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### Submission Deadline

Articles, pictures, and other content to be included in the ROA Bulletin must be received by the 15th each month.

### Upcoming Events

**September 14**

Dr. Clark Riley  
*Ten Worst Mistakes With Orchids*

**October 12**

*Bus Trip To NCOS*

**November 9**

TBA

ROA activities and speakers emphasize the how-to and hands-on aspects of growing orchids.

# *The 10 Most Common* **Orchid Mistakes**



Mtssa. no name, grown by Jim Culbert

### SEE YOU SEPTEMBER 14 AT THE ATRIUM!

You won't want to miss this meeting! Our speaker, Clark Riley, can show you how to avoid expensive mistakes because he's made them himself. This meeting could be a real time-saver by helping you to save your beloved flowers before you have problems. Learn ten mistakes you can avoid, and maybe more!

Clark Riley has been an active orchid grower since 1957. As the age of six, he got his first plant, a (probably collected) *Cypripedium pubescens* from a perennial nursery. The

plant died a miserable death in a short time, but not before blooming and cementing a love of orchids. He labored ever since to make amends by promoting the sound cultivation of *Cypripedia*. He grows a wide range of orchids, including thousands of terrestrials, hardy species, and all five genera of lady slippers, often from seed. He was the producer of the book and CD of *Proceeding of North American Native Terrestrial Orchid Conference*. He is a member of the Maryland Orchid Society, the American Orchid Society, and a frequent contributor to the *Orchid List Digest*. ✨

AMERICAN  
ORCHID  
SOCIETY

ROA is affiliated with the American Orchid Society. Memberships are \$60.00 per year and include the monthly magazine *Orchids*. Details are at [www.orchidweb.org](http://www.orchidweb.org). AOS is a 501 (c) (3) organization.

## About This Bulletin

The Richmond Orchid Alliance meets at the Science Museum of Virginia, 2500 W. Broad Street, Richmond, at 2:00 P.M. of the second Sunday of each month from January through November. Yearly dues are \$25.00 per individual, or \$30.00 for a joint membership. Dues should be paid to the ROA Finance Director, Judy Craggs, P.O. Box 8682, Richmond, VA 23226.

The Richmond Orchid Alliance is a 501 (c) (3) non-profit organization. Any donations to ROA are tax deductible. We are affiliated with Orchid Digest and a member of the American Orchid Society.

The ROA Bulletin is a publication of the Richmond Orchid Alliance and is distributed to the Society's members monthly, prior to all club meetings.

Submissions to the Bulletin should be sent to the editor early enough to arrive by the 15<sup>th</sup> of the month prior to a meeting.

## Bus Trip

Last call for those who would like to go on the bus trip to the National Capital Orchid Show on October 12. This will be in place of our regular meeting. You will see plants that you wouldn't otherwise find and some you really can't live without.

Cost is \$35 each person or \$60 per couple. We need to have the reservation made now in order to get the right size bus.

You don't have to drive, pay for gas, find and pay for parking and on top of that you have great company on the bus. You can't do all these things by yourself at this price. Join us and have a great time.

## Phrags and Their Culture

Jeff Morris, a prominent phrag/paph grower living in Charlottesville, spoke to us about how to raise these beauties. Of course, he grows many more than the usual hobbyist, but he really knows his phrags. Phrags are easier to grow and bloom than many believe and you can have sequential blooms for over two months with only one inflorescence.

Phrags are only found in central and south America. Jeff divided phrags into three groups, depending on where they grow best:

Lowland phrags grow along riverbanks and moist areas and require temps of 60 – 85 degrees. Longifolium is one example that belongs to this group.

Phrags that live in mid- to high elevation grow on rocks and other plants. Caudatum, lindenii, and sargentianum belong in this group and these like moisture but need to partially dry out between watering.

Those that live in higher elevations want to have their roots constantly moist with constant air movement and 63% shade. Their temp requirements are lower at 45- 75 degrees because they live in a cloud forest. Some species that fall into this category are longifolium, sargentianum and besseae.

