

VOS Newsletter Volume 8 Issue 10 September

President's Message

I wish to thank the past executive and volunteers for all their hard work in making last year a great experience. I hope to keep that momentum going!

I would like to give a warm welcome to all the new (and returning) executive and many volunteers, and all our membership-old and new—who will help make this year a success only yet to be realized.

As we head into the fall season, I'm anticipating the cooler weather that sets many of our orchids in bud, excited to see what displays await our hard-earned efforts, and anxious to view what will grace the show tables in the coming months.

Our upcoming culture classes and speaker lists are being refined, and we hope to share a great deal of knowledge to help us all grow better plants. We also continue our work to access exceptional vendors, both locally and abroad.

As I put on the "shoes" in the role of President, I encourage you to make yourself a part of our success by providing a helping hand to ensure this year's activities run smoothly. So let's get to know one another a little better and have a great year. Happy growing!

Make yourself a part of our success!

ORCHID SOCIETY

www.vancouverorchidsociety.ca

Ryan Young



Vancouver Orchid Society

Vandusen Floral Hall

Meeting was called to order at 7:30 and chaired by Evelyn Nash. Three guests and two new members were welcomed.

Treasurer's Report

Judy Buttress presented the year end treasurer's report. The year's financial statements were reviewed prior to the AGM by Erik Nilsen and Barbara Cable.

GIC - \$17,753

Chequing account \$16,389 There is an outstanding liability (payment due to VanDusen) of \$2,410. If anyone wants more details please see Judy at any of our meetings.

Meeting Timing

A motion was put to the membership regarding moving the meeting start time to 7pm instead of 7:30 (so the speaker could begin at 8pm not 8:30). Grant Rampton moved to accept the motion and Keith Willett seconded. A vote was taken and the membership accepted. There were two opposing votes, and it was pointed out that this had been tried before but didn't work. A reminder of the change will be emailed to the membership before the September meeting.

Election of the VOS Executive

After calling for nominations from the floor and receiving none, the following Executive slate was proposed for the membership to vote on:

President-Ryan Young

- 1st Vice President (Speakers)—Jonathan Easey
- 2nd Vice President (Culture Class)—Natasha Charif
- Treasurer—Judy Buttress Secretary—Jennifer Pell
- Director (Membership)—Grant Rampton
- Director (Away Show Coordinator)—Ingrid Pike
- Director—Barb Cable
- Director—Daniel Kwok
- Director —Keith Willett

The vote was held and this Executive slate was accepted unanimously. Margaret Prat moved to accept the vote and Calvin Wong seconded. Retiring executive Evelyn Nash, Calvin Wong, Patrick Milligen, Eugene Banziger and Monica Stefansson were thanked for their efforts on behalf of the society.

Newsletter

Elissa Schmidt will be taking over the newsletter after the June edition. The members were reminded that there will be no newsletter until September.

Culture Class

The September Culture Class will be on brining orchids inside after their summer holiday outdoors. Culture Classes are open to members only (and one of the huge perks of becoming a member!)

Facebook

Visit the VOS Facebook page at: www.facebook.com/VancouverOrchidSociety You don't have to belong to Facebook to view the page, where we post photos and current information. Please send contributions to Jennifer Pell: VOS_Secretary@outlook.com

Library

Members are reminded that they may borrow books between meetings.

The Raffle Committee thanks all those who contributed to the raffle.

Speaker

Thomas Mirenda, curator of orchids from the Smithsonian Museum in Washington, DC, entertained us with a fascinating talk on orchids and their pollinators, or, as he put it, "The sex life of orchids."

Speaker Series

8:30-9:30pm Floral Hall, VanDusen Gardens

September 28

Brief Encounters with Cymbidium goeringii in South Korea

Calvin Wong

President of the Canadian Orchid Congress, VOS Member, and owner of Tropical Gardens Orchids October 26

2017 World Orchid Conference in Ecuador Pepe Patilla

Ecuagenera Orchids, Ecuador

Culture Class

6:30-8:30pm Cedar room, VanDusen Gardens MEMBERS ONLY

September 11

Preparing Summering Orchids to Return Indoors

Radina Jevdevic

Upcoming Events

September 30-This event is a change of venue and

date for the October monthly judging.

