



CLUB NEWS



Sue Bottom

August 5 Monthly SAOS Meeting by Janis Croft

Welcome and Thanks. President Bob Schimmel opened the meeting at 7:15 pm with 50 members present. Bob welcomed our visitors and new member Mary Tatem. He also thanked Jeanette Smith, Dianne Batchelder and Barbara Conrad for their wonderful refreshments and reminded

all to enjoy while dropping a dollar in the jar. Linda Stewart recognized our birthday people with free raffle tickets.

Club Business. Penny Halyburton, SAOS Librarian, brought in one book on growing orchids and reminded all members that there is a list of library books available to borrow on the SAOS website. Just email her with your selection and she will bring your requested book(s) to the next meeting.

For those in need of supplies, there are potting mixes and fertilizers for sale at the side table every meeting. There are a variety of choices available.

Bob reminded all to attend the next Keiki Club on August 17 at the air conditioned Moultrie Oaks Clubhouse, 245 Wildwood Drive in St. Augustine. The topic will be "Growing Different Types of Orchids". Please remember to drive slowly through the neighborhood to ensure our use of the facility again in the future.

The next Repotting Clinic at Ace Hardware on U.S. 1 is Saturday, Sept. 6 from 9 am – 1 pm.

Orchid Events. The fourth Annual Cattleya Symposium is on August 8 – 9. Sign up at Odom's Orchids (<http://www.odoms.com/>).

Mark your calendars for the Gainesville *Orchid in the Garden* show, Oct. 25 to 26. Our club will be participating and setup is Oct. 24 starting at 9:30 am with tear down on the 26th from 5 to 7 pm. Harry McElroy will be organizing our group's efforts. More details will follow. If you email [Harry](mailto:Harry@cymbidi-) at cymbidi-



Dehydration - Either You Aren't Watering Enough or Roots Have Rotted from Decaying Mix

Symptoms: The plant looks dehydrated, leaves are limp and wilted. If it looks dehydrated, it probably is, but why?

Not Watered Enough: Are you watering frequently enough? With enough water when you water?

Potting Mix is Rotten: If the roots are rotten, the plant cannot absorb water no matter how much you water.

Knock it Out of the Pot: The next step will be obvious.



uman@msn.com, he will email you a presentation of photos with his commentary on how to properly present your orchids at a show.

Program. Our topic for the evening was "Watering, Water Quality and Fertilizer" presented by Sue Bottom. Everyone was invited to bring in their water for pH and alkalinity sampling and results were given before the talk began.

Sue started with the most common and simple question she receives. "How often should I water?" She then proceeded to guide us through the numerous considerations and complications that are involved in answering such an easy question. In general, everything depends upon the medium, container, type of plant, season, location and humidity. After considering these factors, then when you do water, *water*.

One needs to consider the season. During the summer growing season, one waters 2 to 3 times more frequently than winter. In the spring, your orchids are rousing and you gradually increase the watering frequency. To rehydrate plants during low humidity periods, it is good to water at dusk and then fertilize the following morning, as long as the nighttime temperatures are above 65F. With the arrival of summer, stop nighttime watering and never water on cloudy or rainy days. As the temperatures increase over 90, the plant growth slows so they need less water. As the humidity increases, your pots dry out more slowly so your plants also need less watering. Morning watering minimiz-

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Upcoming Orchid Events

August

- 8-9 Fourth Annual Cattleya Symposium
Indian River Research & Education Center,
Fort Pierce
- 12 JOS Meeting, 7 pm
How to Care for Your Orchids
Roundtable Question and Answer
- 17 Keiki Club for Orchid Beginners, 1 pm
Growing Different Orchids
Moultrie Oaks Clubhouse
245 Wildwood Drive, St. Aug 32086

September

- 2 SAOS Meeting, 7 pm
Species Habitat, Hybrid Culture
Alan Koch, Gold Country Orchids
- 6 SAOS at Ace Hardware, 9 am til 1 pm
3050 US 1 S in St. Augustine
Repotting and Plant Clinic
- 9 JOS Meeting, Topic TBA, 7 pm
Phillip Hamilton, Bredren Orchids
- 14 Keiki Club for Orchid Beginners, 1 pm
Fall Preparations
Mary and Louis Colee's home
855 Oak Ridge Road, St. Aug 32086