Overall, hybrids adapt to general conditions better than the species. Jeff uses a balanced fertilizer with micronutrients at the rate of 1/8 - 1/4 tsp. per gallon. You may set the pot in a saucer of water and when it is dry, re-water. Flush with plain water every third watering to reduce salt retention. Photosynthesis stops at 90 degrees, so do not allow them to overheat.

Besseae hybrids have better color if not kept too hot and require less light. These



are the beautiful dark rose and sunset colors that we admire so much. They are also sequential bloomers.

Jeff grows so many plants that he mixes large amounts of the media at a time but most hobby growers do not need to be concerned about mixing this much and can find mixes in small quantities useful for those with 1 to 100 plants without going to so much work. He uses a mix of rock wool and another of coconut chips. The rock



## August Showcase

### Cattleyas

Blue: Blc. Magic Meadow, grown by Buddy Harvie

Red: Blc. Waianae Leopard 'Ching Hua', grown by Tom Voytilla

Yellow: Epi. Candy, grown by the Creeches

### Paphiopedilum & Phragmipedium

Blue:

Red:

Yellow: Paph. Shireen, grown by Tom Voytilla

### Dendrobium

Blue: Dend. white no name, grown by Tom Voytilla

Red: Dend. Stephen Batchelor, grown by the Creeches

Yellow Dend. no name, grown by Mary Beth Ols

### Phalaenopsis

Blue: Phal. T-0252 #2, grown by the Andrakos

Red: Dtps. Red Inferno, grown by Jim Culbert

Yellow: Phal. Ken Peterson 'Pimlico' x Dtps. Happy King 'Pine Ridge', grown by Gloria Thompson

### Oncidium

Blue: Mtdm. Pupukea 'Sunset' x Super Nova, grown by the Andrakos

Red: Mtssa. no name, grown by Jim Culbert

Yellow: Mtssa. Shelob 'Woodlands' Star', grown by Jim Culbert

### Other

Red: Brs. Rex x Miltonia Bluntii, grown by Tom Voytilla

Yellow: Miltonia Patricia Marie Linares, grown by Karen Collier

## Consultations for Problem Plants

If you have a plant that is not looking right or you think has problems, feel free to bring it to the meeting and we will have someone knowledgeable in growing that particular type plant help you diagnose the problems. This is how we learn. Contact Sue Akin when coming in and she will help find the person to help you.

## Phrags and Their Culture

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wool cannot ever be allowed to dry out so this is problematic for many of us.

RePotMe, found on the web at <http://www.repotme.com/>, will make a mix to suit you and save you the trouble. If you want semi-hydroponic supplies, Tom Voytilla sells them. The coconut chip mix is available through Joe Mathias. If you use a bark mix you will need to repot every

six months for the best results, due to having to keep the mix moist. Because the roots are slower to regenerate than other orchids, be careful when repotting them.

Phrags grow very well and bloom fairly regularly if given the right conditions. Everyone should have some of these in their collection. Try them you will like them. ☆

## Orchid Information, Chapter 5

By Bonnie Pegga

Today we will talk about what orchids are, and maybe, are not. Because many orchids grow in trees, it is often assumed that they are parasites. As a matter of fact, up until a few years ago, it was often assumed that orchids were meat eaters. In 1895, the famous science fiction writer H. G. Wells even wrote a short story called "The Flowering of the Strange Orchid" in which the hero is threatened by a strange plant that overwhelms him with its fragrance and then attempts to suck his blood with its roots (sounds a little like a turn of the century Little Shop of Horrors, doesn't it?). Once, at the International Orchid Exposition in London in the 1930's, a lady marched into an exhibit and demanded to know where the man-eating orchids were – to which the vendor quickly replied "they're out to lunch". Orchids are not parasites. A true parasite, like the mistletoe, actually sends roots down into the host plant and takes nutrients away. An epiphyte simply uses their hosts to lift them up where light and air circulation is better. They get their water from rainwater or heavy dew and get their food from decaying organic matter that gets trapped in their rootlets.