Pacific Northwest Judging Center-Vancouver

Pacific Northwest Judging Center-Vancouver will hold monthly judging on September 30 at the Nanaimo North Town Centre, 4750 Rutherford Road, Nanaimo, BC

October 19-23

American Orchid Society Fall 2016 Members Meeting

The Huntington Library, Arts Collections & Botanical Gardens, San Marino, California.

AUSTRALIAN ORCHID FOUNDATION

If members wish to obtain seed of many orchid species, including Australian terrestrials, the AOF runs a seed bank which can be viewed on the website, www.australianorchidfoundation.org.au. The AOF would also be delighted to receive seed from any VOS members for the purpose of making it available worldwide to benefit orchid growers and protect wild populations.

Shows and Sales

September 28

Ecuagenera Pre-Order deadline

Ecuagenera will be speaking at our October meeting, and this is a great opportunity to order plants from them. To take advantage of the discount provided on orders over \$500, Jennifer Pell has agreed to coordinate a VOS group order for us. Please send your order to her no later than September 28. VOS_Secretary@outlook.com

- They'll bring the plants to the October meeting and FVOS Show, plus have some other plants for sale.
- Plant prices are in American dollars, but add \$2 per plant for shipping and handling from Ecuador.
- · Payments are in cash at the meeting at the currency exchange of the day.
- Website: www.ecuagenera.com

Sunday, October 9

Update for Jason Fischer/OrchidWeb.com

Pre-Order deadline for Appendix II plants OrchidWeb.com is coming to the FVOS show in October

There is a 10% handling fee for all pickup orders at the show. When ordering online, please add "For pick up at the FVOS Show" in the 'Notes' field of the order. They will manually add the 10% handling fee. Website: www.orchidweb.com Email: orchids@orchidweb.com

September 30, October 1-2

Autumn's Gift

CENTRAL VANCOUVER ISLAND ORCHID SOCIETY Nanaimo North Town Centre 4750 Rutherford Rd

Nanaimo BC

Plants Needed for the CVIOS show Bring plants to our September meeting. Margaret will pick them up and take them over. If not attending the meeting, contact Margaret to make arrangements. margprat@gmail.com

October 1-2

3rd Annual Orchid Exhibit & Seminar THE ORCHID SPECIES PRESERVATION FOUNDATION OF ALBERTA

Salisbury Greenhouse 52337 Range Rd. 232, Sherwood Park, AB

October 15, 2016

2016 Fall Meeting

BC COUNCIL OF GARDEN CLUBS Firefighters Banquet & Conference Center 6515 Bonsor Avenue, Burnaby, BC Doors open at 8:15am, Meeting starts at 9am

Early Bird registration of \$35 ends October 2 October 21-23

2nd Annual International Orchid Show and Sale

AMERICAN ORCHID SOCIETY

- The Huntington, 1151 Oxford Rd.,
- San Marino, CA

October 28-30

The Allure of Orchids

FRASER VALLEY ORCHID SOCIETY George Preston Recreation Centre, 20699-42nd

- Avenue, Langley, BC
- The show will be one day shorter than usual. Set up will start at 10am on Friday with judging to follow at 1pm.
- We will be having our regular banquet starting at 6:30pm that evening.



VANCOUVER ORCHID SOCIETY

JUNE 22, 2016



Paphiopedilum Lady Isabel (stonei 'Jungle Select' x rothschildianum 'Hong') Hybrid Exhibitor: Eugene Banziger



Vanda Patchara Blue 'M' Flower Quality Exhibitor: Eugene Banziger



Bulbophyllum affine Plant Culture Exhibitor: Rob Elvidge



Phragmipedium Grande Flower Quality Exhibitor: Eugene Banziger





Dendrobium Jia Ho's Dancing Dragon Hybrid, Members' Choice Exhibitor: Margaret Nakahara



Haraella retrocalla Display Exhibitor: Jennifer Pell





Podangis dactyloceras Plant Culture Exhibitor: Margaret Prat



Phalaenopsis Sogo Grape Flower Quality Exhibitor: Melanie Gallacher



Phragmipedium Sorcerer's Apprentice Plant Culture Exhibitor: Don Harquail

Judges Wayne Riggs Jonathan Easey Ryan Young



If you would like a picture of your plant, please email Judy and she will gladly send you the file.



