



# Orchidaceae

Newsletter of the  
Triangle Orchid Society

Associated with  
Sarah P. Duke Gardens

## Speaker for November 9, 2009

### Francisco Morales - Costa Rica Orchids

Juan Francisco Morales Quirós was born in San José, Costa Rica, in 1970. In 1993 he obtained a Bs. degree in Forestry and in 2002 he qualified as a Doctor in Oral Surgery. Recently, in 2008 he obtained his Master's degree in Environmental Management and now he is a PhD student in Costa Rica. During 1991 and 1992, he worked at the National Herbarium of Costa Rica.

Since 1993, Francisco has been working in the Botany Department at INBio, where he has published more than 150 scientific papers, as well as several books and field guides, mostly of Orchids and bromeliads. He is the principal author of the project "Handbook of Plants of Costa Rica", conducted by the Missouri Botanical Garden (MO) and founded at the beginning by the NSF. The first 4 volumes of that project were published in the last 6 years. As a specialist on neotropical species of the family Apocynaceae, he has contributed to the study of this group of plants for different projects in Latin America. Francisco has also carried out field work in El Salvador, Nicaragua, Panama, Colombia, Venezuela, Bolivia and Brazil and has taught several courses on botany and systematic taxonomy within and outside Costa Rica. Now, he is working in a field guide for the bromeliads of Central America and the series of field guides for the Costarican orchids (the first 2 volumes published in 2005, second edition in 2009, volumes III, IV and V have been published recently).

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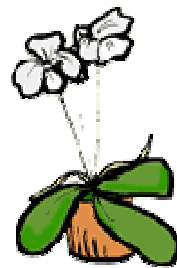
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### Have Dinner with the Speaker

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.



**This meeting:**  
**TOS PLANT SALE**  
**By Bob Davidson**

**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**

## TOS Officers and Board Members

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## Minutes of the Last Meeting 9/14/2009

The TOS meeting of 12 October 2009 was called to order by President Phil Warner at 7:35 PM. 59 members were present. A special welcome to guest Erin Lenhardt. Thank you to John Myhre for staffing the Welcome Table and to Jeremy and Debbie Bueter for running the Hospitality Table. The minutes of the September meeting were approved.

The TOS Fall Auction had a large, diverse selection of orchids for sale. Attendance was good and the bidding was spirited. The society grossed approximately \$3,700 which helps fund our meetings and speakers. Thank you for your support and to the volunteers and to Heather Schneider for being the auction chair.

Robin Gurlitz spoke about our participation in the upcoming State Fair. The fair will run 10 days. Volunteers to staff our booth and exhibit plant donations are needed. Volunteers will receive free admission and parking passes to the fair.

The Nominating Committee for next year's TOS Board consisted of Paul Virtue, Robin Gurlitz, and John Myhre. The Nominees for the 2010 Board Officers are: President: Robin Gurlitz, Vice-President: Alan Miller, Treasurer: Melissa Bullard, Secretary: David Pickett, Trustees: Lee Allgood, George Bizub, Jeremy Bueter, and Sally Carpenter. Elections will be next month.

The Show Table was presented by Nick Plummer. Following a refreshment break, Nolan Newton gave an informative talk about "Orchid Pests and their Control".

The Jack Webster Award Plants for Greenhouse Grown:  
 1<sup>st</sup> Place: *Pecteilis susannae* by Paul Feaver,  
 2<sup>nd</sup> Place: *Sigmatistalix radican* by Marie Crock, and  
 3<sup>rd</sup> Place: Dark Maroon Dendrobium by Lee Allgood.

Non-Greenhouse grown awards:  
 1<sup>st</sup> Place: *Oncidium Boogie* x *Potpurri* by Heather Schneider,

2<sup>nd</sup> Place: Paph. *Charlesworthii* by Lee Allgood, and

3<sup>rd</sup> Place: Phal Sogo 'Yukidan' by Jeremy Bueter.

