

Central Vancouver Island Orchid Society Newsletter

September 2010



Photo: Judith Higham

President: Bryan Emery 250-294-6478
Secretary: Laurie Forbes 250-722-3836
Membership: Bev Morrison 250-758-5361
Treasurer: Shelley Rattink 250-245-1370
Editor: Mike Miller 250-248-3478
Mailing address: P.O. Box 1061,
Nanaimo, B.C.
V9R 5Z2

email: stelmike@telus.net

web site: www.cvios.com

Meetings are held September through June on the Saturday before the 4th Wednesday of each month at the Harewood Activity Centre, 195 Fourth Street, Nanaimo, in the hall on the second floor, doors open at 11:30, with the business meeting starting at 12:00 noon.

Doritis pulcherrima var. champornensis 'Kelly Swan'
HCC/AOS 77pts Awarded in Richmond Aug. 14/10
Exhibitor: Poul Hansen

Coming Meeting Dates:

Sept. 18, Oct. 30, Nov. 20, Dec. 18

Program for September 18th

The Mysteries of AOS Judging Revealed
By Debb Ward, Probationary Judge

Coming Events:

Fraser Valley Society Show and Sale, George Preston Recreation Centre, 20699 42nd Ave. Langley, Oct 23-24th 2010, 9same place a last year).

Editorial:

And so begins another season of meetings and good times. I hope all of you have had a great summer and all of your plants have prospered. The new executive met in August and worked out some things while having a great time in Victoria and Lee Valley.

The cooler nights are now on us, which is nice and the plants I have that want a cooler night seem happier. The sun and heat was great and I had the greenhouse propped open 24/7, but it is nice to have some control over things. I built a plant shelter this summer to house hardy orchids and other plants through the year. It is basically a fibreglass roof on 4 x 4 posts. It is about 8 feet tall and I will be housing my rapidly (too rapidly) growing number of Alpine plants there as well. Now I have to rebuild my cold greenhouse so I can close the door. It is interesting how the ground can settle when you thought it already had.

Cheers Mike

Minutes of CVIOS General Meeting
June 18, 2010

President Bryan Emery called the meeting to order at 12:05 pm. with 28 members and 1 visitor (Inga, Rainer's sister) present.

1. Vivian Heinsalu-Burt moved that the minutes of our May meeting be accepted as published, Rainer Hartmann seconded and motion was carried.
2. Correspondence included the AOS journal with the major article on Phals. and the Lea Valley catalogue.
3. Treasurer Shelley Rattink presented the treasurer's report for May. She moved acceptance of her report, Mike Miller 2nd and motion carried.
4. New Business: Our storage area needs organizing and the addition of some storage shelves will facilitate this and allow us to store some items that are currently being stored by members. Mike is willing to research getting units over the summer. Hilding noted that he had some shelving that may be appropriate. Mike moved that we acquire some shelving units not to exceed a cost of \$300. Dora 2nd the motion and it was carried.
5. Newsletter: No report
6. Plant Sales: Many beautiful plants were available including some spectacular phals. brought by our guest speaker, Pat Van Adrichem.
7. Refreshments: The following people agreed to provide goodies for our September meeting - Shirley McClare, Shelley Rattink, Bob Iddon, Sue Christison, and Margaret Mann.
8. The summer picnic will be held on Sunday July 25 at Jerry's place in Black Creek. Mike will send us a reminder and directions closer to the date. Look forward to seeing Jerry's greenhouse.
- 8 The meeting adjourned at 12:20 followed by our AGM, show tables, and Pat Van Adrichem's informative presentation on Phals,, including a lesson on deflasking seedlings.

Central Vancouver Island Annual General Meeting
June 19, 2010

President Bryan Emery called the meeting to order at 12:25 pm.

1. Shirley McClare made a motion to accept the minutes of June 20, 2009 annual general meeting as published. Bev Morrison seconded and motion was carried.

