



# Orchidacea

Newsletter of the  
Triangle Orchid Society

Associated with  
Sarah P. Duke Gardens

## Speaker for July 13, 2009 Tom Nasser: *Angraecums*

Dr. Tom Nasser's degree is in textile chemistry from Clemson University in South Carolina. He and his wife Shan own Carolina Orchids, which started out as Clemson Orchids in 1980. They have three greenhouses covering almost 8000 square feet, and 95% of the plants in the greenhouses are orchids. They grow quality orchids concentrating mainly on species. Carolina Orchids does not mass-produce orchids. The greenhouses contain their collection, i.e. several different clones of a particular orchid rather than hundreds of plants of each species or clone.

The majority of orchid plants in their collection are for sale. Not only are several sizes available, but sometimes several different clones are available. Since the Nassers' have such a variety they do not list all sizes and clones of the plants that are available on their website. Customers who are interested in a particular orchid should call or write to them and ask about it. The best thing to do, is call and arrange to stop by the greenhouse and take a look for yourself. Carolina Orchids is open 7 days a week unless the Nassers are visiting an orchid show or traveling. They ask that customers call first to make sure someone is available before visiting them. The greenhouses are surrounded by walks lined with rhododendrons, ferns, hostas, asarums, helleborus, etc. - just to name a few.

Tom has given talks on *Bulbophyllums* and *Angraecums* to many societies for many years, and these talks are upgraded into PowerPoint with new pictures. Shan gives a talk about her 2006 trip to Ecuador which shows orchids in their natural habitats. Since Carolina Orchids specializes in species, a new talk is being put together featuring species not often seen.

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### Have 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 at  
(919) 969-1612  
before 5 PM Monday  
to make your reservations.

Tom will bring plants to sell and society members who pre-order from their website will receive a 15% discount.

Carolina Orchids is located at  
3637 Pleasant Road, Fort Mill,  
SC 29708-1234.

Phone: 803 548 1682.

Email: shann@comporium.net.

Website:

[www.carolinaorchids.com](http://www.carolinaorchids.com)

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

**[www.Triangle  
OrchidSociety.org](http://www.TriangleOrchidSociety.org)**

## TOS Officers and Board Members

### President

Philip Warner (919) 785-0151  
[pwarner@fminet.com](mailto:pwarner@fminet.com)

### Vice President

#### Program Chairman

Alan Miller (919) 969-1612  
[orchidacea@att.net](mailto:orchidacea@att.net)

### Secretary

Bob Meyer (919) 469-9149  
[orthobob90@aol.com](mailto:orthobob90@aol.com)

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[leo@bjac.com](mailto:leo@bjac.com)

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[pvirtue@prodigy.net](mailto:pvirtue@prodigy.net)

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Marie Crock (919) 479-5069  
[bluebirdfield@earthlink.net](mailto:bluebirdfield@earthlink.net)

Paul Feaver (919) 779-1501  
 cell 337-3750

[Orchidtrail@yahoo.com](mailto:Orchidtrail@yahoo.com)

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[devinejd@aol.com](mailto:devinejd@aol.com)

## Minutes of the Last Meeting 6/8/2009

The June meeting of the Triangle Orchid Society was held on Monday, 8 June 2009 at the Sarah P. Duke Gardens in Durham, NC. The meeting was called to order by President Phil Warner at 7:30 PM. The minutes of the May meeting were approved.

Bonnie Cazin was welcomed as a guest to our meeting. Thank you to Marsha & Tom Jepsen for staffing the Welcome Table.

On July 18<sup>th</sup>, the Museum of Natural Sciences in Raleigh will be presenting an exhibit titled "A Day in the Tropics" from 9 AM until 5 PM. The TOS will have an eight foot table to display orchids, answer questions, and talk up the society. Display orchids and volunteers will be needed. Please contact Phil Warner at [pwarner@fminet.com](mailto:pwarner@fminet.com) for more information or to help out. Thank you.