This month the sale table was a member's plant sale and sales were brisk. Member sales are always a great opportunity to pick up some desirable plants for your collection or to clear out space in your collection for new plants.

Auction plants were raffled off and the meeting was adjourned at 9:35 Pm.

Minutes submitted by Bob Meyer, Secretary, TOS.

## Dec. 14th Holiday Potluck Supper.



Please bring a covered dish to share. President Phil Warner will give an address of the past year's activities of the TOS. A small plant auction will take place of a speaker for the evening's event. We will need volunteers to help set up for the dinner & the auction. Please contact Heather Schneider at (919) 465-1984 or [LIFLNC@yahoo.com](mailto:LIFLNC@yahoo.com).



## Transcript of Last Month's Speaker

Nolan began his presentation by pointing out that there is a great deal of contradictory information offered on the Net. Most of the information from government sites, or from university sites can be accurate, as with manufacturers. However, there is often information from private individuals that can be very misleading. Nolan pointed out as well that the information published in Orchids or posted on the AOS website can also be misleading. More scholarly research and more accurate information are available in the older AOS Bulletins.

Most pests encountered in the orchid house are tropical and not specific to orchids. They thrive in hot, dry environments, and many have become resistant to commonly used treatments. Like the resistance humans have developed to antibiotics, orchid pests have developed immunity to the tried and true eradication methods we have been using. Not surprisingly, the response to Nolan's questionnaire indicated that the insect most hobby growers have the greatest difficulty controlling is scale. As scale can infest Cattleyas, Cymbidiums, Oncidiums and just about every other genre, they are the number priority of hobby growers.

There are several varieties of scale found in North Carolina. The simplest way to break them down is to classify them as either hard or soft shelled. The **hard scaled** variety is "armored" in that they have a hard, waxy covering that protects them from most sprays. This group includes what we commonly call Mealy bugs, which Nolan points out, are actually an armored form of scale. Another common variety is **Boisduval scale**, and it loves Cattleyas! Boisduval is actually native to Argentina. It has hundreds of host plants, and can be found on many houseplants as well as numerous commercial crops. It establishes itself under the dry sheaths on pseudobulbs and often has done a great deal of damage before we see it on the underside of foliage. It has become resistant to many of the treatments we have been using.

**Soft scale** is actually easier to treat because pesticides can attach them directly. **Brown soft scale** is actually a native of North Carolina. They are spread by ants, and once past the crawler stage doesn't move around a great deal. A system pesticide, with two to three applications is necessary for effective control. Two that Nolan recommends are Kenoprene or Cyfluthrin.

**Orchid Mealies** feed on plant roots and are not visible until they have covered (and destroyed) the roots of the affected plants. The old Q-tip and alcohol control measure we have all used is frankly ineffective. Nolan recommends a dip in a systemic solution, preferably Kenoprene or Enstarz. Both of these are nontoxic to humans, and act by rendering the females sterile. Complete coverage of the entire plant is required! Nolan stressed that we peel off dried sheaths and keep the pseudobulbs clean as a critical part of control for any form of scale, including Mealies. He recommends a systemic spray, applied 2 – 3 times 10 to 14 days apart. Formulations containing Cyfluthrin, Bifenthrin, or Imidacloprid are able to move through the foliage for rapid treatment. Also Bayer makes a Rose and Flower treatment based on a nicotine analogue that is very effective. This is available at most garden centers including Lowe's or Home Depot.

**Ants** tend & transport scale, and they are a hazard in any orchid environment. Nolan recommends either a sugar or oil based granular bait. Attention to sanitation in the greenhouse is also critical.

**Whitefly** are very small white flies that are related to scale and aphids. They attach themselves to the underside of plant foliage and suck the juices out of the plant. I once had these on some Hibiscus plants which ultimately died because the Whitefly was so persistent. They transmit a number of diseases and are most resistant to common treatments. They respond to Cyfluthrin, Imidacloprid, Bifenthrin and Mavrik.

