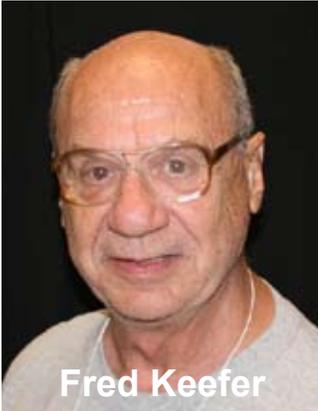




CLUB NEWS



Fred Keefer

**July 6 Monthly SAOS Meeting**

by Lola Stark,  
seacuter@bellsouth.net

*Welcome & Thanks.* The meeting was called to order by President Jack Higgins with 50 people present including 10 guests and 2 new members: Steve Anderson, Sandy Dunn and Lucy Geis. Jack thanked

Jeanette Smith, Esther Whetstone, Shirley Browning, Lillian Baker and Sue Bottom for the refreshments and reminded everyone to please put a dollar in the donations jar to keep having them.



**New member Sandy Dunn enjoys her first SAOS auction**



**Fred & Gail Marshall doing a great job of running the auction, as Mike Heinz looks on.**

**SAOS Club Business** Gail Marshall announced that because we didn't have a raffle table tonight, those with their birthday in July will get their birthday tickets in August. Gail updated us on Barbara Conrad and Bobby Abbott. Please let Gail know if one of us is sick so she can send them our best wishes! Jack reminded everyone to vote for their favorite on the show table. Dick Roth counts the ballots and announces the winner at the end of the auction.

**Upcoming Events** The Keiki club met Sunday during the downpour and had a wonderful turnout to repot phals. It was decided that because of the heat, the Keiki club will not meet in July and August, but we will be available at Hagan Ace on US 1 the first Saturday of the month (next date is August 7) to help repot or answer questions.

**SAOS Monthly Program.** July is the month we have our Summer Auction. With Fred Keefer as our auctioneer, we had a grand time auctioning off about thirty plants. The plants were in excellent shape with a great variety and lots of colors. We also had a copy of the Orchid Wiz Encyclopedia that was donated by Orchid Wiz. What a delight! Lots of fun, lots of bidding, lots of food!

Continued on page 3





## Upcoming Orchid Events

### August

- 3 SAOS Meeting – 7 pm  
Dr. Courtney Hackney, UNF & SAOS  
Water Quality and Orchids
- 7 SAOS at Ace Hardware, 9 til noon  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic

### September

- 4 SAOS at Ace Hardware, 9 til noon  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 7 SAOS Meeting – 7 pm  
Jose Exposito, Soroa Orchids  
Basic Orchid Culture
- 18-19 Ridge Orchid Society Show  
Lake Mirror Center, Lakeland

### October

- 2 SAOS at Ace Hardware, 9 til noon  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 2-3 Gainesville Orchid Society Show  
Kanapaha Botanical Gardens
- 5 SAOS Meeting – 7 pm  
Prem Subrahmanyam  
Florida Native Orchids
- 13 Bonus SAOS Meeting – 7 pm  
Roy Tokunaga, H&R Orchids
- 16-17 Fort Pierce Orchid Society Show  
Community Center Vet Memorial Park
- 29-31 Delray Beach Orchid Society Show  
Old School Square

### November

- 2 SAOS Meeting – 7 pm  
Fred Clarke, Sunset Valley Orchids  
Venezuela's National Flower
- 6 SAOS at Ace Hardware, 9 til noon  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic

### December

- 11 SAOS Christmas Auction, 7 pm  
Moultrie Trails Clubhouse

[www.staugorchidsociety.org](http://www.staugorchidsociety.org)



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



### St. Augustine Orchid Society Organization

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Exhibit Committee Chair	<a href="mailto:seacuter@bellsouth.net">Lola Stark</a> seacuter@bellsouth.net
Librarian	<a href="mailto:wendysthomas1@bellsouth.net">Wendy Thomas</a> wendysthomas1@bellsouth.net
Membership Committee Chair	<a href="mailto:gwpb@aol.com">Gail Marshall</a> gwpb@aol.com
Newsletter Editors Webmasters	<a href="mailto:sbottom15@bellsouth.net">Sue and Terry Bottom</a> sbottom15@bellsouth.net bottomt@bellsouth.net
Operations Committee Chair	<a href="mailto:jesmith@watsonrealtycorp.com">Jeanette Smith</a> jesmith@watsonrealtycorp.com



Continued from page 1

Our next society auction will be following our Christmas dinner in December, though we usually have several plants to auction every month. Bill Gourley's Blc. Copper Queen was the Members Choice, beautiful plant Bill!



