



Manitoba Orchid Society

For the Love of Orchids Newsletter

Next Meeting: 16 May 2010
Salle Antoine Gaborieau
Franco-Manitobain Cultural Centre,
340 Provencher Blvd. (at Rue Des Meurons)

Novice Programme

Growing Masdevallias, Restrepias &
other Pleuros in Winnipeg under lights
with Kyle Lucyk.

Starts at 1:00PM

Regular Programme

Restrepia with Duane Erdmann.

Starts at 2:00PM

Bring Plants for Show & Tell.

Plant sales by members are encouraged.

Goodies will be provided by Sheila Pilgrim, Judy Browne, Debbie Robb, and Anne Yewish.

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

Executive email: president@manitobaorchidsociety.ca

Newsletter email: newsletter@manitobaorchidsociety.ca

Submission deadline 20 May 2010 for June 2010 Issue



The Manitoba Orchid Society welcomes Claudia Bergen; Roberta Brotherston; Chi Chan, Lai Fun Chan, Bruno Li Chan; Lindsay James; Shaun Lunz, Ewa Murnicke and Guy St. Godard.



May 16
Novice Meeting "Growing Masdevallias, Pleuros and Restrepias in Winnipeg, under lights" with Kyle Lucyk.
General Meeting
Restrepia. You have seen the colorful diminutive plants on the show table. You have been curious about how easy it might be to grow one. However, you haven't taken the plunge. Time for a change.
Duane Erdmann will share with us just how easy it can be for growers of all setups to add a Restrepia or two to their collections. He will also share thoughts on the taxonomy and classification efforts to date. Having more than 40 different identified and a dozen more unknowns in his collection, he has had the opportunity study and photograph them. Duane has also traveled to Ecuador to see them in situ, which adds conviction and depth to his talk. Join us with an open mind and a desire to expand your collection.

Hearts & Flowers

Congratulations to Lorne Heshka for his article on the "Western Prairie Fringed Orchid" in the March 2010 issue of Orchids (Vol. 79 #3), The Bulletin of the American Orchid Society.
If you hear of any good/bad news regarding members or their families, please call Phyllis McCaskill and let her know.



To Kevin Duerksen, Rachelle Ginsberg, Horst Hack, Marianne Hack, Lorne Heshka, Kyle Lucyk, Ed Maza & Darlene Moar for bringing flowering plants to the April Show & Tell.



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.

Manitoba Orchid Society 2009 Show & Sale “Orchid Paradise”

AOS Awards

<u>Name</u>	<u>Tag #</u>	<u>Plant Name</u>	<u>Class</u>	<u>AOS Award</u>
Lorne Heshka	157	Paph Frank Zettle 'Marinda' (Paph hirsutissimum x Paph henryanum)	36	AM/AOS 81



Photo by Kevin Duerksen

Name	Tag #	Plant Name	Class	AOS Award
Lorne Heshka	161	Cyp Gisela 'Amanda'	45	CCM/AOS 83



Photo by Kevin Duerksen

Best of Class Awards

Best of Exhibits - Open Best Open Display Rosette

Club Manitoba Orchid Society Orchid Plant Display 26+ Orchid Plants in Flower



Photo by Darlene Stack

Best of Exhibits - Commercial Best Commercial Display Rosette

Mario Ferrusi Marsh Hollow Orchids Commercial Display Orchid Plants in Flower

Best of Exhibits - Novice & Junior Best Novice Display Rosette

Ilsa Chaytor Junior Display 1 - 10 Orchid Plants in flower



Photo by Darlene Stack

Best of Cattleya Alliance Play-All Trophy

Chuck Morin Paramount Orchids Cattlianthe Cluster Fire X Cattleya Psyche

Best of Cypripediae Alliance Kimberly Pronyshyn Trophy

Lorne Heshka Paph Frank Zettle 'Marinda' (Paph hirsutissimum x Paph henryanum)

Best of Vanda Alliance Best Vanda Rosette

Terry Kennedy Orchids In Our Tropics Sedirea japonica



Photo by Rob Kato

Best of Phalaenopsis Alliance Ever Spring Orchid Nursery Trophy

Jerry Lenover Phal Malibu Madonna

Best of Oncidium Alliance Founders Trophy
Chuck Morin Paramount Orchids Rossioglossum Rawdon Jester



Photo by Rob Kato

Best of Cymbidium Alliance Best Cymbidium Rosette
Horst Hack Cymbidium Pleaser (Cym Dag x Cym Nila)



Photo by Rob Kato

Best of Dendrobium Alliance Mike Gabrielson Trophy

Chuck Morin Paramount Orchids Den chrysotoxum

Best of Miscellaneous Genera Best Misc Species and Hybrids Rosette

Mario Ferrusi Marsh Hollow Orchids Masdevallia Candy Cane 'Sweet Candy' HCC/AOS

Best of Orchid Art Exhibits Paul Gregory Award

Diane Tolgyessy Stained Glass Lamp Cymbidium Orchids



Photo by Rob Kato

Major Awards

AOS Show Trophy Best Display in Show (Awarded under AOS provisions)

Club Manitoba Orchid Society Orchid Plant Display 26+ Orchid Plants in Flower



Photo by Rob Kato

Best Junior Display Rosette Best Junior Display - (Class 5c)

Ilsa Chaytor Junior Display 1 - 10 Orchid Plants in flower

COC Award Best Display of Plants (For Artistic Effect)