2. Election of Officers for 2010/2011. Mike Miller (acting Vice President) proceeded with the nomination and election of officers process.

The Executive slate for the coming year is:

- President - Bryan Emery
- Vice President - Angie Beltane
- Treasurer - Shelley Rattink
- Secretary - Laurie Forbes
- Past President - Vivian Heinsalu Burt
- AOS Chair - Sue Christison
- Directors: Program Chair - Nancy Miklic
- Newsletter - Mike Miller
- Refreshments - Sandra Lathrope
- Library - Mary Palmer
- Membership - Bev Morrison
- Plant Sales - Donna Mc Donnell
- Publicity - Shirley McClare
- Website - Ralph Kirby (Don Miklic, assistant)
- Directors at Large: Maureen Hawthorn
- Rainer Hartmann

Responsibility for organizing shows will be assumed by the Directors.

Hilding Franson moved the meeting be adjourned, Bev Morrison seconded and the meeting was adjourned at 12:40 pm.

Our Donut Pots

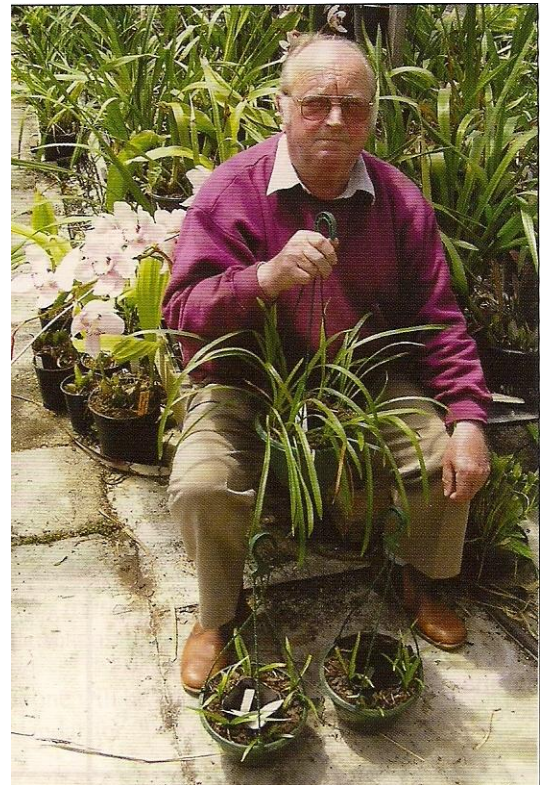
By Rex Johnson, Photos: R. Johnson

MANY growers buy flasks of cymbidiums and grow them on successfully but if you have trouble here is a new idea that may help.

Recently a colleague, Glen McDonald, told me of an idea he had for potting cymbidiums out of flask into community pots. I am now trialing the idea and at this stage think it is worth telling other growers about.

Glen uses two nursery pots, a 200mm and a 100mm, but I have gone one step further and use a Garden City Plastics, 200mm waterwise pot. The principle is to place a small amount of mix - we are using 5-8mm composted pine bark, (although finer mix may be necessary in some environments) into the larger pot and then sit the smaller pot on it the right way up, so that the rims of the two pots are level with each other, forming a ring between the two pots. This is then used to pot up your plants around the ring.

Glen McDonald displays some Donut pots.



Using a 200mm outer pot it is easy to fit 12 or more plants around the ring.

The advantages seem to be that as the centre of the pot is open, it has the same temperature as the outer pot, giving the mixture an even temperature throughout. Most growers find that any plants in the centre of a community pot do not grow as well as those around the perimeter. By using the Garden City Plastic 200mm waterwise pot, water is retained in the base of the pot and air circulation through the mix keeps it damp for three to four days between waterings. Saves on water too! With Glen's two nursery pots they can be placed in a saucer which will have the same effect and you can see when the water is drying up.



Donut pot using GCP waterwise pot.