Dend. Stephen Batchelor, grown by the Creeches

Orchid roots are extremely adapted to this life-style. Most epiphytic orchid roots are very thick and fleshy and covered with a thick waxy coating called velamen. This protects them from the elements and enables them to store water well. Orchid roots are unusual among plants in that the translucent green growing tip of the root is also capable of performing photosynthesis. There are even a few totally leafless varieties of orchids in which the green roots completely take over the job of making food for the plants.

All of the orchids native to temperate regions – such as the U. S., are terrestrial, growing in the ground. They are also deciduous, dropping their leaves and going dormant during cold weather. The pink lady's slipper, for example, is a Native American orchid.

To grow orchids in the home, their natural habitats need to be understood. Most orchids, while native to the tropics, are not native to the low, steamy jungle, but to cooler elevations from 3000 to 6000 feet. From this we can assume that most orchids prefer temperatures not too hot, but also not below freezing. ☆

## Growing Tips

By Courtney Hackney

Optimal time to repot is rapidly coming to an end as days get shorter. Repotted orchids need time to grow new roots into the medium so that they can acquire water and nutrients during winter and early spring. Always remember that plants are “cold blooded”, which means only that their growth is entirely determined by temperature.

Each orchid can survive within some temperature range, but within that range is an optimal temperature range where it grows fastest because it can take up nutrients and water at a rate sufficient for it to use all of the light it is getting and move water to its leaves fast enough to keep its leaves cool while it absorbs sunlight. At higher temperatures an orchid may not be able to keep its leaves cool enough to prevent burning and at lower temperature it may not be able to obtain nutrients fast enough to turn light into new tissue.

The ideas temperature range for most orchids was determined by the natural environment of an orchid's ancestors. This may be easy to determine for a species, but more difficult for hybrids. Hybrids, however, have been selected for best growth at typical greenhouse temperatures. Vandas, whose ancestors are from the lowlands of the tropics, continue to grow at high temperatures that would inhibit phrags which come from the Andes.

Most hobbyists pay attention to the temperature in their growing area. That, however, is not exactly what your orchids experience. Direct sunlight on a plant leaf warms the interior of the leaf



Mtdm. Pupukea 'Sunset' x Super Nova, grown by the Andrakos



Blc. Magic Meadow, grown by Buddy Harvie

far above the air temperature. If there is no air movement around the leaf or the orchids cannot obtain enough water to cool its leaves through transpiration then an orchid leaf can quickly burn even though the air temperature is below the maximum temperature recommended. Conversely, lots of air movement can allow an orchid to survive in an environment where air temperature is far above what is recommended.



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## Growing Tips

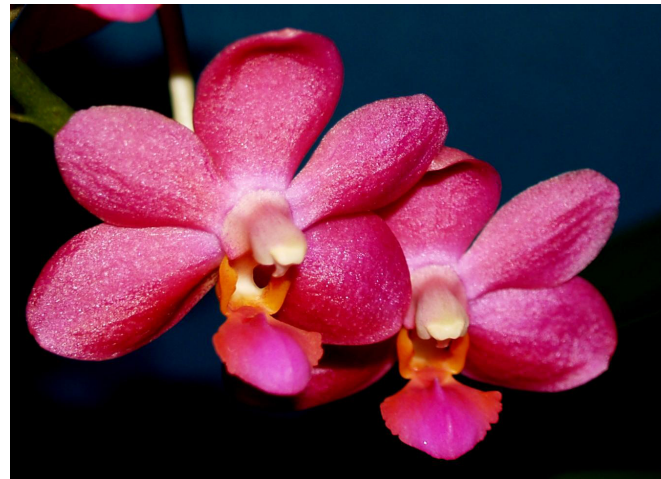
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The temperature within the orchid pot is another important facet for orchid growth. Typically, the temperature within an orchid pot is different from the air temperature; cooler during the day and warmer at night. The temperature within the pot determines the rate of root growth, nutrient uptake, decomposition of the medium, etc. In winter, a dark pot will absorb heat and roots remain well above the ambient air temperature at night. A soil temperature probe is ideal for understanding growth of orchids because it indicates what is happening in the pot. Hobbyists often note that root growth in Vandas cease much earlier in the fall than other groups of orchids. To some degree, this occurs because we generally grow Vandas in baskets where root temperature is at or near that of the air.