Lorne Heshka Orchid Plant Display 1 - 5 Orchid Plants in flower



Photo by Lorne Heshka

Dr. Natsuk Trophy Best Orchid Plant in Show

Lorne Heshka Paph Frank Zettle 'Marinda' Paph hirsutissimum x Paph henryanum

Walter Regehr Trophy Best Miniature Species, Hybrids or Intergenerics

Mike Gabrielson Ornithocephalus dolabratus

Best Specimen Orchid Rosette Best Specimen Orchid Plant in Show - (Class 114)

Irene Landry Maxillaria variabilis

Ribbon Awards

<u>Name</u>	<u>Tag #</u>	<u>Plant Name</u>	<u>Class</u>	<u>Ribbon Award</u>
Arturo Alejandro	18	Orchid Plant Display		
		16 - 25 Orchid Plants in flower	1d	1st Place Ribbon
Arturo Alejandro	14	Paph Double Deception x		
		Paph Makuli	33	1st Place Ribbon
Arturo Alejandro	7	Masd wendlandiana	101	2nd Place Ribbon
Arturo Alejandro	5	Masd panguensis	101	2nd Place Ribbon
Arturo Alejandro	10	Paph hainanense	29	2nd Place Ribbon
Arturo Alejandro	13	Paph Aytron Senna	35	2nd Place Ribbon
Arturo Alejandro	2	Dend Love Memory 'Fizz'	97	2nd Place Ribbon
Arturo Alejandro	17	Phrag Haley Decker		
		(kovachii x St. Ouen)	44	3rd Place Ribbon
Fraser Cameron	22	Paph Alma's Moon	32	3rd Place Ribbon
Fraser Cameron	23	Dtps Newberry Parfait "Picotee"	63	3rd Place Ribbon
Sandy Carroll	237	Phrag Sedenii	44	1st Place Ribbon
Sandy Carroll	238	Vanda Tess	57	1st Place Ribbon
Sandy Carroll	240	Odontioda Gale Gettel	88	1st Place Ribbon
Sandy Carroll	239	Orchid Plant Display		
		1 - 5 Orchid Plants in flower	1a	2nd Place Ribbon
Sandy Carroll	241	Phal equestris	60	3rd Place Ribbon
Ilsa Chaytor	61	Junior Display		
		1 - 10 Orchid Plants in flower	5c	1st Place Ribbon
Ilsa Chaytor	65	Dried Orchid Collage	117a	2nd Place Ribbon
Ilsa Chaytor	64	Orchid Origami	117a	3rd Place Ribbon
Mike Chaytor	172	Ludisia discolor	114b	2nd Place Ribbon
Wendy Chaytor	220	Dtps Tzu Chiang Prince 'C14'	70	2nd Place Ribbon
Ames Doris	37	Come Walk With Us		
		In Our Orchid Paradise	3	1st Place Ribbon
Kevin Duerksen	234	Restrepia aristulifera	105	1st Place Ribbon
Kevin Duerksen	228	Paph Lathmanianum	34	1st Place Ribbon
Kevin Duerksen	230	Phrag Waunakee Sunset	43	1st Place Ribbon
Kevin Duerksen	235	Restrepia mendozae	105	2nd Place Ribbon
Kevin Duerksen	226	Orchid Plant Display		
		6 - 10 Orchid plants in flower	1b	2nd Place Ribbon
Kevin Duerksen	227	Paph gratixianum	29	3rd Place Ribbon
Kevin Duerksen	231	Phrag Hanne Popow	43	3rd Place Ribbon
Neil Dunham	184	Mormodes paraense	109	1st Place Ribbon
Neil Dunham	181	Paph Psyche	32	1st Place Ribbon
Neil Dunham	183	Phrag pearcei	42	2nd Place Ribbon
Neil Dunham	180	Dend lindeyi	96	2nd Place Ribbon
Daniel Dutchin	25	Paph Alfadir	40	1st Place Ribbon
Daniel Dutchin	28	Paph liemianum x Avalon Mist	40	2nd Place Ribbon
Bud Ewacha	21	Educational Exhibit	3	2nd Place Ribbon