Orchids Australia, Vol.19 No.1, February 2007

Hints on Potting, Potting Media and Watering

Leo Holguin

The question we hear most often is, "When is the best time to repot?" Some people prefer to pot only in the spring of the year, assuming that this is the growing season and therefore the best time to repot. In some cases this is true. When potting Cattleyas or allied genera one must remember that some species have a definite resting period, and it is probably better, in most cases, to wait and pot when the growing season starts. However, the majority of Cattleyas today are complex hybrids with little or no resting period.

Repotting is usually done when plants are through blooming, and are crowding the inside of the pot or growing over the edge. The best time is when there are signs of renewed root action, such as roots commencing to grow from the base of the new growth. Whenever possible, it is best to wait for the new growth to make up and pot just before the new roots start to show at the base of the rhizome. However, if the medium is broken down or sour, it is best to move the plant into fresh material, as long as it is not in bud. If the plant is in bud and in poor condition, it is best to remove the buds before repotting.

In some cases root action will begin before the growth is made up. It is best to pot at this time to save the roots. In any event, potting should not be done just prior to blooming. This will prevent the flowers from developing properly. Allow sufficient space in the pot for two years' growth. Be sure to tamp the material in nice and firm. In this manner it will retain moisture for a longer period of time, and less watering will be necessary. If the material is too loose, you will have to water more often and you may have to repot before two years.

If you have a very good variety of a Cattleya and you want to keep it growing with as little setback as possible, I would suggest adding what I call an annex. Some people call this a nosebag or piggyback. It is especially good if a plant is over the edge of the pot, starting to root and in bud ready to flower. By using an annex you can save roots and flowers and the plant will grow on with vigor. Later when the plant is well rooted in the annex you can remove it, if you wish, without disturbing the media too much, and pot it on or leave it for another season.

Assuming the plant is in a six-inch plastic pot, the idea is to use another six-inch plastic pot that has had a V-shaped area cut out of one side. Trim it to fit onto the original pot. Next take a piece of

flexible wire about 24 inches long, bend it together at the center and twist the two loose ends together for about two inches, then bend it and hook it over the rim in back of the pot. Bring the wire around the annex and twist the ends together again, pull it up to the rim about two inches and loop over into the annex pot. To tighten, take another piece of wire about three inches long and make a hook on one end. Insert the hook into the rim of the original pot at the point where the two join together, then loop it around the first wire and pull it up tight. Do the same on the other side. With a little patience it will work! This of course is for clay pots, but will work just as well on plastic pots.

In regard to potting media, I think that just about every material that had any possibilities whatever has been tried. At one time, osmunda was used extensively by commercial growers and hobbyists. It is expensive to purchase at present, depending of course, on how far away you are from the source of supply. Most of it comes from Florida, and is still used in some collections.

Osmunda should be cut up into chunks and layered in and around the roots of the plant, packed good and firm. Always moisten before cutting or using. One advantage this material has (assuming you get a good grade) is that it lasts for years. When it is time to repot, just remove the plant from its original pot, cut the osmunda at the back of the plant to fit inside the next size pot and add fresh osmunda in the front. If the plant needs dividing, just cut straight down, leaving osmunda around the root area and pot on. In this way the roots are not disturbed too much and the plant does not suffer any setback. You do not have to fertilize in osmunda, but light feeding helps.

Hapu, the roots from the Hawaiian tree fern, is used from time to time. This is about as expensive as osmunda. Potting is done about the same and lasts almost as long. However, feeding is a **MUST** and waterings should possibly be more often.

Fir bark and redwood bark mixes are very popular because of the ease in potting with these materials. A mixture of one part redwood bark to three parts fir bark seems to work very well. This mixture, assuming you use a good grade and depending on how well it is packed around the roots, has lasted three years! If you moisten the material before using, you will find that it packs better.