There are several varieties of **Spider Mites**, some with the characteristic webbing, but also other varieties that do not develop this telltale symptom we normally expect. They are particularly attracted to Phalaenopsis, but also love the softer foliage of Cataseteums, Phaius, or Gongoras. **Spider Mites** do their damage by sucking the juices out of the foliage, causing the foliage to appear silver or yellowed. They are very mobile and move quickly from plant to plant. Their populations literally explode in high humidity conditions. They quickly become resistant to any treatment so it is critical to rotate from one chemical to another. Nolan recommends Floramite, Hexagon or Ovation.

Speaker Transcript cont'd from pg 3

**Sooty Mold** and **honey dew** go hand in hand with **Aphids**. They are born pregnant, and don't need to mate to reproduce. Their populations virtually explode once established. They suck plant juices, transmit diseases from plant to plant, and can fly. They are farmed by ants that protect them from predators. **Aphids** are particularly fond of succulent new growth and buds. Nolan recommends Endeavor to the treatment of aphids, which is a system that is persistent for 2 weeks.

**Fungus gnats** are small black or brown flying creatures that are often found in medium that has broken down and is decaying. Their larval stage is a white worm that scavenges on decaying roots. Control is best achieved by repotting into fresh medium. If repotting is not practical Nolan recommends that you dry out the medium as much as possible. A drench of Gnatrol or Exhibit is highly effective.

**Thrips** eat holes in the tips of flowers, and have dashed the hopes of many hobby growers who had been hoping to have a nice plant to enter into a show. They are small, elongated insects that can be seen hopping frantically around on the flower. They suck plant juices and transmit diseases.

**Earwigs** eat flowers and roots. They thrive in debris so can be limited or controlled with attention to sanitation measures around plants. They can also be treated effectively with Sevin.

**Sowbugs or Pillbugs** are small crustaceans who burrow into decaying medium or debris. They feed on decaying organic material, and like dark humid areas. They too can be treated with Sevin, but sanitation in the growing area will help to prevent them from becoming established.

**Slugs and Snails** hate light and dryness. Sanitation measures, such as the removal of debris such as fallen foliage, dropped flowers etc., can go a long way towards preventing their entry into a growing area. Once they realize that there are succulent flowers just waiting to provide their evening meal, however, they become voracious in their determination to get at those unfurling buds. Most home remedies, such as saucers of beer set out to tempt them, will catch a small number, while the majority marches on to the flowers. Chemically they can be controlled with Metaldehyde, Mesurool, Iron Phosphate or Sevin. Nolan pointed out that the failure of most chemical controls is the result of improper application of the chemical. Read the label!!! As sun and

dehydration does kill them, sanitation in the greenhouse becomes a priority. Don't provide debris in which they can hide. Apply all bait in the evening Iron Phosphate is nontoxic to pets and humans so it is safe if you have children in the area. Copper sprays, such as Kocide, while they kill the slugs and snails, will also kill your plants.

As a general rule **Oils**, such as **Neem** or **Sunspray** provide a wide spectrum of control against a wide variety of pests. They are safe to use but must be applied thoroughly and then only on well hydrated plants. They should never be applied when it is hot and sunny and they cannot be mixed with other treatments. They work by smothering the insects, and need to be reapplied at 7 - 10 day intervals to control the emerging newer generations. As we are all painfully aware, damaged leaves never revive, they get worse and worse and eventually fall away, leaving the plant looking damaged or lopsided or out of proportion. Left on the plant, damaged foliage can become the conduit of secondary pathogens. Nolan made the point that it is safest to remove any foliage that becomes damaged. This includes plants affected by **Mesophyl cell collapse**, a condition caused by spiked in extreme temperatures, when the plant is exposed to either extreme cold or extreme heat. This produces necrotic spotting, brown or black areas on the foliage. The temperature extreme has caused the cells inside the leaf to slowly collapse and die, leaving a cavity within the cell structure. This can be a very slow process that doesn't show up for months. Phalaenopsis are particularly susceptible to Mesophyl cell collapse because they are so cold sensitive.