<u>Name</u>	<u>Tag #</u>	<u>Plant Name</u>	<u>Class</u>	<u>Ribbon Award</u>
Denise Fortier	35	Paph lowii	31	1st Place Ribbon
Denise Fortier	34	Paph Delophyllum	35	1st Place Ribbon
Lilianne Foster	155	2 Framed Photos of Native Flowers in Manitoba	118	3rd Place Ribbon
Mike Gabrielson	177	Ornithocephalus dolabratus	112	1st Place Ribbon
Mike Gabrielson	173	Paph concolor	29	1st Place Ribbon
Mike Gabrielson	175	Paph conco-bellatulum x Paph Mem. Hirohisa Kawai	29	3rd Place Ribbon
Jim Gillespie	92	Den Aussie Chip	99	2nd Place Ribbon
Jim Gillespie	91	Den Stephen Batchelor	99	2nd Place Ribbon
Horst Hack	60	Cymbidium Pleaser (Cym Dag x Cym Nila)	91	1st Place Ribbon
Horst Hack	59	Cymbidium White Elf	92	2nd Place Ribbon
Horst Hack	57	Dendrobium lawesii	96	2nd Place Ribbon
Horst Hack	54	Coelogyne cristata	111	3rd Place Ribbon
Horst Hack	58	Den Memoria Margery Ummer (Yukidaruma X Nagasaki)	97	3rd Place Ribbon
Leona Heshka	154	Phal Brother "Little Yellowboy"	71	1st Place Ribbon
Lorne Heshka	163	Photograph Cyp passerinum	116	1st Place Ribbon
Lorne Heshka	164	Collectible - printers uncut cover Orchids of Manitoba	118	1st Place Ribbon
Lorne Heshka	156	Orchid Plant Display 1 - 5 Orchid Plants in flower	1a	1st Place Ribbon
Lorne Heshka	157	Paph Frank Zettle 'Marinda' (Paph hirsutissimum x Paph henryanum)	36	1st Place Ribbon
Lorne Heshka	161	Cyp Gisela 'Amanda'	45	1st Place Ribbon
Joyce Jaworski	117	Lyc Walnut Valley	106	1st Place Ribbon
Joyce Jaworski	119	Ludisia discolor 'Black Magic'	114b	1st Place Ribbon
Joyce Jaworski	115	Slc Mile High Magic 'Connor'	28	1st Place Ribbon
Joyce Jaworski	112	Odcdm Susan Kaufman	88	1st Place Ribbon
Joyce Jaworski	106	Den Mini Pearl	98	1st Place Ribbon
Joyce Jaworski	104	Den Miva Abacadabra	99	1st Place Ribbon
Joyce Jaworski	126	Coel confusa	111	2nd Place Ribbon
Joyce Jaworski	116	C Guatemalensis	18	2nd Place Ribbon
Joyce Jaworski	127	Orchid Plant Display 16 - 25 Orchid Plants in flower	1d	2nd Place Ribbon
Joyce Jaworski	125	Dtps Taisuco Pixie 'H'	68	2nd Place Ribbon
Joyce Jaworski	120	G schlectendaliana	114b	3rd Place Ribbon
Joyce Jaworski	111	Btcm Little Dragon 'Carmela'	82	3rd Place Ribbon
Joyce Jaworski	103	Den Rainbow Dance	99	3rd Place Ribbon
Ben Landry	20	Lc Purple Cascade	20	2nd Place Ribbon
Irene Landry	68	Maxillaria variabilis	107	1st Place Ribbon
Irene Landry	66	Lc Gold Digger	23	2nd Place Ribbon
Irene Landry	67	Phrag Don Wimber	43	2nd Place Ribbon
Irene Landry	69	Orchid Arrangement	120	Honorable Mention
Jerry Lenover	81	Cat intermedia var amethylslina 'Aranbeem' AM/AOS	18	1st Place Ribbon
Jerry Lenover	222	Lc Golden Girl 'Orchidglade'	23	1st Place Ribbon
Jerry Lenover	84	Asc Ken Kone 'Orange Sunset'	50	1st Place Ribbon
Jerry Lenover	86	Phal Chain Xen Pearl 'CX'	67	1st Place Ribbon
Jerry Lenover	87	Phal Malibu Madonna	68	1st Place Ribbon
Jerry Lenover	88	Phal aphrodite x Phal Kuntrarti Rarashati	70	1st Place Ribbon
Jerry Lenover	82	Paph Cumumbah	34	2nd Place Ribbon

<u>Name</u>	<u>Tag #</u>	<u>Plant Name</u>	<u>Class</u>	<u>Ribbon Award</u>
Jerry Lenover	85	Phal Redwine AM/AOS x		
		Phal schilleriana	67	2nd Place Ribbon
Jason Lin	71	Blc Triumphal Coronation "Se To"	25	1st Place Ribbon
Jason Lin	70	Paph Apropro x		
		Paph Field Of Greens	34	1st Place Ribbon
Jason Lin	77	Phal Timothy Christopher 'H'	61	1st Place Ribbon
Jason Lin	76	Dtps Champion Lightning 'Splash'	65	1st Place Ribbon
Jason Lin	72	Phal Tai Lin Redangel 'H'	66	1st Place Ribbon
Jason Lin	79	Phal Glad Veil 'H'	63	2nd Place Ribbon
Jason Lin	75	Dtps Tinny Honey 'Lightning'	65	3rd Place Ribbon
Kyle Lucyk	138	Masdevallia ceasia	101	1st Place Ribbon
Kyle Lucyk	251	Dracula diana	103	1st Place Ribbon
Kyle Lucyk	150	Porroglossum dreisei '2'	104	1st Place Ribbon
Kyle Lucyk	145	Masdevallia mystica	101	2nd Place Ribbon
Kyle Lucyk	141	Pleurothallis talpinaria	104	2nd Place Ribbon
Kyle Lucyk	136	Ida lata	106	2nd Place Ribbon
Kyle Lucyk	144	Lepenthes elegantus	114	2nd Place Ribbon
Kyle Lucyk	142	Lepenthes elegantus	104	3rd Place Ribbon
Kyle Lucyk	153	Orchid Plant Display		
		16 - 25 Orchid Plants in flower	1d	3rd Place Ribbon
Kyle Lucyk	134	Phrag richteri '1'	42	3rd Place Ribbon
Club Manitoba Orchid Society	253	Orchid Plant Display		
		11 - 15 Orchid Plants in Flower	1c	1st Place Ribbon
Club Manitoba Orchid Society	252	Orchid Plant Display		
		26+ Orchid Plants in Flower	1e	1st Place Ribbon
Mario Ferrusi				
Marsh Hollow Orchids	167	Masdevallia Candy Cane 'Sweet Candy' HCC/AOS	102	1st Place Ribbon
Mario Ferrusi				
Marsh Hollow Orchids	166	Sophronitis coccinea	17	1st Place Ribbon
Mario Ferrusi				
Marsh Hollow Orchids	171	Commercial Display Orchid Plants in Flower	4a	1st Place Ribbon
Mario Ferrusi				
Marsh Hollow Orchids	168	Masdevallia Monarch 'Stately' AM/AOS	102	2nd Place Ribbon
Mario Ferrusi				
Marsh Hollow Orchids	169	Sedirea japonica	58	2nd Place Ribbon
Mario Ferrusi				
Marsh Hollow Orchids	170	Dtps Jiaho Cherry x Phal Memoria Mildred Holt	63	2nd Place Ribbon
Mario Ferrusi				
Marsh Hollow Orchids	165	Lycaste skinneri	106	3rd Place Ribbon
Ed Maza	41	Coel cristata	111	1st Place Ribbon
Ed Maza	38	(Paph In-Charm White X Paph White Knight) x Paph godefroyae	37	1st Place Ribbon
Ed Maza	40	Cym Chilli Pepper	91	1st Place Ribbon
Ed Maza	42	Coel cristata	114	3rd Place Ribbon
Darlene Moar	29	Paph Claire de Lune x Paph Van Belle	38	2nd Place Ribbon
Dave Moran	223	Paph. primulinum v purpuriscens	31	1st Place Ribbon
Dave Moran	225	Phrag. Strawberry Rush	44	3rd Place Ribbon