Disa uniflora Unusual Species, display Exhibitor: Margaret Prat



Paphiopedilum bellatulum Species Exhibitor: Don Harquail

1.00794



Fertilizer Basics

People spend a lot of time worrying about what fertilizer to use on their orchids, and manufacturers make so many different blends that it's difficult to know which is "the right one." Generally, just about any fertilizer may be used on your orchids, within certain guidelines. To make it really simple, select a formula that contains a wide array of minor and trace elements. There are some who feel that those minor ingredients are the most important components of the formula. If your water supply does not already contain them, use a fertilizer formula that contains calcium and magnesium as well.

When orchid collecting began, it was noted that the majority grew on the bark of trees. Naturally, that led to the idea of growing orchids using bark as a potting medium, and that has been the standard for many, many years. Unfortunately, wet, crumbled bark in a pot will slowly decompose, courtesy of various microorganisms. The little critters also consume a large amount of nitrogen as they work, and would end up leaving the plants nitrogen-deficient, so it became necessary to compensate for that in the formula. The problem is that feeding your plants too much nitrogen can lead to the delaying, or outright stopping of blooming, which defeats the goal of the orchid grower. The key, therefore, is to provide a moderate amount of fertilizer so that we don't overdo the nitrogen.

That leads us to the question about the use of "bloom-booster" formulas. Those are the blends with augmented levels of phosphorus in the formulation. They are commonly used for a number of weeks prior to the start of inflorescence growth, as a way to "build up" the plant for blooming. Are they necessary? My own experience doesn't say so, and when asking that of others, you'll get the full spectrum of responses, but it sure can't hurt. More recent studies at Michigan Sate University suggest that blooming is less an issue of boosting phosphorus than that of not overdosing nitrogen, so maybe the effectiveness of the bloom booster formulas is related to the ratios of the two, and not so much the phosphorus level itself.

Nutrient Availability

One can surmise the nutrients needed by a plant by determining the mineral content of the plants themselves, or the mineral content of the solutions they see in nature, but neither gives us the "correct" formula, as plants take up nutrition both passively and actively, in some cases storing greater amounts of nutrients than they really need. Folks may use chemical analyses of rainfall and plant tissues as guidelines, but it's only through trial and error that we understand what the plant needs.

12.0107

Choosing a fertilizer that contains the correct nutrients in the proper concentrations, however, is only part of the story. A critical aspect that is often overlooked is the availability of those nutrients to the plant.

Minerals—whether naturally occurring in the soil or in fertilizers—are only absorbed by plants if they are in the form of ions in solution. The size and reactivity of those ions determines how readily they can be taken out of solution and absorbed by the plants, and the pH of the solution is probably the most significant factor in controlling the ionization of the minerals. Greatly simplified, depending upon the pH, a mineral can be insoluble and unavailable to the plant, soluble, but in If those are used in pure water—reverse osmosis, distilled, deionized, or collected rainwater—it is likely that the pH will be extremely acidic and not suitable for the plants. In that case, the addition of a neutralizer is necessary, whether that be aquarium "pH-Up," Dyna-Gro ProTekt, or some other means. Recognizing the importance of pH in the overall equation of plant nutrition, the blend developed for Michigan State University's study was designed to provide the proper pH when used with pure water.

What Do Fertilizer Components Do?

There are approximately 20 elements necessary or beneficial for plant growth and blooming. Some are derived from air and water—carbon (C), hydrogen

There are approximately 20 elements necessary or beneficial for plant growth and blooming.

a form that is difficult for the plant to readily absorb, soluble and in a form that the plant can absorb with ease, or so soluble and concentrated that it can be toxic. Without going into solubility details of the specific ions, research has shown that a pH of around 5.5–6.5 is ideal for the vast majority of orchids.

Remember that the chemistry of your nutrient solution is determined by both the fertilizer and your water supply. Figuring that most people will use tap water, most general-purpose formulas are designed with a generic array of dissolved solids in mind, so will provide a good pH when used out of the box. (H), and oxygen (O)—while others are mostly absorbed from the nutrient solutions we provide. Six of the elements that should be supplied in your fertilizer, the macronutrients, are used heavily by plants: nitrogen (N), phosphorus (P), potassium (K), calcium (Ca), magnesium (Mg), and sulfur (S). The remaining essential elements, the micronutrients, are required in small amounts only: boron (B), chlorine (Cl), copper (Cu), iron (Fe), manganese (Mn), sodium (Na), zinc (Zn), molybdenum (Mo), and nickel (Ni). Additionally, it appears that both silicon (Si) and cobalt (Co) may play a beneficial role in plant health.