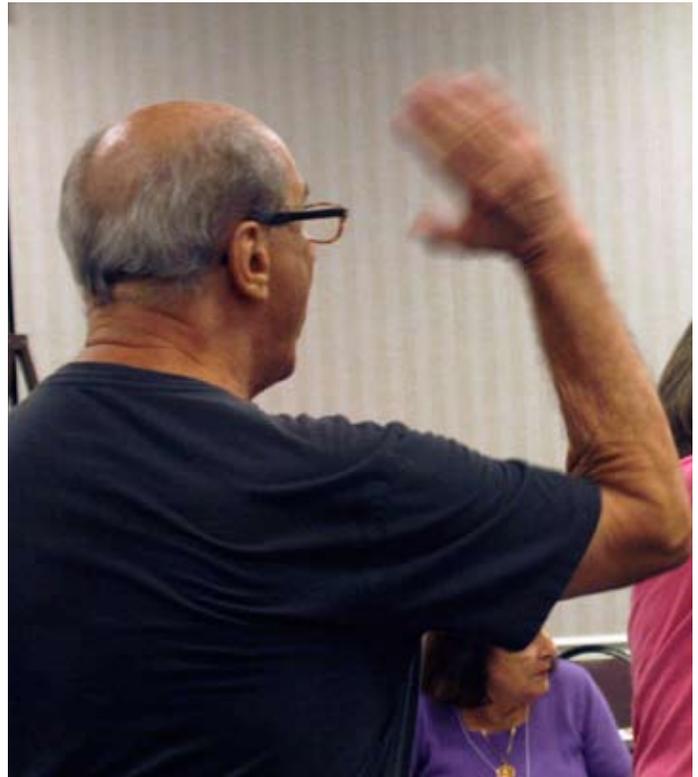
*Gail shows off one of the nice cattleyas up for auction*



*Gail gives members a closeup look at a nice Sunset Valley Orchid type dark catasetum*



*Shirley Browning & Florence Powers contemplate their next auction bid*



*Fred Keefer leads a rousing chant of "going once, going twice, SOLD" at the SAOS auction.*



## June 27 Keiki Club for Orchid Beginners Repotting Phalaenopsis

Almost 30 orchidists came to the last Keiki Club get together of the summer to repot phalaenopsis during a great thunderstorm. These long lasting bloomers have been in bloom for 3 or 4 months and it's time to repot them and let them gather their strength for next year's show.

*Potting Mix* - First you must decide which potting mix works best for you. The commercial grower's medium of choice is sphagnum, but many find that sphagnum stays too wet, particularly if they are growing outdoors. Some prefer a coconut husk mix that retains moisture but still provides good air to the roots. We're experimenting with a mix that splits the baby, half sphagnum and half coco husk mix that seems to require watering every 4 to 7 days.

*Pot Size* - Then choose your pot size. Rarely will a phal require a pot larger than 6 inches in diameter, the larger pots are reserved for the specimen plants and even with them you will require styrofoam peanuts or some coarse material in the bottom for improved drainage. Normally you'll be potting in 4 or 6 inch pots, either plastic or clay.

*Trim Roots* - You'll cut away any rotten or dead tissue at the bottom stem of the plant as well as any rotten or dead roots. Trim away until the tissue and roots are vibrant. You'll give the bottom of the roots a haircut so they fill about 2/3 of your pot. Don't worry, new roots will branch from the trimmed roots as well as from the base of the plant.

*Pot the Plant* - Put a few peanuts in the bottom of the pot, hold your plant at the height you want it in the pot and place the potting media under and around the plant. Water, perhaps add some precautionary fungicide to the plant and sit back and watch it grow.

Sue and Terry had lots of vandas, dendrobiums, ferns, bromeliads and agaves for any one that was interested. Happy growing this summer.