<u>Name</u>	<u>Tag #</u>	<u>Plant Name</u>	<u>Class</u>	<u>Ribbon Award</u>
Terry Kennedy Orchids In Our Tropics	249	Sedirea japonica	58	1st Place Ribbon
Terry Kennedy Orchids In Our Tropics	254	Phalaenopsis parishii	60	1st Place Ribbon
Terry Kennedy Orchids In Our Tropics	244	Goodalara Tahition Dancer	86	1st Place Ribbon
Terry Kennedy Orchids In Our Tropics	246	Den Sakura 'Mime'	97	1st Place Ribbon
Terry Kennedy Orchids In Our Tropics	245	Maxillaria luteo-alba	107	2nd Place Ribbon
Terry Kennedy Orchids In Our Tropics	248	Bulbophyllum triste	110	2nd Place Ribbon
Terry Kennedy Orchids In Our Tropics	242	Pry Chief Green River	28	2nd Place Ribbon
Terry Kennedy Orchids In Our Tropics	243	Sc Cherry Bee 'le-Sing' HCC/AOS	28	3rd Place Ribbon
Terry Kennedy Orchids In Our Tropics	250	Commercial Display Orchid Plants in Flower	4a	3rd Place Ribbon
Chuck Morin Paramount Orchids	188	Bulb. Elizabeth Ann 'Buckleberry' FCC/AOS	110	1st Place Ribbon
Chuck Morin Paramount Orchids	190	Cattlianthe Cluster Fire x Cattleya Psyche	25	1st Place Ribbon
Chuck Morin Paramount Orchids	210	Rossioglossum Rawdon Jester	82	1st Place Ribbon
Chuck Morin Paramount Orchids	216	Wilsonara Red Letter Day	89	1st Place Ribbon
Chuck Morin Paramount Orchids	212	Den chrysotoxum	96	1st Place Ribbon
Chuck Morin Paramount Orchids	211	Sarcoglottis sceptrodes	111	2nd Place Ribbon
Chuck Morin Paramount Orchids	189	Microterangis hariotiana	112	2nd Place Ribbon
Chuck Morin Paramount Orchids	192	Den chrysotoxum	114	2nd Place Ribbon
Chuck Morin Paramount Orchids	204	Paph Miss Faith Hanbury	32	2nd Place Ribbon
Chuck Morin Paramount Orchids	203	Paph Johanna Burkhardt	34	2nd Place Ribbon
Chuck Morin Paramount Orchids	208	Phrag Grande	44	2nd Place Ribbon
Chuck Morin Paramount Orchids	207	Phrag Demetria	44	2nd Place Ribbon
Chuck Morin Paramount Orchids	187	Commercial Display Orchid Plants in Flower	4a	2nd Place Ribbon
Chuck Morin Paramount Orchids	206	Phal schilleriana	60	2nd Place Ribbon
Chuck Morin Paramount Orchids	198	Oncidium Pacific Space Lustre	82	2nd Place Ribbon
Chuck Morin Paramount Orchids	196	Masdevallia Heathii	102	3rd Place Ribbon