Below is a brief synopsis of the roles the elements from fertilizers play in the life of your plants:

Ν

Nitrogen (N) is a major component of proteins, hormones, chlorophyll, vitamins and enzymes essential for plant life. Nitrogen metabolism is a major factor in stem and leaf growth (vegetative growth). Too much nitrogen can delay or prevent flowering, while deficiencies can cause yellowing of the leaves and stunted growth.

C 8 £ 1

Phosphorus (P) is necessary for Ρ photosynthesis, protein formation and almost all aspects of growth and metabolism. It is essential for flowering. Phosphorus deficiency-sometimes associated with purple leaves-results in slow growth, poor flower production, or premature loss of flowers.

Potassium (K) is necessary for Κ the formation of sugars, starches and carbohydrates, and for protein synthesis and cell division in plants. It helps to control water absorption and loss, improves the physical sturdiness and cold hardiness of your plants, and enhances flower color. Too little potassium can result in mottled, spotted or curled leaves, or a burned look to the leaves.

S

Sulfur (S) is a structural component of amino acids, proteins, vitamins and enzymes and is essential to produce chlorophyll, so a deficiency usually shows up as light-green leaves.



Magnesium (Mg) is a critical Mg structural component of the chlorophyll molecule and is necessary for functioning of plant enzymes to produce carbohydrates, sugars and fats. Magnesium-deficient plants show yellowing between veins of older leaves, and they may appear limp. Some feel that regular supplementation of magnesium in fertilizers is important.

Ca

Calcium (Ca) plays a role in the functioning of enzymes, is part of the structure of cell walls,

helps control the water content of cells, and is necessary for cell growth and division. Some plants must have calcium to take up nitrogen and other minerals. Calcium, once deposited in plant tissue, cannot move to other plant tissues, and must be supplied regularly. Without a sufficient supply of calcium, your plants may display stunted or stopped growth. Other possible symptoms include distorted new growth, black spots on leaves, or yellow leaf margins. Recent studies indicate that calcium apparently plays a much bigger role in plant health than previously thought.

Iron (Fe) is necessary for Fe enzyme functionality and is important for the synthesis of chlorophyll. It is essential for young, actively growing tissues. Iron deficiencies are indicated by the pale color of young leaves followed by yellowing, and large veins. An adequate supply of soluble iron in the plant nutrient also inhibits the formation of phenol compounds, which can kill roots.



Manganese (Mn) is involved in enzyme activity for photosynthesis, respiration,

and nitrogen metabolism. In young leaves, a deficiency may be indicated by a network of green veins on a lightgreen background similar to that seen in an iron deficiency. Dark spotting may occur near the veins. In extreme cases, the light-green parts become nearly white, and leaf loss may occur.



Boron (B) is used in cell wall formation, for membrane integrity within cells, for

calcium uptake, and may aid in the transfer of nutritional sugars between plant parts. Boron affects a variety of plant functions, including flowering, pollen germination, seed development, cell division, water balance, and the movement of hormones. Boron must be available throughout the life of the plant as, like calcium, it is fixed in the plant once absorbed. Deficiencies can lead to very stunted or irregular growth, with leaves that are thick, curled and brittle. Roots can become discolored, cracked and covered with brown spots.



Zinc (Zn) is a component of enzymes or as an important aid in the functioning of them, especially auxins, the plant growth hormones. It is essential to

carbohydrate metabolism and protein synthesis. Deficient plants have mottled leaves with irregular chlorotic areas. Zinc deficiency leads to iron deficiency, causing similar symptoms.



Copper (Cu) is concentrated in roots of plants and plays a part in nitrogen metabolism. It is a

component of several enzymes and may be part of the enzyme systems that use carbohydrates and proteins.

Deficiencies can result in the die-back of the tips of new growths.



Molybdenum (Mo) is a structural component of the enzyme that reduces nitrates to

ammonia. Without it, the synthesis of proteins is blocked and plant growth ceases. Seeds may not form completely, and nitrogen deficiency may occur if plants are lacking molybdenum. Symptoms may include pale, green leaves with rolled or cupped margins.

Chlorine (Cl) is involved in osmosis, the ionic balance necessary for plants to take up mineral elements, and in

photosynthesis. Deficiency symptoms include wilting, stubby roots, chlorosis (yellowing) and bronzing. Flower scent may be decreased.