## August 3 Monthly Meeting

SAOS Member Dr. Courtney Hackney will discuss water quality and orchids at the August 3 meeting of the St Augustine Orchid Society. Dr. Hackney will discuss water quality and how to compensate for the high alkalinity and dissolved salt content of the water available to growers in Northeast Florida.

Courtney is the author of 'American Cattleyas' and a Professor of Biology and Director of Coastal Biology at the University of North Florida in Jacksonville where he teaches and conducts research in tidal wetlands. He has a lifelong love of orchids and has grown them for almost 40 years. He has written an article about cattleya hybrids and hybridizers for the 'Orchid Digest' and in 2004 completed 'American Cattleyas' which describes cattleya hybridizing in the United States. He writes a monthly 'Growing Tips' column that appears in orchid society newsletters around the Southeast including the SAOS,



*Dick Roth helps Rae Coletti with repotting a dendrobium*

## Keiki Club for Orchid Beginners Summer Hiatus

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





*Vanda by Wolfgang Obst*



*Yellow Ladyslipper Orchid by Alfred Ng*



*Bc. Digbyano-mossiae by Wolfgang Obst*



*Yellow Phalaenopsis by Alfred Ng*





## Growing Tips for July

Dr. Courtney Hackney,  
[hackneau@comcast.net](mailto:hackneau@comcast.net)  
Dept. Biology, Univ. North  
Florida

This summer has been not only hot, but hot with low humidity. If you provide the proper air movement required to keep your orchids from

overheating in this weather, you are also accelerating the loss of water from your orchids. If the orchid's loss of water exceeds its ability to acquire water your orchid experiences water stress, usually indicated by shriveled leaves or bud drop. Some of my orchids that typically love high light that are near the glass even have burned leaves because they do not have enough water in their leaves to keep the leaf cool. Most plants, including orchids, have stomata or microscopic openings on the bottoms of leaves. Stomata open, allowing water to evaporate and cool the leaf. If the orchid does not have enough water it cannot keep its leaves cool.



Over the years there are many experienced growers, many commercial growers of orchids, that told me they routinely violated one of the cardinal rules found in most books on growing orchids. Most books suggest watering orchids early in the morning so that they will be dry by nightfall. Failure to do so, according to the books, will cause rots. During the middle of summer, however, I routinely violate this paradigm.

Whenever nights are warm, I heavily water my orchids near or just after sunset. The object is for them to be soaked all night. The next morning, I water heavily again and often fertilize at this time. When I go out to water in the morning, vanda roots are swollen and green, as are the visible roots of my cattleyas and phals. Rots are very rare and almost always on newly purchased orchids or plants that have already had problems.

My orchids had been looking water stressed, but a week after starting this regimen, bulbs have become plump and new leaves abound. There are even newly branching roots.

If you decide to try this approach keep the days between watering the same as you did before. Apply only water in the evening and fertilize only in the morning. If you live in an area where night temperatures get lower than 60 F be sure you never fertilize at night. In the morning, plants are well hydrated and there is no risk of fertilizer toxicity, even at high levels. Roots are also ready to take up fertilizer as their surface condition has changed from hard and stiff to soft and pliable. If you live in an area with hard water, salts that accumulate on the medium, pots and roots will become soluble overnight, allowing them to be flushed out the next morning.



If you ever visit the tropics where many cultivated orchids originated, it is surprising to read the prohibition to never water at night. In their natural habitat, orchids are soaked at night by rain or dew. Rarely will you ever find an orchid with rot in nature. In the wild, orchids grow very slowly and are very limited by nutrients. Their leaves are thick and hard; even immature plants.

Bacteria require nutrients to grow and the presence of water laden with nutrients in and on leaves is an invitation for bacterial and fungal invasions that cause rots. Orchids can grow quickly if pushed with lots of fertilizer. However, cell walls are thin and soft on these orchids making it easy for fungi and bacteria invasion. Cells also are loaded with excess nutrients providing fuel to any invader.

Growing under lower nutrient conditions does cause slightly slower growth and causes orchids to put more energy into root growth. This produces a better rooted orchid, less susceptible to disease, even if you water at night.





## Snails and Slugs

From *Florida Orchid Growing*,  
Courtesy of Dr. Martin Motes

Snails and slugs are recurring problems in orchid collections. Recurring because they are ubiquitous, persistent, and hard to completely control. They recur whenever the weather is favorably wet for

them to move about with ease. These mollusks save their energy during dry periods to maximize their energy in eating our orchids when the environment is favorable.