October

- 3-5 South Florida Orchid Society Show
BankUnited Center, Univ of Miami
- 4 SAOS at Ace Hardware, 9 am til 1 pm
3050 US 1 S in St. Augustine
Repotting and Plant Clinic
- 4-5 Home and Garden Show
Agricultural Center, St. Aug
- 4-5 Florida West Coast Orchid Society
St. Pete Garden Club
- 7 SAOS Meeting, 7 pm
Spotted and Splashed Cattleyas
Fred Clarke, Sunset Valley Orchids
- 11-12 Fort Pierce Orchid Society Show
Fort Pierce Shrine Club

- 14 JOS Meeting, Catasetums, 7 pm
Fred Clarke, Sunset Valley Orchids
- 24-26 Orctoberbest at EFG Orchids
4265 Marsh Road, Deland 32724
- 25-26 Gainesville Orchid Society Show
Kanapaha Botanical Garden
- 26 Keiki Club for Orchid Beginners, 11 am
Gainesville Orchid Society Show
Meet at Flying J to Carpool
- 25-27 East Everglades Orchid Society Show
Gardens at RF Orchids
- 26-27 Brevard County Orchid Society Show
Melbourne Auditorium

St. Augustine Orchid Society Organization

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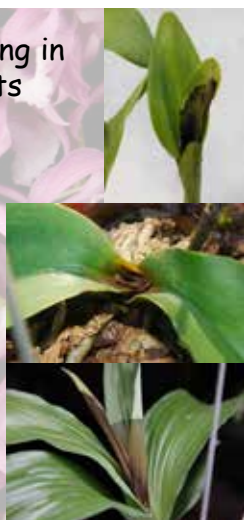
Rots - from Water Standing in Plant Leaves and Pockets

Symptoms: Rapid rotting of leaves and new growths from bacteria growing in water standing in new growth.

Conditions Causing Rot:

- Phalaenopsis and Vandas - if water is allowed to stand in the crown it will kill the heart of the plant.
- Cattleyas - the sheath around the pseudobulb can form a pocket in which water can accumulate, often leading to rot of the new leaves and pseudobulb.
- Catasetums - water can get inside the unfurling leaves at the top of the pseudobulb and not drain causing the leaves at the apex of the pseudobulb to rot.

Prevention: Be careful watering, water the roots not the plant. Don't allow water to stand in the crown of plants. Peel back cataphylls on cattleyas to prevent pocketing. Don't water catasetums until the new growth is 5 or 6 inches tall and unfurled.



es bacterial and fungal problems too. With the arrival of fall, your plants enter a second growth spurt as you will see in the greening of your root tips. Water more freely and start preparing your winter dormant plants for their upcoming rest period. In the winter, greatly reduce your watering frequency.

If you aren't watering enough during any season, your plants will show you by looking thirsty or dehydrated. This can be caused by not watering enough when you do water, watering too infrequently, or also by root rot which is caused when your medium becomes rotten and causes the roots to rot as well so they cannot absorb moisture when you do water. Sue showed the tools of the trade for watering. For hand watering, she brought in a water wand, water breaker, Fogg It Nozzles (great for vandas and mounts) and a Touch n Flow Trigger Valve. For automated systems, she recommended mister heads or drip irrigation on a timer system.

Analyses of My Irrigation Water

	Target Levels*	Acceptable Level	Well Water	Pond Water
pH, units	5.5 - 7	4 - 10	7.6	6.8
Alkalinity, mg/l as CaCO ₃	40 - 160	< 400	430	46
Soluble Salts, mmhos/cm	0.20 - 0.80	< 1.5	1.02	0.32
Calcium, mg/l	50 - 120	< 150	164	26
Magnesium, mg/l	25 - 50	< 50	7	4
Sodium, mg/l	< 20	< 50	36	26
Boron, mg/l	< 0.10	< 0.5	0.11	0.09
Iron, mg/l	< 1	< 4	0.17	0.31

*Target levels as defined by QAL in the irrigation water lab report modified upward for calcium and magnesium per university and fertilizer company recommendations

Next one must consider one's water quality. Based on the testing done before the presentation, we all knew our water's pH and alkalinity. Alkalinity is the most critical component. Soluble salts are bad for our plants and calcium and magnesium levels that are suitable are required for successful growing. Sue showed charts and referred us to the SAOS website for more details. You can use your selection of fertilizer to help keep the pH of the potting media at the desired slightly acidic condition. In general, if you have low alkalinity, use CalMag fertilizer with 1/8 to 1/4 tsp of Epsom salts weekly to increase magnesium levels. If you have high alkalinity water, use the SAOS 21-5-20 fertilizer or one of the balanced fertilizers available at the big box stores (20-10-20 or 20-20-20) with 1/4 tsp/gal Epsom salts weekly. One can also visit [First Rays](http://FirstRays.com) website and use the calculator to determine your fertilizer addition rates. Remember to flush your pots regularly to prevent salt build up.