Some growers use straight fir bark as well as straight redwood bark with no additives, and have very good results. At one time these materials were inexpensive but, like everything else, the price has gone up. If it continues to do so, it won't be long before it will cost as much as osmunda! For adult Cattleyas, use medium grade bark; for seedlings, use a fine grade. When using this material you must feed at least every other week with a 30-10-10 fertilizer.

Another mixture that has come into use for the past several years consists basically of 3 parts fir bark, 1 part German peat moss, 1 part sponge rock, 1 part redwood bark and dolomite lime. I do not know the amount of dolomite lime used but would assume 10 pounds per cubic yard is about right. There are some modifications to this mix. Some growers add other ingredients, some less, depending on their area and success in growing in this type of mix. Fertilizing with a 30-10-10 is recommended.

Experiments with walnut shells in combination with other materials is going on at present and there should be more information in the near future.

One question that is often asked is, "Do you water Cattleyas soon after you have repotted them?"

We water our plants within a week after they go back into the greenhouse, sometimes sooner. For example, if newly potted plants are put back in the greenhouse today and that house is to be watered tomorrow, they get watered!

I think the assumption is that if you just spray newly potted plants overhead during the day and keep them on the dry side, it will encourage roots to develop. However, if you repot the plants at the right time the roots are already developing!

Remember, every grower has a different method of growing. Obviously, if a plant one pots has lost all its roots and has no new growth starting it seems to me that it would be very difficult to force new roots out of the rhizome. In such a case it may be better to set the plant in a shady spot and keep on the moist side until growth develops, then resume watering normally.

It is difficult to tell people how to water their plants. It all depends on where and how they grow, air movement, high or low humidity, light conditions, etc., etc.

Normally, if the plants are potted firmly, once a week for 6 inches and up is enough, twice a week for 5 inches and under. It is suggested that plants 6 inches and up should be on one bench and smaller plants on another for easy watering. Plants should be watered thoroughly so that water runs out the bottom of the pot.

One has to be careful at times not to overwater as it will cause root rot. I think more plants are killed from overwatering rather than underwatering. When in doubt wait a day or two.

I think sometimes we assume that Cattleyas need a lot of water because we hear they come from the jungles where it is hot and humid. This is not always the case. Plants grow on tree limbs and in the forks of limbs. When it rains heavy the roots take up the water and store it in the pseudobulbs, these act as reservoirs for the dry days ahead. The roots dry out after the rainy season.

When we replot a Cattleya we change its environment in that we encase the roots in some sort of media where they do not dry out as rapidly. So therefore we must not overwater!

When you see a Cattleya plant starting to turn yellow, pseudobulbs shriveling, leaves turning leathery and dehydrated, it is because it has lost its roots, most likely from overwatering. The reason it turns this way is because it has used all the water available in its pseudobulbs and leaves. There are no live roots on the plant to take up water.

So it boils down to the fact that if you maintain a good root system on your plants you should have healthy, vigorous plants and you can only achieve this by proper watering!

Another question asked is can one use overhead watering or moistening systems on a timer?

Overhead watering or moistening with a permanent system is alright if used properly. Again it depends where you grow - the desert or the seashore! Assume your system is on a timer. You are away for a full week. During that time it rained on and off or there was a heavy fog and there was no sunshine to dry out the greenhouse. Imagine how saturated with water the plants would be!

We use this type of system for watering and misting on hot dry days. When the house is in bloom we wet the walks and benches down by hand when humidity is low.

Most of our greenhouse floors are covered with pea gravel. We have no forced air going through the houses. When the gravel is dry, the humidity or moisture content is low. When the gravel remains wet, the moisture content in the air is just about right. You can use this as a guide if you have no automatic controls.

I hope that the above suggestions will be of some help to you. However, most growers have their own methods of growing and you will have to learn by experimentation as to just what method will work for you in your particular area. Happy Orchid growing!