<u>Name</u>	<u>Tag #</u>	<u>Plant Name</u>	<u>Class</u>	<u>Ribbon Award</u>
Chuck Morin Paramount Orchids	200	Paph fowliei alba x Paph hennisianum alba	32	3rd Place Ribbon
Chuck Morin Paramount Orchids	202	Paph Avalon Mist	33	3rd Place Ribbon
Chuck Morin Paramount Orchids	199	Paph Magic Water x Paph Tokyosuk	34	3rd Place Ribbon
Chuck Morin Paramount Orchids	201	Paph fowliei alba x Paph hennisianum alba	35	3rd Place Ribbon
Chuck Morin Paramount Orchids	193	Den finisterrae	96	3rd Place Ribbon
Kimberly Pronyshyn	128	Paph Hamana Spice	33	1st Place Ribbon
Kimberly Pronyshyn	131	Cym Nandi	91	2nd Place Ribbon
Kimberly Pronyshyn	132	Cym Dorothy Stocksill	92	3rd Place Ribbon
Jim Roy	99	Phrag longifolium	37	1st Place Ribbon
Jim Roy	97	Onc Sharry Baby 'Sweet Fragrance'	82	2nd Place Ribbon
Darlene Stack	33	Paph Shirley Amundson	33	2nd Place Ribbon
Darlene Stack	31	Paph acmodontum	29	3rd Place Ribbon
Diane Tolgyessy	36	Stained Glass Lamp Cymbidium Orchids	117a	1st Place Ribbon
Garnet Ward	52	Orchid Plant Display 6 - 10 Orchid Plants in flower	1b	1st Place Ribbon
Garnet Ward	43	Phal. Whunough 's'	65	1st Place Ribbon
Garnet Ward	48	Blc. Triumphal Coronation 'Seto'	20	2nd Place Ribbon
Garnet Ward	44	Phal. Brother Little Yellowboy	71	2nd Place Ribbon
Garnet Ward	45	Dtps. Tzu Chiang Prince 'C16'	70	3rd Place Ribbon



Phragmipedium Strawberry Rush grown & exhibited by Dave Moran—*Photo by Rob Kato*



Masdevallia Monarch 'Stately' AM/AOS grown & exhibited by Mario Ferrusi
Photo by Rob Kato



Doug Kennedy demonstrating the ways to coax your orchids into bloom!
Photo by Rob Kato

Listen to your orchids - Part 2

By Don Bednarczyk

LIGHT

"Full sun" in Vancouver is not the same as "full sun" in Florida. Most of us probably realize that the light requirements you see in most books about orchids are applicable to hot, sunny places, not Vancouver. "Full sun" here, from early until 11 AM and from 2 PM until dark, is probably still less than "semi-shade" in Florida or Southern California. So I find you have to really "up" most books' recommendations. **But here is the caution,** watch out for heat. Especially at noon hour, leaves in the sun get hot and burn if there is not a lot of air movement. I find that a set of blinds set so they cast fine lines of shadow on the plants works wonders. And you need air movement, especially when the plants are in direct sunshine. Most Cattleyas, which most books call semi-shade plants, grow fine in a Vancouver south facing window with blinds breaking the noon hour sun.

Also be careful if you move plants from place to place as I do. Orchids are like people, they can adapt to a lot of sun if they have their exposure increased gradually. If you are going to move an orchid from under lights to a greenhouse or a south window give them adequate time to adapt. Many people like to take blooming orchids and put them into their living area when they are in bloom. Be careful you do not burn them when you put them back when they finished blooming. Apply a little extra shading for a week or two. And watering your orchid before you move it to sunnier positions also helps the plant adapt without incident. Orchids need as much light as possible to give you maximal blooms. You want to avoid burning the leaves or the leaves turning a sickly, pale yellow-green. If you are seeing a purple pigment developing in the leaves, the orchids are probably getting just a bit too much light also. The purple will fade as you ease up on the light or the plant adapts to the higher light. But realize the purple color is telling you that you are on the edge of your orchid's tolerance to light.

Everyone has been told, if your orchids are not flowering, you probably need more light. And a Vancouver winter is dark, very dark. Even in a greenhouse, orchids just about stop growing. So we get thinking about supplemental lighting. And then there are those of us who want to use that unused space in the basement or the spare bedroom to grow our beauties. So we want more light. But what kind of light do you want?

Light is a weird beastie. It is made up of photons. So what are photons you ask? Photon is a word which physicists made up to describe the fact that light has properties of both an electromagnetic wave and a particle at the same time. It is made up of little packets of energy that travel through space at 300,000,000 meters per second and then give that energy to an object when the light is absorbed. The wave properties of light, such as its wavelength, are very useful to describe how the light behaves in transit and just what objects will absorb the light when it hits them.

When you pass white light through a translucent object such as a prism you can separate out all the colors of the rainbow. This is because different wavelengths of light move through the prism at different speeds. Raindrops in fact act like prisms so if you are standing in the right place you can see a rainbow. We perceive the different wavelengths of light as different colors such as red, green, and blue. When light hits an opaque object, one it cannot pass through, one of two things can happen. The light can be absorbed or the light can be reflected. Which phenomenon happens depends on which molecules the object contains and how they interact with specific colors of light.

Now before you go tilt on all the scientific language, I just explained why plants are green. Sunlight contains all the colors. Plants absorb the red and blue wavelengths and reflect the green ones. So plants look green. But they get their energy to grow from the red and blue light. If you try to grow a plant under green light it will die. The old purple grow lights were a mixture of red and blue light so the plants could absorb enough energy and they would grow. But the bulbs were short on green light, so the plants looked weird.

In Vancouver some people use lights to grow orchids in a totally dark place like a basement. Others use lights to supplement window light through the dark winter months. If you are in the basement, you really have to use full spectra lights. If you are supplementing window light you can get away with an incomplete light source because you are getting some sunlight, but you will do better with a full spectra source. Here is the problem. Plants get the energy to grow from both the red and blue light. And they really need both colors to do well. But without a little extra of the blue light, they do not get the signal to flower. And we all want flowers. So if you want flowers, you have to pay the extra for full spectra bulbs. Of course I have simplified it a bit. There are "in between" colors and "colors" we cannot see like infra-red and ultra-violet. But good bulbs are made to emit all the colors (wavelengths) that plants need to grow and flower. Buy specialty bulbs.

