right on Anderson St. The Gardens are on the left.

Triangle Orchid Society Dues are:

<u>$20</u> per year single, or $**<u>26</u>** per year for two persons living at the same address.

Mail to: Sally Carpenter, TOS Treasurer 412 Church St. Smithfield, NC 27577