Orchid Digest, March-April 1984

Understanding *Phalaenopsis* and *Vanda* Culture

By Lance Birk

Over the years there has been a widespread belief among orchidists that warm growing orchids were better left to people who lived in the tropical climates or to those who had separate hothouse conditions in which to specialize in these types only. During the past 15 to 20 years such great progress has been made in hybridizing and knowledge gained in growing, that, while the belief is still there, the necessity no longer exists to grow those warm genera in the hothouse. In fact, most tropical orchid species can very satisfactorily be grown in the intermediate greenhouse. Some adaptations might have to be made but, in most cases, the warmer orchids will adapt to the cooler climate, rather than vice versa. With the newer hybrids this is certainly the rule rather than the exception.

Phalaenopsis and Vanda are two of the most rewarding genera of the warmer orchids and most orchid growers have at least one or two of each. I have heard many people say that they would like to have more of either of these types but they just don't have the right "conditions." I think "understanding" would be a better word for it. After all, so much is written about the necessity of high temperatures both day and night, plus the very high humidity, extra shading, increased air movement, freedom from roof drip, crown rot, etc., that it is no wonder a person would assume that he didn't have the correct greenhouse conditions. Unfortunately, too many growers are too quick with their assumptions and when they place their Phalaenopsis or Vandas in their house, and they don't do too well, they chalk it off to an unsuitable climate without ever giving it a second thought.

First of all, think about the articles you have read concerning the natural conditions in which Phalaenopsis or Vandas grow. If you will recall, the air is saturated with humidity, it rains frequently, it's *always* hot, the air is always moving, the sun is bright and the Vandas are found at the tops of trees and the Phalaenopsis are at the bottom. In a conversation with a lady who lives in the Philippines I obtained some interesting information and got a better understanding of warm climates. One contradictory point was that a large number of Phalaenopsis plants grow naturally in the full sun. Not only that, but during the rainy season the crown many times will rot out and then later grow back, many times producing two leads. People living in the tropics often grow their Phalaenopsis along with their Vandas right in full sun. Now, if these plants in the tropics will take full sun, why shouldn't they take 30% to 50% sun here in our greenhouses? Is it really necessary to shade our Phalaenopsis plants so much? On the other hand, could this shading be detrimental to them by letting them become too soft and susceptible to many kinds of rot infections? Practically all orchids benefit from as much light as we can give them, short of burning, and reward us with better growths and more flowers. One other point was that they rarely water their plants in the tropics as the natural rainfall will do it for them, or the humidity will keep them moist. Since the humidity is so high at all times frequently their plants are covered with a roof of sorts and not watered for weeks at a time, and then, only lightly sprinkled. Here we make up for the lack of humidity by more frequent waterings. Our attempts to maintain humidity are usually not adequate, as explained later, so we pot our Vandas in large bark and water them often. Phalaenopsis, having more fleshy leaves, are watered frequently but not as much as Vandas.

Now, taking the above into consideration and clearing our minds of previous teachings, let's try to grow a Phalaenopsis like a Cattleya. Since each greenhouse has its own peculiarities, it is hard to lay down a set of rules to follow so each person will have to make their own modifications to suit their own climate. If you are a "wet" grower in clay pots, you'll be quite different from a "wet" grower in plastic pots. To begin, you should pot your Phalaenopsis in the same type of pot that you are used to. I would suggest that you also use the same mix as used for your Cattleyas, at least to begin with; you can change later if you wish. The same watering schedule may be used unless you are a "dry" grower in clay pots, in this case the plants surely wouldn't get enough water. If the leaves become limp and wrinkled you can be assured that this is a sign of insufficient water, that is, if the roots are not damaged. On the other hand, I have found that it is difficult to overwater a correctly potted Phalaenopsis plant. If you have just acquired the plant and it is a dark green, by all means, place it in a shaded location in your greenhouse then, gradually, move it out into a bright spot. You might even want to try the brightest spot. A good rule to follow is to learn from the previous grower exactly what the conditions were that it was growing in and, also, what the watering schedule was. It would be a mistake to grow a "wet" plant "dry," or vice versa, because the change from vigor to weakness would probably be so gradual as to camouflage the true cause and any attempt to revive the plant would only cause confusion.