How much light do you need? Should you buy fluorescent lights, or metal halide lights, or sodium vapor lights, or one of the new super high output lights like the Sunthrower or the Tek-light, or the new LED arrays? It depends on three things: what do you want to grow, how much do you want to spend, and is there a convenient source? Fluorescent lights work for lower light requiring plants such as Paphiopedilums, Phalaenopsis, Masdevallias, and Pleurothallids. A 400 W metal halide light will allow you to grow Cattleyas, Laelias, and Encyclias in a 6 X 6 foot growing area and lower light lovers over 8 X 8 feet. They are a bit more expensive, but put out a lot more light. Sodium vapor lights supply the wavelengths of light necessary for growing, but not the ones necessary for bloom initiation, and are therefore more suitable for growing non-culinary herbs. If you want to grow Vandas and other high light requiring orchids, you may need a 1000 W metal halide light. If electricity costs \$0.0615/kW.h it means that a 400 W light which is

on for 13 hours a day would cost about \$9.60/month. And the heat generated by the lights is usually sufficient to heat the growing area. In fact a 1000 W light often needs ventilation to avoid overheating the room.

Here are some important points to consider. Remember that the intensity of light decreases as the inverse square of the distance from the bulb. That simply means that double the distance and you get 1/4 the light. If you triple the distance you get 1/9 the light. Go to 4 times the distance and you only get 1/16 the light. A little movement makes a big difference. For fluorescent lights, that means you usually have the plants within 1 to 3 inches of the bulbs. For a 400 W metal halide light, start out about 2 or 3 feet from the bulbs for higher light requiring orchids and adjust the distance according to your plants response. I actually grow the highest light requiring Laelias about 1 foot from a 400 W bulb and some Paphs about 4 feet away.

Keep the air moving. Fans are essential. Use a light meter if you want to measure light. Don't trust your eyes to judge how much light is hitting your plants. Your eyes adjust to the light. Full sunlight is about 10,000 footcandles (fc). Paphiopedilums grow well at 700-1000 fc. Cattleyas grow at 2000-3000 fc. Or just listen to your plants. Most growers start off in a panic using a light meter but end up putting it in a drawer and just looking at how their orchids are doing. Even the first orchid hunters observed that the orchids with lush, dark green leaves that grew in the shade did not produce as many flowers as the light green leaved orchids that grew in more light. Change your bulbs regularly. Just because the light bulb lights up does not mean that is putting out the same amount of light as when it was new. Ask your supplier how many hours the bulb is rated for use. You will be surprised how much brighter a new bulb is.

How long should you run the lights each day? Orchids in the wild are subjected to a yearly cycle of temperatures and light. Even plants at the equator see this due to dry and wet seasons. You can safely reduce the hours to 12 or 13 hours in the winter without disturbing the orchids that require long dark nights to induce blooming. You can easily go to 14 or 15 hours of light in the summer. There are reports of people using 18 hours of light. But do not leave the lights on all the time. Many orchids need time in the dark to complete their photosynthesis. For instance, Paphiopedilums kept under constant light completely stop growing. Constant light also completely confuses orchids that use the hours of daylight to tell them when to bloom.

Next month we will look at how water fits into the picture as well as fertilizers and supplements. And then we will try to pull all the pieces together.

Originally published in The Vancouver Orchid Society Newsletter December 2007, taken from the Orchid Society of Nova Scotia March 2010 Newsletter and reproduced here with a few editorial changes.

Listen to your orchids - part 3

By Don Bednarczyk

Water and Watering

Water gives life to orchids but it also can take it away. More orchids are killed by overwatering than any other way. Most orchids live where they are subjected to periods of drying out. The roots of epiphytic orchids, those growing on the sides of trees, are subject to drying winds and sun. They have evolved into much thicker roots than most plants. Thick roots do not dry out as fast. But the downside is that oxygen has a much harder time getting into the center of the root. This is not a problem on the side of a tree, but it is a problem in a pot surrounded by media.

As the media breaks down it packs down, and gets densely packed, inhibiting the flow of oxygen. The fungi and bacteria in the media slowly break down the bark, moss, or coconut husk turning it into a pile of fine particles. If this densely packed media is continuously wet, oxygen can only diffuse very, very slowly. The roots need oxygen to live. Without sufficient oxygen they die. And the fungi and bacteria, which can also attack the roots, grow better if there is plenty of water. So too much water means the process of media destruction is accelerated and roots suffocate and die.

This is true for lithotrophic (living attached to rocks) orchids, detritus terrestrials (orchids that do not really put their roots into the earth but send roots through leaf litter), and moss layer epiphytes. True terrestrial orchids are found mostly in temperate zones or semi-arid zones and usually completely have their leaves wither part of the year and re-emerge from bulbs each year. Their roots are a bit more tolerant but still require special care when the vegetation is dormant.

Water quality is usually not a problem in Vancouver. Our water is very soft, having very low amounts of dissolved salts. Only the most finicky Pleurothallids seem to require distilled water. If you are worried about the chlorine in the tap water, let it sit out overnight, and the chlorine will dissipate. Do not add the chemicals you would add to fish tank water as they only make the problem worse by adding more dissolved solids. The pH of Vancouver water is also usually not a problem. Pure rainwater has a pH of about 5.7 due to dissolved carbon dioxide. Our tap water is usually slightly more basic with a pH from 6 to 7.5 due to very small amounts of chemicals added to protect our water mains and prolong the life of the chlorine. Almost all orchids tolerate this range well.

