



The Greater Wooded Pogonia
Official Flower of the Club

The Newsletter of the
AMHERST ORCHID SOCIETY

An affiliate of the American Orchid Society

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The last couple of weeks have certainly been interesting for all of us and rough for some of us. I hope all of you are mostly recovered from Hurricane Irene and are starting to dry out from Hurricane Lee. As you know, we have some events coming up in September and October. The first event is our Sep 18th plant sale at Hadley Garden Center. More information on that appears later in this newsletter. The next event is our October meeting, where we will have an AOS judging. Bring anything currently in bloom and see what they have to say. Also, Oct is our membership renewal month, so keep that in mind as well.

I was unable to attend the August club visit to Keith Tibbetts' house and have not received a detailed write-up about it from anyone. Tom McCurry said that people had fun, ate good food, and saw some nice plants. He also sent me these photos from the event –Bill Arduser



Connie's husband, Bart, chats with another visitor inside Keith's greenhouse.



Marc Gray brought this Miltonia moreliana to Keith's



Here's one of Keith's vandas which he had hanging outside beneath some shade cloth.



Here are two shots of an orchid that Tom got from Keith last year. The tag says "*Oberonia species aff myosaurus.*"



Questions for “ASK BILL” can be given to me at the monthly meetings. If possible write them out. If you prefer you may call me at 413-253-7036, write me at 52 Jeffrey Lane, Amherst, MA 01002-2532 or reach me via e-mail at wa.hutchinson@comcast.net. Answers to written questions may take one or two months to appear. The e-mail questions I nominally will answer within 24 hours or less. Keep in mind that if you are puzzled by a growing problem, etc. someone else is too.

Past newsletters are available as PDF files on the Larch Hill Orchids web page. Go to <http://www.larchhillorchids.com> and click on the Amherst Orchid Society. Additional information may be found on the Larch Hill pages.

Q. Are some orchids short lived? I thought they were all evergreen and long lived.

A. Sorry but not all orchids are long lived. Some orchids behave almost as annuals or at the best biennial, that is grow one year and flower the second year. Disas are notorious for being short lived. There are many others listed in the literature which tends to last only three or four years. Perennial orchids while being long lived can vary all over the place since the term perennial simply means to live three years or more. I have some orchids in my collection which I first purchased in 1972 and they are still going. I have others which just seem to go through a decline and I finally discard them. There is however, no question that periodic division and or removal of the older back pseudobulbs and stimulation of the newer growth with fresh media and a good growing regimen will rejuvenate plants. But unfortunately there are some which behave in unique ways such as the Greater Whorled Pogonia where whole colonies just disappear for several years and then suddenly reappear. This is also true of some Lady slippers. Plants may become dormant and fail to appear for a few years. Always keep in mind when dealing with any group of organisms, it's a little like dealing with French grammar, “The rule only is proven by the exception”.

Q. I've heard you say that you treat your Paphs different from your other orchids when it comes to fertilizer. In what way is this true?

A. Some time ago I found a source of Bull Paph complex Paphs, seedlings and while exchanging information with the grower, Theresa Hill from the Hill Orchid Company she indicated that they flowered Bull Paphs seedlings in 4 to 5 years. In classical culture 7 to 9 years tended to be the norm. First of all the plants are foliar feed and the solution is not added to the medium and the medium is made from four different nutrients but they can not be all mixed in the same container since they will cause a mutual precipitation of the entire mix. Since they grow these by the thousands they mix in 35 gallon trash cans. Since I only grow 200 to 300 I mix in three gallon proportion cylinders which I got from Charlie's Greenhouse supply (they are also available in ¾ gallon sizes). In container #1 I put 2.5 pounds of Grow more poinsettia feed, 20-6-16 and 11 ounces of magnesium sulfate (Epsom salts). In trash can # 2 I put 14.5 ounces of Calcium nitrate-solution grade and ½ pound Potassium nitrate. The injectors have the fertilizers mixed and brought to three gallons. Understand the injectors have water in and a solution hose. I always temper my water with some warm water to avoid using very cold water. So I have a hose splitter which feeds into another hose splitter and one line of the tempered water goes through one proportioner mix and another goes through the second proportioner and on the other side of the system both hoses come together and the four different nutrients are combined and sprayed on the plant foliage. Does it work? The best evidence I can give you is that Ernie Jolin and I jointly purchased a compot of Paph Ho Chi Minh and when Ernie saw them recently he implied that my plants were almost double the size of his.

Q. Just back from the EOC and wonder what Colchicine is, what, if any, is the danger and the conversion of diploids into tetraploids? Can two triploids be crossed and give viable seed. The Eric Young Foundation is doing all sorts of interesting work with some nice results.

