Saint Augustine Orchid Society

# Newsletter
July 2009

Volume 4 Issue #7

# Club News


Robert Cating

## July 7 Meeting Minutes

by Lola Stark,
seacuter@bellsouth.net

The meeting was called to order at 7:15 by President Mike Heinz with 62 people present. We had 14 guests and 7 new members some of whom joined last Saturday during the SAOS help session at Hagan Ace Hardware. Some of the guests had come to the Keiki meeting on Sunday. Our number now stands at 93.

Mike thanked Barbara Conrad and Jeanette Smith for the refreshments and explained to our guests that we have a jar for contributions on the table. Mike explained what our show table was for and encouraged everyone to vote for their favorite which would be announced at the end of the meeting by Dick Roth. Our membership roster book is available at the Welcome table for members, as are applications for the American Orchid Society, the Orchid Digest and maps to get to the newly formed market near the Cummer Museum in Jacksonville under the I-95 Bridge. Fred Keefer is maintaining a booth there!

Someone borrowed a book and some magazines from our library without signing them out. Please return them next month, others are waiting for them.

Our speaker for the evening was Robert Cating, soon to receive his doctorate from the University of Florida. His talk was about "The Killers Among Us, CSI for Orchids". He was very informative and extremely well-spoken on a tough subject!

In his introduction he told us that the first thing you have to do when you find disease in your plants is "Establish the Facts". Describe the condition of the plant: Is it just the one plant or are there more than one? When was it last watered? How much light do they get? You must be able to diagnose what the problem is before you can come up with a cure.

Disease is usually spread by carelessness in cleanliness, too much water and/or heat. He suggested that you use razor blades (which can be purchased by the hundreds) to cut all plants or parts of plants that need cutting. Use them

once and throw them away. Use hand sanitizer, which can be purchased nearly anywhere, after handling each plant. Use a 2% chlorox mix to sterilize tools.

How do you recognize what the problem might be after you've established the facts? There are three kinds of disease prevalent to orchids: bacteria, virus and fungus. Bacteria can be recognized by a yellow halo that surrounds the spot and the center of the spot is usually tan. It can also be diagnosed by oozing of the spot and soft rot. The soft rot (Erwinia) is easy to spot because the edges will be water soaked or the pseudobulb will be brown and soft. If you have a question as to whether or not it's bacterial, cut a small piece of the bacteria off, put it in water in a glass. The water will turn cloudy in short order. Bacteria can be spread very quickly and can affect an entire greenhouse in short order. Bacteria are usually spread by water dripping from one plant to another in some manner.

**Continued on page 5**

## Upcoming Orchid Events

**August**

1 Master Gardeners & SAOS Members
Q&A, Repotting & Problem Plant Clinic
Ace on US 1, 9 am to noon

4 St Augustine Orchid Society Meeting
Cattleyas, Queen of the Orchids
Segundo & Yolanda Cuesta,
Quest Orchids

**September**

1 St Augustine Orchid Society Meeting
Growing Oncidiinae Intergenerics
Bill Hill. Orchid Island Orchid

5 Master Gardeners & SAOS Members
Q&A, Repotting & Problem Plant Clinic
Ace on US 1, 9 am to noon

19-20 Ridge Orchid Society Show
Lake Mirror Center, Lakeland

20 Keiki Club – Warm Growing Cymbidiums
Harry and Celia McElroy's home,
1-3 pm
12010 Hood Landing Rd, Jax 32258
904-262-2163

**October**

2-4 Florida West Coast Orchid Society Show
Minnreg Center, Largo

3 Master Gardeners & SAOS Members
Q&A, Repotting & Problem Plant Clinic
Ace on US 1, 9 am to noon

6 St Augustine Orchid Society Meeting
Important Encyclia Species Used in Breeding and Their Hybrids
Dr. Ruben and Claudia Sauleda,
Ruben in Orchids

10-11 Gainesville Orchid Society Show
Kanapaha Botanical Gardens

17-18 Fort Pierce Orchid Society Show
Ft Pierce Community Center, Vets Mem'l Park

18 Keiki Club – Winter Preparations
Venue – TBA, 1-3 pm

30-1 Delray Beach Orchid Society Show
Old School Square Gymnasium

***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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**St Augustine Orchid Society Organization**

| | |
|---|---|
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| Operations Committee<br>Chair | Jeanette Smith<br>jesmith@watsonrealtycorp.com |

## June 28 Keiki Club
## Getting Ready for Hurricane Season

Keiki Club Coordinator Bob Martin was introduced to the group and he asks that members share their growing tips and pictures of growing areas with him so he can help compile information for our newer growers. Feel free to email Bob pictures along with any topics you would like to see covered at the Keiki Club.