Slugs and snails are creatures of habit. When they have found a lush patch of flowers or soft new growth they feed there at night and then follow their silver trails back to their snug resting places for the day. Old pots, boards, piles of decaying leaves or other vegetable material are mollusk hotels. The moist potting soil of ferns or other foliage plants can serve as bed and breakfast. These are the places to round up the usual suspects! Better still clean up these blighted parts of the neighborhood and eliminate the spawning grounds of these criminal elements.



*Photo courtesy of  
lonopsis*



When one actually encounters one of these slime balls whether at their home or at large, the crunch of their shells underfoot is always satisfying. Unfortunately, like other unsavory types they do most of their work late in the night when honest folk are abed. For this reason leaving these hungry night workers a snack in the form of metaldehyde bait



is the most effect control for snails and slugs. These mollusks are fatally attracted to metaldehyde. They are drawn like moths to the flame. Spread the bait thinly, one pellet every foot or so. They'll find it. The smaller the pellets the better. Those small pellets which fall on desirable plants will do little

or no harm and small bits are less attractive and potentially less injurious to domestic animals.



Repeated applications at weekly or biweekly intervals (depending on rainfall) are absolutely essential. Bait is washed away by rain and irrigation. One also never manages to get all the pests with a single application. Any mature snail or slug has also almost surely reproduced and the next generation will be along soon. Please don't leave any starving orphan snails out there. Those repeated light applications of metaldehyde bait are like manna from heaven for snails.

Metaldehyde also comes in liquid form which can be sprayed to eliminate bush snails in hanging plants. Great care should be exercised in its use.



## Your Orchids in July

based on Robert Scully articles,  
courtesy of the AOS



**General Growing Tips.** The heat and humidity of summer are here. Orchid plants require the most water and fertilizer this month to produce the most growth. They require lots of fresh air to keep the plant leaves cool. Consider spraying under benches or the planting area to lower temperatures a few degrees. Pests are most active during the warm months. Be vigilant in observing signs of damage and treat quickly if they appear. The bulk of your repotting should be complete.



**Cattleyas.** Cattleyas can be watered and fertilized daily if mounted or every second or third day if in a coarse, freely draining medium. Be careful to peel back the flower sheaths so the emerging buds don't rot. Also remove dried cataphylls to eliminate hiding places for scale. Watch for signs of pests or diseases and respond quickly.



**Dendrobiums.** It is almost impossible to overwater dendrobiums this time of year, assuming you have them either mounted or in a coarse, mostly inorganic medium.



**Phalaenopsis.** Once root growth begins, you can continue watering every 3rd or 4th day with a dilute fertilizer solution if your phals are in a coco type mix, the frequency might be weekly if your plants are potted in the more water retentive sphagnum moss. Don't let water accumulate in the crowns of plants, or crown rot can occur and quickly kill your plants. If grown outdoors, grow the plants with the pots tilted so rainwater will freely drain from the crown.

**Vandas.** Continue giving vandas what they want, light, water, fertilizer and air. Watch for signs of thrips that will mar the flowers and cause girdling on the roots. Respond promptly to any problems found.



## Orchid Pollinators

by Susan Taylor,  
BellaOnline.com

One of the most fascinating things about orchids is the subject of pollination and the number of different species that serve in this capacity. They range from hummingbirds in the Americas to the sun birds in Africa; many different kinds of bees and wasps; moths, butterflies, flies, gnats, ants and termites.



In many instances, orchids make nectar to attract their pollinators. The most famous of these is *Angraecum sesquipedale* which when seen the first time by Charles Darwin led him to predict that the pollinator was a moth with a 12 inch



### Photos courtesy of Ionopsis

tongue to reach the nectar. Many of the night blooming orchids of Madagascar are also pollinated by moths. There is even a recently discovered one which is pollinated by a cricket -- caught by a camera.

Hummingbirds pollinate some species of orchids in the new world, mostly at higher altitudes where the insect pollinators are fewer in number. These orchids are usually red or orange in color and adapt themselves to provide a shape that is perfect for these pollinators to access. Even more interesting, among orchids, they have pollinia (pollen sacs) which are dark colored so that they don't distract the bird by showing up on the bird's beaks.