I have seen Phalaenopsis plants grown in practically every type of mix available, and some that aren't available, and both in plastic and clay pots. I have seen them grown both well and poorly in all mixes or pots which should only emphasize that you should try to adapt them to your own conditions, mixes and pots, rather than try to grow them like someone else, even though they do beautifully for him. The only exception here should be if you are growing them in his house. I grow in both clay and

plastic pots, in medium fir bark, and can see little difference; of course, the clay pots are watered more frequently than those plants in plastic. I have received plants potted in many different mixes but, after an adaption period, I replot them into my regular mix and pots.

I have recently completed a fiberglass greenhouse in which I have placed all of my Phalaenopsis and Vanda plants, some Cattleyas, Paphiopedilums and other genera, along with some seedlings of several other genera as well. The conditions of this house are very close to being warm but, by lowering the night temperature a few degrees, it is intermediate. The minimum night temperature is 65 ° to 68° in the winter and it runs up to 90° or 95 ° during the summer days. Usually the humidity doesn't reach much above 60%, when it does there seems to be a greater incidence of molds and fungi. I am a great believer of good air movement and towards this end I have installed a large "flychaser" fan suspended from the roof, which keeps things pretty well churned up.

So little is ever said about good air movement, and since so many greenhouses have such insufficient "air," most growers will never know the real benefits gained there from. Because of the fact that in order to maintain humidity we must either keep our house closed or else install a humidity system, we are faced with a situation of either too much air, or too little. With a closed house we are faced with a problem of molds and rots and with a humidity system, which allows us to have a cooler drawing outside air, we usually let in too much dry air which in turn causes problems with the humidity system running too frequently. One method to overcome this is by having good air movement inside the house. A good understanding of air movement may be had by going outside and observing trees and plants in several different locations. How often, during the year, is there ever a total lack of air movement? Almost never! Leaves are continually moving, sometimes more, sometimes less. Look around and observe. Also, notice how soon potted plants outside dry out; much sooner than their counterparts inside the greenhouse. Lower humidity will suck some of the moisture out of the pots, but it takes air movement to move it away from the plant. Orchids outside on slabs can be watered daily. How about those inside the greenhouse? By keeping the air inside moving well we can keep down molds and rots. How often do plants outside develop molds, even on those muggy summer days? After seeing how it is "in nature" look around inside your greenhouse and see just how many leaves are moving or spikes are swaying. If the air is pretty still you should seriously consider buying a few more fans to start things moving. If you need more convincing, go outside and look at your outdoors orchids again.

A method normally used in greenhouses to provide the correct atmosphere is with the use of a cooler and humidifiers. When properly engineered this system is very effective, but is it totally necessary? First, let's look at what happens. When the temperature rises, the humidity falls and the humidifier goes on. As the temperature keeps increasing either the vent opens or the cooler starts. In either case, humidity is being lost out the opening and even with a good arrangement chances are that the humidity will fall markedly. Soon, though, the vent closes or the cooler stops and then your humidity starts building up again. Still assuming that you have an efficient system, you say that this is fine and in most cases it is. But, what happens when you have too much humidity? What about the time during which the vents are open or the cooler is on, which, by the way, in a great many cases, is the greater part of the day!