Caring for your orchids before, during and after a tropical storm was the subject of the Keiki Club at Lola Stark's home. Sue Bottom talked about general summer orchid care as well as things to do before and after a tropical storm and Lola Stark, Dick Roth and Paul Jones added their comments. These comments are summarized in the handout which is now linked on the homepage of the website and summarized below.

**Routine Activities During the Summer** – The heat and humidity of summer are upon us, we've got orchids growing outside and they love the afternoon storms. Think about:
- *Coarse Potting Mix* – may be a good choice so if we do get afternoon showers every day, the pot will drain and the roots will have the air they love so much around them.
- *Precautionary Sprays* – are used by some growers to prevent the ubiquitous critters, bacteria and fungi from damaging your plant; other growers choose only to spray when a problem is detected. Spray with a combination insecticide, a miticide and a fungicide all in one, like Bayer 3 in 1, Orthenex, Safer 3 in 1 etc., using label instructions.
- C*attleyas* – are big favorites amongst SAOS growers, keep an eye on:
-- *Pseudobulb Sheaths.* Sometimes the sheath has a space between it and the pseudobulb that can accumulate water and rot. Gently peel it down so the pocket of water can drain freely.
-- *Flower Sheaths*. To prevent the flower from rotting in the sheath, split the sheath and peel it down to allow air movement.
-- *Phalaenopsis* – should all be repotted by July 1 except for the summer blooming doritis types.
-- *Dendrobiums, Oncidiums and Vandas* – are growing like mad this time of year. Unless there is an obvious problem, let them do their thing!

**Before the Storm**. The tropical storm is coming and we can expect gray rainy weather for a week. Before it happens:

-- *Precautionary Spray* – with a stepped up fungicide/ bactericide, try Consan or Physan or 10% pool algicide at 2 tsp/gal. Copper sprays like Kocide are great for bacterial infections but shouldn't be used on dendrobiums.
- *Monopodial Orchids* – like phalaenopsis and vandas, will tend to hold water in the crown of the plant so you may want to turn the pot or basket on its side to prevent water from accumulating.
-- *Removable Cover* – could be installed over your orchids if your set up would allow it.
-- *High Winds* – if it isn't possible to bring your orchids into the garage or another safe haven, place the plants low and on their sides.

**During the Storm.** Stay inside and congratulate yourself on your preparations.

**After the Storm.** The storm is over and normalcy is returning. Return your plants to your normal set up, then:
-- *Inspect* – all your plants carefully for any signs of mechanical damage or orchid diseases and treat any problems you find quickly
-- *Fungal Black Rots.* The insidious, fast growing orchid killers *Pythium* and *Phytophtora* must be treated immediately. You must quickly cut away the soft, black, rotting tissue until you find healthy growth
-- *Bacterial Rots.* If you see sunken spots or rot on the orchid, apply hydrogen peroxide to the damaged area.
-- *Protective Spray* – with a fungicide/bactericide. This is the most important protective spray because your plants have been exposed to conditions very conducive to fungal and bacterial infections and they need a boost. Try Consan or Physan or better yet a copper spray like Kocide for bacterial infections but Kocide shouldn't be used on

***Dorothy, Linda & BJ enjoy the Keiki Club's show***

## Summer Break Keiki Club Next Meeting in September

The Keiki Club is going on vacation for July and August but we'll still be available at Ace Hardware on the first Saturday of the month from 9 to noon to answer any questions you may have. We'll be back in full force in the fall. In September, we're going to Harry and Celia's greenhouse in Jacksonville where we'll learn how to select and grow Cymbidiums in Florida. In October, we'll have a workshop on how to get your winter growing area ready and how to get your plants ready for winter. In November, we'll have a workshop on the caring for orchids during the winter, minimum temperatures and light, fertilizer and water requirements for various types of orchids.

*Descending Aliens By Robert Sullivan*

## August 4 Monthly SAOS Meeting

Segundo Cuesta of Quest Orchids in Miami will give a presentation on Cattleyas, Queen of the Orchids at the August 4 meeting of the St. Augustine Orchid Society. Segundo and wife Yolanda are Cattleya specialists, offering a selection of Cattleya alliance hybrids and species. Whatever your budget or color preference, if you love cattleyas, you'll find them at Quest Orchids.

