



# Manitoba Orchid Society

For the Love of Orchids Newsletter

**Next Meeting: 20 April 2008**  
**Salle Académique, Rm. 1531**  
**St-Boniface College,**  
**196 De La Cathedrale Av.**

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## **Novice Programme**

Questions & Answers by a long-time  
orchid grower.

**Starts at 1:00PM**

## **Regular Programme**

A presentation on Paphiopedilum  
orchids by Joe Kunisch of Bloomfield  
Orchids

**Starts at 2:00PM**

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## **Bring Plants for Show & Tell**

**There will be no selling of plants by members at the April meeting.**  
Goodies will be provided by Barb Tagg, Phyllis McCaskill, Sheila Pilgrim and Bonnie Davies.

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Website: <http://www.manitobaorchidsociety.ca>

Executive email: [president@manitobaorchidsociety.ca](mailto:president@manitobaorchidsociety.ca)

Newsletter email: [newsletter@manitobaorchidsociety.ca](mailto:newsletter@manitobaorchidsociety.ca)

**Submission deadline 24 April 2008 for May 2008 Issue**



The Manitoba Orchid Society welcomes Darlene Stack.



**April 20<sup>th</sup>** General Meeting: Joe Kunisch of Bloomfield Orchids will be speaking on Paphs—They will be bringing our pre-ordered plants, and selling additional plants.

**April 26-27** C.O.C. Meeting, in conjunction with Ottawa’s show “Orchidophilia” <http://www.ottawaorchidsociety.com/>

**May 3-4<sup>th</sup>** Ever Spring Open House at 2868 Pipeline Road Call 338-2340 for details.

**May 25<sup>th</sup>** General Meeting: Stig Dalstrom of Selby Gardens will be speaking on Orchid Conservation.

Novice Meeting: Stig Dalstrom on An Overview of Orchid Nomenclature.

**Note this will be the fourth Sunday in May, to avoid the long weekend.**

**Help Needed!**

We are in need of someone to bring the sound system to the general meetings. Please consider helping out with this important component of our programs.

**Hearts & Flowers**

The MOS sends best wishes to Sue Ward, who is in St. Boniface Hospital recovering from a build-up of chest cavity fluids, complicated by C. difficile. Sue should be home by mid April.

The MOS sends best wishes to Irene Landry, who has been undergoing cancer treatments and is doing well.

Cesar Gorre passed away in the Phillipines, recently. The MOS sends its sympathies to his wife Bernice, daughter Mhelanni, and the rest of their family.

Congratulations to Jason & Suzie Lin, who welcomed the safe arrival of their first child, a son, Patrick, in January.

If you hear of any good/bad news regarding members or their families, please call Morganne Jerome and let her know.



To Ed Cormier, Rachelle Ginsberg, Joyce Jaworski, Jim Roy & Garnet Ward for bringing flowering plants to the March Show & Tell.

To Kimberly Pronyshyn for her donation of a Pleione to the March raffle.



The Executive encourages all members to provide feedback, comments, suggestions by filling out a comment sheet available from the Secretary at all General Meetings.

All signed comment sheets should be returned to any member of the Executive. They will be reviewed at the next Executive Meeting and you will be informed of follow-up action taken.

## **2007/2008 Executive**

### **Elected**

President Dave Moran  
Past President Joyce Jaworski  
1st V.P. Kyle Lucyk  
2nd V.P./Show Chair Lorne Heshka  
Treasurer Garnet Ward  
Secretary Morganne Jerome

### **Appointed**

Membership Gary Jaworski  
Social  
Public Relations  
Special Orders Jim Roy  
AOS/COC Rep Kevin Duerksen  
Library Lilianne Foster  
Newsletter Robert Parsons  
Website Robert Kato

## **Editor's Message**

*Robert Parsons*

Our 2008 show, In Praise of Native Orchids, is behind us. I will include photos and lists of awards from the show in the May newsletter. It will make this month's way too late if I try to include them in this one. I have not yet heard the final show figures, but I believe our paid attendance was about six thousand dollars (half of which will go to the "Friends of the Conservatory") and our commission from vendor sales was about three thousand dollars, for a total of six thousand, before paying our expenses.

While the show was reasonably successful, the attendance is down for at least the third consecutive year, a trend we'd certainly like to halt! With that in mind, we will be having a short session of brainstorming of suggestions for improving future shows at the April meeting. So please think about this and come to the meeting with your suggestions.