The TOS's annual Growers Day symposium will be held on Saturday, August 8<sup>th</sup> from 9:30 AM – 4:30 PM at the Education Center of the Raulston Arboretum in Raleigh. The registration fee of \$25 includes five lectures on growing orchids, lunch, and a blooming size souvenir orchid. More details and directions can be found on our website, [www.triangleorchidsociety.org](http://www.triangleorchidsociety.org).

The TOS awarded an honorary lifetime membership to Virginia Haken for all she has contributed to the society. David Devine presented the certificate and gave a talk on Virginia's relationship with the TOS. A TOS member since 1984, Virginia was president in 1986, as well as a board member, librarian, frequent volunteer and exhibitor. Thank you Virginia!

Speaker Jose Exposito and Paul Feaver presented the Show Table, and after a break, Marie Crock introduced Jose's talk on Orchid Culture.

Afterwards, the Jack Webster Show Table plants were awarded.

In the Non-Greenhouse Grown category, 1<sup>st</sup> Place: Paph Victoriae Marie x rothschildianum by Marie Crock,

2<sup>nd</sup> Place: Phrag Les Dirouillea by Nolan Newton, and

3<sup>rd</sup> Place: Miltoniopsis Hybrid by Mildred Howell.

In the Greenhouse Grown category,

1<sup>st</sup> Place: Ascofinetia Cherry Blossom 'Pink Bouquet' by Bob Meyer,

2<sup>nd</sup> Place: Oncidium Shari Baby by Mildred Howell, and

3<sup>rd</sup> Place: Encyclia Green Hornet by Bob Meyer.

Raffle Plants were awarded and the meeting was adjourned at 9:40 PM. Minutes submitted by Bob Meyer, Secretary, Triangle Orchid Society.

*Correction: May's Show Table award for Greenhouse Grown goes to Judith Powell for her Dendrobium Hawaiian King.*

### Speaker Transcript Continued

one follow up application, generally a week to 10 days after the initial treatment.

For a limited collection, insect control can be achieved by cleaning plants with a solution of rubbing alcohol & water, or by spraying with a mix of 2 to 3 tbs. of cooking oil to 1 gallon of water. 1 tbs of baking soda per gallon of water makes an effective fungicide. When treating a bacteria condition 1 tbs. pool algacide per gallon of water can be very effective. Copper, purchased under the brand name Kocide is also economical and effective. It works by providing surface cover for foliage. Unfortunately, copper doesn't work on Dendrobiums.

Jose discussed several commercial products for insect control. Dithane, he said, is only safe if used in the recommended number of applications. Orthene was developed for the flowering industry and is effective against scale and mealy bugs. It is a systemic and therefore must be used very carefully. Malathion is effective, as is Protect which is designed to protect foliage with a layer of silicon. When applying any of these, be careful not to disturb any developing sheaths as contact with any of these chemicals can produce deformed flowers.

*Transcript by Joy Lemieux, Sandhills Orchid Society*



## Transcript of Last Month's Speaker

Jose Esposito came to the US from Cuba when he was only 18 years old. He settled in Florida and became a commercial orchid grower. In 1992 Hurricane Andrew leveled his greenhouses and destroyed his 300,000 plants, mostly hybrid phalaenopsis. Out of that devastation he managed to salvage only 200 plants. That experience gave him an appreciation of how hobbyists grow their orchids as the conditions are so different from that of a commercial grower. His discussion of basic orchid culture reflected his understanding of how difficult it can be for the hobbyist to grow a variety of orchids, each of which can have specific environmental requirements.

The most basic thing a hobby grower must do is know and understand how your orchids grow in nature and then mimic the conditions in your growing area. Even the most basic collection will represent a wide range of growing environments, and these must be compacted into a small growing area.

Secondly, hobby growers must learn to water their plants correctly. According to Jose, the single most frequent cause of orchid deaths is over watering. Watering frequency and amount must be related to the size of the pot (remember smaller pots dry out faster), the medium the plant is growing in, the available light, and the air movement in the area.