*Stars of the Show By Robert Sullivan*

**Continued from page 1**

Viruses are harder to spot and plants may carry them for years without much damage to the plant as a whole. They are very difficult to diagnose. Flowers may have color breaks, and there may be small black streaks on the leaves (mosaic). The easiest way to prevent viruses is to keep things clean!

Fungi are the easiest to see and difficult to diagnose. The spots can be diamond shaped and rough. Usually caused

***Robert answers questions after his presentation***

by lack of light, if you find fungi, you should cut the leaves off and then move the plant to where it gets more light. The spots will be random. Fusarium wilt is a fungus that usually will be indicated by a pink to purple circular ring surrounding the rhizome. Black pseudobulbs are also a fungi.

Dr. Cating went on to tell us about Silwet which can be used on your plants to get rid of scale. Where it is available and how much to use will be added to our website when

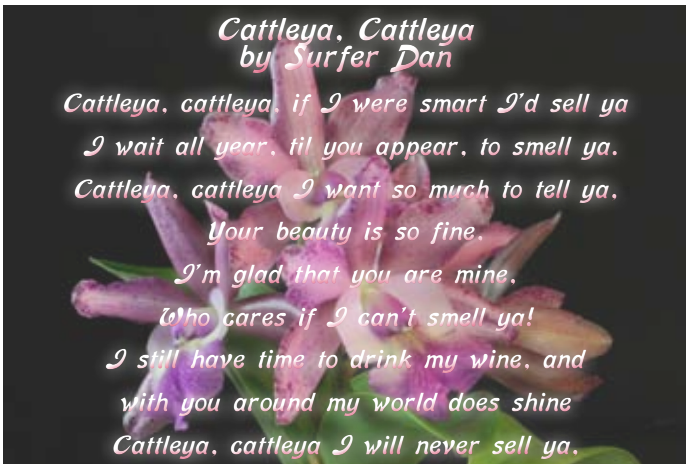
***Lillian & Fred handle the Raffle***

***Gil & Ellen enjoy the Raffle***

found. If you have questions about your plant, get in touch with Dr. Cating at plantmd@ufl.edu; or take your plant to a "Plant Disease Diagnostic Clinic", the addresses of which can be found on the University of Florida website edis.ifas.ufl.edu.

Following the lecture we had our break and raffle. The favorite orchid on the show table was Sue Bottom's

***Fred auctions off this beauty***




## Growing Tips for July

Dr. Courtney T. Hackney
Dept. Biology,
Univ. North Florida

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 over-heating 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.

## Growing Orchids Under Lights

by Susan Taylor, BellaOnline.com

Many of us grow our orchids indoors in windows, extra rooms, basements and garages. Fortunately orchids are well adapted to growth under lights and there are many vendors who specialize in plants which will do well under these conditions.

In general, you will want to try to grow plants that are fairly compact in size under lights. Many of the large plants need high light and physically it's almost impossible to provide for their needs under artificial light banks.

Light intensity is of primary importance for growing orchids. You will often find the number of foot candles necessary for different groups of orchids published and it's important to understand the amount of light needed. Otherwise your plants will grow, but not flower. The most reliable way to measure it is by light meter. They are relatively inexpensive and very important for the indoor grower. Here are the light intensities needed for the most often grown orchids:

Phalaenopsis 1,000 to 1,500 foot-candles
Dendrobium 1,500 to 2,500 foot-candles
Cattleya 2,000 to 3,000 foot-candles
Paphiopedilum 1,000 to 2,000 foot-candles
Oncidium 2,000 to 5,000 foot-candles

Plants need both blue and red light in order to grow and flower. As a general rule, warm white bulbs will provide red spectrum light and cool white bulbs will provide the blue spectrum light needed. You can combine these types for your plants, or buy the specially formulated grow lights that incorporate both.

Another important factor to consider is the length of time you provide your plants with light or photoperiodicity (day length). If you are growing species which require changes in day length to induce flowers then you will need to provide

the changing day length in order to make them bloom. Otherwise 12-14 hours during the winter months and 14-16 hours during the summer months will provide enough light for flowering.

There are many different types of bulbs which can be used to grow plants, and the choice is dependent upon your growing environment. In general most growers use fluorescent lights since they can be suspended easily over growing shelves and do not produce as much heat as incandescent lighting. They come in a variety of colors and intensities and many are specifically for growing plants. Although they will often provide light for several years it is recommended that you replace the bulbs every 12 months since the intensity of light is greatly reduced as they age.