Other than that, I don't have much to report, but I would like to briefly discuss the following items because they are all deviations from the norm. Firstly, the Ever Spring open house, usually held in February, will be held on the weekend of May 3-4. It will probably be past by the time you see the May newsletter, so make a note on your calendar if you plan to attend. Secondly, the May meeting will be held a week later than usual to avoid conflict with the long weekend. Thirdly, the June meeting will be held one week earlier than usual to accommodate the tour of our June speaker, Olaf Gruss. The observant among you will notice that's only two weeks between the two, thus the submission deadline for the June newsletter will be the same as the May newsletter and the June issue will not include minutes of the May meeting.

*Editor's note: The following is from the March 2008 issue (Vol. 32, #6) of the newsletter of the Orchid Society of Alberta.*

## **Virus Testing: Finding the Invisible Enemy**

By Lynne Copeland

Do some of your plants make you... suspicious?  
Do strange geometric patterns appear on the leaves, or are there odd breaks in the colour of the blooms? Are there plants that just never thrive, in spite of your tender loving care?

Well, my friends, those plants may be virused. Viruses in orchids are an all-too-common occurrence, and the symptoms can range from none at all, to a mild case of leaf spotting, to a slow, ugly death. What's more, virused orchids are infected for life, and the infection is incurable. A trip to the compost heap is the best fate for a virused plant, before it shares its invisible friend with the rest of your collection.

Up until now, Alberta growers had to send leaf samples to the United States for testing, to confirm an orchid was virused. Not anymore! Agdia, a major producer of agricultural testing supplies, now makes "Immunostrips" for virus-testing individual plants at home. The strips detect the two most common viruses of orchids, Cymbidium Mosaic Virus (aka Tobacco Mosaic Virus) and Odontoglossum Ringspot Virus. (Note! In spite of their names, these viruses infect all orchids and are responsible for most virused plants in collections.) The Immunostrips make it easy to test plants without any special equipment. A piece of leaf, bloom or root from the suspect plant is placed in a small plastic bag pre-filled with a special buffering fluid, then the sample is crushed until its juices mix with the buffer. The end of the Immunostrip test strip is placed in the bag with the "juice". After 30 minutes, the strip reads positive or negative for each of the two orchid viruses.

I have been canvassing some of our OSA members and there is a lot of interest in a group order of Immunostrips through the Society. Including shipping from the supplier in the US, the strips cost about \$4.25 each, i.e: it will cost \$4.25 to test one plant. The test kits need to be kept refrigerated and are good for one year from the time of purchase if properly stored.

Agdia has sent me a few sample test kits to try. I'll bring a couple to the March meeting (Alberta) and we can run a test there, to see how they work. If anyone wants to add to our group order, let me know at the meeting, or e-mail me at [OSAnews@xplornet.com](mailto:OSAnews@xplornet.com). Look on the bright side. Culling a few virused plants will make room for all the new ones you bought at the Show ...

*Lynne Copeland added the following in response to my inquiry:*

*"Regarding those virus tests: the makers, Agdia Inc., were more than happy to send me five free tests to try out, so we did a little plant testing demo at our March meeting. They work great, and our group order now totals 700 tests. If your Society would like to do the same thing, let me know ... I'll give you the e-mail address for the Agdia people, and I'm sure they'll send you some tests as well."*

*Would there be any interest among our society?*

## **Ploidy: What is it and Why do we Care?**

*By Bob Lucas*

Have you ever purchased a plant with 4N on the name tag and wondered what that is about? Welcome to the wonderful world of chromosome count.

Every cell of living organisms is a packet of chromosomes, which provides the organized structures of DNA and proteins, the so-called building blocks of life. The chromosome count varies among different organisms. For example, the human cell normally contains 23 pairs of chromosomes for a total count of 46. Each pair is formed by a contribution of one by each parent. Pathologies develop when cells end up with missing chromosome pairs.

Ploidy refers to the set of chromosomes that is contributed by each parent in a cell, and is represented by the letter N. Therefore the ploidy of a human is 2N and we are characterized as a diploid.

Plant species, in contrast, have 19 pairs of chromosomes for a total count of 38, since most species are also diploids or 2N.

However, orchids also have the ability to form cell structures with different numbers of sets of chromosomes. A tetraploid, 4N, which can occur naturally, as in *Phal. equestris* 'Riverbend,' has double the normal number of sets so that each cell has a chromosome count of 76 (4 x 19). Other important ploidy counts are 3N and aneuploids that have an uneven number of chromosomes.

So who cares? First, a 4N plant that carries double the number of chromosomes in each cell produces more flowers, bigger flowers, a better presentation and a more standard flower shape. In addition, according to Dr. Dean Stock, breeding with a 4N plant generates seedlings with a more rapid rate of growth and fewer months to flowering.