**Prevention** of pests on orchids, and other plants involves several measures. Newly acquired plants should be isolated for a period of time until you are certain that they will not introduce new pests into your growing area. Sick or infected plants should also be isolated, well away from healthy plants.

**Check your plants frequently.** Other measures include: screens and seals for the greenhouse or growing area, treating plants before bringing them into your growing area. Nolan pointed out that cheap plants from the big box stores are often suspect and he recommends staying away from them. Other tropical plants in your growing area may also be an unwitting host to pests that can spread to your orchid collection. Most of important don't trust the information you find on the internet.

Speaker Transcript cont'd pg 5

## Growing Tips for November

By Courtney T. Hackney EMAIL at Hackneau@comcast.net

Charles Darwin would be proud if he had seen my approach to selecting phalaenopsis this past year. Just a few years ago many of the phalaenopsis from the new breeding lines were fairly expensive and hard to find. Today, we are inundated with large numbers of excellent clones of all types of phalaenopsis. As a result, most of us have more phalaenopsis than space; hence my need for "the Darwinian approach".

While flowers on many of these mericlones are spectacular with large flowers or spectacular spots and stripes, the plants that produce them can sometimes be difficult to grow in the home or greenhouse environment. In some cases, these phalaenopsis were never easy to grow except under very strict environments with lots of fertilizers. One recent email contact said that most of the clones he tested had viruses, something I have noted in the past with many mericlones.

So how does one decide to keep some phalaenopsis and discard others? This is not as easy as it sounds. Often, when store-bought phalaenopsis are repotted there is a relatively long period of recovery as it gets new roots and leaves. This can take several months or even an entire growing season if the phalaenopsis had lost its root system entirely. This period of recovery can mask the normal growth of a very vigorous phalaenopsis.

At most commercial nurseries where these phalaenopsis are grown, there is extensive use of fungicides and bactericides that can hide inherited susceptibility to disease. Unless a hobbyist has and uses some of the really effective, but restricted products you are not likely to be able to provide the same level of protection.

Expose a bench of newly repotted phalaenopsis from the pot plant trade to disease and many of these mericlones will be very susceptible to diseases that are common. Other clones rarely become infected, even if their neighbor has become infected. Susceptibility to rots can be a genetic characteristic inherent in some clones, especially when they are grown in temperatures higher or lower than the ideal.

Instead of selecting phalaenopsis based on the best flowers or because they have awards, I have discarded any that continually developed rots. Modern phalaenopsis clones are all great, so little loss of quality resulted. There were clearly a number of breeding lines that were less susceptible to rots than others. These were selected and kept, while others were discarded with very similar genetic backgrounds.

The great advantage of having such a large supply of inexpensive phalaenopsis with great flowers is the ability to discard any that does not grow well instead of spending lots of time and space taking care of weak phalaenopsis. Years ago, phalaenopsis hybridizers employed this approach and discarded weak seedlings. Now, however, disease control allows growers to mass-produce phalaenopsis clones with great or unique flowers no matter how difficult the clone was to grow under normal conditions.

In the past, I maintained these in my collection, but now have the ability to discard them since similar clones that grow better are available. This is a fantastic time to put together a great phalaenopsis collection for what would have once cost a fortune.

*Speaker Transcript cont'd from pg 4*

**When spraying**, Nolan reminded us to rotate our products frequently to avoid the development of tolerance or even resistance. **Read labels, and follow directions.** And remember that labels can change as new information becomes available to the manufacturer, so keep up to date with labels. When looking for information regarding pests and diseases related to orchids, Nolan recommends that you contact the NCSU Entomology Dept., the USDA, the AOS Bulletin, the AOS video or the Australian control bulletins. Locally you can contact your County Extension agent, or the NCSU expert Steve Bambara at 919-515-1661 or [steve\\_bambara@ncsu.edu](mailto:steve_bambara@ncsu.edu).