Fertilizer should be used on a regular basis as growing plants are heavy feeders. Most fertilizers containers are marked with three numbers on the label, 20-20-20, for example. These numbers indicate the percentage of Nitrogen, Phosphorous and Potassium that the fertilizer contains. A bloom booster typically contains a higher percentage of phosphorous. Jose disputes the common wisdom that it is phosphorous that increases bloom size or count. He believes that phosphorous actually reduces flower count and that it is potassium that increases flower quantity. Before you throw away your bloom booster how, Jose did say that it is good for new seedlings in that it stimulates new growth.

Orchid roots are extremely sensitive and therefore are covered with a protective coating. Because they need to become saturated before they can uptake water, you can tell when you have watered sufficiently when the color of the roots, or the protective coating, changes from grey to green. Orchids cannot utilize large amounts of fertilizer at any one time, therefore the hobbyist must apply fertilizer frequently, but in limited amounts. Jose indicated that typically 2 tsp per gallon of water is adequate. Because salts tend to build up on orchid medium, it is helpful to drench plants with clear water periodically.

Jose feels that the issue of urea in fertilizer is still open to debate. He pointed out that the Dutch commercial growers utilize urea with obviously good results. Most commercial fertilize mixtures available in the US, however, are urea free. Jose recommenced CalMag as an excellent all around fertilizer, and Nutriccoat slow release granules (sold as Dynamite at the local home improvement store) is an good supplement to foliar feeding. Because plants absorb fertilizer through their foliage as well as their roots, remember to water the foliage of your plants as well. Because each grower grows under different conditions there can be no definitive answer to the question of what fertilizer, or how much fertilizer. Jose recommends that each hobbyist try different variations until you find what works for you and your conditions.

During periods of plant dormancy (ie winter) cut back on fertilizer and your watering schedule. Don't water & then fertilize your plants because your plants have limited capacity to absorb water (and fertilizer). When you return with the fertilizer, the plants have absorb all the water they can and you have wasted your fertilizer.

Another rule of water, according to Jose, is that you should always water early in the morning. Plants need time to dry before temperatures drop at night. Cold and wet together provide the perfect condition for root rot to set in. During very hot weather, misting plants can be detrimental in that water hitting hot foliage can lead to bacterial infection and foliar damage. If the heat of the day has dried out the growing area and plants too quickly, water the floor to increase humidity.

Insect control is also important. Keep your growing area clean by removing spent flowers and dead foliage. Isolate new plants to ensure they are not carrying unwanted insects that could become introduced into your growing area. Similarly, isolate sick plants as they can readily contaminate plants around them. If you are using chemicals to control insects, remember that while chemicals are effective in controlling insects, they are often harmful to the environment - including us. Always follow label instructions, and suit up - long sleeves and pants, gloves, goggles.

When applying chemicals, early morning or late in the afternoon is best. Most chemicals are used in a liquid form and if used during the heat of the day they will burn foliage. Also, while it is very hot, the chemicals will evaporate faster, so they will not be absorbed by your plants, and the insect that the chemical is intended to kill will not get sufficient exposure. Chemicals always require at least

*Speaker Transcript cont'd pg 2*

**Jack Webster Awards  
Non Greenhouse  
Grown**



**1st Place Ribbon:**

**Paph Victoriae marie x rothschildianum  
grown by Marie Crock**

**3rd Place Ribbon:**

**Miltoniopsis Hybrid  
grown by Mildred Howell**



**2nd Place Ribbon:**

**Phrag Les Dirouillea  
grown by Nolan Newton**





**1st Place Ribbon:**  
*Ascofinetia Cherry Blossom 'Pink Bouquet'*  
**grown by Bob Meyer**

**Jack Webster Awards  
Greenhouse  
Grown**



**2nd Place Ribbon:**  
*Oncidium Shari Baby*  
**grown by Mildred Howell**



**3rd Place Ribbon:**  
*Encyclia Green Hornet*  
**grown by Bob Meyer**

For Bob Davidson's comments on last months  
plant table, see <http://www.cattleya.us/tos>.