Tools for fertilizing start with the basic gallon jug, and then move on up through the following as you increase your number of plants: Ortho Sprayer, Hozon Siphon Mixer, EZ Flo Fertilizer Injector to Sue's favorite [Dosatron](http://Dosatron.com)

In the final analysis, proper light, air and water along with temperature are the most important factors in successful growing. Once you have mastered these, using the correct fertilizer will help give you more and better flowers. Remember, calcium and magnesium are essential. As a rule of thumb, over water in summer and under water in winter. Use dilute fertilizer with Epsom salts with each watering and flush your pots regularly.

Meeting Conclusion. After a short intermission, Bob Schimmel announced the Member's Choice Award; Linda Stewart's miniature *Psychomorphis pusilla* took first and Sue Bottom's *Stanhopea inodora* took second. The raffle table was the final event of the evening with Fred, Mary Colee and Dianne Batchelder presiding. Thanks to all of those that stayed and cleaned up the room.



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



CLUB NEWS

August 17 Keiki Club Growing Different Types of Orchids

The Keiki Club for orchid beginners will be Sunday afternoon on August 17 from 1 to 3 pm. We'll be talking how to grow some of the commonly available orchids, like phalaenopsis, cattleyas, dendrobiums, oncidiums and vandas. We'll talk about different places to grow these orchids outside during the summer, how often they like to be watered and what types of potting mix are suitable. Call Keiki Club Coordinator Mary Colee at 669-8760 if you have any questions.

Where: Moultrie Oaks Clubhouse

[245 Wildwood Drive, St. Aug 32086](#)

When: Sunday, August 17, 1 to 3 pm



September 2 Monthly SAOS Meeting Species Habitat, Hybrid Culture

Alan Koch of Gold Country Orchids in Lincoln, California will talk about species habitat and hybrid culture. His talk shows how species grow in the wild and how to apply this information to help you grow your orchids. He'll talk about how to research plants and how the species used to make hybrids help determine their cultural requirements.

Alan Koch is the knowledgeable and entertaining owner of Gold Country Orchids where he specializes in miniature and compact Cattleyas. He has been growing orchids since 1969, helped by his degree in plant physiology to breed plants that grow fast with attractive clean growth and plants that flower young. He has moved five times as his orchid obsession has led to the need for more growing space. With the last move, he purchased 10 acres of land in Lincoln, California for his 300,000 orchids. He is recognized as an expert in the Brazilian Cattleya alliance and a trend setter in miniature Cattleya breeding.

PREORDER INSTRUCTIONS AVAILABLE ON WEBSITE



July 27 Keiki Club Understanding Your Plant Label

About a dozen guests and visitors met in air conditioned comfort at the St. Augustine Beach City Hall for the July Keiki Club get together. Sue Bottom talked about that ugly white plant tag that comes with most orchids. The plant tag is like your orchid's birth certificate, it contains the information you need to reconstruct your orchid's family tree and understand the species that were interbred to form your plant.

We talked about the initial abbreviation in the tag for your orchid's genus. Check the [links page](#) on our website for a key. Rather than trying to memorize these abbreviations, learn to distinguish between a phalaenopsis, cattleya, oncidium, dendrobium, etc. based on the plant shape, the presence or absence of pseudobulbs, leaf shape and thickness, etc. If your new orchid is in the cattleya alliance, you can check cattleya culture tips for how to care for it.

Although we couldn't get our hands too dirty, it was a pleasure talking about orchids in air conditioning during the heat of the summer.

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INSPIRATION



Watering Catasetum pileatum

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CULTIVATION

Your Orchids in August

based on Robert Scully, Ned Nash & James Rose checklists, courtesy of the AOS



General Growing Tips. August is the hottest month so be prepared to work diligently to ensure sufficient air circulation. Spray water on the floor, benches and outer surface of clay pots one or more times every day during the hottest times. Continue watering and using a dilute fertilizer. The warm temperatures also cause fungal and bacterial problems as well as an increase in insect populations. Observe your plants carefully and spray for both insects and disease when first noticed. It may be necessary to move unsheltered plants into an area protected from torrential rains.