The most interesting, to me, are the bee orchids of Europe which have evolved to resemble the bees which pollinate them. In some instances they emit a pheromone used by female bees to lure the males. Most of these orchids do not provide any actual food for the bees, they just lure them to try to copulate with the flowers, thus getting the pollinia on them



*Bee Orchid*  
by: Robert Thompson

which is deposited when they visit the next flower. This is referred to as pseudocopulation and has been shown to have evolved in a number of different species of orchids in all parts of the world. Wasps are also known to be tricked by orchids in this manner as well as lured to attack flowers which look like male wasps which are attacked. In other instances, the flowers resemble spiders which wasps use to nurture their young and the wasps gather pollinia as they try to deposit their eggs on the flowers.



*Catasetum* pollinated by a bee by: Dan L. Perlman

In one kind of orchid, as a bee lands on the flower, the pollinia is deposited by a hinged lip which slaps closed on the bee and sticks the sac on the insect's head. Small flowered orchids around the world are pollinated by gnats and ants as they wander over the flowers. A particularly interesting Australian variety has been found to be pollinated completely underground by termites. The plant and flower never break the surface and it was only found when a farmer plowing a field unearthed a weird flower covered with termites.





**Orchid**  
**Questions & Answers**  
 By Sue Bottom,  
 sbottom15@bellsouth.net

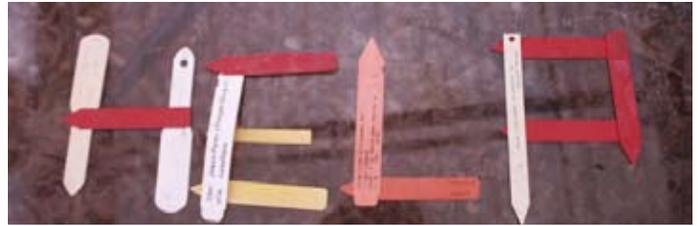
**Q.** The flowers on my *Catasetum Penang* just opened. Are they male or female flowers?

**A.** Those helmeted flowers are female. The female flowers may not be as attractive as the male

flowers but they last longer. The conventional wisdom is that female flowers are more likely in conditions of high light and low moisture and male flowers are more likely in shadier conditions with more moisture. Others report female flowers more common early in the blooming season and male flowers more common later in the blooming season. Female flowers are reportedly somewhat rare in cultivation and even in nature female flowers are fewer than male flowers. The plant should bloom for you 2 or 3 times this summer, maybe next time you'll get male flowers.



**Q.** I have a problem with many of my orchid roots and the photo of *L. tenebrosa* is typical. The root tips turn brown and stop growing as they touch the side of the pot or just about any other object. The problem seems to occur mostly with clay pots and the coarse potting media I purchase through the SAOS. The problem does not appear in the few orchids I have in sphagnum or on my vandas. I use the Dynamite product and apply a liquid fertilizer 2 times a month. I try to use just enough fertilizer to get to 100 ppm of nitrogen using the calculator on the SAOS website. I water heavily and flush the pots every 2 days. I grow these orchids in about 3,000 foot candles of light with a lot of air circulation from a fan. Would a reverse osmosis system solve this problem?



**A.** We turned to our Go-To Guy Dr. Courtney Hackney for an answer on this one, he writes: The most obvious cause is salt buildup, which is what you have already concluded. To check for this take a look at old versus new clay pots. If you get roots attaching to the new pots, but dying when they contact old pots that is a good indication that you have toxic salts built up in your pots. You do have very high conductivity and are also providing a lot of fertilizer. Dynamite provides all the nutrients you should need and increasing the salt levels of your water by adding the fertilizer may be just too much. You are also giving your plants very high light levels, which can cause pots to get too hot and burn your leaves. If you see dead roots in both new and old pots it can be just hot pots.

Reverse osmosis water is great, but you will need to be more careful with your fertilizing because most fertilizers can really drop the pH in RO water. It is not obvious from your orchid photograph that it is salt buildup, but it may be. I have had a few of the same problems this year and discuss it in this month's Tips Column. What I have started doing is to water heavily as the sun goes down and then water again first thing in the morning. This allows the salts on roots and pots time to become soluble and then be flushed out in the morning.