White plastic pots in a greenhouse remain much cooler than dark green pots even when there seems to be little direct light on the pot. Most surprising is the temperature within clear plastic pots. These act like little greenhouses and warm up quickly. A clear, plastic pot with medium exposed to direct sunlight can warm to well over 100 F in a matter of 15 minutes, while a white or even green pot remains below 90 F. This can be a problem in summer, but ideal in winter when air temperature is low and days short. Phalaenopsis mericlones grown side by side in clear and white pots with open their first flowers a week or so apart simply because of the difference in medium temperature produced by different types of pots.

This heat gain is most extreme when the medium is dry as the water in a wet medium absorbs

large quantities of heat. Many successful hobbyists who live in environments that are not ideal for orchids take advantage of the different characteristics of pots and use it to mediate temperature extremes. Clay pots tend to be cooler than plastic in summer. Water evaporates from the exterior of the pot cooling the pot and its roots. Water is pulled continuously from the medium through the pot as long as the medium is wet. This works extremely well to cool orchids in hot climates during summer as long as there is lots of air movement and a supply of good water. The quality of water is critical since water is continuously



Dtps. Red Inferno, grown by Jim Culbert



Paph. Shireen, grown by Tom Voytilla

## Address Changes

If you have moved, changed your telephone number or email address, please email Richmond Orchid Alliance with the change at ROA4U2@verizon.net or to P.O. Box 8682, Richmond, VA 23226.

We don't want your Bulletin to be delayed or not received. This is an important part of your membership.

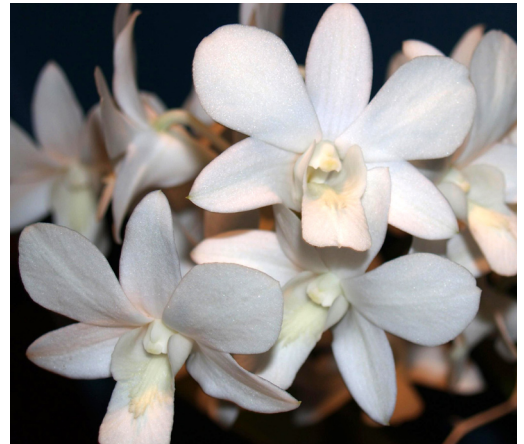
We're on the Web! Visit us at:  
[www.richmondorchidalliance.org](http://www.richmondorchidalliance.org)

## Growing Tips

evaporated from the surface of the pot and any dissolved salts are deposited on the pot surface.

If water quality is poor, i.e. lots of stuff in the water, a silver or grey sheen will develop on the pot surface that limits water movement through the pot. This salt buildup can become so severe that roots die when they come in contact with the pot. Fertilizer dissolved in deionized or rainwater can produce the same effect unless there is a sustained effort to flush pots. Pots can become so filled with a surface glaze of salt that water no longer moves from inside to outside a pot. In fact, salts can move back into the clay pot and make even the interior surface toxic to orchid roots. Hobbyists who use water

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*Dendrobium* no name, grown by Tom Voytilla

high in dissolved solids are well advised to discard clay pots and not reuse them. Many arid areas in the U.S. have water with lots of dissolved solids. This combined with low humidity and high temperature leads to clay pots with lots of surface salts. ✨

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