A. My first impression on reading your question(s) was well it's only a weeks worth of lecture notes unless I assume everyone in the Amherst Orchid Society has a good base in general Biology and then figures that many of us in the AOS might need some refresher in basic biology. First let's look at the part that asks, What is Colchicine? Colchicine is a derivative of the Colchicum autumnale plant in the Lily family, early chemists and botanists always named compounds on the basis of what they came from rather than chemical structure and hence the term colchicine. The chemical name is several lines long. My colchicum has just finished flowering as I write this. The plant is hardy in New England producing large strap-like leaves in the spring. These die back and the plant flowers in late autumn. Hadley Garden Center usually sells them every fall. An extract of the bulb has been used to treat gout for many years but it is highly toxic and is no longer used. Plant tissue treated with it commonly undergoes a doubling of the chromosome count. It can be used during mitosis or meiosis to initiate the doubling. For the unsure mitosis consists of two processes. One part is the replicating of the DNA to double the chromosome number and then a pulling apart of the new and old chromosomes with a second phase of producing a new cell plate between each chromosome mass. In mitosis the colchicine, usually used in a two to three percent solution, is used to soak the tissue with the dividing cells and it inhibits the formation of the new cell plate resulting in double the number of chromosomes in that cell. Plants with an increased chromosome count exhibit an increased vigor, larger flowers with more substance and usually a somewhat more compact, heartier plant. In Paphiopedilum you can often see in some of the tetraploids a plicate foliage, especially in some of the Winston Churchill progeny. In meiosis the part of the plant which is treated are the developing microspores and megaspores, pollen mother cells and the egg mother cell. In this process the first step is the pairing of like chromosomes. Mother chromosome 1 pairs with father chromosome 1 and so forth. Again the treatment depends upon arresting cell plate formation prior to the final formation of pollen cells and egg cell. For each pollen mother cell four cells will be produced and for each megaspore, egg, mother cell only one cell will be produced. The doubled cells must be now joined and the diploid pollen and diploid egg cell produce a tetraploid zygote which will become the new plant. You need to understand the basic chromosome number of any plant is haploid, half the number of the growing plant with which you are familiar. During the process you must keep in mind that colchicine is very poisonous and therefore you work with protective gloves, etc.

Triploids are another whole process and rely on doubling the chromosome number in pollen cells and then pollinating. Since only one side of the sex cell has a doubled amount of DNA the resulting tissue from such a zygote is $3N$ or triploid. Such plants are called mules and the seed will grow new plants but the parents are sterile to subsequent pollination attempts, hence the name mule. Why bother? Well such plants exhibit a markedly increased vigor, flower size and often are more resistant to infections. It is also important to note that this process doesn't seem to work with animals but only with plants. While this seems like a fairly long complicated process as you note the results coming out of the lab seems well worth it and point towards a quantum leap in the next generation of orchid species and grexes. If the process of mitosis and meiosis seems a little complex, I really skipped a great deal but hopefully provided enough so it is understandable. I have also ignored the need for chromosome compatibility to produce $3N$ plants.

If anyone can use mulching hay, please contact :
Bill Hutchinson via wa.huthinson@comcast.net or
Ellen Field, who maintains our website at: admin@featheredquill.com

The September Plant Sale

Sunday Sept 18, 2011

Again we will be having the sale at the HADLEY GARDEN CENTER, on Rt 9 in Hadley. The sale is the 3RD Sunday of Sept. Set up will start at 9 am and the sale is from 10-3 pm. We will not be letting people in before 10 am. There are no exceptions. We need to have everything in place before we start selling. We are going to be in the back greenhouse again, which is on the right all the way in back. Members will be parking again in the area on the right hand side when you drive in. This is NOT the regular parking area. It looks like a storage area, but is their extra parking area and where extra things are stored. So there should be plenty of room back here. Try to fit in there as many of us as we can so we can save as many of the other parking spaces for the customers. This will actually give us access to the back door of the greenhouse for set up. This back door will be closed during the sale, but will make it easier to get our plants in there. We will also have a table set up for show plants, so bring in those in bloom that are not being sold. This helps sell the plants that are not in bloom. So please come and enjoy. It is a fun time and the more people we have there to talk to people the better. Please invite all your friends and anyone else who would be interested in coming to the sale.

I do ask that any members who will be there to please wear your orchid club T-shirts. This will help in picking out the members and will also help the Hadley Garden Center workers to know who is a member. Please make sure that if you are selling that you understand the NEW process for selling your plants. If you have any questions feel free to contact. **Joe Maciaszek tele: 1-508-344-8492 or email at : Maciaszek@gmail.com**