Cattleyas. The extreme heat seems to discourage active growth and flowering, but many plants are either developing buds for their autumn flowering or are ripening growths that will power the winter and spring blooming season. The bifoliate and nodosa hybrids seem best able to bloom during the summer temperature extremes. The high temperatures and humidity typical of our summer coupled with tropical storm weather create the potential for black rot. Consider allowing plants to dry harder between waterings. Tie up new growths carefully to promote upright development of the pseudobulbs.



Cymbidiums. Use high potassium fertilizer in late August. The potassium level should be at 250 to 300 ppm potassium (K) and zero to very low N. Do this only two times at a two week interval. Wait a month then resume your normal fertilizer schedule.



Dendrobiums. The nobile type dendrobiums are popular though some growers find them difficult to flower. In order to promote the gradual shift from active growth to the flowering cycle, start withholding nitrogen now. Some growers report using a bloom booster this time of year on winter dormant plants helps prepare them for their dormancy.



Phalaenopsis. Current high temperatures are particularly stressful for phalaenopsis. Excess heat and humidity promote bacterial Pseudomonas infections on the fleshy leaves. Keep light levels subdued, promote sufficient air circulation and do not splash water from one plant onto another. Keep using a dilute (1/4 to 1/8 tsp/gal) fertilizer with every watering to develop the strongest roots and largest leaves prior to the winter flowering season.



Vandas. Summer growing conditions are ideal for Aerides, Ascocentrum, Rhynchostylis and Vanda hybrids. Feed aggressively and provide high humidity. Try placing a rubber-topped plastic flower tube containing stale beer on a rigid, emerging new root (in the evening and remove in the morning so it doesn't burn). Rather quickly, the root will consume the beer and utilize its carbohydrate content, producing some remarkable growth responses.



CULTIVATION



Orchid Questions & Answers

by Sue Bottom,
sbottom15@bellsouth.net

Q1. I have a one year old phalaenopsis which is flowering beautifully. The first few blooms are just beginning to drop but the first one to wilt

has not yet dropped. Instead it has dried out completely and the stem has developed a large, hard, elongated bulbous growth on it. What do you think it is?



A1. I think your orchid has been very naughty and is in a family way. Seriously, that is a seed pod. I think I'd remove it cause it will use up the plant reserves to produce all that seed and you don't know who the daddy is so you probably don't want to go through the 3 to 7 year period of raising the orchids from seed to bloom time. Beautiful phal you have!

Q2. The new leaf on this cattleya rotted. Is this black rot?

A2. No, the green sheath or cataphyll on the emerging growth created a pocket in which water collected. Bacteria grew in this water pocket and rotted the new leaf, the same basic mechanism that causes crown rot in phalaenopsis. Whenever you see a pocket form, gently peel it back so any water or condensation will drain freely.



Q3. I am seeing yellow discoloration on some of my cattleyas and it seems to be exuding liquid. What is wrong?



A3. That is the dreaded black rot, a scourge for our cattleyas in the heat and humidity of summer in Florida. Some have found that supplying sufficient calcium to their orchids will prevent black rot, but I use many calcium supplements and still have a few cases of black rot each year. The yellowing in these two cattleyas is coming up from the pseudobulb and into the leaf, and it moves fast, destroying a growth in a day or two. Excise infected tissue with a sterile tool, disinfecting between cuts. If you have access to Banrot or Subdue, pour these super duper fungicides through the pot. Otherwise pour hydrogen peroxide on the cuts and keep the plant on the dry side for several weeks.

Q4. I put this phalaenopsis outside hanging off the balcony, so I imagine it is sunburn. I was wondering what to do about it and now it's getting worse. Do I just let the leaf shrivel and fall off?



A4. That looks like the leaf got sunburned from the sudden exposure to higher light than it was used to while it was in the house. Inside light levels are dramatically lower than outdoors locations, even if they seem like they are shady. The wound caused by the sunburn then got invaded by pathogens, probably bacteria, that are quickly infecting the entire leaf. Usually you would removed the infected tissue an inch below the obvious discoloration, but I think you should simply remove the entire leaf with a single edged razor blade and then pour hydrogen peroxide over the cut. Hopefully it will grow a replacement leaf before the summer is over.