## Growing Tips for June

By Courtney T. Hackney EMAIL at [Hackneau@comcast.net](mailto:Hackneau@comcast.net)

Once upon a time I spent a great deal of time trying to understand both the light requirements of the many orchids in my collection and the light levels in my growing space. This is no longer a priority for me because I have discovered how adaptable most orchids can be if given half a chance.

When Mark Rose, formerly of Breckenridge Orchids, allowed me to measure the light levels in his greenhouses, I was surprised to find that he did not worry about light levels. All areas of his greenhouse received the same amount of shading (40%) year round. While most of his orchids were phalaenopsis and paphs, there were also large sections of cattleyas and even a few vandas as well. All of his orchids looked great and flowered well!

What was apparent within the greenhouse was that there were still zones, but they were arranged based on temperature, not light levels. "Cool loving" or at least "high temperature hating" orchids were located close to the cooling pads, while those that thrived in heat were at the other end of the greenhouse away from the cooling pads. The lesson is that the heat in the leaves is far more critical than the light itself. Each little leaf is essentially a little greenhouse that can only be cooled by direct convection (dissipation of heat) or by opening the little stoma under the leaves and allowing water to evaporate, which cools the leaf.

The key to the successful technique for Breckenridge Orchids was not just that there was extensive air movement in the greenhouse or the use of cooling pads, but that Mark allowed his orchids to adapt with the seasons.

Orchids and most plants have a variety of mechanisms through which they change with the seasons. Under lower light levels, chloroplasts are closer to the surface than under higher light levels. In high light, leaves also decrease heat absorption by changing the color of their surface from deep green to yellow green. Most hobbyists notice the difference in the color of orchid leaves when they bring a new orchid home and it is different in color from the rest in a collection. One only has to worry when the new

plant is darker than other plants in your collection, which makes it susceptible to burning.

Orchids can acclimate and grow just as well with less light or more light if given time. Commercial growers know that to obtain maximum growth, they need to produce conditions where the growth is maximized and the potential damage from leaf burn on an extra hot day is minimized. There is also a real important phenomenon called photo inhibition, when heat and light levels are so high within the leaf that photosynthesis is inhibited.

Seedlings have less potential for handling heat stress and generally are grown under lower light levels. Their thin leaves are more susceptible to overheating just as a small greenhouse heats up more quickly than a large greenhouse with more volume.

If light levels are monitored continuously in a greenhouse there will be a peak at mid-day with light and heat levels lower before and after the peak. An orchid may be photo inhibited near mid day, at optimum just before and after that time and not reaching maximum photosynthesis for most of the day. This is where growing under lights has a real advantage. Light can be optimized for the entire day. It is not surprising that many indoor growers are able to grow under lights so well that they receive AOS awards.

Today's lighting systems are far superior to what was available a couple of decades ago, with lights that generate exactly the correct wavelengths of light for plant growth. Some hobbyists add lights to their greenhouse and augment light early in the morning and in the evening to maximize the light delivered to their orchids. A lighting system can also be a useful way of augmenting the afternoon or morning shading in your greenhouse from a nearby tree or house.

Lights on early in the morning and in the evening can maximize the light delivered to greenhouse-growing orchids. A lighting system can also be a useful way of augmenting the afternoon or morning shading in your greenhouse from a nearby tree or house.



## Announcements & Upcoming Orchid Events

The Triangle Orchid Society is planning the following:

A Day in the Tropics 2009: Sunday, July 18, 2009 at NC Museum of Natural Sciences, Raleigh from 9 AM to 5 PM. Please contact Phil Warner at 308-7746 or pwarner@fminet.com.

Grower's Day: August 8<sup>th</sup>: JC Raulston Arboretum, 9:30 am - 4:30 pm, Lunch and Orchid plant included with the \$25 fee. Please register with Bob Meyer by July 31<sup>st</sup>.