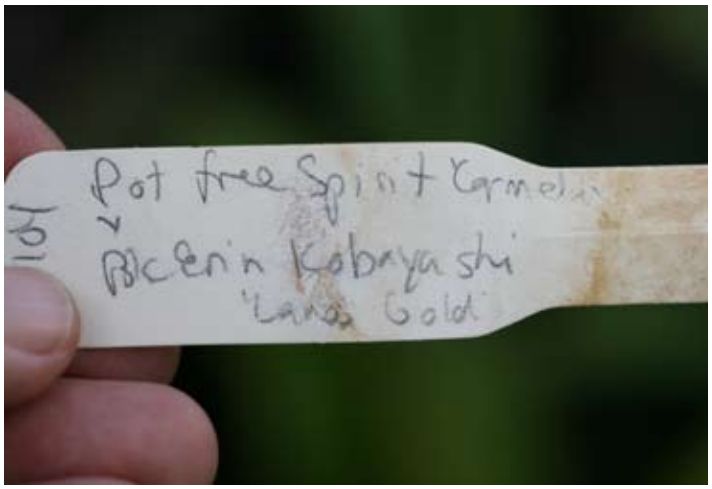
For more information and orchids grown and bred for growing under lights, visit Enlightened Orchids.

## Beginner's Corner

By Mike Heinz,
mgheinz@comcast.net

We love to talk about orchids and assume that everybody understands all the terms we use, though this is not usually the case. Let's talk about what how plants are named.

There is a specific procedure for naming plants. For species discovered in days of old, the names were mostly Latin to describe the characteristics of the plant's flower. Today the rules for naming newly discovered species are not quite as rigid but scientific names are still used a lot, with some named to honor the person who discovered the plant, or a friend.




Hybrid plants are often labeled with the name of the parents. You might see a tag that says *Phal. equestris* x *Phal. stuartiana.* That means Mom was the species *equestris* and Dad was the species *stuartiana*. This particular cross has been registered with the Royal Horticultural Society as *Phal. Cassandra*, so all the siblings of this cross (known as a grex) are properly named *Phal. Cassandra*. If the cross has not been registered with the RHS, the plant tag will contain the parents name. Often you will get a plant with a tag bearing the parent's name and find out that the plant has since been registered.

When a plant, species or hybrid is awarded, then the owner has to pick a varietal name to identify his plant from all other plants of the same species or hybrid, such as Coel. flaccida 'Gene's Outdoor Priveatta' CCM/AOS. The varietal or clonal name is inside single quotation marks.

It is my goal to make things more clear. We all started just like you and had to learn a new language, but it's worth it to be able to describe our beautiful plants.

## Summer Orchid Growing Tips

by Susan Taylor, BellaOnline.com

**Cattleya Alliance Plants.** In most areas of the country, higher light and higher temperatures require more fertilizer and water for Cattleyas. If you are in one of the areas with extremely high temperatures cut back on the fertilizer since your plants will be stressed from the heat and will go into a period of very little growth until the temperatures moderate in the fall. Be sure to watch for fungal diseases as well as scale since both proliferate in higher temperatures.

**Phalaenopsis or Moth Orchids.** Phals are one of the warm growing orchids and as such are happiest during our summer months. They should be fertilized every week during these months so that they can achieve maximum growth to support spikes in the fall. Very high temperatures (over 90° F) will cause leaf loss. So if possible try to keep your plants in areas where they are not exposed to these high temperatures. Be very careful of water in the crowns of plants to avoid rot and provide good air circulation.

**Paphiopedilums or Slipper Orchids.** Paphs generally like a little cooler temperatures than some of the other orchids. Even the so-called "warm growers" will not like temperatures above about 85° F. Good air circulation is a must for these plants especially during warmer weather. Make sure that they do not dry out and that high humidity is provided if the plants are in warm areas.

**Watch for fungal infections.** Fungus infections are especially prevalent during the hot and humid summer months, especially on thin leafed orchids. If you notice spotting on the leaves of your plants, spray with a good fungicide such as Physan or Consan to keep the problem from getting worse. Be sure to spray both the bottom and the top of leaves for best results. Increase your air circulation around that specific plant if possible since poor air circulation is one of the causes of fungal infections.

**Watch for new growth and stake inflorescences.** Stake new inflorescences on most of the summer growing orchids such as Epidendrum, Dendrobium, Brassavola, Oncidiums and Phrags. It is a good idea to put in the stake as soon as you notice the inflorescence so that you can keep track of where it is and stake when the growth has reached about 4 inches. Be careful not to pinch the inflorescence because all the growth and flower development is nourished through the stem.