There are often many days, even weeks, during the year when we are unable to water because of weather conditions. In some locations this usually occurs during the winter, in others, during the summer, consequently, we are unable to correctly water our plants during these periods mainly out of fear of rot. Of course, these usually are the days when the humidifier won't go on, nor will the cooler, because they are foggy, cloudy or overcast days. Our plants can't use as much water during these periods so about all we can do is hope for sun. Or else install more fans! With sufficient air movement the outside weather conditions should have little effect on your watering schedule. When really good air is provided your plants they will not stay wet very long. As the circulating air moves through the pots it will remove the moisture quickly and not allow your plants a chance to develop root rot. How about going one step further and setting up the temperature at which the vents open or the cooler turns

on. Instead of 80° or 85 °, why not set it up to 90° or 95°? Since the cooler will turn on at a later time, we don't have to worry about losing much humidity. When it does go on, it will not be for as long a period. A great majority of our plants now in the intermediate house tolerate these high temperatures in nature anyway, so we might be doing them a favor, too. Another plus for the air circulation is that while it dries the moisture from the pots, etc., it is also absorbing heat from inside the greenhouse, which also will delay the vents opening or cooler turning on.

Phalaenopsis and Vandas are two genera, which really benefit from these mentioned conditions and in this new greenhouse I have gone one step further and provided them with a Saran shade cover of 47% which lets in 3,500 footcandles of light. This is quite a lot of light as most Cattleyas are grown in 2,000 to 2,500 footcandles. To illustrate how adaptable Phalaenopsis plants can be, I moved about 200 mature plants, plus several hundred seedlings of different genera, into this house from one of a maximum of 1,800 footcandles, with absolutely no ill effects. Of course, some credit should go to the diffusing properties of the fiberglass.

So as not to give the impression that this is the only way to grow Phalaenopsis, I would strongly recommend a trip to the Arthur Freed orchid range to see some of the most beautifully grown Phalaenopsis plants around. In talking to Hugo Freed I found that they grow their plants with a minimum night temperature of 65 ° and let it run up to about 90° during the summer days. Occasionally there will be some really hot days, in the 100' s, and then all they can do is wet down the walks to maintain their humidity, which they try to keep around 50%. There is no humidity system so they often use the hose on the walks even when the temperatures are not so high. At 9:00 a.m., on June 29 with a light fog, the footcandle reading was from 750 to 900 but, since their Cattleya house had the same shading, I would guess that about 2,000 footcandles reach the plants on a sunny day. The greenhouse itself is quite large and holds a tremendous amount of air which is kept well circulated with turbulator fans. Hugo says that they water heavily and then let the pots get just moist before watering again, and they feed lightly, regularly. Of course, just giving the details will not convey how remarkably well their plants grow - a visit is a must.

Some of the problems encountered in growing Phalaenopsis seem to be universal, yet, I don't believe the causes are all the same. Many people in the Los Angeles area have difficulty with bud drop and practically all blame it on the smog. While I am inclined to believe this to some extent, I wonder if there might be other causes as well. I have noticed bud drop when temperatures drop, either during the day, or particularly during the night. I don't have experience growing in smog, but I do have bud drop at times which seems to occur mostly during overcast days when the cooler doesn't operate bringing in outside air. This was particularly noticeable in the old house, which was very small and had an insufficient volume of air for the amount of plants I had in it. I should mention that the actual yellowing of the buds will not be apparent for several days. If the smog was very heavy on Monday and the buds start to yellow on Tuesday, then smog was not the culprit. To illustrate this, I had a large volume of raw natural gas leak into my greenhouse and I lost virtually every flower and bud, but the effects didn't show for at least four or five days. I would suggest that a written record be kept of each time bud yellowing occurs and notes made of conditions during the previous five, six or seven days. The most frequently given cause of bud drop is an incorrectly burning heater, so this should be checked first. A weakly grown plant could be a cause of bud drop as could be one potted in a souring mix. The actual causes could be a number of different things, occurring together or separately, and an individual should keep these notes rather than to blame it on Demon Smog.