*Transcript by Joy Lemieux, Sandhills Orchid Society*

### 2010 Triangle Orchid Society Membership Dues

\$18 per year single,  
or \$24 per year for 2 persons  
living at the same address  
Mail to: Leo Sagasti, Treasurer  
2306 Damascus Church Rd  
Chapel Hill, NC 27516



**Jack Webster Awards  
Non Greenhouse  
Grown**

**1<sup>st</sup> Place Ribbon:**  
Oncidium Boogie x Potpurri  
grown by Heather Schneider



**2<sup>nd</sup> Place Ribbon:**  
Paph. Charlesworthii  
grown by Lee Allgood

Anyone who feels qualified and is interested in teaming up to do the plant table for the monthly meeting, please get in touch with Bob Davidson, at [bob@cattleya.us](mailto:bob@cattleya.us)



**3<sup>rd</sup> Place Ribbon:**  
Phal Sogo 'Yukidan'  
grown by Jeremy Bueter



**1<sup>st</sup> Place Ribbon:**  
*Pecteilis susannae*  
grown by Paul Feaver

**Jack Webster Awards  
Greenhouse  
Grown**



**3<sup>rd</sup> Place Ribbon:**  
Dark Maroon Dendrobium  
grown by Lee Allgood



**2<sup>nd</sup> Place Ribbon:**  
*Sigmatistalix radican*  
grown by Marie Crock



## TOS at the 2009 NC State Fair

Thanks to Robin Gurlitz for organizing the TOS exhibit at the Flower & Garden Show during the NC State Fair! Many thanks to all the volunteers that gave their time & plants during the 10 day event. NC State Fair members welcomed us back after our return to the Fair last year. Many of the attendees that passed the booth were very interested in the TOS. We look forward to seeing new members join the society in the coming months. Hopefully, you all had a chance to see the beautiful exhibit while visiting the State Fair.

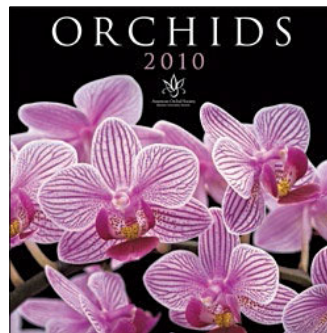
## American Orchid Society Corner

The American Orchid Society is busy with its Fall 2009 meetings in California, the winter show season and then we're right in to planning for the spring meetings in Oklahoma City in April 2010. These meetings and shows are a great opportunity to find the best orchids as well as make friends with people who have similar interests to yours. You do not have to be a member to attend any of the shows although being a member and helping with the show makes it a richer experience. You can find all of the details on shows and meetings in Orchids magazine or at our web site [www.aos.org](http://www.aos.org) and then you can put it on your calendar so you won't miss any of the fun. While you are at the calendar and you see the holidays coming up, consider purchasing an orchid calendar, an AOS pin or an AOS membership as a gift for yourself or an orchid lover. You can get any of those off the web site or by calling 561-404-2000 and then you'll have that gift out of the way.

If you are an AOS member you have free and discounted admission to more than 200 botanical gardens and arboreta - now that is a benefit many people are not aware of. Go to the "join" page of the web site to see the details of this offer. So you can buy someone an AOS membership and then expect them to take you to a garden for the day!

Celebrate fall by going to an orchid show.

Carol Holdren, Affiliated Society Committee



## AOS 2010 Calendar

Share the magic and joy of growing orchids with a gift of the AOS 2010 Calendar. The 12 superbly grown orchids pictured show the diversity in color, size, shape and fragrance found in the orchid family. Join author Ken Slump as he shares secrets for growing the best orchids and then offers advice for successfully cultivating and flowering a dozen choices suitable for the greenhouse, home and under lights. In addition to month after month of beautiful photography, the gift giver can feel good about supporting the American Orchid Society's mission of promoting and supporting the passion for orchids through education, conservation and research.

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## Announcements & Upcoming Orchid Events

The Triangle Orchid Society is planning the following:

**Dec. 14th Holiday Potluck Supper.** Please bring a covered dish to share. President Phil Warner will give an address of the past year's activities of the TOS. A small plant auction will take place of a speaker for the evening's event. We will need volunteers to help set up for the dinner & the auction. Please contact Heather Schneider at (919) 465-1984 or LIFLNC@yahoo.com.