CI

Nickel (Ni) is required for iron absorption. Plants grown without additional nickel will gradually reach a deficient level at about the time they mature and begin reproductive growth. If nickel is deficient, plants may fail to produce



viable seeds.

Sodium (Na) is involved in osmotic (water movement) and ionic balance in plants (much as it is in people).



Cobalt (Co) is required for nitrogen fixation, so a deficiency could result in nitrogen deficiency symptoms.



Silicon (Si) is found as a component of cell walls. Plants with supplies of soluble silicon

produce stronger, tougher cell walls, making them more heat and drought tolerant. There is also some evidence that silicon plays a role in the prevention of fungal infections in the case of tissue damage.



How Much Fertilizer Should Be Used?

Like pretty much all other factors of orchid growing, there's no set answer, and "it depends."

As a general rule, fast growers in bright conditions require more food than do slow growers in heavy shade. Similarly, those trends can apply to your specific lighting conditions. A grower in Florida has more light flux than we do here in Pennsylvania, and we have more than someone in Canada, so the food requirements decrease as you move north. That analogy may be applied elsewhere as well, for example, to HPS versus fluorescent lighting.

While that may suggest general trends, it doesn't provide the quantitative answer we need.

Many professional growers base their nutrient concentrations on the amount of nitrogen provided to the plants over a finite time to harvest. For orchid growers, we have to include the frequency of feeding in our estimates, with 250 ppm N being common for bi-weekly feeding, 100 ppm N if you feed weekly, etc. At First Rays, we shoot for roughly 30-50 ppm N, and feed at that rate at every watering. We settled in on that level because of our varied collection—vandas may like more and phrags less, but we're way too busy to cater to the individual, so came up with an average. Others find that increasing the concentration is beneficial, but irrigate with fresh water periodically to flush residual minerals from the medium.

A simple way to estimate the amount of fertilizer to use is to divide 2 by the nitrogen percentage of your fertilizer. The result is the teaspoons-per-gallon for 25 ppm N (divide 2.6 by the %N for milliliters-per-liter), allowing simple multiplication to determine other concentrations.

Ray Barkalow www.firstrays.com

Article reproduced with permission of the author

As a scientist and engineer with over 45 years of orchid-growing experience, and the devloper of the semi-hydroponic growing technique, Ray has a unique take on orchid growing, challenging the historical knowledge (or mythology) about orchid culture, and attempting to use science and logic to explain or debunk it.

Visit Ray's website to view many informative articles on all aspects of orchid culture, and check out his retail store for your orchid growing needs.



A Growing Obsession

Orchids are an obsession...just ask anyone who grows them. But what is it about them that causes us to want more and more and more? Well, we're asking you! Tell us about your orchid growing history.

Not sure what to write?

How did you begin? Did a phal at the grocery store call your name? Did someone give you an oncidium as a present? Did you begin adoring one species only to have your focus change after a few years? How long have you been growing, and what keeps you motivated?

Write a 500-word article that takes us on your orchid journey and win a plant raffle ticket for the month your story is published in the newsletter.

Send submissions to: newsletter4vos@gmail.com



The first member to email the correct name of the orchid below wins a plant raffle ticket at the monthly meeting.

newsletter4vos@gmail.com



Hot to warm growing Distinct dry spell in winter Fragrant flowers

Volunteer/Committees

Membership Committee Grant Rampton Natasha Charif Away Show Coordinator Ingrid Pike **Volunteer Coordinator** Vacant **Prize Draws** Chuck & Audrey Belotte Anne Duranceau Kitchen Maureen Burke Donna Leung BCCoGC Rep Radina Jevdevic Library Monica Stefansson COC/AOS Rep Calvin Wong Webmaster Jennifer Pell Newsletter Elissa Schmidt Submission Deadline The first of each month. Anything submitted after the first will appear in the following month's newsletter. Please send contributions to:

newsletter4vos@gmail.com

Executive/Board of Directors

President Ryan Young 1st VP (speakers) Jonathan Easey 2nd VP (culture class) Natasha Charif Secretary Jennifer Pell Treasurer Judy Buttress Director Daniel Kwok Director Ingrid Pike Director Grant Rampton Director Keith Willet



Mailing Address Vancouver Orchid Society PO BOX 42025, Marpole RPO, Vancouver, BC, V6P 6S6 Website www.vancouverorchidsociety.ca