How do you know if it is time to water? Every grower I know has their own method of determining when their plants need water. Remember that most orchids need to dry out between waterings. Remember that the amount of water they use depends on how actively they are growing, temperature, and sunlight. Plants use carbon dioxide and water to make sugar and oxygen. They need water to perform photosynthesis. The warmer it is the more water plants transpire, that is, pass up from the roots and out the leaves to keep the leaves hydrated and cool. So when they are growing they need a fair bit of water. But when it is cool and dark they need relatively little. The most dangerous time for overwatering orchids is at the end of the growing season. We get used to watering for certain conditions and sometimes forget to modify our schedule to fit the lower water requirements. This is a recipe for root rot. So ease up on that watering when they are not actively growing.

Personally, I use the weight and shrivel technique. I judge the weight of the pot and look if the newer pseudobulbs are showing any sign of shriveling. That means some larger plants may only get watered once every two weeks or longer in the winter. Some use the bamboo skewer technique. They keep a small piece of bamboo skewer in the pot and remove it to test the pot. If it looks and feels dry, it is time to water. Some people just look at the growing conditions and modify their watering to match the weather. Just remember that trying to keep to a constant schedule throughout the year usually gets you into trouble sooner or later. Also remember that all orchids need to keep from totally desiccating during their dormant phase. Even *Dendrobium nobile* crosses need a tiny bit of water when they are dormant, just enough to keep them from shriveling too much. Usually a heavy misting that dampens the surface roots or a light watering every couple of weeks is sufficient.

Fertilizer:

Orchids grow naturally with very little nourishment. So you only have to add a little fertilizer to get a big effect. Twice as much fertilizer does not give you twice the effect. And it increases the chance of blackened leaf tips, a sign of too much dissolved salts in your water. Most people use about a teaspoon per gallon (5 mL/4 L) every two or three weeks during the growing season. When they are not growing, orchids really need no fertilizer. And be sure to flush the pots out with clean water once or twice between fertilizations. Some people like the weakly weekly routine. They use about ¼ teaspoon per gallon per week. This works if you remember to flush out the pots with clean water in between fertilizations. Either way, do not let the fertilizer build up in the media or you will start having black leaf tips.

So which fertilizer should you use? All commercial fertilizers contain nitrogen (N), phosphorus (P), potassium (K), and trace elements. The composition is given as the N:P:K content. A fertilizer with a 15:5:10 rating contains 15 kg of nitrogen expressed as N_2 , 5 kg of phosphorus expressed as P_2O_5 , and 10 kg of potassium expressed as K_2O per 100 kg of fertilizer. That is the way things are expressed for historical reasons, but those are not the chemical compounds found in most modern plant fertilizers. Of these, only nitrogen can come in fertilizers in forms not useful to orchids. Nitrogen is absorbed into plants as either nitrate (NO_3^-) or ammonium (NH_4^+). Plants cannot absorb nitrogen found in the atmosphere, urea (NH_2CONH_2) found in many plant fertilizers or pieces of protein found in fish emulsion fertilizer. These forms require the action of bacteria in the soil to convert the nitrogen to nitrate or ammonium. Orchid potting media usually does not contain sufficient amounts of these bacteria to accomplish this. So buy fertilizer designed for orchids or hydroponic culture to get useful nitrogen. The phosphorus and potassium found in any fertilizer is in the form that orchids can use and is not a problem.

Plants growing in bark or coconut fiber need more nitrogen than those grown on a raft or in an inert media such as perlite. This is because the bacteria and fungi growing in the bark are also using the nitrogen and can out-compete the orchids. You do not need to use high nitrogen fertilizer on plants grown on rafts. By high nitrogen fertilizer we usually mean something like 24:8:16 or 30:10:10. This is used at the beginning of the growth

cycle. Nitrogen is necessary for production of protein and is necessary for cell division and growth. As the growths start to mature it is often useful to switch to a blossom booster formula which is high in phosphorus and low in nitrogen such as 10:30:20. This actually inhibits the growth of new vegetation and strengthens the current growth allowing for better flowering. Blossom booster fertilizers also usually have larger amounts of the trace elements necessary for good color development. High potassium fertilizers found in garden supply stores are good for growing fruit and vegetables which contain a lot of potassium, but do not do much for orchid culture. If you are growing your orchids in an inert media or on rafts you can use a balanced fertilizer like 20:19:18 in place of the high nitrogen formula. You can also use a balanced fertilizer as the growth is slowing down before you switch to a blossom booster. Then again, some people use a balanced fertilizer all the time for simplicity and get fairly good results. Orchids do not die from lack of fertilizer, but they can die from too much. And too much nitrogen can give you great growth with no flowers.

A special word is needed for calcium. Fertilizers usually do not contain calcium, even though it is necessary for plant growth, because it precipitates (forms a solid and falls out of solution) with the phosphate and sulfate found in the fertilizer. This is usually not a problem because tap water from most places contains dissolved calcium. In fact too much calcium is the main cause of hard water. However, Vancouver has virtually no calcium in its tap water. You can make sure your orchids have enough calcium in two ways. You can add a very small amount of crushed shells or bits of limestone to your potting media or you can add some chelated calcium supplement to your diluted fertilizer. Chelated just means the calcium is bound to another chemical which helps it stay in solution but does not inhibit absorption by the plant. Calcium is particularly necessary at the beginning of orchid growth. Once it is taken up by the orchid and used it cannot be moved around the plant so you need to supply it every growth cycle.