CULTIVATION

Calcium and Magnesium

by Sue Bottom, sbottom15@bellsouth.net

My understanding of what is and what should be in the fertilizers we use for our orchids has evolved over time. First you learn that the three letters on fertilizer container represents the percentage of nitrogen, phosphorus and potassium present in the fertilizer. Then you get treated to a missive on the nitrogen forms, the nitrate and ammoniacal nitrogen that are available to your plant and the urea nitrogen that is not easily used by your orchid. Then you learn about micronutrients, the trace amounts of iron, copper, boron and all the rest.

The current buzz is about the calcium and magnesium required for your plants to thrive. They may be present in your water supply in adequate amounts although you will only know this if you have your water tested or if you learn to recognize the signs of their deficiency. Calcium and magnesium are considered macronutrients along with nitrogen, phosphorus and potassium. If you remember your high school chemistry, calcium and magnesium are both listed in the second column of the Periodic Table so they tend to react similarly in chemical reactions. However, they are absorbed and used in your orchids very differently.

Calcium and Your Orchid. You know that we people require calcium for healthy bones. Orchids use calcium similarly, to build cell walls among other things. It is absorbed through the root tips and pulled through the plant via the xylem during the transpiration process, being transported from the roots to the leaves and newly growing parts of the plant. It is phloem immobile, so it cannot be translocated from older leaves to newer leaves. Thus calcium deficiency will first appear at the most rapidly expanding tissue, like new growths and leaves.

Calcium deficiency occurs when there is rapid plant growth in the absence of sufficient calcium. If you like fresh tomato sandwiches from your garden, you've learned that calcium deficiency is what causes blossom end rot in tomatoes. Cattleyas are the orchids most prone to calcium deficiency, particularly those that grow very rapidly during the warm, sunny, moist summer season. You may mistake the symptoms of calcium deficiency for the dreaded black rot that can plague your cattleyas during the hot season. But this tissue damage is not from water molds, it is caused by insufficient calcium to produce new tissue. Roy Tokunaga of H&R Nurseries reports that supplying sufficient calcium to your plants will not only reduce the incidence of black rot but may even protect the plant from infection by the water molds that cause black rot.



With calcium deficiency, the most rapidly expanding tissue is affected first, such as new growths and leaves



You might think your plant has black rot, but this problem is physiological (calcium deficient) rather than pathological

Magnesium and Your Orchid. Your plants use magnesium to produce chlorophyll, which is used in the photosynthesis process as well as other metabolic processes. Like calcium, magnesium is absorbed by the roots and carried through the plant in the xylem during normal transpiration. Unlike calcium, magnesium can also be carried in the phloem that transports organic nutrients like sucrose throughout the plant wherever needed. This means the magnesium can be translocated from older leaves to newer leaves. Thus magnesium deficiency will first occur in the older leaves that are sacrificed for the new growth.

Calcium and Magnesium Supplements. There are lots of options for supplying additional calcium and magnesium to your orchids, from prepackaged fertilizers to special

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Cattleyas grown in bright light with insufficient magnesium may exhibit mottling indicative of chlorophyll damage



Leaves may turn a reddish purple after exposure to cold if they are magnesium deficient. Correct this with a megadose of Epsom Salts (1 tsp/gal)

additives. You can also top dress pots with powdered dolomitic lime that will supply both calcium and magnesium to your plants although it may also raise the pH of your potting mix. Gypsum (calcium sulfate) is an alternative for supplying calcium without raising the pH of the mix. There are controlled release fertilizer formulations that also contain calcium and magnesium. You can add water soluble supplements like calcium nitrate and Epsom salts, though you would never add the calcium and magnesium supplements concurrently because they will react and precipitate into a sludge. The amount of calcium and magnesium supplied by several supplements is given in Table 1. I am not aware of any calculation for estimating the amount of calcium or magnesium that is released to your plants from top dressing with timed release fertilizer.

The amount of calcium and magnesium present in your water will define how much supplementation is required. You can send a sample of your water to [JR Peters](#) for analysis and they'll throw in a fertilizer recommendation or you can send a sample of your water to a laboratory like [QAL](#) for analysis, at a cost of less than \$40. Approach your orchid society for sponsoring water tests on local water supplies so a general recommendation can be made for what fertilizer regimen is optimum in your area. In St. Augustine, our shallow well water is very alkaline, high in total dissolved solids and calcium but has very little magnesium as shown in Table 2. I use pond water during the warm season. It is a mixture of well water and the more pure rainwater so it is low in alkalinity, dissolved solids, calcium and magnesium.