The second reason ploidy is important is that it has serious implications for sterility. Without getting too complicated, think of a 2N x 4N cross. The 2N plant contributes one set of 19 chromosomes and the 4N plant, two sets of 19 chromosomes. The result is a 3N plant with 57 (3 x 19) chromosomes per cell.

While this high count may produce high-quality flowers for the same reason that a 4N plant can, it leads to complications in future generations, if it is bred to a 2N or 4N plant. Since each parent must split its chromosome count to match with the other parent, an uneven count is problematic and can result in sterility.

Furthermore, even if the cross is successful, it will typically generate an aneuploid that will definitely be sterile. Thus, the breeding line will peter out quickly. This trait is particularly troublesome as many crosses were made in the past with 3N plants before the importance of ploidy was established.

Therefore, the most desirable plants for breeding are 4N for two reasons. First, they have the most desirable characteristics noted previously, and the crossing of two 4N plants generates another 4N plant (as each plant contributes 2 sets of chromosomes). Thus, one can embark on a sequence of breeding for particular traits with the confidence that the progeny will continue to be fertile.

There is a darker side to the issue of ploidy. Have you ever wondered about the number of Phrag. crosses made with 2N and 4N parents? This might be a deliberate attempt of certain hybridizers to maintain control over a breeding program, as the resulting progeny will be 3N and most likely sterile.

Nature produces 4N plants randomly and infrequently. Fortunately, it is possible to create a 4N plant by treating protocorms in flask with a chemical called colchicine. This chemical interferes with the normal cell division so that when nucleus division occurs all cells have double the number of chromosomes. Thus, a flask of 2N seedlings can be converted into 4N seedlings with superior characteristics.

Unfortunately, the only certain way to ascertain the ploidy is to count the chromosomes under a microscope, something that the average person cannot do. However, there are hybridizers who do count and share their knowledge. One of the better known ones is Dr. Dean Stock who has identified the Ploidy of well-known Phalaenopsis. His list can be viewed on the Hybridizer's forum at [www.thehybridizersforum.com](http://www.thehybridizersforum.com).

For other genus, you must rely on the reputation of the seller. Unsuccessful treatment can result in plants with low vigor and deformed flowers. An example of a reputable hybridizer is the Eric Young Foundation that has a proven track record for treating 2N Phragmipedium species and hybrids and converting them to 4N plants.

For additional information on ploidy as it relates to Phal. breeding, see the article by Dr. Dean Stock posted on the Bedford Orchids website at [www.bedfordorchids.com](http://www.bedfordorchids.com)  
*This article first appeared in the January 2008 SOS Newsletter, Volume 25 #4*



## **Conservation laws threaten rare orchids**

Pity the poor orchids. The very laws designed to protect these rare plants are threatening their future by making it more difficult for researchers to study them.

Botanists are calling for reform of the Convention on International Trade in Endangered Species, which blocks the exchange of specimens between herbariums around the world. They claim CITES's purpose is being undermined by red tape.

All orchids are listed under CITES as protected species. The rules are designed to stop them being plundered, and require a complex paper trail to be set up for any exchange of orchids, even between research labs. "Botanists are giving up on orchid research because it is so difficult to get access," says David Roberts of the UK's Royal Botanic Gardens in Kew.

On 6 February, he is publishing a study showing that orchid collection from Brazil and Costa Rica - key orchid habitats - has fallen since CITES came into force in 1975, while collection of unlisted plants has soared (*Proceedings of the Royal Society B*, DOI: [10.1098/rspb.2007.1683](https://doi.org/10.1098/rspb.2007.1683)). "Many orchid species which face extinction are going unstudied because of red tape," agrees Pat Raven of the Missouri Botanical Gardens.

*Originally from issue 2642 of New Scientist magazine, 08 February 2008, page 6, and taken from the March 2008 issue of the Central Orchid Society Newsletter.*

## **Orchids in Terrariums**

*By Claudio Rossi of Cloud's Orchids*

### **Introduction**

I continue to receive more and more requests about growing orchids inside a terrarium. I am suspecting that there are many more people making the transition from growing on the windowsill to a more enclosed space where they can control conditions like humidity much better. One of the advantages of setting up a terrarium is the fact that you can create a self-contained miniature environment quite easily. However there are several factors to keep in mind when doing so, hence I have put together this web page in an effort to address these issues for the orchid grower. If you have a question that is not addressed here, please let me know and I will do my best to incorporate the answer here for everyone's benefit.