## Orchid Questions & Answers

Where Members Share Experiences

Sue Bottom, sbottom15@bellsouth.net

**Q.** There are 4 or 5 fairly young leads on my B. nodosa with no indication of spiking with 3 new leads just starting. It gets full sun through porch screen from sunup til noon. Should it be repotted? Must it be divided, my preference would be to try and cultivate it to have several blooms at once. Am I nuts?

**A.** No I would say you're a great grower! I think you'll get flowers on the nodosa if you wait for the growths to mature, you should see the sheaths within a month I would guess. I wouldn't repot at least until after it blooms. You've got some room left in the pot and they seem to bloom the best when they have filled or go a bulb or two over the edge. Should be beautiful when it blooms!

**Q.** As I was repotting my L. purpurata var. carnea I noticed a few large scale on the newest fully developed pseudobulb. They brushed off very easily so I believe they were dead from some previous spraying. I had to soak the pot thoroughly and use a knife to get the roots to release from the inside pot edge. There are lots of small white spots on the roots, unlike the white spots that sometimes remain after the wet root turns green. They wipe off with a little gentle effort. Sure looks like scale to me. Can scale reside on the roots below the media surface?

**A.** Yes, I think sometimes the scale buries itself in the pot, under the rhizome where it cannot be killed by foliar spraying (and possibly also on the root and/or pot). If you find scale during repotting, water blast all the scale you can see and then spray the plant and roots with Orthene or Malathion. After you repot it, drench it with a full strength insecticidal spray.

**Q.** I have noticed damage on my flowers looking like water soaked spots, what's wrong?

**A.** Phillip Hamilton told us to take a piece of white paper and hold it under the damaged flower and shake the flower. If you see elongated bugs on the paper you have thrips. They ruin the flower by chewing on it as it is developing causing the water spots when it opens and they also cause girdling on vanda roots by chewing on the new roots. Spray with Orthene or another insecticide labeled for thrips. If that doesn't work, Conserve is Phillip's recommendation.

## Home and Backyard Orchid Growing

by Dick Roth, rhroth405@aol.com

I have around 200 orchid plants, mostly Vandas, Cattleyas and Dendrobiums. They get full sun till about noon, after that the oak trees filter the sun till 3 or 4 in the afternoon after which they get full sun again. I give them as much sun as they can stand, the more the better. I water the Vandas every day. They can only absorb water through the root system and that hangs out and dries in the air movement. I water them very heavily, at least till the roots turn green.

The Cattleyas and Dendrobiums get watered about every third day. I keep them separate from the vandas as best I can to make this possible. I fertilize with a 20-20-20 fertilizer, one teaspoon to a gallon. I fertilize every Sunday. Each time I fertilize I use Inoculaid on the plants, mixed in with the 20-20-20. The root growth is fantastic.

During the winter when the temperature is below 46 degrees I move them all into my garage where my son Bill installed lights and hanging metal poles. Bil, a licensed

secured them through the ceiling by screwing eyebolts into the wood and then suspended pipes from chains. He attached the same 3/4 inch pipe I use outside to the bottom of the chains so orchids can be hung on the pipes. In the summer I can remove the pipes so the garage is more functional. It is a little crowded (too many vandas) but they will not last outdoors in the cold weather and must be protected from the cold weather.

electrician, ran a new line into my garage to handle two refrigerators and the new lights. I have 4 four high intensity bulb fixtures which he attached to the ceiling. They are the new small bulbs measuring about 3/4th of an inch. Each fixture has two grow bulbs and two bloom bulbs. He then

# Show Table


***Grower Mike & Kaycee Heinz***
***Paraphalaenopsis denevei***


***Grower Dick Roth***
***Blc. Waianae Leopard 'Ching Hua'***
***HCC/AOS***


***Grower Denise Henry***
***Phal. Be Tris 'Maplewood'***


***Grower Sue Bottom***
***V. Roberts Delight 'Goodwin's Spotted Rubies'***


***Grower Dick Roth***
***Lctna. Renate 'S&W'***


***Grower Marv & Jan Ragan***
***Enc. steinbachii***


***Grower Mike & Harriet Wright***
***Spathoglottis hybrid***

# Show Table


***Grower Courtney Hackney***
***Enc. chocoensis***


***Grower Sue Bottom***
***C. Pradit Spot***


***Grower Courtney Hackney***
***Lycaste aromatica***


***Grower Dick Roth***
***V. Mevr L. Velthuis alba x V. Dr. Anek***


***Grower Jeannette Pacetti***
***Ren. Memoria Marie Killian***


***Grower Mike & Kaycee Heinz***
***Phal. pulchra***