**Jan 15-17 NCPOS "Orchids in the Trees" Show.** We are needing volunteers and plants to participate in this upcoming show. Please contact Robin Gurlitz at (919) 929--9717 or robing@i-gga.com.

**Nov. 15<sup>th</sup> International Phalaenopsis Alliance Meeting** in Virginia Beach, VA, for more information, please see: <http://www.mhsymposium.org/2009IPA.html>

**Jan. 15-17: NC Piedmont Orchid Society Show,** Daniel Stowe Botanical Garden, 6500 South New Hope Rd., Belmont, NC. Contact: Virginia Rappold, (704) 912-2536 or vrappold@aol.com

**Jan. 29-31: Triad Orchid Society Show,** Greensboro Council of Garden Clubs, 4301-A Lawndale Dr., Greensboro, NC. Contact: Shirley Anglin, (336) 940-6272 or sanglin767@roadrunner.com

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>November 9th</b>	<b>Dr Francisco Morales</b>	<b>Costa Rican Orchids</b>
7:30-7:45 Business Meeting Announcements			
7:45-8:10 Show Table Review	<b>December 14th</b>	<b>Auction</b>	<b>Holiday Potluck Dinner</b>
8:10-8:30 Refreshment Break			
8:30-9:20 Program			
9:20-9:30 Show Table Awards, Raffle & Door Prizes	<b>January 11th</b>	<b>Arthur Chadwick</b>	<b>Large Flowered Cattleyas</b>
9:30 P.M. Meeting Ends		<b>Plants for Sale</b>	

### Welcome Table

### Refreshments

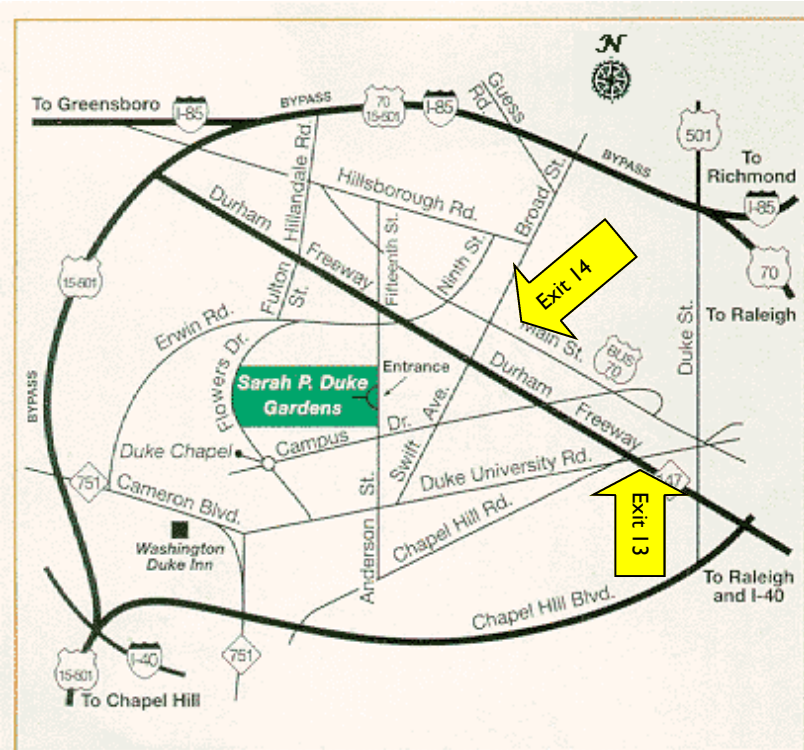
<b>Nov</b>	<b>Need volunteers</b>	<b>Caroline Bernard</b>
<b>Dec</b>	<b>Need volunteers</b>	<b>POTLUCK DINNER</b>



**Associated with Sarah P Duke Gardens**

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 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