### **Preparing The Tank**

If you are using an old aquarium, there is fairly little to do. Provided it was a fresh-water tank, then you will need to just clean it thoroughly with a mild dishwashing soap, and rinse thoroughly. If it was a salt-water tank then you will need to repeat this several times, and possibly let it sit full of plain water for a couple of days in between cleanings. The reason for this is that any residual salt will definitely cause you grief down the road. Hence it is best to deal with this right up front.

### **Placement**

Choose a location where direct sun will never hit the tank. The glass of the aquarium will amplify the effect of the sun's rays resulting in more of an oven, than a terrarium. Leave at least 1 inch between the tank and any window surface to buffer the temperature changes happening outside. If you only have a location with minimal direct sunlight, you might consider adding some white reflective background to offset the amount of light hitting the tank. It may be wise to place a min/max thermometer inside the empty tank for a couple of days once you have placed the tank in its intended location. This will avert any nasty surprises down the road, and avoid needing to relocate after the tank is set up.

### **Substrate**

I would avoid using soil, sand or gravel as a substrate for your tank. It is difficult to do any maintenance once these materials are in place, and they can easily sour the environment. I would sooner use a layer of egg-shell crate to serve as the base to build on. This will provide air below the pots, and keep the plants above any water that accumulates on the bottom. Then if you ever need to do some housecleaning, it is easily removed and the tank can be scrubbed before setting it up again. Egg-shell crate is the material used as fluorescent fixture covering. It has spaces about 1/4 inch square, and it is about 1/2" high. It can easily be cut to size with a jigsaw, utility knife or pruning shears.

### **Props**

If you want to create a realistic snap-shot of the forest floor, you will probably want to introduce a few props for things to grow on, or serve as a background for choice plants. Remember that everything that goes into the tank should be scrutinized carefully, and cleaned properly before entering. Some good choices for props would be driftwood, such as can be purchased from an aquarium store. Other interesting surfaces can be virgin cork because of its rough surface. Even a couple of these placed up against the back can look like the base of a tree trunk growing into the forest floor. Rocks can also be used quite effectively. If you collect your props from the outdoors, be sure to clean them properly. You can use boiling water with some bleach added to sterilize the props, and then rinse them thoroughly. Don't do this in an enclosed space, as the bleach fumes will be overwhelming!

### **Companion Plants**

It is always more effective if you use at least a few companion plants that are not orchids to make the environment more varied and interesting to the eye. Choose plants that remain very short, or are very slow growing. All plant candidates must be able to tolerate high humidity at all times to make suitable candidates. Some good choices are low ferns, ivy, peperomia, short nephthytis, fibrous-rooted begonias, rhoeo, selaginella, short crotons, small dracaenas. You can find many of these that are variegated or spotted with white, pink or red. These choices can provide some color when your plants are not in bloom, but keep them to a minimum, otherwise the setup can look too busy and less natural. Besides the filler plants, you can also use companion plants that normally occur with orchids like members of the bromeliad family. Tillandsias and cryptanthus are great choices and will also bloom, producing very exotic flowers. They can even be attached higher up on the props to really give that realistic jungle appearance. Bits of Spanish moss can add that Louisiana Bayou effect if you drape them from the top of the props. Spanish moss also produces very fragrant tiny flowers as an added bonus.

### **Choosing Orchid Plants**

You need to choose your orchid candidates carefully. For the most part they should be plants that like lower light/intermediate temperature/high humidity. Depending on the size of your terrarium, it makes sense to choose plant sizes that are in scale with the dimensions as well, as it will look more pleasing. Fortunately there are many great candidates to choose from. Miniature candidates are masdevallia, pleurothallis, promenaea, dracula, ornithocephalus, aerangis, angraecum, bulbophyllum, barbosella, leptotes, sophronitis, dendrobium, psygmorchis, etcetera, along with anything identified as a "twig epiphyte" in books. You will also find compact candidates from the genera mentioned above, along with paph species, cochleanthes, phal species, jewel orchids, etcetera. Unless the mature size is clear in a description, it is always best to ask your plant source whether or not the plant is suitable for a small/medium/large terrarium.

### **Assembling The Terrarium**

Place the egg-shell crate on the bottom. Put your props in place. Now place your larger filler plants towards the back and shorter towards the front. Now place your orchids, ideally, so they are not crowded by the filler plants. You can fill any empty spaces with a little sphagnum moss, as it will usually begin to grow under ideal conditions. I would use it in front of plastic pots to help hide them. Initially, the terrarium may look a little disheveled, but don't let this depress you. Allow the plants a little time to adjust and start to grow, and usually within a couple of months things will start to look terrific.