Clearly the water in our area is calcium rich and magnesium poor, so using Epsom salts should be an integral part of our fertilizer regimen. I set a target nitrogen level of 50 ppm suitable for cattleyas, and use additional timed release fertilizer on my heavy feeders like the catasetums. In the growing season when watering using the low alkalinity pond water, I use about 1/4 tsp/gal of cal mag fertilizer plus a little less than 1/8 tsp/gal of Epsom salts. During the winter resting season when watering with the warmer, highly alkaline well water, I use 1/8 tsp/gal of 21-5-20 fertilizer and almost 1/4 tsp/gal of Epsom salts per Table 3. I fertilize every time I water, and I should be more rigorous about flushing the pots monthly with fresh water.

Once you know the calcium and magnesium content of your irrigation water, it is easy to tailor a fertilizer regimen for your specific conditions. For those of us in Florida with highly alkaline, high calcium and magnesium deficient water, fertilize with equal parts of a balanced fertilizer like 20-20-20 or 20-10-20 and Epsom salts. Your plants will reward you with increased vigor and loads of flowers.

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Table 1: Some Water Soluble Supplements for Supplying Calcium and Magnesium

	Addition Rate (tsp/gal)			
		Nitrogen (N)	Calcium (Ca)	Magnesium (Mg)
Peters Excel Cal Mag Special 15-5-15 5% Ca 2% Mg	1/4	49	16	6
	1/2	97	32	13
	1	194	65	26
Calcium Nitrate	1/4	50	62	-
	1/2	101	124	-
Epsom Salts (Magnesium Sulfate)	1/8	-	-	16
	1/4	-	-	33
	1/2	-	-	66
	1	-	-	130
	3	-	-	395

Table 2: St. Augustine Water Quality

Constituent	Well Water	Pond Water
Alkalinity (ppm)	430	46
Total Dissolved Solids (mmhos/cm)	1.02	0.32
Calcium (ppm)	164	26
Magnesium (ppm)	7	4

Table 3: Fertilizer Regimen to Provide Full Suite of Plant Macronutrients (ppm)

	Target Nutrient Levels (ppm)	Summertime - Pond Water 1/4 tsp/gal Cal Mag Fertilizer 3/32 tsp/gal Epsom salts	Wintertime - Well Water 1/8 tsp/gal 21-5-20 Fertilizer 3/16 tsp/gal Epsom salts
Nitrogen	40 - 100	52	40
Phosphorus	10 - 20	13	4
Potassium	40 - 100	43	32
Calcium	40 - 80	41	164
Magnesium	20 - 40	23	29



CULTIVATION



Wandering Roots

by Courtney Hackney,
Hackneau's Art & Orchids
January 2008 Tips Column
Reprinted with Permission

Many orchid hobbyists are frustrated by orchids that send their newest roots into an adjacent pot instead of their own which contains the exact same medium. Maybe your orchids wandering roots are trying to tell you something?

Generally, plants allocate energy to grow new roots only when they are not getting enough water or nutrients. The one exception to this generalization occurs in epiphytes, i.e., plants that grow attached to trees or rocks, including epiphytic orchids. Epiphytes have one additional demand of their roots; to keep the orchid from falling from the tree or rock where it germinated.



Epiphytes need to remain attached to something solid. While aerial roots can also take up water and nutrients, their primary purpose is to keep the orchid from falling from its perch. Aerial roots are generally thinner than roots in the pot and, once attached, may become flattened to provide more attachment surface area. These roots will become soft and green when they have been continually wet for 10 minutes or so. Only in that condition will they absorb water. Orchids grown in very open media or mounted require prolonged soaking before their roots will be capable of absorbing water and nutrients. There are some orchid species that do not have leaves, but obtain their energy from chlorophyll in their roots.



One large *Angraecum* in my collection that was getting relatively tall for its pot was repotted last year and moved to a step bench. Where the orchid was close to the wood backing of the bench, new roots quickly emerged from the stem and grew laterally, directly toward the back of the bench. Roots emerging on the more lighted side of the *Angraecum* grew directly down into the lava rock in the pot. New roots were responding to the swaying of the orchid in the pot and trying to attach to a firm surface. Roots that attached to the back of the bench flattened and remained hard, while those that penetrated into the pot became more thickened and soft below the surface.