What WE Need Help With

We will need 3-4 people to man the check out tables. Ideally two to take the plants and take the labels & do up the prices for the money people & two people to take the money. Please show up between 8:30 and 9 am so we can show you what is needed. We also need at least 2 people to help with directing traffic out front and to help with any people who need help either getting in or out of the store and our sale. We do not want to have the Hadley Garden Center workers having to deal with any problems due to our sale. So these jobs need to be filled all day long. We can have people change shifts, but please ask Marc or Joe, if you are unsure what your job is or what you should be doing. We would also like two people to sit at the show table to make sure none of the plants walk. I think due to this being in a nursery/greenhouse that it would be much easier for these plants to walk away. No one up front will be questioning plants going out. We also need people there to just help answer questions of the shoppers and to give out the plant fact sheets. The more plants we have on display, the more plants we might be able to sell. Talking goes a long way and they really enjoy getting our input. We need bags and boxes brought in for the plants. So bring in what you can. Thanks. Any questions contact: **Joe Maciaszek tele: 1-508-344-8492 or email at :Maciaszek@gmail.com**

People who are bringing plants

Anyone is free to sell their extra or unwanted plants at our September sale. The club receives 30% of the sale price; the seller gets the other 70%. If you will be bringing more than just a few plants, please contact **Joe Maciaszek: Maciaszek@gmail.com** and let me know how many plants you are bringing or how many tables you need ASAP. So try to do this before the middle of August. The tables are 4 x 6 or 3 x 6 and a maximum of 2-3 tables each seller for now. We might have more if needed, but I will not know until everyone contacts me. So please let me know ASAP what you might need. Also make sure you have 2 labels for EACH plant you are selling. See the instructions for the plant write-ups.

NEW PLANT SALE LABELING SYSTEM

We are going to try a new two-label system this year. The 3 x 5 cards are NO LONGER needed. So on the plant identification label, which goes with the plant, you should place a sticker marked with your initials, a number which identifies that particular plant, and the price. For example, RW #1 \$25 would be written on Roger West's plant #1. If you cannot get the sticker to stay on the label, you may place it on the pot. You should also make a second label, which includes your name or initials, the plant number, and the price. So this label would also look like RW #1 \$25. We will collect these tags at the check out line and then tally them up at end. These labels will be returned to you for future use. This second tag does not need to include the plant's name, unless you are concerned about people switching out the tags. This new system will quicken the set up time for getting the plants ready and will make the check out process more efficient. The other thing that you can do is to have a master list with the plant names listed in numerical order on one sheet of paper that you can check against after the sale is over. We WILL NOT be checking these at check out time since it really slows down the check out line. If you have any questions or concerns please contact me- **Joe Maciaszek tele: 1-508-344-8492 or email at : Maciaszek@gmail.com**

SPREAD THE WORD!

There is a flyer included within this newsletter. Please make copies of it and post it on bulletin boards in your area wherever plant-lovers might be found. Tell your friends. Advertisement material will be available at Keith's place, also. In early September an E-mailable ad will be sent to everyone whose e-mail address we have. Please forward this to everyone you can think of who might have an interest in growing orchids.

We received this note from Thomas Nelson of the Blue Heron Lady Slipper Co. There was an additional attachment in .wps format that I am unable to include because my mac can't read it. -ed

The purpose of this note is to see if there is an interest in our Orchid Society Cypripedium sale. My nursery rescues native orchids and other interesting plants prior to road reconstruction projects. I have been doing this for 20 years and somehow still manage to continue.

If you wish any information regarding permits or certification feel free to contact me.

I look forward to hearing from you.

Thomas Nelson
Blue Heron Ladyslipper Co.
PO 461
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(507) 301-9643

Upcoming Events

Sep 10, 2011 (Sat) - International Phalaenopsis Alliance (IPA) "Focus on Phals". At the regular meeting of the New Hampshire Orchid Soc. in Bedford, NH

Sep 11, 2011 (Sun) - International Phalaenopsis Alliance (IPA) "Focus on Phals". In conjunction with the North Eastern NY Orchid Soc at a location TBD in Colonie, NY

Sept 18th, 2011 ((Sun) – Amherst Orchid Society Orchid Sale 10AM – 3PM At the Hadley Garden Center on Rt 9 in Hadley

Oct 16, 2011 (Sun) – Amherst Orchid Society Meeting. We will have a registered judging at our meeting for American Orchid Society. They will look at the show table and tell us about the good and the bad of the plants and if any are worthy of being judged for an award. (Membership renewal month)

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To find the bylaws of the Amherst Orchid Society go to:

www.larchhillorchids.com.

Click on **Amherst Orchid Society** and then on **bylaws**.

Note to Members: Submissions for the Oct 2011 newsletter must reach the editor by Sept 26th to be printed.

MONTHLY MEETINGS

Our monthly meetings are held the 3rd Sunday of each month *except the months of August and September*. We usually meet at The Munson Memorial Library 1046 Southeast Street, Amherst, MA. Meetings start at 2 PM. Sometimes there are beginner programs which start at 1:30 PM.



*The Greater Whorled Pogonia
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Bill Arduser, editor
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There is **NO Sept meeting** due to the plant sale. Everyone please come! **Next Meeting: Oct 16th**. Oct is membership renewal month.