### **Watering/Fertilizing**

It is best to use only rainwater or distilled water for your plants, as there is no way to leach out accumulated salts from the pots. Misting lightly with plain water every 4 days or so should be sufficient. This will be determined by the location and venting. Humid air tends to sink, so little of the moisture will escape unless you have fans going. I would NEVER fertilize more than once a month, and even then only at a very reduced concentration to avoid salt build-up. One eighth of the recommended strength on the label is probably suitable.

### **Artificial Light**

You can use a standard aquarium hood fitted with fluorescent tubes to provide supplemental light if your location exposure is too dark. I would avoid incandescent tubes as they give off too much heat. If you have no choice, then ample venting may be sufficient to dissipate the additional heat.



### **Air Movement**

In smaller tanks, this is most likely not an issue, but larger tanks may require supplemental air movement. This can be provided through small fans purchased at an electronic or computer store, and attached to the back of the tank hood to provide gentle air movement inside the tank.

### **Repotting**

When it comes time to repot, it will be easier as the plants have remained in their primary container. Just pull out the plant and replace the media, and then put in back in place. Don't drench the new media before replacing the plant as a little dryness will help to heal any root damage that occurred during repotting. If your plant is a rambler like many of the bulbophyllums, then you can ignore the need to repot, as it will have attached itself to other surfaces in the terrarium, and will be quite content to be left alone.

*Taken from the February 2007 edition of the Niagara Region Orchid Society Newsletter*



## **Minutes - Manitoba Orchid Society General Meeting March 16, 2008**

*Recorder: Joan Heshka*

### **1. Call to order:**

President Dave Moran called the meeting to order at 2:00pm

Welcomed new member Darlene Stack

Volunteers to bring refreshments for the April meeting - Barb Tagg, Phyllis McCaskill, Sheila Pilgrim and Bonnie Davies.

COC Slide Program on Lycastes - narration by Robert Parsons.

### **2. Minutes of the last meeting:**

Motion by Robert Kato to accept the minutes of the last meeting, as published, seconded by Harvey Keselman, carried.

### **3. Financial report: Garnet Ward**

Garnet presented the financial report - copies available. Motion to accept this report by Garnet, seconded by Robert Parsons, carried.

### **4. Programs: Kyle Lucyk**

Kyle was not present but did submit a list of upcoming programs:

**April 20** - Joe Kunisch of Bloomfield Orchids will be speaking and will bring orchids (Paphs) for sale.

**May 25** - Stig Dalstrom of Selby Gardens will speak on Conservation and may do the novice class.

**June 8** - Olaf Gruss - Canadian tour - presentation on New Paphs from Vietnam and their hybrids. Novice class - swap & shop

**September** - Jason Fischer - will have plants for sale.

**5. Show Chairperson Report: Lorne Heshka**

Lorne gave a report on the status of the plans for the show. Presentations will be by Ernest Geimenhart and Cathy Creger. Denise - asked that members get the show posters out. Lorne will be on radio with Dorothy Dobbie and Duayne Friesen the week-end prior to the show. Kevin Duerksen stated that vendors for the show are available on the web for pre-orders.

**6. AOS/COC Representative: Kevin Duerksen**

Kevin reminded members that the COC show is in Ottawa this year and info is available on their website.

**7. Hospitality:**

This position is still vacant. Please consider helping out.

**8. Library: Lilianne Foster**

Lilianne reported that the new software has been given to Gary for installation. Call her for any books you would like brought to the next meeting.

**9. Public Relations:**

This position is still vacant. Please consider helping out.

**10. Membership: Gary Jaworski**

Gary advised that we have 129 members.

**11. Newsletter: Robert Parsons**

Robert asked members to please advise executive of any information for Hearts & Flowers - so regards may be sent.

**12. Website: Robert Kato**

Website ready Monday March 17.

**13. Special Orders: Jim Roy**

Jim reported that orders must be to him by March 22 for Hauserman special orders. 20% discount applicable - shipping & handling costs paid by MOS - no paphs or phrags or their hybrids.

**14. Raffle draw:**

Pleione donated by Kimberly Pronyshyn and 8 other items were provided for raffle & sign-in prizes.

**15. Show & Tell**

Ed Maza described the plants on the Show & Tell table, assisted by Ed Mathurin.

**16. Adjournment:**

Motion for adjournment - Jim Roy

Note: Minutes of the Executive Meetings are available to be picked up at General Meetings on request from the Secretary.