Remember that wandering roots are the orchid's response to "insecurity" and do not require psychiatric help. This is more normal for some orchid groups than others, but is common. When this phenomenon is observed in orchids that appear secure in their pots there may be another cause, typically a sour or decomposing medium. Your orchid is looking for water and nutrients elsewhere because the medium has become too acidic and/or the orchid's roots have died. If you notice this on a plant that should have a good root system, gently lift the plant to be sure it has a good root system and check the medium in which it is potted. That should tell you if there is a problem.

Then there are species, clones, or hybrids that are more prone to this than others and will do the same thing in all media and to all growers. In phals, the tendency seems to be noteworthy in hybrids with large doses of *Doritis pulcherrima*. Note that this species will soon be listed as a member of the *Phalaenopsis* thanks to Christensen's revision of the genus. Thus, in lists of orchid hybrids there will soon be no *Doritaenopsis* hybrids, only *Phalaenopsis*.



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About Sphagnum Moss

by <http://www.repotme.com/>

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Sphagnum moss comes from bogs and is harvested, compressed and imported for use in the floral industry. There are many graded levels of sphagnum moss. The quality of sphagnum moss is relative to the length of the strands, how fluffy each strand is, and how much debris is packaged in with the moss. Lower quality moss obviously costs less. The sphagnum moss that is used by the floral industry to line hanging baskets and package seedling plants for transport is typically of a much lower grade than we would choose for use as a moss to grow orchids in.



In the growing of orchids we are looking for top quality sphagnum moss with long, fluffy, open strands and good capillary action for moisture. In Taiwan, the largest exporting country of Phalaenopsis orchids, virtually all Phalaenopsis are grown in sphagnum moss. In cooler climates and in cultivation in the home, sphagnum moss can present some challenges with over watering. The good news is, sphagnum moss as an orchid medium is highly adaptable. Packed tightly in a pot it will retain a lot of moisture. Packed lightly in a pot it will dry out rapidly. But here is where the quality of the moss really comes in to play. Standard floral-quality sphagnum moss, available from nurseries and box stores and even sometimes advertised as 'moss for orchids' is often not suitable for growing orchids. Orchids grown in this lesser grade of sphagnum moss will not thrive as they could in a higher grade of moss as this moss compacts and quickly becomes sodden in all but the most arid environments.

For orchids we recommend [AAA New Zealand Sphagnum Moss](#) or [5 Star Chilean Sphagnum Moss](#) only. The quality of the two is fairly comparable though AAA New Zealand Sphagnum Moss is fluffier. These two products will be labeled as such, the lesser grades of sphagnum will often be labeled as 'moss for orchids', 'organic moss' or simply 'sphagnum moss'.

It is important to clarify the difference between sphagnum moss and sphagnum peat moss, also called just 'peat moss'. Sphagnum peat moss is not the same thing as sphagnum moss. In a sphagnum bog the sphagnum moss is the living moss that floats on the top of the bog. Sphagnum peat moss is the dead moss that falls to the bottom of the bog. Upon harvesting, the top layer of live sphagnum moss is taken first and then the bottom layer of peat moss is harvested. Peat moss is then processed into a soil amendment that is also a media used with orchids but it is markedly different in appearance and texture. Much of the sphagnum moss and sphagnum peat moss we see here in nurseries and big box stores comes from Canada.



SHOW TABLE



Grower Yvonne & Bob Schimmel
C. Forbador



Grower P. Halyburton & M. Rourke
Blc. Copper Queen



Grower Sue Bottom
Paph. Dollgoldii



Grower Sue Bottom
Blc. Pali Polka Dot 'Nalo' HCC/AOS



Grower Harry & Celia McElroy
Paph. Vanguard



Grower Penny Halyburton & Michael Rourke
Blc. Magic Meadow



Grower Sue Bottom
Den. bracteosum var. album



SHOW TABLE



Grower Sue Bottom
Stan. inodora



Grower Linda Stewart
Psychmorchis pusilla



Grower Linda Stewart
Pot. Love Triangle



Grower Courtney Hackney
Pot. Susan Fender 'Cinnamon Stick' AM/AOS



Grower Courtney Hackney
Blc. General Grant 'Hackneau'



Grower Sue Bottom
Blc. Hawaiian Passion 'Carmela' HCC/AOS