People always ask me what fertilizer I use so, OK, here is my commercial plug. I use Peter's fertilizers. I buy them from Solar Greenhouse Supply in Burnaby. They repackage it and sell it small amounts or you can get them to order large bags for you. I also use Grotek Cal-Max as a supply of chelated calcium, magnesium, and iron. And I did notice a big difference in my plants when I started using it. There are other good products out there which do the same thing, but that is what I use.

Summary:

Light, water, temperature and nutrition are all interrelated and cannot be separated. Your plants are telling you what they need and if you are doing something wrong. You just have to listen to them. Note leaf color, vigor of growth, root vigor, number of flowers and above all sudden changes. Good growing.

Originally printed in the March 2010 Newsletter of the Victoria Orchid Society Vol 41 #3 and reproduced with a few editorial changes.

2009/2010 Executive

Elected

President Dave Moran
Past President Joyce Jaworski
1st V.P. Kyle Lucyk
2nd V.P./Show Chair Rob Kato
Treasurer Garnet Ward
Secretary Phyllis McCaskill

Appointed

Membership Gary Jaworski
Social Eva Slavicek
Public Relations
Special Orders Darlene Stack
AOS/COC Rep Kevin Duerksen
Library Lilianne Foster
Newsletter Robert Parsons
Webmaster Robert Kato

Minutes - Manitoba Orchid Society General Meeting April 18, 2010

Recorder: Robert Parsons

1. Call to order:

Dave Moran called the meeting to order at 2:00 P.M. The minutes of the February executive meeting will be available from Phyllis McCaskill after they are approved at the next executive meeting. He asked for volunteers to bring goodies to the next meeting, and Sheila Pilgrim, Judy Browne, Debbie Robb, and Anne Yewish volunteered. He thanked all who volunteered for the show. He turned the meeting over to Lorne Heshka who gave a presentation on Heterogeneity in Native Orchids. After the program, Dave welcomed three new members, Lindsay James, Ewa Murnicke and Shaun Lunz; as well as guest Karina Schmidt, who drove up from the Michigan Peninsula region, specially to attend our meeting.

2. Minutes of the last meeting:

Motion to accept the minutes, as published, by Darlene Stack; seconded by Rob Kato; carried.

3. Financial report: Garnet Ward

Garnet provided copies of the financial report, as of the end of March to anyone interested, and moved the report be accepted; seconded by Jim Roy; carried.

4. Programs: Kyle Lucyk

May program is TBA because Joe Kunish couldn't make it. June will be Jason Fischer on Phals and he will be bringing pre-ordered plants, with a deadline of May 28th for non Appendix 1 plants, and additional plants for sale. September will be Doug Kennedy bringing plants from Carter & Holmes. October will be the annual auction. November will be a rescheduled visit from Joe Kunish.

5. Show Chairperson Report: Rob Kato

Thanked all volunteers for their efforts in making the show a success, and announced the 2011 show will be the 20th annual MOS show.

6. AOS/COC Representative: Kevin Duerksen

Mentioned Lorne Heshka had recently had an article on the western prairie fringed-orchid in the AOS magazine.

7. Hospitality: Eva Slavicek

No report.

8. Library: Lilianne Foster

Reported the library has (or soon will have) three new books: one on Dendrobiums, another on fragrant orchids, and a third on growing hardy orchids.

9. Public Relations:

Vacant position.

10. Membership: Gary Jaworski

We have 138 members.

11. Newsletter: Robert Parsons

Requested photos from show for May newsletter. Announced Ever Spring Orchids plans to include names on their plants again, where possible.

12. Website: Robert Kato

No report.

13. Special Orders: Darlene Stack

- 1) Reminded everyone of the Orchids Limited club order, with May 28th as the deadline for non Appendix One plants.
- 2) Announced a club order for supplies, from Paramount orchids. We will be ordering two sizes of bark, sponge rock, and charcoal. These are large quantities, and we may include some to be sub-divided among several members if there is sufficient interest.
- 3) Will remind people of the two fall speaker/vendors, Doug Kennedy and Joe Kunish, and the deadlines of for each.

14. Correspondence and New Business

Dave read out two items of correspondence. 1) The Friends of the Conservatory will be holding an event called “Gardening Saturday” on May 8th at the Canadian Mennonite University campus on Shaftesbury and Grant and invited the MOS to have a table for a \$25.00 rental. 2) Monica De Wit’s “Cruising for Orchids” as already printed in the April newsletter.

15. Raffle draw:

Two raffles held, the first for show volunteers (excluding show committee members) had the following winners: Andrew Fehr, Ilsa Chaytor, Fernando Tan, Helen Toews, and Brian Schnell. The second was the usual monthly raffle and winners were Ewa Murnicke, Diane Tolgyessy, Darlene Stack, Kevin Duerksen, Eva Slavicek, Debbie Robb and Darlene Moar.

16. Show & Tell

Kyle Lucyk described the plants.

17. Adjournment:

Motion to adjourn by Jim Roy at 3:54 P.M.

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



Phrag Haley Decker grown & exhibited by Arturo Alejandro—*Photo by Kevin Duerksen*



Phrag. Waunakee Sunset grown, exhibited & photographed by Kevin Duerksen



Paph (Double Deception X Makuli) grown & exhibited by Arturo Alejandro—*Photo by Darlene Stack*



Coelogyne cristata grown and exhibited by Horst Hack—*Photo by Kevin Duerksen*