**Continued on page 11**



## Continued from page 10

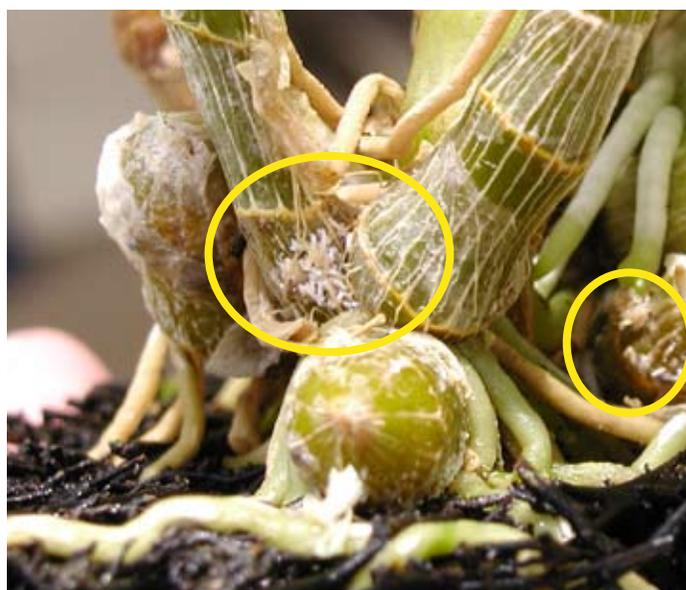
**Q.** My vanda is really worrying me. It has been very healthy with lots of strong thick roots. It just finished flowering and now has two new spikes starting, but as you can see in the picture the leaves are turning yellow and black. I read about the Thai disease. Could that be what is wrong with it?

**A.** I think the vanda leaves look like they are sunburned perhaps from being moved suddenly into brighter light. The white bleaching on the highest point of the leaves and only on one side of the leaves is where the sun scorched the leaves. The brown spotting appears to be a secondary fungal infection attacking the damaged leaves. Spray the leaves with fungicide to stop any secondary infection. The sunburned leaves will not recover their greenness, they will eventually become brown and dry and most likely fall off. The good news is over the next year or two, the plant will throw off keikis at the base of the plant that will grow into full size plants after which you can top the plant and it will be beautiful once again.



**Q.** A dendrobium I got at the Redlands has something on it which I think is juvenile scale. It looks like a small grouping of white lines each about 1/16 inch long arranged in a small concentric circle in 2 different places and it looks like they start where the pseudobulb is attached to the tree fern block. It was on there when I got it so I sprayed it with neem oil and later I wiped them off. Does this sound like scale or something else?

**A.** You are a very meticulous grower who has diagnosed the problem accurately, it is juvenile scale most likely recurring from the inaccessible area between the tree fern slab and pseudobulb. You can spray with Bayer Tree and Shrub (1.5 tsp/quart) and spray every accessible surface and then drench the slab from behind to reach all the little crawlers. If you want to eradicate scale, Distance is the answer though it is a pricey solution at \$250/quart.



# SHOW TABLE



**Grower Sue Bottom**  
**Paph. Poulsbo**



**Grower Fred Keefer**  
**Psy. Mariposa 'Green Valley'**



**Grower Wendy Thomas**  
**Lc. Love Knot 'Kahori'**



**Grower Dick Roth**  
**V. sanderiana alba x Neof. falcatta**



**Grower Sue Bottom**  
**Paph. Dellaina 'Pine Ridge 2'**



**Grower Harry & Celia McElroy**  
**Paph. Golddollar**



**Grower Bill Gourley**  
**Platystele umbellata**



# SHOW TABLE



Terry Bottom

**Grower Fred Keefer**  
***C. guttata***



Terry Bottom

**Member's Choice**  
**Grower Bill Gourley**  
***Blc. Copper Queen***



Terry Bottom

**Grower Jack Higgins**  
***Colm. Wildcat 'Green Valley'***



Terry Bottom

**Grower Harry & Celia McElroy**  
**(*Blc. Wolf Rocks* x *C. Okami Saki*) x**  
***Blc. Pennsylvania Spring***



Terry Bottom

**Grower Harry & Celia McElroy**  
***Phrag. Cape Gold Nugget***



Terry Bottom

**Grower Fred Keefer**  
***Hwra. Lava Burst***