September 26<sup>th</sup>: TOS Fall Orchid Auction, at the Dogwood Shelter, Lake Crabtree County Park, Morrisville, NC from Noon until 4 PM

July 18<sup>th</sup>: Carolina Judging Center, Natural Sciences Center, Greensboro, NC, Judging & Business Meeting, speakers Allen Black & Linda Thorne  
See: [www.carolinasjudgingcenter.org](http://www.carolinasjudgingcenter.org) for more info

For a complete list of all orchid shows, see: [www.aos.org](http://www.aos.org), click on "Events" & "Show Schedules"

<b>Triangle Orchid Society Meeting Agenda:</b>	<b>Calendar 2009</b>	<b>Speaker</b>	<b>Topic</b>
7:00-7:30 Set Up Show Table and Chairs	<b>July 13th</b>	<b>Dr. Tom Nasser</b>	<b>Angraecums</b>
7:30-7:45 Business Meeting Announcements			
7:45-8:10 Show Table Review	<b>August 10th</b>	<b>Mario Ferrusi</b>	<b>Mario's Orchids A to Z</b>
8:10-8:30 Refreshment Break			
8:30-9:20 Program			
9:20-9:30 Show Table Awards, Raffle & Door Prizes	<b>September 14th</b>	<b>Fred Clarke</b>	<b>Mini Cattleyas</b>
9:30 P.M. Meeting Ends			

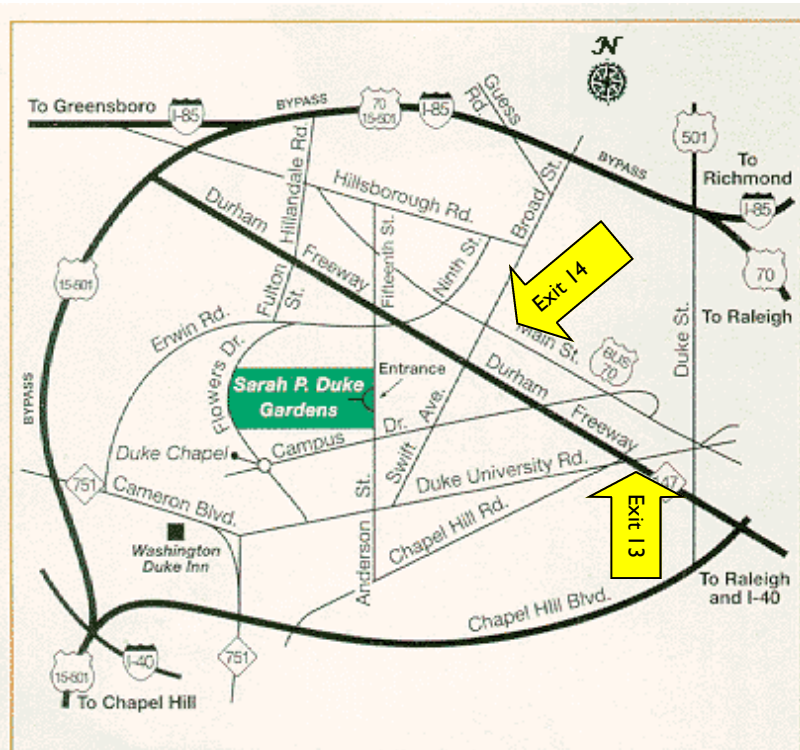
<b>Welcome Table</b>		<b>Refreshments</b>
<b>July</b>	<b>Need volunteers</b>	<b>Lee Allgood</b>
<b>August</b>	<b>Need volunteers</b>	<b>Marlene Kinney</b>



**Associated with Sarah P Duke Gardens**

Newsletter Editor  
Heather Schneider  
610 Royal Tower Way  
Cary, NC 27513

Phone: (919) 465-1984  
E-mail: LIFLNC@yahoo.com



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

**Visitors are Welcome!**

**[www.TriangleOrchidSociety.org](http://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:**

\$18 per year single, or \$24 per year for two persons living at the same address.

Mail to: Leo Sagasti, Treasurer 2306 Damascus Church Rd Chapel Hill NC 27516