Leaf yellowing is another problem with Phalaenopsis although it is not as prevalent as bud drop. Practically all of the above causes could apply to leaf yellowing but would have to occur in greater proportions. Overwatering, also, can cause leaf yellowing. Many times when a Phalaenopsis plant is repotted it will lose a leaf or two. I have found that when I remove too many roots when repotting many of the plants will lose their lower leaves. I used to remove about 75 % of their roots when repotting, to make them easier to pot, but lately, by only removing the dead roots I have all but eliminated this. Just recently I believe I have found another cause of leaf yellowing. In examining

some of the yellow leaves with a 10 power magnifying glass, I found a little brown mite. Taking it in the house to get a better look under the microscope, I found another critter that only showed up under 50 power magnification. The first was dark brown with a small black dot on its back, and can just be seen with the unaided eye. The second was almost transparent and as yet I haven't identified either one. Since I found them only on leaves that were starting to yellow, I don't know for sure if they are responsible or not, but they sure are suspect. I have sprayed twice with Kelthane but have not yet eliminated them totally. One last cause of leaf yellowing can be by mechanical injury which would let rot into the tissue.

Crown rot, while not a problem with night temperatures above 65 °, can occur at different times and usually is traceable to water in the crown, or mechanical injury. When I had my plants in another house with a night temperature of 55° to 60° I did have a problem with roof drip and crown rot. Since moving into the new house I have some plants which are continually dripped upon and haven't had this problem. I would think that low temperatures are to blame in most cases, along with the moisture. I know of one collection of several thousand plants that was grown very hot and humid, the night temperature never went below 75 °, and when the heater went out for a couple of nights the entire collection was lost even though the temperature probably didn't go below 50°. Here I would guess that 25 or so degrees was too severe of a drop. If you do have your Phalaenopsis in the intermediate house, just be sure that they don't get dripped on. If you do experience crown rot and apply immediate action by soaking the plant in Natriphene, you can save it.

Phalaenopsis or Vandas should be repotted when they outgrow their pots, or when the mix has started to break down. Most mature Phalaenopsis can be grown in 6-inch pots although some of the really large plants will need a larger size. Because of the large root masses of both Phalaenopsis and Vandas, they should not be potted small as they will too soon outgrow their pots and necessitate too frequent repotting. Neither genera likes to be repotted any sooner than is needed. Vandas are usually overpotted because of their rampant root structure, which never seems to like pots anyway. A large bark size, such as ¾ to 1 inch is used very successfully in clay pots, and the plants really seem to take off when their roots attach themselves to the bench. A well established Vanda hybrid will be almost in continual bloom. The advantage of the larger bark size and clay pots is that the plants can be watered more frequently without fear of root rot, as they will dry out sooner between waterings.

When growing seedlings I find that the combination of plastic pots and 1/8 to ¼ inch seedling bark is a good one, as the roots will not dry out, nor will they be overwatered. I have never found that seedlings of any genera, for that matter, like to dry out, and in fact, mine receive water almost every day and are fertilized quite frequently. While Phalaenopsis seedlings are very quick to bloom, Vandas are painfully slow; however, the reward is well worth waiting for and, as mentioned, an established plant seems to be everblooming. After the seedling stage, the plants should be treated as mature plants, that is, when they have outgrown their seedling pots, not necessarily when they first bloom.

When Phalaenopsis have finished blooming the spike should be cut, just below the first flower so that side branches will be initiated. This practice is followed by many and as long as the plant is in good health it will pose no problem. I have had certain plants in continual bloom for over one year without detrimental effects; however, I wouldn't recommend this practice. When pushing Phalaenopsis blooms by the use of heat you can get them to bloom sooner but the substance will be lacking and the flowers will not last as long. On the other hand, when the plants are grown in high temperatures continually they will grow faster, bloom sooner and the flowers will be of the same substance and last just as long.

Growing Phalaenopsis and Vandas, as well as all other genera of orchids, requires a certain amount of time, attention and understanding. No orchid can grow well if neglected but, when cared for properly, the rewards are quite satisfactory. Phalaenopsis and Vandas are two of the most rewarding.